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# Constructing Clusters

How Politics Diverts Attention from Innovation

Thesis for the degree of Philosophiae Doctor

Trondheim, July 2014

Norwegian University of Science and Technology  
Faculty of Social Sciences and Technology Management  
Department of Industrial Economics and Technology  
Management



**NTNU – Trondheim**  
Norwegian University of  
Science and Technology

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ISBN 978-82-326-0340-4 (printed ver.)  
ISBN 978-82-326-0341-1 (electronic ver.)  
ISSN 1503-8181

Doctoral theses at NTNU, 2014:209

Printed by NTNU-trykk

## Acknowledgements

A PhD is a long-term project. I wish to thank all the people who have supported me, inspired me and helped me in the process of developing, carrying out and finalizing the research.

A special thanks goes to the informants of this research project, for letting me into your field and sharing your reflections with me.

I am grateful to the Department of Industrial Economics and Technology Management (IØT) at the Norwegian University of Science and Technology (NTNU), Programme for Regional R&D and Innovation (VRI Oslo & Akershus) and Oslo Teknopol for your financial contributions to my research, which in the end became a co-financed effort.

Professor Morten Levin, you have been an excellent supervisor. Your advice, inspiration, humor and not least your maintained interest in my research project has been imperative. As a colleague overhearing one of our Skype-conversations expressed: *“I would have loved to take part in your meetings!”* And this I can confirm: Your endurance has proved significant and your ability to bring PhD candidates into shore with finalized dissertation drafts has benefited me greatly. Thank you for all your efforts.

Dag Gjestland, thank you for emerging in a key phase and energizing me with your reading skills, experience and insight. I think you realized the necessity. Your subtle

advice and fun observations were encouraging and made the finalization of the dissertation less of a struggle.

The knowledgeable and dedicated staff at Enterprise Development and Work-life Research (EDWOR II), you have been a professional inspiration. The same goes for the PhD candidates at EDWOR II, you are a unique bunch with whom I have shared many precious moments with. Thank you all.

Former colleagues and friends at Oslo Teknopol, you were crucial in the early phase of the research. With your combination of professional expertise in the field and social playfulness, you provided a work-environment impossible to match.

My great friends, you have encouraged me, distracted me, and provided fun in my somewhat limited spare time. You have kept reminding me that life has many aspects and I hold you very dear for it. A special thanks goes to Gillian Nelson, who in addition to being a close friend, has served as a wonderful colleague in the final key phases of the research.

Kristin Brobakke, you did not know this at the time, but in certain ways, you made the finalization of the PhD possible. You are in my heart.

My deepest gratitude goes to my extraordinary parents, Inger Stray Lien and Erik Engerud. Over the years, you have been my most important supporters and inspirers. Your reflections on management, work-life and *life in general* have continued to inspire

and impress me. Countless Sunday dinners have been dedicated to conversations over topics of my immediate concern. Although I have revealed that you might not be familiar with my research in detail, I believe you are very much a part of this research project, of which I will always be indebted!



## Summary

The past decades, cluster and innovation theories have become increasingly popular. This has led to the development of public cluster strategies for innovation enhancement. A result of the cluster strategies has been the forming of new arenas for interaction. *Cluster initiatives* have been promoted as a regional development tool for public governments, proposed to lead to innovation and economic development.

Michael Porter (2000:15) defines clusters as “*geographical concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g. universities, standards agencies, trade associations) in a particular field that compete but also cooperate.*” According to Porter, clusters affect competition by increasing productivity, stimulate the formation of new businesses and drive innovation.

This study argues that cluster cooperation *initiated* to promote regional innovation seldom is successful in doing so. There is little unambiguous evidence for correlation between initiated clusters and innovation. From working in the empirical field, I experienced that developing and maintaining a cluster initiative is much more complex than the literature usually acknowledges. In cluster environments, *political features* of actors in the form of diverging interests and perceptions lead to *political behavior* such as conflicts, strategy development and power play. The lack of innovative output in initiated cluster efforts may be explained by the strong presence of political features and behavior. Politics influence the field, consume time and energy of involved stakeholders

and deflect the original intention of cooperation. This means that politics must be taken into account when speaking of, planning and carrying out cluster cooperation.

Business development and innovation is the *expressed* goal of cluster cooperation.

Although cluster cooperation is concerned with joint efforts to achieve innovation, the involved actors are mainly concerned with achieving their own goals. These goals may or may not be coherent with other actors' agendas or with the overall goal of the cluster effort. As goals and behavior vary, activities in clusters may seem confusing. Strategies related to either political or business agendas encourage different ways of behavior. Multiple strategies are played out simultaneously, which makes cooperation more challenging.

The popularity of cluster strategies has increased the initiation of cluster initiatives, leading to a new form of competition between similar initiatives, as well as between the actors initiating them, which usually come from public and institutional environments. As several cluster initiatives are oriented towards the same resources, 'political' aspects of such cooperation are strengthened. In the long run, some initiatives are enlarged, some join forces, while others die out. In this study, these phenomena are called *cluster cannibalism*.

Debates on the outcomes of cluster strategies and cluster initiation have been almost absent in the public sphere. Managing cluster initiatives is a complex activity, which leads to complex development processes and quite often, unintended results. These unintended results do not necessarily relate to or lead to any kind of innovation. The



suggested strategic approach of promoting clusters for enhancing innovation seems to offer little to strengthen value creation and regional development. The case presented in this study reveals a field where politics and rivalry both among inter-agencies and competing cluster initiatives are present. As politics come to dominate clusters, cluster strategies seem to have become strategies for organizing the policy field of innovation, rather than a way of actually achieving innovation.



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## Actors, Organizations, Labels & Abbreviations

<b>Overview of the Cluster Initiative 1 (CI1)</b>	
<i>The Cluster Initiative 1 – Initial Member Organizations &amp; Companies (2008-2010):</i>	
<ul style="list-style-type: none"> <li>• 7 private companies, key actors in the business field, including:               <ul style="list-style-type: none"> <li>• <b>The PDC</b> - Private Development Company</li> <li>• 3 public organizations, key actors in the business field</li> <li>• <b>The RBF</b> - the Regional Business Facilitation organization, facilitating the CI1</li> </ul> </li> </ul>	
<i>The CI1 Working Group – People (2007-2010):</i>	
<ul style="list-style-type: none"> <li>• <b>The Initiator</b>, idea holder and representative of the PDC</li> <li>• <b>The Project Manager</b>, employed by the RBF</li> <li>• Me, an Administrative Cluster Coordinator (and researcher), employed by the RBF</li> </ul>	
<i>The CI1 Interims Board – People (2009-2010):</i>	
<ul style="list-style-type: none"> <li>• The Initiator, Chair</li> <li>• A representative from a private member company</li> <li>• A second representative from a private member company (engaged 2nd quarter of 2009)</li> <li>• A representative from a public member organization (replaced 3rd quarter of 2009)</li> <li>-----</li> <li>• The Project Manager, reporting to the board</li> <li>• Me, Secretary of CI1 Interims Board</li> </ul>	

<b>Overview of Organizations &amp; Actors of Importance to the Analysis</b>	
<i>National (and regional) organizations:</i>	<i>Relevant actors representing the organization in focus:</i>
<ul style="list-style-type: none"> <li>• <b>The RBF</b> - the Regional Business Facilitator Organization</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The RBF Manager</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>The NGO</b> - the Norwegian Governmental Organization</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The NGO Manager</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>The BFO</b> - the Business Facilitator Organization</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The BFO Representative</b>, who also served as the CI2 Facilitator</li> </ul>
<ul style="list-style-type: none"> <li>• <b>The GDO</b> - the Governmental Development Organization</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The GDO Representative</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>The PDFO</b> - the Private Development Facilitator Organization</li> </ul>	<ul style="list-style-type: none"> <li>• Not directly involved, but represented by the <b>CI3 Facilitator</b> (see below)</li> </ul>
<ul style="list-style-type: none"> <li>• <b>The PDC</b> - the Private Development Company</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The Initiator</b></li> </ul>
<i>Cluster initiatives:</i>	<i>Relevant actors representing the cluster initiatives in focus:</i>
<ul style="list-style-type: none"> <li>• <b>The CI1</b> - the Cluster Initiative 1, facilitated by the RBF</li> </ul>	<ul style="list-style-type: none"> <li>• See table above: Overview of the Cluster Initiative 1</li> </ul>
<ul style="list-style-type: none"> <li>• <b>The CI2</b> - the Cluster Initiative 2, a cluster initiative facilitated by the BFO</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The CI2 Facilitator</b>, also known as the BFO Representative</li> </ul>
<ul style="list-style-type: none"> <li>• <b>The CI3</b> - the Cluster Initiative 3, a cluster initiative facilitated by the PDFO</li> </ul>	<ul style="list-style-type: none"> <li>• <b>The CI3 Facilitator</b>, hired by the PDFO</li> </ul>





# Chapter 1 – Introduction

## 1.1 Problem Statement

The past decades, cluster and innovation theories have become increasingly popular. This has led to the development of public cluster strategies for innovation enhancement. A result of the cluster strategies has been the forming of new arenas for interaction. The expectation has been that *cluster initiatives* could strengthen innovative efforts and consequently contribute to increasing economic prosperity within a region or nation.

Michael Porter (2000:15) defines clusters as “*geographical concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g., universities, standards agencies, trade associations) in a particular field that compete but also cooperate.*” According to Porter, clusters affect competition by increasing productivity, stimulate the formation of new businesses and drive innovation.

This study argues that clusters initiated to promote regional innovation in a short-term perspective seldom are successful in doing so. A key explanation is that political features and behavior<sup>1</sup> of actors influences the field of clusters, consuming time and energy of involved stakeholders and deflecting the original intention of developing such initiatives. This means that politics must be taken into account when speaking of, planning and carrying out cluster cooperation.

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<sup>1</sup> In this study ‘politics’ is ‘operationalized’ as *political features* related to interests and perceptions as well as *political behavior* related to conflict, strategies and power play. See Chapter 5, section 5.3 for details.

According to Jeffrey Pfeffer (1981:7), “*organizational politics involves those activities taken within organizations to acquire, develop, and use power and other resources to obtain one’s preferred outcomes in a situation in which there is uncertainty or dissensus about choices.*” This kind of political behavior can also be identified in relation to cluster cooperation.

Clusters have some key features in which lead to political behavior. This is true even if business development and innovation is an *expressed* goal of cooperation. Clusters represent arenas where multiple interests and perceptions occur. This leads to political behavior in the form of conflict, strategy development and power-games among involved stakeholders.

The cluster arenas can be characterized as complex environments, where some actors have goals related to business and fast action, while others have ‘slower’ and more political agendas. Actors may also maintain both types of agendas simultaneously. Strategies related to either political or business agendas encourage different ways of behavior. Even if cluster cooperation is targeted at joint activity and action orientation, it has resemblance to voluntary activity, and actors are mainly concerned with achieving their own goals. These goals may or may not be coherent with other actors’ agendas. As goals and behavior vary, activity in a cluster may seem confusing. Multiple strategies are played out simultaneously, of which are not always known or understood by the involved parties. This makes cooperation more challenging.

Developing and maintaining a cluster initiative is much more complex than the literature usually acknowledges. Cluster initiatives have been promoted as a regional development tool for public governments, proposed to lead to innovation and economic development. There is, however, little unambiguous evidence for correlation between initiated cluster cooperation and innovation. A recent study by Rune Dahl Fitjar & Andrés Rodríguez-Pose (2011) even suggests that regional business cooperation has little effect on companies' ability to innovate.

The popularization of cluster strategies has increased the initiation of cluster initiatives, leading to a new form of competition between similar initiatives, as well as between the actors initiating them. As several cluster initiatives are oriented towards the same resources, political aspects of such cooperation are strengthened. In the long run, some initiatives are enlarged, some join forces, while others die out. In this study, these phenomena are called cluster cannibalism.

Debates on the outcomes of cluster strategies and cluster initiation have been almost absent in the public sphere. Managing cluster initiatives is a complex activity, which leads to complex development processes and quite often, unintended results. These unintended results do not necessarily relate to or lead to any kind of innovation. The case presented in this study reveals a field where politics and rivalry both among inter-agencies and cluster initiatives are present. As politics come to dominate clusters, cluster strategies seem to have become strategies for organizing the policy field of innovation, rather than a way of actually achieving innovation.

## 1.2 How the Study Came About

Since 2003 I have been involved in and observed several cluster enhancement projects within the Oslo region. During these years, I became increasingly concerned with the gap between the theoretical and practical field of clusters. The complex, empirical field seemed to be affected by quite different things than what was highlighted in cluster theory. Quite often cooperative efforts lead to controversies that seemingly have little to do with innovation.

The research originally intended to document the developments of a successful cluster initiative within the Oslo region, demonstrating how regional actors enhanced inter-organizational cooperation on innovation. During 2007, I became involved in a start-up cluster initiative, the CII (Cluster Initiative 1), which at the time seemed highly promising. The case had several interesting aspects: Powerful, motivated and experienced business actors, as well as access to financial and knowledge resources in a current and relevant business field. Timing was excellent, and as a part of a cluster facilitator team, I was able to follow the process of developing the Initiative while I was conducting my research.

The project design of CII was inspired by Henry Chesbrough's book *Open Innovation* (2006). The main focus was companies' opportunities to take advantage of knowledge and ideas, of external as well as internal sources. Focusing on innovation with external partners could contribute to sharing risks and awards and promote opportunities to develop ideas externally which the company itself did not have resources to see further. The project management team was eager to achieve inter-organizational innovation by

combining the needs of a set of public organizations with the competence of a group of private companies. In 2008 a core member base was recruited for a pilot project. My plan for research was to look into how the CI1 would achieve innovation, while working on administrative tasks for the Initiative. But, as often happens in research, the case turned out to provide quite different data than expected.

Approximately one year into the project, I acknowledged that I had almost no data on actual emphasis to cooperate on innovation, nor the process towards developing the three planned innovation projects. In reality, little data existed. I had been present during almost all activities during the relatively short life of the CI1. The fact was that the Initiative had not been able to execute any of the innovative projects. Still, substantial time and resources had been used on the CI1, and more was to be used in the coming year.

Why this lack of output? A range of answers to why the cluster cooperative efforts did not result in (a focus on) innovation were offered, related to topics such as high expectations within limited time frames, lack of resources and lack of experience, both among participants and management. Potentially, all of these answers were of relevance to the CI1, but at the same time, there was something else that had not really been considered.

Over time, the task of building and developing the initiative had become more and more complicated, leaving almost no opportunities to focus on the innovation projects. When looking further into the data material, reflecting on the past year's intensive activity, I

realized two important things: First of all, *most time spent on the CII was related to handling controversies in the field, rather than on proceedings and methods for achieving innovation*. Secondly, *few of the controversies came about within the CII, rather they were played out between the CII and external actors with conflicting agendas*. Consequently, the cluster initiatives' time and resources had been dedicated to the handling of various kinds of *political behavior*.

As most researchers who receive a different result of a research projects than expected, I was troubled with what to do next. My research focus had to be changed. From looking into the process of building a cluster initiative and engaging in how innovation came about, I became concerned with the cluster development process and what had come out of the cooperative effort, if not innovation. The reflections on the available data material made me question the expectations of cluster enhancement projects and what such initiatives were actually able to perform. From my perspective, there was time to review the application of cluster theory into strategy. The research on CII has made this emphasis possible.

### **1.3 Defining the Case for Research**

The research is *a single case study* of an *initiated* cluster initiative, the CII. The study is focused towards the process of initiating and developing the CII, with a focal interest in why conflicts and competition occurs within such processes. The main research question asks: *Why does cluster cooperation seldom result in innovation?*

The working hypothesis developed proposes that *political features and behavior* in clusters influences the opportunities for innovation. The data presented is focused on the main events influencing effort and opportunity of the CII. These data mainly concerns various kinds of politics and conflict occurring between the CII and its surrounding environment. In the end, these features and behaviors contributed to the lack of innovative output related to the CII and consequently the legitimization for carrying on with the cluster cooperation efforts. This resulted in a closing down of the CII approximately two years after its initiation.

Various definitions of clusters occur and are applied differently by different practitioners (Porter, 1990; Maskell & Kebir, 2005). In order to keep track while analyzing the data material in this study, a key distinction has been created between a smaller, initiated cluster initiative and its larger, surrounding environment. A *formalized and initiated cluster initiative* is defined as the materialization of a cluster, notably some kind of organized, initiated effort of a group of business and research & development (R&D) related stakeholders, who are dedicated to work towards issues of joint importance. The goal of the initiative is to develop some kind of cluster cooperation leading to innovation enhancement and business development. The case in this study, the CII, is defined as a formalized and initiated cluster initiative.

The *surrounding informal cluster arena* can be interpreted as a larger and less defined version of a cluster, including business related stakeholders, institutional and public stakeholders and potentially various types of formal cluster initiatives. The overall objective in the informal cluster arena is regional and economic development,

encouraging innovation enhancement and growth. In this study, the environment the CII deals with, but is also a part of, and is defined as the informal cluster arena. Both the formalized cluster initiative and the surrounding cluster arena fulfill the requirements in definitions of clusters made by Michael Porter (1998, 2000).

Porter (1998:45) defines innovation *“to include both improvements in technology and better methods or ways of doing things. It can be manifested in product changes, process changes, new approaches to marketing, new forms of distribution, and new concepts of scope.”* This definition ranges widely and but aligns with contemporary definitions of innovation (OECD, 1981). In this study, a second and practical condition for defining innovation as an output of cluster cooperation has been added: In order to be counted as innovation, the output must be regarded as an innovation by participating actors.

#### **1.4 Research in the Field**

The purpose of this research is to show how innovation is far more difficult to achieve in cluster cooperation than the cluster theory proposes, also pointing to how theory cannot explain the absence of innovation. Consequently, the study questions whether cluster cooperation leads to innovation, suggesting certain factors that may hinder such output.

The popularity of innovation systems theories has increased the past two decades. A key contribution in this field is Porter’s cluster theory (see for instance Porter: 1990, 1998).



He is concerned with how a company could enhance its business and innovation through cooperation and competition locally. Other important theoretical contributions are *national and regional innovation systems* (Freeman, 1987; Cooke, 2001), emphasizing how innovation relies upon the cooperation between a set of regional and institutional actors, and *triple helix* (Etzkowitz & Leyesdorff, 1997), concerned with the institutionalization of collaboration between academia, industry and public government and highlighting the role of the universities and research institutions.

Porter's cluster theory originates in American traditions and is concerned with business and the companies' opportunities for growth. Comparatively, national and regional innovation systems theory and triple helix theory, are embedded in European traditions, and to a greater degree directed towards regional economic development and public management facilitation.

The theories on innovation systems, including cluster theory, range over several disciplines, and are in nature heterogeneous. Not only is the theoretical field large and widespread, similar and partly overlapping notions belong to different academic disciplines. The consequence is a lack of precise and agreed upon definitions. This creates challenges in terms of understanding the field, and methodologically in developing research relevant across disciplines. When it comes to cluster theory, the definition is purposely equivocal to cover what Porter defines as "local varieties of the cluster phenomenon" (2000:18). In addition to its vagueness, the mechanisms of clusters leading to innovation have showed difficult to prove (Edquist, 2005; Fitjar & Rodriguez-Pose, 2011).

Along the popularity of innovation systems theory, a strategic and practical field has developed, which the past decade has had an increasing impact on public and business life. The application of various kinds of innovation systems theories into public strategies suggests that different public oriented (*regional development*) and private oriented (*company development*) perspectives are brought together. This is rarely emphasized and the translation of theories into strategy and further into practice seems to be treated relatively uncritically.

The vagueness of the cluster theories invites to many interpretations and hence also many approaches to practice. Critiquing the field is popular in some research environments (Martin & Sunley, 2003), but relatively few academic contributions are available. Critiques are, surprisingly, almost non-present in practical life.

Cluster theory does to a little extent catch the challenges in the field and are mainly concerned with the potential benefits of clusters. The difficulty in proving the proposed mechanisms is also present in the practical field, where identifying successful measurements for evaluating the effect of cluster development efforts are few. In many respects, facilitating cluster development is about facilitating social interaction. This makes cluster facilitation difficult to measure, creating issues in both theory communities and in the practical field.

This study has a critical perspective on cluster theories and is concerned with providing some additional tools for understanding the field and how it has developed as a result of implementation of cluster strategies. The cluster theories provide limited information on

the wheeling and dealings related to cluster efforts. A selection of politics and organization theory is advised, with the goal of taking advantage of complementary theoretical contributions on networks, interests, perceptions, competition, conflict, strategies and power play.

Niels Brunsson (1989) presents two ideal types of organizations, *the action organization*, which is oriented towards business considerations, and *the talk organization*, which is oriented towards political considerations. Both considerations may be present within in an organization, and both ideals seem to be present in and around cluster efforts. In this study *action* is related to business environments with a proposed goal of innovation enhancement, while *talk* is related to politics and public and institutional environments, with overall goals oriented on regional and economic enhancement. The sum of organizational theories presented in this study should help understand key *features* and *behavior* in clusters, which cannot be explained by the cluster theory itself, but yet influence opportunity for innovation.

### **1.5 Choice of Methods**

The research has been conducted in relation to the research program EDWOR II, which is an acronym for Enterprise Development and Work-life Research. The program was established with the ambition of promoting the advantages and opportunities of action research. Action research can be defined in several ways, but usually involves some kind of reflective and participatory process related to organizational change (Greenwood & Levin, 1998). It is common that such research is conducted in a team,

where practitioners and researchers guides each other and are concerned with practical improvements along with the process. Ideally, this contributes to connecting theory and practice. The opportunity to develop such a participatory action research team was for several reasons not present in this study. Nevertheless, the research has been influenced and inspired by this methodological fundament in developing its design and thinking.

The study's theory of science fundament relates to a constructivistic approach, including key elements of pragmatism in conducting the actual research. My general view is that the field of clusters is developed through layers of constructed interpretations and understandings, influencing the opportunities and forming the culture of those involved.

The research design is a participatory, qualitative study of one case, the CII, of which I took active part in as an administrative professional between 2007 and 2009<sup>2</sup>. Various types of data material have been collected, through observations, interviews and the analysis of existing written material. The analysis is developed on the basis of grounded theory, with an abductive<sup>3</sup> logic and approach. As case study research offers little opportunity for generalization, this has not been an objective of the research. Lessons of importance to other cases of cluster initiation may still be present.

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<sup>2</sup> See Chapter 3, section 3.4.1 for details on my role.

<sup>3</sup> See Chapter 3, section 3.3.2 for details on abduction.

## 1.6 Relevance

The research is important for several reasons. Innovation related policies are a relatively new field, both in a Norwegian and an international context. In the past two decades the theoretical field of clusters has had a substantial impact on public understanding of innovation. This has led to development of cluster-related strategies and public emphasis on creating and enhancing various types of cluster initiatives. The cluster theory has been promoted towards several environments, mainly of public characters, which have been eager to identify (simple) tools in order to enhance the pace of innovation and economics within the targeted region. As a result, evaluating efforts are needed.

Cluster theory and the suggestion that clusters are important for innovation enhancement have avoided many critical voices. Traditionally, public efforts to support innovation have taken place by targeting individual ideas and companies. Comparatively, cluster enhancement proposes a relatively cheap way of ‘doing something’ for a larger number of actors. It is however not necessarily the best strategy to achieve innovation. With increasing use of both public and private resources, the need to debate the outputs of cluster efforts, is necessary. This debate should include issues such as whether and how cluster initiatives are useful to the actors involved, whether this form of cooperation seems to be appropriate to achieve results, what results the involved actors are experiencing, how strategies can be improved and what happens as more or similar initiatives are introduced and start competing.

Awareness of what cluster initiatives actually produce and regional consequences of the enhancement of cluster strategy must be strengthened. There are plenty of cluster initiatives that have been presented as great success both towards public funders and in media. These presentations are often made by public facilitators eager to promote successful developments in a field, where short-term outputs are rare and long-term funding is necessary, but not a prerequisite for results. Their interests in presenting successful outputs may prevent the opportunities for fruitful conversations on what challenges and results such cooperative efforts bring. Although successful cluster enhancement projects are not necessarily absent, debates on what a satisfactory result of cluster cooperation is and for whom should be more frequent.

Nils Brunsson & Johan P. Olsen (1998:22-23) call for a greater theoretical insight in interrelations between organizations, arguing that appropriate concept- and methods development have been “*remarkably slow*” in research on inter-organizational networks. They point to the potential misfit between a theoretical map and its terrain. To reformulate in the context of this study, there is a need to explore some sides to cluster enhancement that influence the opportunities for achieving the expected results of innovation.

The data in this study is unique compared to most cluster research. Taking an active part in an actual cluster development project for several years has provided an opportunity to observe and reflect on a selection of cluster related development projects over time. This in-depth insider opportunity has contributed to detailed knowledge, perspectives and reflections on the practical field, not common or possible in traditional research.

A key theoretical contribution is the application of organizational understandings to cluster cooperation, highlighting political features and behavior related to the presence of interests, perceptions, conflict, strategy development and power games in clusters. Such features have rarely been touched upon in cluster theory, but are highly present in the practical field.

### **1.7 Outline of the Dissertation**

This dissertation is divided into nine chapters. Following this introduction, Chapter 2 introduces the background and context for the research, as well as data material on the case in focus, the CII. The chapter provides the empirical fundament for the analysis chapters and highlights four key events influencing the life of the CII.

Chapter 3 on methodology presents an overview of theory of science perspectives, providing philosophical arguments for the dissertation. These arguments are followed by an overview of the research design, a presentation of the methods and how the research was carried out, as well as a final part emphasizing challenges and limitations considered important in evaluating this research.

Chapter 4 presents cluster theory and its critiques. The goal is to frame the original understanding of the case, as well as the application of cluster theory into strategies of innovation enhancement. Chapter 5 presents organizational theories related to politics and serves as a ‘tools’ chapter for analysis. The goal is to present a complete analytical framework, which makes it possible to access and understand key events, actions and

developments of the case. The final part of the chapter presents the analytical model in detail and proposes the research questions.

Chapters 6, 7 and 8 answer the three sub-research questions, respectively looking into *features*, *behavior* and *consequences* of cluster cooperation efforts in the case of the CII. The final chapter 9 provides a set of conclusions from the analysis, as well as some reflections on the field, its logic and its future.

If you are a reader with less interest in the academic and theoretical parts of this dissertation, the recommendation is that you put your main focus into Chapter 2 for an introduction to the field and the case in question, and devote the rest of your time to Chapter 6-9, which presents the analysis and conclusion.



## **Chapter 2 – The Cluster Initiative 1 and its Context**

### **2.1 Introduction**

The following chapter presents the case of the Cluster Initiative 1 (CII), in addition to relevant information on its surroundings. The CII was initiated in 2008 in the Oslo-region, Norway. The Initiative came about at a time where attention toward innovation and cluster strategies had escalated in Norwegian public life. Consequently, features and events in the life of the CII must be understood in relation to these emerging trends.

The chapter is introduced by a few facts about the work-life in Scandinavia and Norway, which may be different to what is found in other parts of the world and have an effect on the development of cluster initiatives. Then, regional development and innovation policy trends of importance to the Oslo region are presented. The third and extensive part, introduces the data on CII, providing the fundament for analysis. With a few exceptions, this data is presented chronologically. Four main events of key importance to the fate of the CII are highlighted: Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two.

### **2.2 Scandinavian and Norwegian Society and Work-life**

It is a great challenge to sum up the uniqueness of the Norwegian society. Norway bears many similarities to the other Scandinavian countries Sweden and Denmark, all stable democracies and wealthy welfare states. But unlike the two, Norway is not a part of the

European Union, and has in recent years experienced a somewhat different economic development, less affected by the financial crisis than most other countries in the world. At present time, Norway is ranked as one of the wealthiest countries in the world. Norway is a unitary constitutional monarchy, with a parliamentary system of government and a population of about five million people. The country is a welfare state and the economy is divided between a combination of free markets and substantial state ownerships in certain key sectors. Due to its large oil reserves, the Norwegian government has afforded to develop a public welfare system, covering benefits such as health care, schooling and work-life security.

The public sector employs almost thirty percent of the labor force, which is the highest among the OECD countries. The unemployment rate in 2013 was approximately 3.5 percent, well below most other western countries. Norway is the fifth largest exporter of oil and the third largest exporter of gas in the world. Other key industries are shipping, fishing and food processing.

The Norwegian society is characterized by a high degree of equality, ranging from issues such as gender, class, salaries, housing etc. The population is well educated. Higher education is affordable compared to most other countries in the world, and is supplemented with opportunities for public loans and funding, giving every citizen a chance to get an education.

Norwegian work-life also has some unique characteristics. The management style is egalitarian compared to most other countries in the world. Further, the organizational

structures are usually relatively flat, and consensus decisions are often favored. The information-flow among workers and management is high, providing opportunities for influence, involvement and engagement on all levels in an organization. Scandinavian companies have a reputation for a high level of transparency, both in relation to operations and finances. This situation is also reflected in political life, as information is easily obtainable and opportunities to influence decision-makers are greater than in most parts of the world (Levin et al, 2012).

The Nordic cooperative model is a well-known term that is often used to describe key qualities of the Nordic societies. Levin et al (2012:25-27) refers to the Norwegian cooperative model to characterize how a democratic, innovative and competitive work-life is created. This is achieved by specific organizational structures, practices and cultural features between government, work-life and society in general. The authors describe recent changes in work-life, where new technology and demands lead to changes in organization, and where competence and knowledge development plays an increasing part in economic development. In a Norwegian context, the Oslo region is a center for this knowledge-oriented development.

The Oslo region is defined as the capital city Oslo and the surrounding county Akershus. The population is relatively young and just above one million people. The population is international, with twenty percent of foreign origin. The work force of approximately 600,000 people is highly educated, and the unemployment rate is low, resembling other parts of Norway. Twenty-five percent of all companies in Norway are registered in the Oslo region, a total of approximately 115,000 companies. The region

accommodates forty-four percent of Norwegian R&D activity, which includes fifteen public and private universities and university colleges, four science parks and eleven Research and Development (R&D) Centers (Statistics Norway, 2013; Norway, 2013). All in all, knowledge intensive environments are a key fundament in the Norwegian economy.

### **2.3 The Regional Innovation Landscape of the Oslo Region**

In the 1990s and beginning of 2000 an emerging interest in innovation and urban regional development evolved, both in research and among policy makers in western societies (MacKinnon et al, 2002). When the European Commission published the “Green paper on innovation” in 1995, it became the first paper to systematically debate innovation policy, arguing that innovation was a crucial mechanism for economic and societal development. A main goal was to identify key factors for innovation in the European Union and formulate tools to contribute to the innovation activity in the member countries. Among prioritized tools was the region, an administrative and political unit of a more tangible size (EU, 1995:1, in Spilling & Aanstad, 2010:14-15).

Bjørn Gustavsen (2012) describes how work-life cooperation in a Norwegian context has taken many shapes and forms since it set out in the turn of the twentieth century. He places a shift in focus towards networks and clusters to the 1990s. During the 1990s, more companies were eager to participate in cooperative projects and relations between companies became a main component. A goal became to strengthen individual company’s motivation and opportunities for learning by extending experiences.

One of the first programs to contribute to the thinking and strategizing of regional innovation in Norway was Norwegian Institute for Urban and Regional Research (NIBR) (Pålshaugen, 2011:4). NIBR launched a research program on conditions for regional and industrial development in the mid 1990s, identifying the potential for innovation in key business environments in the Oslo region. The program led to a public strategy for enhanced focus on promising industries and R&D environments, with both methodological and practical aspects. The possibilities for increased value creation were considered especially high within the health industry, the media industry and the IT industry.

Gustavsen (2012), who was a key professional driver in the research and development of programs by the Norwegian Research Council during the 1990s, points to the launch of the research and development program Company Development 2000 (CD2000) in the mid 1990s. The program had a focus on process support for companies. The companies had for some time worked on issues of organizational development, but were becoming more concerned with networking issues and identifications of partners with broad and advanced knowledge in organizational development.

In 1998 the Oslo region became a partner in the European Union program entitled Regional Innovation and Technology Transfer Strategy and Infrastructures (abbreviated RITTS). The program was financed by the European Commission and focused on identifying experiences from regional actors already in fields important to innovation in knowledge industries. A main point in the program was to establish closer relations

between key business and research actors and regional authorities, in order to develop a joint strategy for innovation.

The NIBR- and the RITTS-programs provided important theoretical and practical fundamentals for regional policy in the Oslo region, legitimizing a selection of target business areas for increased focus. The programs contributed to arguments leading to the establishment of an inter-municipal regional innovation facilitation company, Oslo Teknopol, owned by the Municipalities of Oslo and Akershus.

During the first decade of 2000 this company developed and facilitated projects for key actors in a set of prioritized industry areas, all of importance to Norwegian economic development. The emphasis was on developing stronger ties *between* and *within* relevant research and business environments. The approach was cluster and network cooperation, with an overall purpose of promoting regional cooperation and innovation.

In the beginning of 2000 the Value Creation 2010 (VC2010) replaced the CD2000. This shifted focus towards emphasis on innovation as a goal for workplace development. The regions were introduced as a key level for organization of economic and innovation policies (Gustavsen, 2012). The program was oriented towards development and cooperation in and between enterprises, with the goal of increasing value creation. Knowledge generation and network creation were key aspects of every project, involving not only practitioners, but also experienced researchers observing and influencing the organizational processes.

The Norwegian Government initiated the Arena-program in 2002. The goal was to support pilot projects with a focus on inter-organizational cooperation, R&D and long-term development of regional business clusters with flexible approaches. A key tool was the establishment of arenas for stakeholder meetings, in order to create stronger and more dynamic interaction between participants. The program offered both advisory and financial support. The interaction was to be long-term, goal-oriented and focused on collaboration, international awareness, access to knowledge and new business (OECD, 2007:268).

Despite both international and regional attention since the mid 90s, the national Norwegian innovation policy was first explicitly formulated as an independent policy area in 2003. This policy was presented through the Government's Unified Innovation Plan. The plan outlined a strategy to support conditions for innovation, with emphasis and initiation of various "tools" for innovation enhancement. Key issues were increased interaction between companies and knowledge environments, greater focus on commercialization, higher skilled labor, network building and coherence among public agencies. Consequently, innovation was a targeted priority by the Norwegian Government.

The vision of the Norwegian Government was to become "the most innovative country in the world." They argued that increased international focus, a fast technology development and tough competition demanded a stronger focus on competitive business arenas in the coming years. With the Government's Unified Innovation Plan (2003), the importance of city regions, clusters and networks was acknowledged. Another tool of

significance was the organizational merger resulting in a governmental organization for innovation and development of Norwegian enterprises and industry. The organization, Innovation Norway, was to operate nationally and internationally and serve both start-ups and established Norwegian business environments, contributing with funding and expertise (OECD, 2007; Spilling & Aanstad, 2011:14-18).

Soon after, the Norwegian Parliament succeeded with Whitepaper 25 (2004-2005) “On regional policy.” Again, the importance of clusters was highlighted as an important tool for innovation and business development. Policies for regions and policies for innovation were going to be closely tied together in Norwegian public life.

As mentioned, an aspect of the Government’s Unified Innovation Plan was the acknowledgement of the role of the city regions as drivers for innovation. The city region represents a high density of competent workers and businesses, as well as research and development (R&D). The plan suggested a special program for key urban areas, drawing attention to knowledge-environments and potential clusters within the city regions. In the Oslo region this led to the initiation of the Capital Project, initiated in the autumn of 2004. This project was to become a main influence for the establishment of the CII four years later.

Oslo Teknopol was assigned a key role in the Capital Project, providing a secretary function for six target areas. One area was focused on “support organizations” dealing with innovation, while the five others were devoted to the business areas in focus. Six working groups were established, comprising of all sorts of influencing actors from the



respective fields, in total involving more than seventy companies and organizations in the Oslo region.

Under the Capital Project umbrella, twenty-three pilot- and demonstration projects were developed, with a scope in level of detail and ambition, which also reflected on actual outcomes in the longer run. The projects were defined by the challenges of each business area, with a focus on illustrating and realizing innovative potential. Funding was partly provided by regional government, which integrated the Capital Project in a regional framework program. In the coming years, more “overlapping” projects were to be integrated with the Capital Project, aiming at concentrating the means and resources of the innovation field in the Oslo region.

According to Pålshaugen (2011), the Capital Project provided a shift in the understanding on regional innovation systems in the Oslo region. This resulted in a broadening of the overall perspectives on innovation. The ruling idea at the time was that innovation would happen between enterprises and research environments *within* a cluster. The Capital Project participants acknowledged the possibility that innovation might happen *between* the enterprises, too. Moreover, the participants emphasized that innovation-relevant knowledge could come from a variety of sources, not limited to research environments. The Capital Project also moved away from the presumption that geographical proximity was a necessary condition for such development. Rather, a cluster could be organized as a functional entity, not limited to territory. This approach somewhat parted with the leading strategies proposed by other Norwegian public stakeholders involved in the field of regional innovation.

An additional tool derived from the Government's Innovation Plan, was the Norwegian Centres of Expertise (NCE) program initiated in 2006. It was committed to provide funding and expertise to a group of high-rising Norwegian cluster environments. The objective was increased innovation through development and improvement of clusters, which had already demonstrated high levels of success, with an international orientation and potential for innovation-led growth by increasing value creation. A secondary objective was *“to create interests in and commitment to cluster development, to generate concrete results at cluster and company levels and to provide greater insight into co-operative development processes”* (OECD, 2007:268; Mariussen & Ørstavik, 2005:5). An NCE status quickly became a high priority objective for inter-organizational cooperative projects with cluster ambitions.

In 2007, the VC2010 program was replaced by Program for R&D and Regional Innovation (VRI). The VRI program was designed to promote regional collaboration between trade and industry, R&D institutions and the government authorities, and to establish close ties to other national and international network and innovation measures. Among these was the Arena program and the NCE (VRI, 2013). The VRI-program contributed to funding and research on several of the pilot- and demonstration projects initiated by the Capital Project and provided the framework and funding for EDWOR II, the PhD-program in which this study belongs.

## **2.4 Presenting the Case in Focus - the Cluster Initiative 1**

The data to be presented is about the initiation and development of the Cluster Initiative 1 (the CI1). Although it might be possible to trace certain organizations and actors mentioned in the data material, data is kept anonymous out of principle, as the attention of this study is to highlight some structural trends influencing the cluster cooperation efforts, rather than the actions and whereabouts of individual actors and organizations.

The following sections introduce the everyday life of the CI1, as an initiated cluster initiative, from its early phases in 2007 until the Initiative was closed down in the end of 2010. The data was collected between the summer of 2007 and autumn of 2010, through interviews, personal memos, various written sources, and from personal participation. The CI1 was established in spring 2008 and although not a formal part of the Capital Project, it had strong links to key actors, drawing upon the practical experiences from previous cluster initiation efforts. The goal of the following presentation is to provide a detailed outline, following what Clifford Geertz (1973) characterizes as 'thick description.'

During its two years of existence, the CI1 underwent a range of challenges, influenced both by participants and the surroundings. These challenges were part of a set of events, occurring in different time slots or phases. Some overlapped and had relation to each other, while others happened independently, and without the involved party's awareness. Four events had pivotal influence of the fate of the CI1. The selection of events was identified after carefully looking into the life of the CI1 and debating what had been the most influential for the fate of the CI1 with informants. The four events

will be given extra attention in the following presentation of the CII and include Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. Together they provide the empirical fundament for the analysis in Chapters 6-9, subsequently dealing with sub-research question one, two and three. Table 2.1 presents the three main phases in the life of the CII, their respective sub-phases and the four events that proposed major challenges for the CII's existence. In total, this makes out the structure for this part of the chapter.

**Table 2.1**

<b>Key Phases in the Life of Cluster Initiative 1: August 2007&lt;&gt;December 2010</b>
<b>1) Planning Cluster Initiative 1: August 2007&lt;&gt; April 2008</b>
Initial planning: August 2007-February 2008
Concrete planning: February 2008-April 2008
<b>2) Establishing Cluster Initiative 1: April 2008&lt;&gt;December 2008</b>
Pilot-project start-up: April 2008-August 2008
- <i>Event 1: Funding &amp; public competition</i>
The pilot project: August 2008–November 2008
- <i>Event 2: Cluster competition – part one</i>
Concluding the pilot-project: November 2008-December 2008
<b>3) Formalizing Cluster Initiative 1: January 2009&lt;&gt;December 2009</b>
Establishing the organization: January 2009-March 2009
- <i>Event 3: Public regulation interference</i>
Developing and institutionalizing the organization: March 2009-June 2009
- <i>Event 4: Cluster competition – part two</i>
Re-thinking the CII organization: July 2009-December 2009

The data related to the case of the CII and the actors involved are extensive. Several cluster initiatives were of relevance to the CII. Further, a range of public or institutional facilitator organizations were present in the field. In addition the CII included a set of

public and private actors. As it may be a challenge to keep track of the issues in focus, table 2.2 provides an overview of the organizations and actors involved in the CII, while table 2.3. provides an overview of the organizations and cluster initiatives involved with the CII, which are of importance for telling the story of the CII.

**Table 2.2**

<b>Overview of the Cluster Initiative 1 (CII)</b>
<i>The Cluster Initiative 1 – Initial member organizations &amp; companies (2008-2010):</i>
<ul style="list-style-type: none"> <li>• 7 private companies, key actors in the business field, including:</li> <li>• The PDC - Private Development Company</li> <li>• 3 public organizations, key actors in the business field</li> <li>• The RBF - the Regional Business Facilitation organization, facilitating the CII</li> </ul>
<i>The CII Working Group – People (2007-2010):</i>
<ul style="list-style-type: none"> <li>• The Initiator, idea holder and representative of the PDC</li> <li>• The Project Manager, employed by the RBF</li> <li>• Me, an Administrative Cluster Coordinator (and researcher), employed by the RBF</li> </ul>
<i>The CII Interims Board – People (2009-2010):</i>
<ul style="list-style-type: none"> <li>• The Initiator, Chair</li> <li>• A representative from a private member company</li> <li>• A second representative from a private member company (engaged 2nd quarter of 2009)</li> <li>• A representative from a public member organization (replaced 3rd quarter of 2009)</li> <li>-----</li> <li>• The Project Manager, reporting to the board</li> <li>• Me, Secretary of CII Interims Board</li> </ul>

**Table 2.3**

<b>Overview of Organizations, Actors and Constellations of Importance to the Analysis</b>
<i>National (and Regional) Organizations:</i>
<ul style="list-style-type: none"><li>• The RBF - the Regional Business Facilitator organization</li><li>• The NGO - the Norwegian Governmental Organization</li><li>• The BFO - the Business Facilitator Organization</li><li>• The GDO - the Governmental Development Organization</li><li>• The PDFO - the Private Development Facilitator Organization</li><li>• The PDC - the Private Development Company</li></ul>
<i>Cluster Initiatives:</i>
<ul style="list-style-type: none"><li>• The CI1 - the Cluster Initiative 1, facilitated by the RBF</li><li>• The CI2 - the Cluster Initiative 2, a cluster initiative facilitated by the BFO</li><li>• The CI3 - the Cluster Initiative 3, a cluster initiative facilitated by the PDFO</li></ul>

#### **2.4.1 Planning the Cluster Initiative 1: August 2007-April 2008**

The first phase of the CI1 comprises of the planning of the Initiative. In this phase, the idea for the Initiative was refined, a pilot project plan was developed and various actors, organizations and companies were contacted for potential involvement.

##### **2.4.1.1 Initial Planning: August 2007-February 2008**

In August 2007, the Manager of the Regional Business Facilitator organization (the RBF) and myself<sup>4</sup> were invited to a meeting at a large public organization in the Oslo region. The person (the Initiator) who invited us had a promising idea for a cluster project he wanted to develop, with the help of the RBF. The meeting became the outset for a longer planning phase, which resulted in the initiation of the Cluster Initiative 1 (the CI1) in April 2008.

The idea of establishing a cluster initiative for innovation enhancement within this specific business field was born some years previously. It came from the Initiator

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<sup>4</sup> See Chapter 3, section 3.4.1 for details on my role.

himself, a key representative within the industry, who had extensive experience from a large public organization. Through almost a decade he had experienced challenges in how to preserve, develop and commercialize innovative ideas coming from the employees of his organization. In the process of identifying a solution for seeding ideas, he had been introduced to the field of clusters, and consequently encountered the idea of establishing a cluster initiative for the business environment in focus.

As the Initiator had no previous experience with cluster initiation, he had been advised to contact the RBF, which had a public mandate and experience from developing similar initiatives. At this point, the Norwegian Governmental Organization had expressed interest in contributing financially to kick off the project. The long-term goal would be to develop a cluster initiative, which after a sufficient maturing, could apply for a status as an NCE.

Timing was perfect. The business field in question was relevant to the RBF, who was in search for ambitious projects and motivated actors. The Initiators' knowledge and contacts in the industry were impressive, as well as his drive for realizing the project idea. His project would potentially contribute to strengthen a key field in the project portfolio of the RBF.

The cooperation between the Initiator and the RBF was quickly established, with an agreement that the Initiator would serve as the head of the CI1, holding the idea of the concept, while the RBF would provide an operating team to help with setting up and developing the Initiative in the Oslo region. During autumn, the RBF, represented by

the Manager and myself, and the Initiator refined the idea and planned steps for developing a pilot project, which would lead to the CII, a cluster initiative.

The initial goal was to establish an initiative including public organizations and private companies that could get involved in issues related to business development and commercialization within their field. A mandate was produced, presenting several ambitious, but relatively rough goals for the CII:

*The CII has a focus on developing solutions and services to meet the needs of its member organizations. The goal is to take already existing solutions into advantage in new ways. The CII will contribute to a structured and focused coordination of information and activities, link different environments and initiate projects for increased knowledge, development and innovation (Source: CII pilot report, 2008).*

The Initiative was to serve as a fundament for developing a cluster further in the coming years. At present time, the prospects seemed promising.

#### **2.4.1.2 Concrete Planning: February 2008-April 2008**

The planning of the CII pilot proceeded slowly during the autumn of 2007, speeding up in February 2008. By then the Initiator had started working for a newly founded Private Development Company (the PDC), specializing in the business field. The PDC encouraged the launch of the CII, as it would complement the company's strategic plans. At the time, they were planning the development of an incubator for the industry. Potentially, the CII could get a key role in expanding the functions of the incubator.



Also, the PDC had a range of valuable connections, both nationally and internationally, which could serve the CI1 well.

A project plan for the pilot project was developed, with a main goal of identifying potential opportunities for the CI1. The first task in the pilot project was to formally invite a group of key stakeholders and potential CI1-members to a start-up meeting. Most of the suggested members were acquainted with the Initiator from previous engagements. Some were chosen due to their professional position in their organization, while others were invited due to their professional or personal 'status' in the business field. Either way, all were representatives of larger organizations with some kind of power and market relevance.

In order to secure member engagement in the pilot project process, it was agreed that the members would commit themselves to contribute in 3-5 meetings, in addition to an interview that would form a fundament for the pilot project report. They were also obliged to pay a fee for participating in the project. The point of committing the members with both time and funding was to secure proper involvement from all parties. The ingredients for a successful initiative seemed to be present, involving an ambitious project, motivated key stakeholders with drive and commitment in terms of both time and funding.

#### **2.4.2 Establishing the Cluster Initiative 1 - April 2008-December 2008**

The second phase of the CI1 comprises of the establishment of the Initiative. In this phase, the initial members of the CI1 were gathered and the pilot-project for developing

the CII was kicked off. CII also experienced the first challenges: Event 1, which was related to funding and public competition, and Event 2, which was related to potential competition between the Initiative and another cluster initiative.

#### **2.4.2.1 The Pilot-project Start-up: April 2008-August 2008**

The CII was informally established through the meeting of the key invited group of companies and organizations in the end of April. They were to serve as an advisory board during the pilot project phase. The group consisted of three large public organizations with links to the business field functions, and a group of seven relatively large commercial companies (see table 2.2). A few other stakeholders were invited to the meeting for observation, such as the NGO and a private R&D organization. Also, a project manager, newly hired by the RBF, was introduced at the meeting and accepted as the project manager for the CII pilot project (the Project Manager).

During the meeting a range of issues were addressed. Some of the actors present were enthusiastic to the planned CII, while others seemed more reluctant. The participants had concerns on how to fit the CII in with similar initiatives already existing and how to differentiate business development from coordination of activities within the field. Also politically sensitive issues and available resources were discussed. The discussions made clear the importance of communication towards the surrounding world. At the time, the issues seemed nominal, and no one in the CII Working Group (see table 2.2) was worried.

What the CII would become was not totally clear. The CII Working Group was mainly concerned with some core functions, such as teaming up the member organizations in order to develop relevant innovative projects. The projects should address issues of concern to its members, and provide development opportunities and potential business. Time and resources were scarce and there were numerous issues to address in the pilot phase.

### **Event 1: Funding & Public Competition**

The first encounter experienced by the CII occurred in events developing from autumn 2007 until autumn 2008. In order to finance the project, a representative from the NGO had been advised on the application criteria. Initially, the NGO had assured willingness to support the pilot financially, but demanded a solid project plan. An early project draft was reviewed by the NGO in October 2007, with feedback about some alterations that had to be made.

Due to the delay in the project planning, the communication with the NGO had to be reintroduced in spring 2008. A restructuring of responsibilities inside the NGO made it necessary to find a new contact person to finalize the application for funding. This was easier said than done. No one seemed to be in charge of the business area, and various people inside the NGO proposed different and vague answers. After several requests, an email from a representative in the NGO explained that the CII probably would be in competition with another project initiated by NGO. A conversation with another representative implied that the willingness to fund the project was there, but that the funding had to wait, due to the support of a competing initiative. A third representative

claimed that the CII project had little to do with the initiative already receiving funding, and encouraged the finalization of the application.

The application for funding the pilot project was sent by the RBF to the NGO in May 2008, and formally registered the following month. A representative from the NGO was appointed to handle the application. A meeting between the RBF and the NGO in June again revealed worries about potential competition between the CII pilot and another initiative. The NGO representative in charge was hesitant to grant the application, but had not made a decision.

In mid-August a response on the application was still missing. As the schedule for the pilot project was tight, the planned feasibility study was kicked off. The project funding was partly secured by the member fee and mankind from the RBF, so there was no urgency. Simultaneously, the RBF management was beginning to make assumptions on reasons beyond slow procedural work that may delay the response from the NGO.

In a new meeting between the NGO and the RBF, the NGO agreed to participate in the CII. At this point, the NGO expressed that they probably would not contribute with funding, but they would return to the question late autumn or early the following year. During the meeting, the NGO voiced unhappiness with the name of CII, requesting a name change.

In September, the CII encountered some key representatives from the NGO who had been available the past months. One had been responsible for handling the funding

application, but was taken off the case. He said that some funding was kept for the CII by another NGO representative. The representative with the available funding had been instructed to hold back until the potential conflict of interest between the CII and another initiative was resolved, of which finally seemed to be settled. This was new information to the CII. The NGO representatives believed some misunderstanding had resulted in the lack of formal feedback.

In October the CII had still not received a formal answer to the application. It also turned out to be impossible to find out who was now in charge of the application in the NGO. The CII Working Group was aware of an escalating conflict between the NGO and the RBF, which potentially would effect the opportunity for financial assistance. Contacting various representatives from the NGO, different explanations were proposed, without any constructive answers.

A new meeting between the RBF and the NGO was held in the end of October. The head of the RBF characterized the meeting as constructive. It resulted in an agreement between the RBF and the NGO on a withdrawal of the CII application. In return a new application for the next phase of the project would be developed with help from the NGO. The formal explanation for withdrawing the application would be that the application was outdated.

Opposed to previous arrangements, the NGO subsequently decided that they would not actively participate in the CII, which would make it easier to provide funding. The NGO requested involvement of key institutional actors and repeated the name change

request. The RBF and the NGO scheduled a new joint meeting, where the formulation of a new application for the CII was to be developed. The meeting time was set to the beginning of November, but the NGO failed to participate and did not respond to any follow-ups.

For several reasons, including the events in relation to the CII, the relationship between the RBF and the NGO had deteriorated the previous months. During November and December 2008 it was further aggravated. As a public evaluation of the NGO was presented, the manager of the RBF revealed several negative encounters between the two organizations in a magazine article. The unresolved case of the CII-application was used as an illustration.

The time spent on handling the application process and navigating among involved actors in the NGO was extensive. The finances of the pilot had been sorted out by splitting the costs between the RBF and the involved members. The CII never received any funding from the NGO, nor a formal decline of the application. The whole process with the application resulted in several speculations: Why had the CII got into this confused situation? Why had communication been so ambiguous? Any formal explanation to the somewhat untidy process was never offered. Several potential explanations were proposed, and some seemed closer to conspiracy theories than factual explanations.

### **Event 1: Reflections From the Involved Parties**

Discussing what happened between representatives from the NGO, the RBF and the CII in the case of the application revealed quite different understandings. A set of claims and interpretations presented during interviews uncovered several potentially overlapping factors, divided into three main areas:

#### **1) The Relationship Between the NGO and the RBF**

Four explanations were offered concerning the relationship between the NGO and the RBF, which may have influenced the application process of the CII:

##### *a) General (competitive) climate between the facilitators in the regional field*

The establishment of the NGO some years previously, had lead to an overlapping of tasks and roles and also some (potential) blurring of responsibility between parts of the NGO and the RBF. Close cooperation would be ideal for both parties, and a formal cooperative intentional agreement had been signed some years previous, but in reality this did not lead to any closer connections. The past years, the two organizations had been involved in several controversies and discussions. These discussions had been about issues such as priorities, directions and approach to the field of clusters within the region, as well as concrete projects. As a result of strong disagreements, a less favorable mood for cooperation seemed to have developed, as well as indications of competitive behavior. Interviewing the manager of the RBF he offered the following explanation:

*The NGO used to be an administrative entity handling applications and providing funding for developmental projects. After the merger, the NGO suddenly became engaged as both funder and developer, creating more unclear*

*situations. (...) In reality, the NGO and the RBF have become direct competitors, as the RBF has been established as a pure developmental actor.*

*b) Different professional perspectives related to the development of the cluster field*

The professional perspectives on cluster development of the NGO and the RBF were similar, but still not identical. One reason for the difference may have been that the strategic outset and priority for the NGO and the RBF was diversified. Further, the interpretation of the notion of clusters, as well as the approach to developing such initiatives seemed to be slightly different. One informant characterized the difference in approach between the NGO and the RBF to be close to the difference between a 'bottom-up' and a 'top-down' approach. In general the NGO was more focused on targeting cluster efforts for small and medium-sized enterprises (SMEs). The RBF on the other hand had concluded that larger companies should be involved in cluster cooperation to attract the SME companies.

The NGO, by mandate, was more concerned with embedding the cooperative efforts in the public organizational landscape, focusing on involving various institutions. The RBF on the other hand, had experienced that great institutional involvement had curbed the involvement of the companies, and lead to less interest in the cooperative efforts. In more than one project, the differences between the RBF's and the NGO's perspectives and approach seemed to challenge possible cooperation, which definitely may have influenced the funding application situation of the CII. The Manager of the NGO emphasized differences in professional and theoretical understanding, rather than competition as an element in the relationship between the NGO and the RBF:



*Our professional and theoretical understanding is different. The NGO approach is focused on bottom-up mobilization of companies. The RBF approach is more focused towards top-down, engaging single actors rather than companies and their value chains. The RBF have promoted something with more resemblance to imaginary clusters than real ones. The NGO have not wanted to support this.*

*c) Poor communication between the NGO and the RBF*

Communication between the NGO and the RBF declined during 2008. This resulted in less information on the status quo and development of prioritized projects. Finding the correct people responsible within the two organizations and accessing necessary information had in some cases proved difficult. Formal communication did however seem to suffer more than the informal one, as employees of the two organizations continued cooperation on specific efforts. During interviews, the RBF Manager commented on the development:

*In the starting phase the RBF put effort into coordinating activities. We even had a seminar with NGO where a cooperative agreement was signed. This agreement should have secured mutual information sharing. But unfortunately, the competitive situation soon became to dominant.*

*d) A challenging relationship between the managers of the NGO and the RBF*

The cooperative climate between the NGO and the RBF had escalated over time. Several time the managers of the two organizations had conflicting public encounters,

and the last one played out using the CII application as an example. Their disagreements may have been rooted in professional differences in perspectives and approach to the cluster field. At the same time, both actors were ambitious with high goals for developing their respective organizations. The eagerness to achieve their set goals may have influenced the opportunities to achieve cooperation on projects. Interviewing the RBF manager he acknowledged that he might have personally influenced the relationship to the NGO, *“I personally may have been regarded as ‘sensitive’ in regards to the NGO.”*

## **2) Issues Related to the NGO**

Two explanations were offered concerning issues related to the NGO, which may have influenced the application process of the CII:

### *a) Challenged proceedings system inside the NGO*

The lack of clarity on who was in charge of the application of the CII internally in the NGO, might have been a result of internal restructurings. A challenged proceedings system inside the NGO could have created confusion on who was in charge, what information to give to applicants or what information had been provided by whom. The RBF Manager commented on what he regarded a *“general weak treatment of cases inside the NGO”*: *“We waited months to get contact with the NGO (...) In previous years, the RBF applied for funding and was treated as a client. Then we could expect answers within a couple of weeks.”* The NGO Manager on the other hand argued that the CII pilot was already finalized when the application was taken into consideration:

*“The CII applied for funding to a pilot project. But already before the application was ‘treated’ by the NGO, the pilot project was finalized”.*

*b) Internal debates in the NGO on what projects to support*

Internal conflicts inside the NGO on what applications and projects to prioritize, might have led to hesitation on how to handle the CII application. This again may have led to confusion and ambiguous information presented to the RBF and the CII management.

**3) Issues Related to the CII Itself**

Three explanations were offered concerning issues related to issues of the CII itself, which may have influenced the application process of the CII:

*a) Sensitivity of the project and the project idea – competition*

The idea of the CII seemed original and new to the key actors involved in the start-up phase. However, there were already various types of related initiatives present at the national arena. A competitor analysis in 2009 revealed as many as 14 initiatives in Norway with a similar focus. The CII may therefore have been regarded as a potential competitor to other initiatives, something that had been mentioned in several conversations with NGO representatives.

*b) Issues related to how the CII was designed*

During the application process, the NGO requested a name change for the Initiative, as well as the involvement of institutional actors from the business field. The request for a name change was never actually considered and institutional actors were first invited at

a later stage. The seemingly lack of flexibility of the CII, may have hindered the NGOs interest. According to the NGO Manager, several issues were relevant:

*The NGO believed that the CII should have included more institutional actors, and incorporate a bottom-up strategy. (...) The CII lacked an overview of the institutional actors or embedment towards key knowledge environments, as well as public actors. (...) My impression was that the CII was a network with a desire to change the business from the outside. From a narrow perspective the idea was to innovate.*

*c) Sensitivity related to the Initiators role in the project*

The Initiator had a controversial reputation among public and private actors in the field. This sensitivity may have altered the NGOs interest in engaging in the CII, as key institutional actors in the field may have presented objections. The RBF Manager confirmed the issue, but he did not believe that sensitivity towards the Initiator was a viable explanation: *“The Initiator might have been regarded ‘sensitive’. Others in the business system may have warned the NGO, but this was probably not relevant for what happened in this specific event.”*

In sum, all these explanations may have had an impact on the application process and may also have influenced actors understanding of the field.

#### **2.4.2.2 The Pilot Project: August 2008-November 2008**

The CII pilot project was carried out through the autumn of 2008. The pilot project was organized by the CII Working Group. The Initiator had previous experience from the

actual business field, while the Project Manger and myself mainly had experience from facilitating innovation and cluster enhancement projects.

The main expected outcome of the pilot was a feasibility study in the form of a published report. It was to be focused on the core group of the CII and conducted by the Project Manager and myself. The feasibility study was to determine whether there was potential to develop a sustainable cluster in the long term. Each participating member was interviewed and asked to present the main challenges and/or concrete products or solutions they wanted to promote in the context of the CII. They were further invited to come up with concrete ideas for improvement within the business field, with an emphasis on issues that could have a quick effect or not be too difficult to achieve.

The interviews with the core members of the CII revealed that they had good reasons for participating. They were all concerned with the possibility of accessing the other members on a new arena. Most of them also had specific issues they wanted to address. The public organizations expressed certain challenges related to their workplace, while the companies on the other hand demonstrated new projects under development.

At this point the CII Working Group's concern was whether the access to other participating members was the sole driving force for engaging in the CII. This was not an unfamiliar challenge in cluster initiation projects, but could potentially lead to a lack of interest and commitment when proceeding with developing the proposed innovation projects. The CII Working Group concluded that it might take some time to create

additional value for participating members, but discussions on what the short-term value could be for the members continued.

Through the interviews conducted in August and September 2008 the Project Manager and myself learned more about basic conflicts and issues debated in the Norwegian business field surrounding the CII. An important piece of information new to us was the Initiator's controversial status in certain parts of the environment. Over the years, he had developed a certain pool of enemies in the business field, due to his involvement in a disputed project. The PDC also seemed to have played a part in this project.

During the feasibility study, the Project Manager worked on mixing and matching the different ideas that came up during interviews. Three main areas of joint interest to the participants were identified. This became a fundament for a workshop with a focus on developing new ideas that could form several innovation projects. As a continuation of the workshop, the members were encouraged to finish brief project descriptions that would be incorporated in the feasibility study and developed into realistic projects. Only one of the groups actually met in order to develop a project idea further. As the resources were scarce, the CII Working Group realized that they would become increasingly dependent on the members initiating activities on their own.

### **Event 2: Cluster Competition – Part One**

The second encounter experienced by the CII occurred between September and December 2008. During the autumn of 2008, the cooperation between the Initiator and the Project Manager of the CII evolved. The Project Manager was hired by the PDC to

develop the planned incubator. This seemed like an excellent opportunity to tie the CII and the incubator closer together, which would be favorable as the CII members could take advantage of the incubator for the proposed innovation projects.

Through the cooperation with the PDC, the Project Manager also became involved in organizing an event for members of the industry, together with other key stakeholders. Among them was a private facilitator organization, the BFO, representing a group of companies in the industry. On behalf of the PDC, the Initiator and the Project Manager invited the CII members to join this event. As most of the CII members were present, the event was regarded as an opportunity to develop the cooperation of the CII. The event was a great hit, and gathered a group of powerful actors within industry and government.

In November, the start-up activities and the plan for the CII were presented in a meeting with a group of business stakeholders. The BFO, who had been involved in the event with the PDC, also participated. During the meeting the representative from the BFO became quite aggravated. Confronting the CII Working Group afterwards, he claimed that the Project Manager and Initiator had kept key information from him.

Since the event in early autumn, the three had been involved in cooperative efforts together, but the planned CII had never been a topic. The BFO representative argued that he in the same period had shared the BFO's plan for developing an initiative for handling similar issues. He was further upset about the lack of credit for the BFO's

contributions in arranging the event. He indicated that the agenda for the CI1 and the incubator project of PDC seemed to have been mixed up.

The BFO representative was obviously upset, building up frustration over some time. Dealing with the controversy, the Project Manager and Initiator expressed surprise over the reaction from the BFO representative. They acknowledged they had forgotten to credit BFO for the involvement in the event, but claimed openness on the plans for the CI1. The RBF had for some time been promoting the CI1, which the BFO had missed.

After the encounter, the CI1 Working Group tried to accommodate the project management of the BFO. An excuse was offered in writing and a meeting to plan joint cooperation between the two initiatives was scheduled. The agenda included suggestions to get involved in joint activities, as well as plans for securing improved communication. As the two initiatives would be developing simultaneously, there were reasons to make distinctions between activities and be specific on who would and could be involved on what arenas.

The two initiatives had some important differences. The CI2 was more focused on politics and on opportunities for lobbying. Only the member organizations of the BFO could participate, and excluded some, but not all members, from the CI1. The CI1 was more concerned with business opportunities and innovation through cooperative projects, and its member-base was defined by member organizations that contributed with time and some funding.



Even if there seemed to be limited actual competition between the CI2 and the CI1, the following meetings did not go down as expected. The relationship between the two management teams was damaged and proved difficult to get back on track. When the CI1 Project Manager was invited to the establishment of the BFO, it turned out that the relevant part of the meeting had been conducted in the hours before his arrival, and that he was only invited to a meet and greet event. A few days later a representative from the BFO was present at the CI1 meeting where finalizing the pilot project was on the agenda. The representative expressed unease with several of the points presented, but was not heard. In the following months, there was basically no communication between the two initiatives. Any cooperation between the CI1 and the CI2 was never realized.

#### **Event 2: Reflections From the Involved Parties**

Interviews with the involved parties revealed that more than one issue caused tension. During interviews, the BFO representative said that developing the CI2 had been a long planned project:

*The development of the CI2 has been going on for several years. (...) This business field is 'hot' topic now, compared to what it was five years ago. As more money is put in to the field, it is also becoming more attractive for the companies to be involved. (...) We realized that the field was excellent for recruiting new members and presenting a political agenda.*

The BFO had identified a focus area of key importance both to their members and for developing their organization. Specifically, the BFO had targeted one large Norwegian

company they wanted to engage in the CI2, the Target Company. In order to secure legitimacy and opportunities for agenda setting, the BFO had successfully focused on getting this company involved in the CI2 from the start.

Along with the cooperation on the event, the BFO representative had openly discussed the plan for establishing the CI2 with the Initiator and the Project Manager, but had not heard mentioning of the initiated CI1-pilot, *“I was involved with the recruitment to the event. And at the same time I tried to get the CI2 established. I was completely open in regards to this. I regretted being so open later, but I really think it was for the best in the long run.”*

The BFO representative was introduced to the CI1 pilot project during the joint meeting in November. During the same meeting, the BFO’s involvement in the event was left un-approved. The BFO representative was provoked. His impression was that he had been fooled by the Project Manager and the Initiator and assumed they had hidden their agendas. In the best case, the process could be characterized as untidy:

*The event was presented as the birth of the CI1, even if the CI1 hadn’t even been mentioned. My impression was that they were fooling me and that they have hidden their own agendas. At best, I have experienced this to be an untidy process. Nothing was clarified properly (...) and then we suddenly became competitors. I have no problems with competing, but then you cannot pretend to be friends.*

After this episode, the representative of the BFO started searching for more information. The Initiator was representing the PDC, which also owned a competing company of the of BFO's Target Company. Further, the Project Manager of the CI1 was engaged by the PDC. In reality, both the Initiator and the Project Manager indirectly represented a competitor of BFO's Target Company. The BFO representative therefore assumed that this would influence the choices and actions related to the CI1.

The BFO representative found himself in a difficult spot. Some of the members of the CI2 were also members of the CI1. The CI1 was regarded as attractive due to its access to (potential) customers. The BFO representative decided to avoid further involvement with the CI1, but left it open for the members to participate, underlining that a contribution from the BFO had to be made in the arenas of the CI2:

*I was invited to the meetings of the CI1, but did not prioritize it, as I did not wish to get involved. (...) We discussed a contribution. But for me it became difficult, as I felt that I was working against my own organization, and I could not do that. That was also the message I gave my members who were involved. If they wanted contributions from the BFO, they would have to be on our arena.*

Interviewing the Project Manager of the CI1, his interpretation of what happened was relatively clear. His perception was that the CI2 and the CI1 had stumbled into pure competition, as they were going after the same member-base for activities and projects: *"This was pure competition. The CI2 wanted the same members as we had for their own activities."*

The Initiator seemed to have a similar interpretation of the situation, explaining how the BFO had increased their focus on the target industry, and how the CII had become a competitor rather than a potential cooperation partner. He also acknowledged that the CII might have failed in communicating its intentions:

*The BFO uses a lot of their time on this specific business area. The BFO have become very active, and this business field has become an important target area for them. Maybe they experienced CII as a threat. In my understanding, the BFO representative did not support the CII, and in some situations he has even worked against us. (...) Perhaps we were not successful in communicating the message. (...) In my perspective, the BFO is more focused on competition than on cooperation, but that accounts for more fields than where the CII is involved.*

A member involved with both the CII and BFO was more concerned with how different preconceptions had played out between the involved actors:

*The way I interpret it, the BFO-representative was afraid the Initiator and the Project Manager had different agendas, and that they lacked honesty. And if you don't trust people, it gets hard. But the way I know the Initiator and the Project Manager, I don't think it ever crossed their mind, and they did not see their connections and links as a problem, so they did not have a need to go into the details. But I guess it could have helped to go into a dialogue.*

It was easy for this joint member to see the difference between the two initiatives— what was regarded as a more politically oriented CI2 and the more project- and innovation-oriented CI1. The member had observed issues of distrust, which would explain why the suggested cooperation between the two initiatives never became a reality. Communication was lacking, even if neither parties were really negative towards cooperation.

#### **2.4.2.3 Concluding the Pilot-project: November 2008-December 2008**

The feasibility study was finished in the beginning of December. The CI1 Working Group was happy with its results. Based on the interviews and the workshop, the report concluded positively that there was a fundament for developing the CI1 into something more concrete. The suggested approach was to establish a formal organization, which had been tried out with success previously. The argument in favor of a formal organization was that efficiency could be raised when establishing an individual, formal unit. It would be easier to create financial and legal boundaries towards financial supporters and the surroundings, dedicate a manager full-time and communicate with the surroundings. Further, it was a strong belief that it would be easier to involve a larger group of actors in a formal membership organization. In addition to public support, the plan was to receive membership funding.

The CI1 organization would consist of the members from the pilot project, in addition to a wider group of national and international interests, including SME's, interest organizations, Norwegian government administration, etc. The organization would be open for all interests within the business field, but be registered in Oslo and mainly

engaged in activities in the region. The goal for the formal establishment would happen by the end of May 2009.

The CI1 Working Group spent time on developing the ideas with the members before presenting the feasibility study at the third joint CI1 meeting. It seemed like most members were positive to a formal CI1 organization. One major issue was the need to actively involve the public organizations more closely.

The CI1 pilot project took a greater amount of resources during the autumn than anticipated. The time was spent on wrapping up the pilot project, getting an overview of the environment and handling the issues related to Event 1 and Event 2. There seemed to be goodwill and interest in developing the CI1, but it was still uncertain what actual content would be possible to put into the CI1 organization. Ideally the focus on the innovation projects would increase in the coming year, but issues such as developing the organization, handling enquiries, and expanding the member base definitely would require resources. A three-month plan was made dedicated to the administrative tasks, in order to make all the formal arrangements for registering the CI1 as an organization.

#### **2.4.3 Formalizing the Cluster Initiative 1: January 2009-December 2009**

In the third phase of the CI1, the Initiative was established as a formal organization. Following this establishment, several new challenges occurred. Event 3, which was related to public regulations, and Event 4, which was related to the establishment of another competing cluster initiative, interfered with the proposed plans of the CI1 and subsequently led to the closing down of the organization of the CI1.

#### **2.4.3.1 Establishing the CI1 Organization: January 2009-March 2009**

In the end of February 2009 the CI1 was established as a formal organization in the Brønnøysund Register Centre. Simultaneously an CI1 Interims Board consisting of key member representatives and the Initiator was established (see table 2.2) The Project Manager would continue as a Manager of the formal CI1 organization, while I would serve as a secretary to the Interims Board. The Interims board was to be active until the first General Meeting where all members were to participate. The goal was to recruit thirty members and hold a General Meeting before the end of May 2009.

During spring 2009 CI1 Working Group made emphasis to kick off the proposed innovation projects. A joint workshop was planned in the end of April, but cancelled, as none of the public organizations were able to participate. The official reason for the lack of presence was time constraints, as the organizations were about to go through a heavy reorganization. There were, however, rumors that the public organizations had other reasons for their absence.

#### **Event 3: Public Regulation Interference**

The third encounter experienced by the CI1 occurred between March 2009 and September 2009 and involved the GDO. The GDO informally learned about the establishment of the CI1 in the autumn of 2008, but had not been involved in the initial phases. In January 2009 the GDO asked for the CI1 pilot feasibility study for internal distribution in the organization. This was interpreted as a sign of interest in the activities of the CI1, which could provide legitimacy in the longer run.

In April 2009, the perception of acceptance from the GDO quickly changed. During a meeting between the PDC and the GDO, the GDO representatives expressed great dissatisfaction concerning content in the feasibility study produced by the CI1. The meeting resulted in a large and heated discussion on CI1s impartiality. A principled version of this debate later emerged in national media, probably triggered by the CI1 case.

In the aftermath of the meeting, a strategy for responding to the GDO was discussed by the CI1 Working Group and the RBF. As the issues of impartiality could be a challenge also in the case of other cluster initiatives, it was suggested that the topic should be faced as a principled matter. Following the meeting, the CI1 authored a letter to the RBF, asking them to help define and potentially solve the challenge of impartiality as presented by GDO. The GDO was informed about the letter, for the sake of keeping communication open.

Simultaneously, and as a consequence of the initial meeting between GDO and the Initiator in April, the GDO demanded that the CI1 board member, whose organization was closely tied to the GDO, should step down from the CI1 initiative. The board member was unsure of whether GDO had jurisdiction to micro-manage his efforts, and wanted to test the case.

In order to find out more about the details of the GDO-reactions towards the CI1, the RBF benefited from a contact with good connections inside the GDO. He discovered that the negative reactions toward the CI1 were only partly related to the impartiality



issue. An equally important issue of concern for the GDO was the Initiator's controversial reputation among certain public actors in the business field. GDOs informal advice was that the CII-initiative would more easily survive if the Initiators presence was 'toned down.'

By the end of May, it seemed like the relationship between the CII and the GDO had somewhat improved. Some communication between the CII-members and the GDO had been reintroduced and GDO participated at a seminar organized by the CII. During the seminar the GDO expressed an interest in involving themselves in the CII, but emphasized that the CII needed to work within the traditions of the GDO.

None of the members from the public organizations were present at the seminar. In advance, it had been impossible to get responses from any of them, either by email or phone. The rumor was that the GDO demanded that they stay away from the CII. Access to the public organizations was a key imperative for the companies to remain involved in the CII, and also in recruiting new (and financially necessary) members. Consequently, the whole situation was becoming a great challenge to the CII.

To deal with the seriousness of the situation, an informal meeting was held between representatives for the RBF and the PDC. During this meeting, it was discussed whether the Initiator should tone down his engagement in the CII. The meeting did not result in any conclusion and the organization of the CII remained the same.

As a result of a job change, the CII Interims Board member from the public organization had to leave his commitment, but was replaced by a new representative

from the same organization. The new representative was prepared to test the issues of impartiality legally in order to define the lines of external activity for his organization. Only a few weeks later, the representative was asked to leave the CII by his employer. He was no longer allowed to participate in initiatives where groups of representatives from private supplier organizations were present, in particular those involved in local and regional procurements. This decision would formally account for all the involved public organizations related to the business field and was a major setback for the fundament and attractiveness of the CII. Eventually, this setback contributed to the disbanding of the CII.

### **Event 3: Reflections From the Involved Parties**

Interviewing the GDO representative who had been most in contact with the CII, a few new aspects of the events occurring were revealed. The GDO had learned about the CII during the autumn of 2008, regarding the CII as, *“an interesting constellation of actors, but with a blurring of roles.”* The GDO had for some time been concerned with issues related to impartiality of organizational actors who were present at “both sides of the table.” The CII involved both public organizations and private companies that potentially had shared interests. The public organizations presence was regarded problematic by the GDO.

The GDO’s understanding was that the CII mainly wanted to influence public policies for innovation and purchase, the procurement policies. The regulations implied that companies should not contribute to developing the philosophy of the procurement, and then be a part of the procurement process later. The GDO was highlighting the

importance of cultivating roles. The GDO representative interviewed emphasized that as public regulation had tightened over the past years, the GDO had probably become overly sensitive to regulations.

After the encounter between the GDO and the CII in April 2009, the GDO expected that the CII would ask the public organizations to step out and continue activities with the companies and other relevant environments. According to the GDO, the CII should have positioned itself differently. The GDO had advised the CII Initiator to point towards some business areas of importance and invite the GDO and others to join in on the development of these areas. In the GDO's perspective, the CII had not identified such areas. The GDO representative's perception was that the CII management had not grasped the concerns made by the GDO: *"I don't think the CII representatives completely recognized what this was all about."*

The CII Initiator had been advised by the GDO to "tone down" his engagement, emphasizing his controversial reputation in the business field. This suggestion was communicated to the RBF and the CII management as well, through informal sources inside the GDO. These sources argued that the Initiator was a hinder for developing the CII, due to former "encounters" with representatives in the industry. The GDO representative explained: *"At one point I gave the Initiator clear advice. It was no advantage for him to front this initiative."*

The RBF Manager could confirm that he had been advised to look into the possibilities for replacing the Initiator as a Chairman: *"A key source confirmed that the Initiator was*

*'politically' sensitive, and that informally, the GDO had recommended to replace him as a Chairman of the CII.'*

Interviewing CII members about the difficulties with GDO, revealed slightly different concerns. The meeting and following involvement with GDO in April 2009 became the major turning point in the destiny of the CII. Initially, the management of the GDO had given positive signals about the CII, but after the meeting in April 2009, attitudes had changed. The Initiator explained:

*The GDO was clear. If the CII should get any support, we needed to be in line with how they wanted to develop the field. During the meeting with GDO I was told that the CII feasibility study should have been proof read by them before it was published. (...) But the report was wrongly interpreted, it was supposed to indicate some potential, not be 'the one right answer.' The report was only a fundament for working with this type of activity. (...) Their reactions took me by surprise.*

For the involved demander organizations, the CII engagement became an issue of loyalty towards the GDO, which in the end left them with little choice than to back out of the CII. The fact that the GDO's communication went through the PDC, rather than directly to the CII, also marked a difference. The PDC's engagement with the CII seemed to color the GDO's attitude towards the CII, as both the Initiator and the PDC had been involved in the aforementioned disputed project. This perception was

strengthened by the fact that other cluster initiatives, with similar constellations of actors, seemed to be treated differently.

When asking the GDO what difference in impartiality was found between the CI1 and a similar and competing initiative, involving the same constellation of actors, the representative admitted that some of the same problems were encountered also here:

*Some of the problems are the same, but so far they [the competing initiative] have had focus on cooperating on specific projects on innovation, and not purchase and procurement policies. They are very clear on this, but obviously they would have to be careful to step clear of this problem.*

In the perspective of several of the CI1 engaged members, the sensitivity towards the CI1 seemed to be related to several things. A CI1 Board member presented it in the following way:

*The issues of impartiality were already a concern for the GDO. (...) Secondly, this business field really is very politically focused. (...) the GDO now had a chance to show how they could manage the field, and if they didn't succeed, there would be consequences for the survival of the GDO as an organization. (...) Further, being an initiative developed by the Initiator contributed to reactions. He is a vibrant soul, but had hurt his name in certain environments.*

The original plan for the CII had been to focus on a set of core innovation projects. As these innovation projects had become more and more difficult to develop, due to the absence of the public organizations, the CII had suggested an additional side project in order to engage the members. The GDO's arguments against the CII were related to this suggested project, and not towards what had been the intended core areas of focus.

During the interview, the Initiator provided a summary of the changes in the business field, influencing the opportunities of the CII:

*When the CII was established we were focusing on the local problems in the business, but the (public) steering in the field has changed since the establishment, and acceptance from higher authorities was becoming more necessary than before. (...) The establishment came in a period where a lot of structures within the business were in transformation. The CII ended up in a conflict between those changes. Among the demander organizations, at the ground level, the CII had support. But the public and regional support was absent.*

#### **2.4.3.2 Institutionalizing the CII Organization: March 2009-June 2009**

Several new challenging issues materialized for the CII during spring 2009. Following the controversies of Event 1, related to the application for funding, the CII and the BFO, potential conflicting agendas had become a greater concern. When the CII organization was asked to promote a study trip arranged by some of industrial actors, one of the competing industrial actors reacted. As they were all part of the CII it created some extra stir. This resulted in several meetings, revealing that the provocation had

more to do with dissatisfaction and personal controversy that had developed between the industrial member, the Initiator and the Project Manager. To clear out the misunderstandings, the member was invited to join the Interims Board of the CII.

In the spring the NGO invited the CII to a meeting with a group of cluster initiatives within similar business agendas. The goal was for the various initiatives to start a collaborative effort in order to gather into one national business cluster effort. If the actors could make this cooperation possible, the NGO would provide funding. The CII had already experienced some controversies with one of the participating initiatives, but decided to get involved in the cooperation project. The effort went on until autumn 2009, but after several rounds of trying to establish a common base for a joint project, the participants gave in.

It was assumed that all organizations from the CII pilot project would prolong their initiative into 2009. Not all did. The membership in the CII organization was dependent on a membership fee. For some the fee was too high. The financial crisis had emerged some months previously and tightened many organizational budgets, in particular regarding activities such as cluster participation where outcomes were ambiguous. Since the pilot project phase, several similar, and partly competing initiatives had become more visible, none of which required membership fees. The consequence for the CII was that the recruitment was proceeding in a slower pace than expected. In several cases, organizations had dropped out when learning about the involvement of stakeholders with whom they had unresolved conflicts. This indicated old controversies around the involved actors were still in effect.

The recruitment was a prerequisite for arranging the General Meeting, but was moving too slowly, so it was decided instead to hold an information meeting for all interested parties. The meeting presented ongoing and planned activities, and participating stakeholders were invited to join the CII activities. After months of unexpected challenges, a CII activity was finally experienced as successful. Key people in the industry participated and showed interest, and even the GDO turned up and made a speech on the importance of inter-organizational initiatives. The event created a new drive after a demanding spring semester.

A new board meeting was held before summer. Before the meeting, the relationship between the experienced challenges of the CII and the Initiator's role was debated. As the Initiator had been involved in the aforementioned disputed project, more than one source had claimed that key stakeholders' were actively "obstructing" the plans of the CII. A potential solution for speeding up the work was to tone down his involvement and find another person to take his role as Chairman of the board. The suggestion was never carried out.

The spring had been hectic and full of challenges taking most of the available resources from the CII Working Group. The CII had been established as a formal organization, dealt with the planning of a large workshop which had to be cancelled twice, started a new business project, and handled controversies with GDO and one of the member companies, in addition to contributing to the emerging national cluster project, carrying out a couple of board meetings with following administrative duties and so on. Additionally, work on promoting the CII organization and trying to recruit new



members had been conducted. Overall, there seemed to be an increasing unwillingness to get engaged in the CII activities, but no established answers to why this was the case.

#### **Event 4: Cluster Competition – Part Two**

The fourth encounter experienced by the CII mainly occurred in events during summer and autumn of 2009. During spring 2009, the CII was made aware of the re-initiation of the CI3, a regional cluster initiative. The CI3 was concerned with related business challenges to the CII. The Initiative had been established some years' previously, with a group of SMEs, but had later moved into a more inactive phase. During spring 2009, the CI3 was reinvigorated and new stakeholders were engaged, both in facilitating and supporting the Initiative. The facilitation was provided by a private development facilitator organization, the PDFO, engaged in various innovation projects within the Oslo region.

In the reinvigoration phase of the CI3, the prime focus was slightly altered and new members were invited to join. The goal of the CI3 was to “*achieve increased innovation through cooperation between businesses and organizations.*” This goal was presented in the prolonging of a scenario similar to the one the CII had developed the year before, including issues such as improving activities of innovation at the public organizations, by cooperation with the businesses and creating new innovation projects, either coming from public organizations or from private companies.

As a part of the reinvigoration of the CI3, an application for funding was filed at the NGO. The goal was to become a key regional stakeholder within the specific business

field in which the CI1 was also operating. The CI3 applied for the same type of funding that the CI1 initially had targeted. In the CI1 Interims Board, it was discussed whether the CI1 could or should ask for participation and active involvement in the CI3 application. For several reasons this was rejected. According to reliable sources in the business field, there were few reasons to have faith in the newly revitalized CI3.

A more pressing argument was related to timing. The CI1 management had set ambitious goals for recruitment and activities for the coming period and lacked both time and resources. After the past years experience, losing time in various kinds of wheeling and dealings, a major concern was that contributing to the application would create more administration and bureaucracy. Consequently, the actual funding and support might be limited compared to the investment. At this point, the CI1 Interims Board did not anticipate the challenges that would come in raising new members, which would influence the financial situation. After consideration, the CI1 board decided against asking for involvement in the CI3 application.

During the summer 2009 the CI3 Facilitator contacted one of the CI1 member companies, asking the company to get involved in the CI3. In August 2009, a joint meeting between the CI1, the CI3 and the invited company was initiated in order to explore the opportunities of cooperation between the CI1 and the CI3. The meeting turned out mainly an informative meeting and little concrete action came out of it.

In October, the CI3 received funding from the NGO and was assigned special status as a 'promising' regional cluster in the Oslo region. By November, the CI3 were established

as a formal association, going through the same procedures as the CII underwent in the beginning of the year. During this period, the CII Project Manager contacted the CI3 again, in order to see what kind of cooperation could be possible. Informal sources claimed that the CI3 was reluctant towards cooperating with the CII, and the attempt of contact resulted in nothing more than a lot of emails back and forth.

One of the suggestions made by the CII was that the CII could become an individual unit within CI3. As the CI3 wanted to treat all members equally, the CI3 board decided to turn down the offer. They were not ready to alter any proposed plans. At the same time they emphasized that all involved parties of the CII were welcome to become members of the CI3.

#### **Event 4: Reflections From the Involved Parties**

Interviewing the involved actors, several reflections seem to be of importance to understand the development of events and perceptions during 2009.

The CI3 Facilitator learned about the CII the summer of 2009:

*I was made aware of the CII through one of the board members of the Initiative.*

*We contacted the company of the CII Board Member to expand our member base, primarily because of their competence within important business fields.*

*The Board Member organized a meeting and wanted to explore the opportunities of cooperation between CI3 and the CII.*

The Board Member, who also was an active participant in the CI2, the BFO Initiative, explained an increasing concern about the development in the field:

*(...) my company needed to clear out how much we were going to engage in these initiatives. I had the feeling such cluster initiatives were presenting themselves everywhere. They (the CII and the CI3) were both good initiatives, but there was a need to find out how to merge activities, as the same people were engaged all over.*

The CII Initiator reflected on the development between the meeting in August 2009 and the point where the CI3 got their new funding status:

*At that point it would definitely have been a win-win situation to merge projects. But the CI3 wanted to confirm the application for funding before engaging in any cooperation, which was understandable. During autumn 2009, there was a dialogue between the CII Project Manager and CI3. Afterwards we noticed that the suggestion of cooperation wasn't so interesting. And that is understandable, because there was really not that much we could offer CI3 at this stage.*

The CI3 Facilitator emphasized how the CI3 had reasoned:

*CI3 was assigned funding in October and was established as a formal association in November. (...) When the finances for CI3 were settled, the CII suggested becoming an individual unit within CI3. We wanted to treat all*

*members on the same ground, preparing one true model for everyone. So we were not ready for the suggested model. But we emphasized that all organizations were welcomed to become members CI3.*

Interviews revealed that among certain actors there were strong perceptions that the CI3s lack of interest in engaging with the CI1 had little to do with their new status, nor necessarily with the challenging situation of the CI1. The RBF, who had been heavily involved in the CI1 the past two years, was also involved in other cluster initiatives. The RBF had been active in turning down the support of an initiative led by the PDFO, the facilitator organization of the CI3. This had led to a perception that the CI3's lack of interest in the CI1 was payback for the RBF's turndown: *"I think this was about what happened in the PDFO case – like a thank you card. (...) They [the PDFO] have tried to stop a close cooperation independently of the attitudes of the board in CI3. (...) This contributed to creating the grave-stone for the CI1."*

During interviews, the CI3 representative was confronted with the perception that the somewhat difficult relationship between the RBF and the PDFO had caused negative attitudes. This suspicion was strongly denied: *"No. The CI1 Project Manager said that the CI1 had a good dialogue with the GDO until some point, and then a lot of people were asked not to be involved in the CI1 anymore. It was a very locked situation. And we did not wish to inherit this situation. We could not risk that."* The CI3 representative emphasized that one of the key challenges with the CI1 had been their reduction in legitimacy towards the GDO. This was a main reason for turning the final CI1 proposal down.

The CI3 did not experience conflicts with GDO or any other actors with opportunity to provide financial resources, such as the NGO. In the establishing phase they received both financial support and legitimacy from key actors in the field. Some actors claimed they were less 'sensitive' than the CI1, focusing on projects with practical and less 'political' impact.

The relation with the GDO was one of the things that challenged the CI1 activities the most. When the public member organizations were (silently) denied participation during spring 2009, the fundament for the CI1 was drastically weakened. When looking into the CI3 membership base, it turned out that they too were represented by the same constellations. These constellations were also involved in cooperative innovation projects through the CI3. The CI3 had kept a contact person in the GDO, but was relating to the public organizations directly in the case of their innovation projects. They had been specific in emphasizing that their activities were related to innovation and not political activities. From the CI1s point of view, it seemed like GDO had endorsed the same type of organization and activities for CI3 that they had, only months before, prevented the CI1 from carrying out.

### **2.4.3.3 Re-thinking the CII Organization: July 2009-December 2009**

Just before the first autumn board meeting, the Board Member from the public organization had to withdraw due to newly settled GDO regulations. The CII Interims Board was now worried that all contact with the public organizational actors was impossible. This would have an effect on what kind of projects it was possible to engage members in. Access to the non-industrial participants had been a key competitive advantage for the CII, attracting more members and funding to the Initiative. As some changes to the CII were necessary to make, the Interims Board requested an analysis of relevant competitors.

The analysis of competitors revealed a fast changing reality. Since the publication of the CII feasibility study approximately ten months previously a set of important issues influencing the opportunity for succeeding with the CII had materialized. In general, the way the organizational actors in the field was re-organizing had created insecurity and political sensitivity. It had also created competition between innovation environments, cluster initiatives and individual actors, and access to resources was scarce.

In relation to the CII, the concrete ambitions and expectations of had been huge. Comparatively, other successful initiatives had a substantially greater access to both people and funding, as well as less expectations to results and more realistic time horizons. Cluster initiatives in other businesses had spent approximately two years on the establishment and a further two years on organization issues before expecting any results. A third key issue was the growing amount of Norwegian cluster initiatives with

similar focus and approach. Adding them all up, a total of fourteen similar cluster initiatives were competing for the same resources, both in terms of funding, member-base and time.

At this point, the CIIs contact with the public organizations, which had been a competitive advantage, was lost due to tightened public restrictions. The situation might improve in the long run, but the public organizations were unlikely to be more involved until the second half of 2010 at the earliest. Hence, at the present time the experienced value of participating in the CII was reduced for all members.

Furthermore, the CII seemed to have been 'politicized' by the surroundings. The people involved were suspected of hidden agendas from several external sources. The chances of getting into new challenges with the current environment were high. The CII organization would have limited resources available in the coming periods, as both time and funding potential were scarce. Important points revealed by the competition analysis was a need for realistic plans and patience regarding development of the CII organization. In retrospect, these points seemed to have been missing along the way. The opportunity for the CII to survive or keep momentum going was not very promising.

The activities of CII were becoming more and more difficult to carry out. The CII Interims Board realized that the lack of engagement from members, a lack of financial resources available for running the CII organization, further combined with an intensified competition from alternative cluster initiatives, provided an almost



impossible situation for keeping the CI1 organization running much longer. It seemed more and more likely that the CI1 would not survive. The CI1 Working Group had been extending deadlines again and again to adapt to surrounding challenges. It had been impossible to get the intended innovation projects kick-started and the organization had been forced to deal with a range of issues less relevant for business development.

By the end of November, the CI1 board decided to shut down the Initiative the best possible way. A main emphasis was to find a proper solution for continuing the activities that were already started by the CI1. In this process, the Project Manager was given authorization to provide CI3 with any material or projects they might be interested in. Following this, a formal email was sent to the board members of the CI3 with a request to help to find a way to proceed. But at this point, there was not much left for the CI1 to offer the CI3. The RBF agreed to take on the financial costs of substituting the CI1 until the end of 2010, and while waiting for additional funding, declared the costs as “lost in effort.”

The two years of the CI1 had been represented by great ups and downs. The road from start-up to visible results turned out longer than anticipated and the CI1 did not make it to this point. The CI1 gave in after two years, as the list of opponents had increased and the navigation in the cluster field in the Oslo region had become more and more challenging.

## **2.5 Conclusion**

Norwegian public and strategic focus on innovation and clusters materialized in the first decade of 2000. Regional development became a priority field, both in city- and periphery regions. This was very much in line with a European popularization of the cluster field, driven by organizations such as OECD and EU. Various actions to increase the focus on innovation were taken simultaneously. This was done in the form of the establishment of a national public organization for innovation enhancement, as well as regional units. Additionally, various support programs were launched in order to build up under network- and cluster initiatives targeted at enhancing innovation. Finally, concrete projects, networks and other arenas were developed in order to focus on innovation at a regional level.

The CII was established in the prolonging of the Capital City project. During existence, the CII underwent a set of difficulties related to its development and survival. Four key events causing pivotal challenges for the CII have been selected as main focus for the analysis, each representing a variety of issues relevant to the working hypothesis. The events will be further dealt with in Chapter 6-8. The following chapter is concerned with the methodological aspects of this study, outlining philosophical considerations made in relation to the research, as well as more practical considerations related to how the research was carried out.

## Chapter 3 - Methodology

### 3.1 Introduction

This chapter introduces the reader to the methods and methodological considerations made in the process of this study. I regard research a pragmatic exercise, which rests on a set of philosophical perspectives. A researchers position is subject to change, along experiences, reflections and external influence. Inconsistencies in perspectives may occur, alongside or within a specific research project (Dick, 2005:40-41). Defining the researchers' perspectives is however a necessary task that contributes to important reflections on the research.

While many PhD projects are relatively set from the beginning, with a defined problem and access to data material and theory fundament, a key part of this dissertation has involved identifying the field for research, creating a precise problem description and searching for relevant gaps in the literature. The study seeks to answer the following research question: *Why does cluster cooperation seldom result in innovation?* The proposed working hypothesis is that clusters have political features built into them, leading to political behavior, which complicates the practical field and influences opportunities for innovation. The presence of politics has to little extent been acknowledged in the theoretical field of clusters.

The following chapter is divided into five parts. The first part is concerned with perspectives on theory of science connected to constructivistic and pragmatic

worldviews. The second part presents the research design, which is focused on a qualitative case study approach, using abductive reasoning and grounded theory for analysis. The third part goes into details on the actual research process, my role and methods applied. The final part presents challenges and limitations of the research to be taken into account when reading the study.

### **3.2 Theory of Science and Methodological Perspectives**

Over the past decades social science research has been influenced by a variety of methodologies for conducting research. Different disciplines have concerned themselves with and favored different approaches, based on divergent philosophical fundamentals or views of the world (Guba & Lincoln, 2005). There are no completely unified overviews of worldviews, and various schools overlap and differ, depending on discipline and issues emphasized. As research phenomena are rarely directly verifiable in social science, there will always be some distance between what is observed and the theory concepts to be tested.

It is important to be aware, implicitly or explicitly, of the worldviews the researcher brings into a study. A researcher makes assumptions, influencing his or her perspectives on reality, how knowledge is obtained, as well as values and methods for gaining knowledge. My understanding of the field is made up by the sum of personal experiences, pre-conceptions and understandings, and may be influenced and changed over time. My research perspectives lie somewhere between a constructivist and

pragmatist worldview (Creswell & Clarke, 2007). In the next sections, I present considerations that have influenced the research.

### **The Nature of Reality**

Ontology is concerned with the nature of reality or what can be known of reality (Guba, 1990:17-27). Constructivists argue in favor of multiple realities, arguing that reality is socially constructed and that the sociology of knowledge must analyze the processes in which this occurs. Everyday knowledge is constructed at different levels of society, and people's awareness and understanding is determined by where they stand. What is taken for knowledge varies depending on culture and position within and between societies. Therefore the sociology of knowledge must concern itself with everything that passes for knowledge in the society (Berger & Luckmann, 1966).

While traditional research perspectives are concerned with rejecting or failing to reject hypothesis, the constructivist approach stresses the providing of multiple perspectives in research (Creswell & Clark, 2007). My perspective on ontology identifies with the understanding of the multiple realities of constructivists. Anticipations and perceptions are key parts of human assumptions. Joint understanding of reality is not always shared by people with the same experience. This is an important recognition in this dissertation.

The cluster arenas, both formal and informal, are characterized by varieties of assumptions and perceptions, which forms different views on the surrounding reality. This has influenced how challenging situations related to the CII have been handled by

involved stakeholders. Some assumptions and perceptions seem obvious, while others are never revealed to the outside world. This has left little room for negotiation on common understandings between actors.

This view on ontology, favoring an understanding of multiple realities leaves me with an approach where an overall working hypothesis on the presence of (organizational) politics in cluster cooperation is suggested. Several interpretations of what has been going on in the field are provided, using data from four pivotal events in the life of the CII. I reject the opportunity of presenting an ‘accurate’ picture of events, but am concerned with understanding how the people involved have perceived specific situations and how this has influenced the CII.

### **Gaining Knowledge of What We Know**

Epistemology deals with the nature of the relationship between the knower (the inquirer) and the known (the knowable). A common distinction goes between an objectivist and a subjectivist approach. While objectivist’s ‘truth’ needs to be in accordance to reality, subjectivists argue that ‘truth’ varies from person to person. Alvesson & Sköldbberg (2008:47) claim that correspondence between statement and truth remains relatively unproblematic when it comes to simple claims such as, “this ball is red.” With complex theories, degrees of truth create problems for true and false. For instance, a ball might be partly red. This means that something may be true in some respects, but not in all, leading to challenges in measuring truth. A theory will consequently need revision rather than falsification, and traditional approaches seems less useful (Causey, 1974).

Philosopher Hans Skjervheim (1957) differs between a participant and a spectator perspective. A *triangular relationship* comes out of engaging in the claims or content of someone, potentially also making a judgment of the content of conversation. This is the role of a participant, engaging in a relationship between the other, himself and the subject matter, sharing the subject matter between participant and the other. A *dual relationship* is present when a person registers what another person is saying, but avoids getting involved in the content. This is the objectifying role of a spectator.

Objectification prevents the objectified from participating in the relation. This creates an asymmetric power relation. The spectator's lack of participation leads to an alienation from society and society appears unchangeable. The spectator advocates for distance and impartiality believing that researchers should use approaches that are easily quantifiable and agreed upon in advance. In comparison, the participator believes in closeness to research, where researchers visit participants to collect data in their fields. Participators contribute to change and acknowledge their subjectivist perspectives (Creswell & Clark, 2007:24).

I believe true objectivity is an impossible ideal in research. The truth as experienced by one party is not necessarily the truth for another. The researcher must acknowledge a subjective position and make it accessible in the presentation of research. Alvesson & Sköldberg (2008:47) point to how extreme perspectives risk losing important perspectives in the research process. Social science research rarely has easily quantifiable measures or approaches. A pragmatist standpoint stresses the present opportunities for research, arguing that researchers should collect data in what way

possible, focusing on what is best to close in on the research question These perspectives align with the carried out research project.

During research, I was influenced by the nature of various types of organization, where understandings are not necessarily complementary. My philosophical underpinnings are inspired by constructivist perspectives, with a goal of *adding insight* to the theories I have applied in my research, rather than falsifying them. The study is further influenced by a pragmatist approach, concerned with the real world and how different people perceive it. In terms of methods, the pragmatic influence means that research has been carried out with a focus on what has been possible and what would provide the best solutions, given the resources available. In the following part, the research design of this study is presented. It will add further insight into considerations influencing the choices made with attention to the application of qualitative case inquiry, abductive reasoning and grounded theory in the design.

### **3.3 The Research Design**

The research design has been influenced by a flexible approach, where developments in the field could be taken into account during proceedings providing opportunities to alter between theory and observation. A concrete case, the CII was selected for research, using abductive reasoning and grounded theory for designing the research.

#### **3.3.1 Qualitative Inquiry – A Flexible Case Study Approach**

The research is of a qualitative nature, with a goal of gathering an in-depth understanding of a cluster initiative and its challenges. As the research is focused on



both presenting the specificities and development of the CII, a case study approach was a suitable choice for this dissertation. Hakim (2000:66-68) notes that case studies have advantages for research on social groups, organizations and institutions. The study focuses on the development process of the CII and its interaction with its surroundings.

The case study of the CII involves more than one unit of analysis, which means that attention has been given to a set of subunits or events. The research is in that sense embedded rather than holistic. Even if multiple case studies may be preferred over single-case designs for generalizability purposes<sup>5</sup>, this was not a realistic opportunity when selecting research unit. The need to focus the attention was required, limited by the time and resources available (Yin, 2003:42-45, 53).

The case study is probably the most flexible of all research designs, making room for adjustments during the research (Hakim, 2000:59). A pretty clear purpose of the study of the CII was set from the beginning, but had to be changed midway. The case was developing differently than anticipated and consequently the data-material collected could not answer the research questions proposed. The decision of methods and data-collection was decided upon at an early stage, providing room for flexibility and change during the research process. A desk-based review of the background literature of innovation system theory and clusters was developed, with a goal of searching for more insight on the process of cluster development. The data was then advised, before the available theories again were reconsidered, followed by several rounds of investigations into the data material and relevant theories. Initially the theoretical framework to use for

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<sup>5</sup> For considerations on generalizability, see section 3.5.2

analysis purposes was unclear. During research, theories on networks, governance, organizational development, power and politics were consulted for deeper understanding of the cluster development process. These theories have been used as a supplement to the literature on innovation systems and clusters.

The research is partly of a descriptive nature and partly of an explorative nature. Descriptive case studies may be exploratory if relatively little previous research exists on the topic (Hakim, 2000:59). General research on clusters is widely known and distributed. Research on political initiatives and politics in organizations is also common. However, empirical research with a combined focus on cluster initiatives and organizational politics perspective is relatively rare, as to my current knowledge.

### **3.3.2 Abductive Reasoning**

I find that the logic of this dissertation does not apply either to the traditional understanding of deduction or induction. Deduction implies starting out with a theory in order to explain a phenomenon of interest, while induction implies observing reality and drawing conclusions based on those observations. Alvesson & Sköldbberg (2008:60) argue that the weakness of deduction comes from the fact that it does not have anything to deduct from, apart from guessing. Comparatively, induction cannot generate theory apart from empirical summaries.

A third, but not nearly as commonly known approach, has been suggested by Pierce (2010), labeled abduction: *“Given an observed outcome not completely understood, abduction is the process by which a person decides how it might have come about”*

(Dick, 2005:50). Abduction is a form of logical inference that goes from observation to a hypothesis, which accounts for reliable data (observation) and seeks to explain relevant evidence (Magnani, 2001).

Abduction is in reality used in a range of investigations (Sköldberg, 1991) involving a single case being interpreted from a hypothetic overall pattern, which explains the case in question. This interpretation should be further strengthened through new observations, while theory should be adjusted and refined. In practice a research process look like this: When an observation of a certain phenomenon is made, a search for underlying causes must be made. The underlying causes to the phenomenon are then used to explain the observed phenomenon. This implies an alternation between empirical loaded theory and theory-loaded empirics.

Abduction has similarities with both induction and deduction, but cannot be understood as a mix of the two, nor reduced to the two. Abduction introduces some new aspects. Lead from empirical facts, just like induction, it does not reject the theoretical pre-dispositions. Subsequently, it is closer to deduction. Analysis of the empirical facts can be combined with or be anticipated by studies of previous literature to search for understandable patterns. During the research process there will be an alternation between (previous) theory and observations, which is reinterpreted in light of each other. Furthermore, there is no implication of a 'grand theory' perspective in abduction. On the other hand, findings are dependent on what (subjective) perspective is chosen (Alvesson & Sköldberg, 2008:56-62).

In this study, the original phenomenon observed was that initiated cluster efforts rarely lead to innovation. Following this, an observation was made, highlighting how political features and behavior in cluster cooperative efforts influenced activities. The assumption made was that the features and behaviors affected cluster opportunity to concentrate on innovation and then again the output of innovation itself. Therefore the preliminary conclusion is that politics influence the output of cluster cooperation. Several events in the CII-case show the same pattern. These observations, however, have not been tested toward a larger group of cases, which means that this observation may be unique for the CII. I believe otherwise and will argue for this in the analysis and conclusion chapters.

### **3.3.3 Grounded Theory**

Grounded Theory was introduced by sociologists Barney Glaser and Anselm Strauss in 1967 and is today one of the most influential modes for carrying out qualitative inquiry. The overall goal of the Grounded Theory methodology is to generate theory and either formulate or verify hypotheses, of which are not proposed in advance. In the field, the goal of Grounded Theory is to reveal participants' concern and their emphasis to resolve them. There is no aim to reveal a unified truth, rather, empirical research is used to conceptualize what goes on. The unit of analysis is the event or incident, not the people (Glaser & Strauss, 1967).

The classic approach of Grounded Theory analysis is that the researcher starts off with a theme or general research question for exploration. The first step involves data collection, using several methods. After some data is collected, key points are marked

as a series of codes, extracted from the data texts. The next step is marking the codes into groups of similar concepts. The following step involves transforming the concepts into categories. Then the conceptual categories are developed into a theory in order to explain key observations.

Simultaneously, more information is gathered. Established categories and new data are compared, and categories are developed and changed as new information is revealed. At some point the researcher experiences a form of saturation of data, where little new information emerges. The information of the categories and the way they are linked contribute to provide the fundament of a theory. By using theoretical codes, a theoretical model is applied to the data. This model emerges during the research process of collecting and comparing data and should not be forced. A key in this process is the theoretical memoing, which represents the notes made along the research, including information on codes and relationships discovered. Memos must be used as a tool during research in order to keep track of ideas and discoveries and they need to be sorted in order to formulate the theory. The final stage is to write up the sorted memos, where relevant literature is woven in (Glaser 1998).

The four stages of analysis are:

- 1) Coding – identify anchors allowing key points of data to be gathered
- 2) Concepts – collect codes of similar content that allows data to be grouped
- 3) Categories – broad groups of similar concepts, used to generate a theory
- 4) Theory – a collection of explanations that explain the subject of the research

According to Glaser (1998), Grounded Theory involves a certain 'freedom,' which distinguishes it from other kinds of social research. No literature review should be undertaken previous to research, but should be read in the organizing stage, and treated the same way as the coded data to avoid preconceptions. Field notes should be sufficient for generating concepts and conducting research. The researcher should avoid discussing the theory generation before it is finalized, as this may drain motivation. Discussions should be limited to people who are able to help the researcher, but not influence his or her judgment. The application of Grounded Theory in the analysis will be dealt with in section 3.4.5.

Grounded Theory and abduction are not commonly applied simultaneously in research. In this study, both Grounded Theory and abductive reasoning seem to contribute to research and develop my theory considerations. Therefore abduction was integrated into the Grounded Theory approach. Previous to the actual research project, I had been observing the practical field of clusters over several years. As in Grounded Theory, a general theme of innovation was chosen and a first round of data was collected and organized. Then, a form of working hypothesis was proposed, concerning the politics present in and around clusters. The hypothesis helped the search for an overall pattern, during another round of data collection in the field. Alongside the development of a theory, previous theory was advised and new observations were taken into account. This alternation proved useful in terms of proposing a theory to explain the relevant observations and the theme proposed for study. The next part will present in more detail how the research design has been applied, taking advantage of the case study approach and Grounded Theory considerations while analyzing the available data.

### **3.4 The Research Process**

In the following sections, my role in the study, and how data was collected, organized and analyzed between the period of 2007 and 2010 will be explained.

#### **3.4.1 My Role in the Study**

The research project was rooted in an Action Research (AR) oriented academic program, EDWOR II, inviting to an action-oriented approach to research. During research I have dealt with the professional roles as a cluster facilitator and as a researcher simultaneously. Although a true AR-approach was never possible I have collected inspiration from the field.

According to Greenwood & Levin (1998:4) AR is:

*Social research carried out by a team encompassing a professional action researcher and members of an organization or community seeking to improve their situation. (...) Together, the professional researcher and the stakeholders define the problems to be examined, cogenerate relevant knowledge about them, learn and execute social research techniques, take actions, and interpret the results of actions based on what they have learned.*

The epistemological assumption of AR is that the purpose of academic research and discourse is not just to describe, understand and explain but also to change. Research, action and participation must all be present in order to be defined as AR. Change must increase the ability of the involved actors to develop and improve their own destinies.

AR is always context bound and aiming at addressing real-life problems. It also links closely to the skills, background and interests of the practitioner.

‘Action learning’ as presented by Coghlan & Brannick (2005) is focused on developing the people within organizations through learning experiences. This is done through reversing the traditional learning process and starting out with action rather than learning. The original action research cycle is comprised of a pre-step and three core activities: planning, action and fact-finding. The pre-step involves naming the general objective. ‘Planning’ comprises having an overall plan and a decision regarding what the first step to take is. ‘Action’ involves taking the first step, and ‘fact finding’ involves evaluating this step, seeing what was learned in order to correct the next step. This leads to a “spiral of steps, each of which is composed of a circle of planning, action and fact-finding about the result of the action” (Coghlan & Brannick, 2005:21). ‘Action learning’ is useful in terms of developing an organization and its people, and can be identified as an approach practically taken when developing a cluster initiative.

Actual requirements of AR differ between perspectives and a researcher may not necessarily have the opportunity to fulfill the expected specifications. As an insider of the CII-project, I influenced activities in terms of how they were carried out. Apart from this I had no role in changing the course of actions, either in transferring reflection from research into the real world. My role in facilitation of the cluster development processes was not considered as AR at any point in the research and does not fulfill the requirements of an AR project as outlined by Greenwood and Levin (1998). The AR-fundament did, however, provide inspiration to the context bound research project



addressing real-life problems. This improvement thinking is more of an all-over perspective for the study, than focused towards the specific development of the CII.

### **The Role as a Cluster Facilitator**

My interest in the field of clusters and networks comes out of practically working with such issues. I was first introduced to regional development and the theories on clusters in 2003, when I started working for a regional business development organization in the Oslo region. The wider work environment of cooperators was male-dominated, and to a great degree influenced by men in their 50s and 60s, representing the managing level in various organizations and companies. As a young professional, the field could sometimes be challenging. Many young professionals, and perhaps women in particular, experience that their expertise is not always (instantly) recognized in such environments. In certain ways, my presence in this arena was definitely 'visible' due to my age and gender, but in others, I was almost invisible in the field, often present, but rarely 'counting' in ongoing discussions. This kind of invisibility provided opportunities for observations and insights that probably would have been more difficult to achieve in other ways.

For several reasons, my role in the CII became more participative. I served an administrative role, labeled a cluster facilitator. To some extent, I was involved in almost all activities. A useful and relevant description of the role and tasks of a cluster facilitator is made by Susskind and Cruikshank (1987:154, 157, found in Kickert & Koppenjan, 1997:49):

*'The facilitator focuses almost entirely on process, makes sure meeting places and times are agreed upon, sees that meeting space is arranged appropriately, and ensures that notes and minutes of the meetings are kept...facilitators monitor the quality of the dialogue, and intervene with questions designed to enhance understanding.'* In order to foster conditions for consensus building, the facilitator may employ a number of techniques, such as organizing workshops, conducting surveys, organizing brainstorming sessions, initiating role play and promoting collective image building. These activities contribute towards increasing an understanding of the issues at stake, the diversities of ideas, the ability to appreciate each other's viewpoint and the dedication to joint problem solving.

My business in the CII was to know and collect as much information as possible and help the Project Manager and the Interims Board members with organizing and analyzing the available information. In addition, I made sure that the CII operations were reported on and coordinated with other activities of the regional business development organization, bridging activities of the two organizations.

### **The Role as a Researcher**

My role as a researcher was subordinate in the CII. I was provided with access and an opportunity to actively participate, observe and reflect on the process. The collection of data was made in relation to, but as an additional task, which went on parallel with the CII development. My familiarity with the Initiative was however a great asset to the research.

Participating actors in the CI1 were made aware of my role as a PhD-candidate in the field, but beyond that, my actual research focus was only discussed during reflective interviews in 2010. In the life of the Initiative, I think participants reflected little upon my dual role. This may have changed during interviews. At this point the Initiative had terminated and participants had few restraints in terms of commenting on the process and events. Most people interviewed seemed curious and eager in reflecting on the destiny of the CI1. This made interviews highly interesting and inspiring, and I am grateful to my informant for this experience.

The obvious advantage of being a complete insider in a project or organization while conducting research is the grand access to the research unit and data material. This access may in itself be challenging, as the amount of data material available usually turns out enormous. Further, it is easy, as a researcher, to become too close to the units of study and to the data material in itself. This may provide difficulties in identifying relevant and interesting patterns, and create biases towards certain attentions. It is also difficult to juggle the role of researcher and the role of professional. On the other hand, I imagine that the closeness to the research project helps secure an engagement throughout the research process, compared to what may be the case in more traditional research approaches. I have been lucky to keep an interest in the research topic throughout the time of the dissertation.

Granting adequate time and resources has been a challenge for the finalization of this dissertation project. As Levin (2012) suggests, participation in a research field may lead a researcher to become too absorbed into the local culture and politics and losing sight

of the research role. In such respect, gaining distance from development processes and the field in general may serve a useful purpose to mature reflections. This aligns with my personal experience. In 2011 I left the empirical field. This may have distanced me from details of the collected data material, but at the same time, overall reflections and perspectives seemed to have matured and improved the focus of the dissertation.

### **3.4.2 Defining the Unit of Research**

In this research the CII can, at different stages of its existence, be labeled a cluster, a network, a project and an organization. Each has some theoretical implications.

The dissertation is a study of a *cluster initiative*, which I defined as a delineated initiative of inter-organizational actors who has initiated cooperation for developing a cluster. In practice, as well as in the research literature, there seems to be unclear definitions towards what can be regarded a cluster. Theoretically, Michael Porter favors a less clear definition on clusters, as he argues that defining borders continuously change (Porter, 2000:18). This lack of boundaries is however problematic in case of research methodology, where opportunities for defining a cluster and comparing research becomes more problematic. Empirically, the notions of clusters are used on regional business fields, as well as on more specific initiatives.

In this study, I have made a distinction between *a formal* and an *informal cluster*, defining the formal cluster as a concrete initiative of defined actors, while the informal cluster is the larger environment of actors in a business field belonging to a region, without a specific definition of borders. This distinction is presented as both forms are

perceived as and labeled 'clusters' in the empirical field, which can be somewhat confusing. The CII is regarded as a formal cluster initiative, while the total of its surrounding business-related environment comprise the informal cluster. This corresponds with Porter's understanding of a cluster as a large and not completely definable unit.

The CII was regarded a cluster initiative, developed for achieving the goal of a cluster strategy. The initiative was also defined as '*a network*' of inter-organizational actors. Network initiation and development is the most commonly used tool in cluster enhancement, which is why the terms are often used interchangeably in the field. The CII was also regarded as a '*project*' in the start-up phase, and a formally established '*organization*' in February 2009.

### **3.4.3 Collecting Data**

In the conduction of research, data was collected using a mixed methods approach to gather a range of qualitative data, aligned with Grounded Theory suggestion. By using an inclusive approach, the research has been able to collect information on the same phenomenon from different angles, and the methods for collecting data have supplemented each other. This has contributed to the prevention of a collection of one-sided data and reduced the probability of missing important data. No single source has a complete advantage over the others, but may be used to complement each other (Yin, 2003:85; Hakim, 2000:61). A main disadvantage of using a mixed approach is time and complexity (Ackroyd & Huges, 1992:171).

The research is based on data from the case of the CII and its interaction with its surroundings. The data collected spans from summer 2007 when the joint planning of the project was initiated, until January 2010, when the organization was closed down. In addition, certain background information was collected related to specific issues of importance and influence to the events occurring between the period of 2007 and 2010. Also, the reflective interviews were conducted during 2010, in the aftermath of the CII closing down.

There exists almost no written material about the CII apart from what is produced by the CII itself. As a facilitator, I had full access to all internal information on the CII. This included all kinds of documentation related to specific activities such as minutes from planning, network or board meetings, progress reports, newsletters, newsletter clippings, etc. This documentation has an overall value and plays an important role in the data collection. I also had access to most email correspondence. In addition, I was present as a cluster facilitator as well as a participant observer in almost all meetings held from the planning phase until the initiative ended.

Data was collected using participant observation, interviews and written material. According to the distinctions used by Yin (2003:85, 92-93) the existing material can be categorized as both documentations and archival records. This evidence has been useful in providing additional information about the topic studied. The analysis is based on data material from the following sources:

1) *Chronological history outline* is a description of the life of the CI1, based on participant observations and provides a fundament for the thick description presented in Chapter 2. These data collected spans from August 2007-January 2010 and includes an account of order of events, actual happenings, important conversations and reflections, as well notes on written material available. It is difficult to estimate the amount of information, but the time I spent on the CI1 during these years adds up to approximately fifty percent of a work-year, which gives an indication of presence. This data is based on observations (2), as well as diary notes/personal memos and various written material (5).

2) *Diary notes/personal memos* are personal reflections made by me along the course of the CI1, as a researcher and observer, which have been organized chronologically and coded after data collection. The data spans from 2007 until beginning of 2010.

3) *Interviews from 2008* are interviews conducted with all members of the CI1 in August and September 2008. The interviews took place as a part of the feasibility study, with a goal of collecting information to ensure the opportunities of creating a cluster initiative and developing the network into something valuable for all its members. Hence, the interviews were not originally intended for this, but have been utilized as background information. Ten interviews were conducted, lasting between one and two hours. Participants who were interviewed were mainly male and ranged from one to four per interview. At the time of the interviews, I had met several of the participants on the occasion of the start-up meeting, but I was not acquainted with any of them. Interviews were held at their offices.

4) *Interviews from 2010* are reflective conversations with the key stakeholders involved in the CII during its existence. Additionally, key stakeholders involved with the CII through the four challenging events have been interviewed. The goal has been to discuss and present the challenges with various perspectives and highlight perceptions in the field. Nine reflective interviews, of which six were men and three were women, spanned from one-three hours and were conducted in a one-on-one setting. With one exception, I was well acquainted with all those interviewed. Interviews were held at the offices of those interviewed, except for two, which for logistical reasons were held at a meeting room at my office.

5) *Various written materials* are e-mails, minutes from meetings, project plans, reports and similar, targeted for the CII, and available through the administration of the project. A few newspaper articles are also a part of this written material. The data spans mainly from August 2007-January 2010. Additionally, a few pieces of background information from before 2007 and newer additions have been added.

I regard 1) Chronological history outline; 2) Diary notes/personal memos; and 4) Interviews from 2010 to be the most important sources for this study. It is important to note that every document, article or e-mail was written for some specific purpose or some specific audience other than those of the case being studied. By constantly trying to identify these objectives, the research has been less likely to be misled by documentary evidence. The aim has been to interpret critically the contents of the evidence selected (Yin, 2003:85-87). All material and notes are kept for potential reviews.



**Table 3.1 Collected Data**

<b>Sources</b>	<b>What</b>	<b>Whom</b>	<b>When</b>	<b>Duration</b>
<b>Observation of process</b>	Observation and participation in various formal and informal meetings and conversations	All involved stakeholders in the CII, as well as actors surrounding the initiative	2007-2010	Approximately 1000 hours of active and passive observation
<b>Interviews</b>	Interviews part 1: 10 investigating conversations, 1-4 people present during each interview	All involved stakeholders in the CII, 3 public organizations and 7 private companies	2008, August-September	1-2 hours each
	Interviews part 2: 9 reflective conversations, one-on-one setting	4 most active CII members, 5 active stakeholders surrounding the initiative	2010, January-April	1-3 hours each
<b>Document data</b>	E-mails, minutes from meetings, project plans, reports, newspaper articles, produced by various actors	-	2007-2011, mainly	-

### 3.4.4 Organizing the Data Material

The data material has been organized in accordance to several distinctions. The most important ones are presented in Chapter 2 and will only be briefly mentioned here.

#### The Case Timeline & Phases

A main issue in the research has been to follow the CII over time, in order to gain insight into the *process* of a cluster initiative. When developing cluster initiatives, both time and process are highly relevant factors. Outputs of such cooperative initiatives usually take time and the process of getting there has a major impact on opportunities for success. The case of the CII has had a set of distinct phases in the period between August 2007 and December 2009, as presented in Chapter 2, table 2.1.

### **Involved Stakeholders**

People, organizations, networks and regions are all part of cluster theory. Cluster theory is more concerned with the regional and organizational levels, rather than the people. Researching cluster cooperation with a focus also on single actors activities and agendas reveal additional insights. People who are involved in cluster efforts usually represent the interests of one or more organizations, as well as their own, which underlines the complexity of interests and perceptions developing in such fields.

The CII had specific members—key people representing a set of organizations. In some cases the actual representatives were invited specifically, in others, the organization was invited, but chose the representative. Additionally, the CII had interaction with public and private surrounding actors, organizations and cluster initiatives. The involved organizations and actors can broadly be divided into three groups, although somewhat overlapping:

1. The CII organization - various organizations and companies and their representatives
2. National (and regional) ‘facilitator’ organizations and their representatives
3. Various cluster initiatives and their representatives

For more details, see Chapter 2, table 2.2.

### **Events of Specific Interest and Priority in the Research**

A set of events causing challenges for the CII was selected as a main focus for the actual research. The selection of challenges was decided upon after carefully looking

into the life of the CII and debating what challenges were the most influential for the fate of the CII with the involved members. The challenges met *during* the life of the CII are presented in Chapter 2 and are analyzed in Chapter 6-8. See table 3.2 for the labels.

**Table 3.2 Key Events**

<b>Key Events in the Analysis of the CII</b>
Event 1: Funding & public competition
Event 2: Cluster competition – part one
Event 3: Public regulation interference
Event 4: Cluster competition – part two

**Organization of Data Material for Analysis Purpose**

The collected data material was organized to create a chronological history outline of the CII case, with an emphasis on happenings in the four events analyzed. The purpose of this outline was to provide a broad overview of the considerations and events in the case of the CII. Geertz’ (1973) notion of ‘thick description’ was used to present the data material and provide a rich detail level. ‘Thick description’ is a description of the behavior or concrete issues at stake, as well as of the context of that behavior or concrete issue at stake. The purpose of using this form was to make the reader understand the researched phenomenon more thoroughly.

According to Creswell & Clark (2007:7) mixing datasets helps the researcher in understanding the research focus further. The approach was initially to merge the datasets from observations and written materials together, and then at a later stage include mainly interviews as supportive background. Where important details were

missing in the original material, information from the interviews was built into the base material.

### **3.4.5 Analyzing the Data Material**

In accordance with Grounded Theory, the unit for analysis was the case of the CII, in reality narrowed down to four key events occurring in the life of the CII between 2007 and 2010. All events touched upon relations towards the surrounding environment of the CII. The general theme for the research was formulated early on: innovation and cluster initiation. The angle of the study did however change during the course of research, as to what relevant data material presented itself and what kind of research was made possible.

The first stage of analysis was identifying the anchors allowing key points of data to be gathered: *coding*. Four key challenges met during the life of the CII each became a code: 'Event 1: Funding & public competition'; 'Event 2: Cluster competition – part one'; 'Event 3: Public regulation interference', and; 'Event 4: Cluster competition – part two'. Another set of codes to be identified was related to whether the data material was about issues *inside* the CII, labeled '*The formal cluster initiative*' or between the CII and its surroundings, as a part of '*The larger informal cluster arena*.' Further, involved organizations, formal cluster initiatives and people were identified and mapped in relation to the CII, the four events and the surroundings.

The second step was to look into each code, compare and see what kind of similar content was present. These issues were then developed into *concepts*. The first apparent

concept was 'Conflict.' The second one was 'Interest.' A third concept was 'Perceptions.' Two more concepts were also identified: 'Strategies,' and 'Power play.'

A third step was to develop the data into *categories* or broad groups of similar concepts, in order to generate a theory. At this stage, I specialized further into potential theoretical contributions and selected a set of already existing relevant theory material to support the identified data material. In this phase, the five concepts were developed into two. 'Interests' and 'Perceptions' were grouped into the category 'Features,' while 'Conflicts,' 'Strategies' and 'Power play' were grouped into the category 'Behavior.' A final important and distinctive pair of categories was 'Action/business' and 'Talk/politics.'

To generate a theory, I organized the categories in an order that made sense for explaining the events in the life of the CII, which led to the challenges in developing the Initiative. Through this, I developed an analytical model that provides the logic for this dissertation. This analytical model is presented in detail in Chapter 5, section 5.6.

### **3.4.6 Writing Out the Analysis**

The language of a research project may be formal, informal or both. My perspective in this research has been to provide as clear and precise a language as possible. The audience for this dissertation is a research audience; I am, however, concerned with the opportunities of practitioners to be able to easily navigate in the dissertation and find use of whatever material seems relevant to them. I believe that the writing style in this study lies somewhere between a formal and informal tone (Creswell & Clark, 2007).

The collected data material on the CII has almost exclusively been in Norwegian. This has made translations into English necessary. In translations there are always possibilities for losing out information or misinterpreting meanings. Ideals of accuracy and precision have been important during the analysis and the process of writing out the dissertation. It is important to keep this in mind when reading the presented material.

### **3.5 Challenges and Limitations of the Research**

How can trustworthiness be established in qualitative data and analysis? The terms ‘reliability’ and ‘validity’ are commonly used in natural sciences, but are often avoided in flexible, qualitative research design (Robson, 2002:170). The following criteria for trustworthiness (Guba, 1981) have been chosen, which are appropriate to the conditions of this research: credibility; transferability; dependability and confirmability. In the coming sections, I will deal with key topics of importance to the dissertation and the research project.

#### **3.5.1 Credibility**

Validity has to do with accuracy, correctness or truth of the concepts being studied. As qualitative research rarely has opportunity to provide exact measurements, validity can be difficult and even sometimes impossible to obtain. A related tool is credibility, which deals with how a study can be trusted (Robson, 2002:170). In the following part, credibility tools related to different phases of research is presented, as to the relevance for this research project.

### **Ensuring Credibility in the Choice of Research Design**

Shenton (2004) suggests that *the adoption of well established research methods* in qualitative investigation may, to some extent, help ensure credibility. In the case of this dissertation, the research design is relatively well known. The approach of using a case study is common within social sciences, but comes with certain implications, such as issues of generalizability, which is dealt with in detail in section 3.5.2.

Another and well-known tool to ensure credibility is triangulation. *Triangulation of method* has been actively used in the research, using observation, interviews and various sources of written material. In this study the observations have, depending on context, ranged from moderate participation, balancing the role of being an ‘insider’ with being an ‘outsider,’ to complete participation, where complete integration in the population of the study was possible. Mainly, the observations have been of a complete kind, as I was practically involved in and employed to work on the CII from the beginning. As most participants in the case have had multiple employments and business goals of their own, the duality of my position as an administrator and researcher seems to have been of little concern to the participants.

When it comes to *triangulation of sources* it was relatively clear who it would be possible to interview. Two types of actors were selected. The first group to interview was the most active participants of the CII. The second group to interview was the external representatives involved in the four defining events. The goal of interviewing both internal and external actors was to get diverse perspectives and viewpoints on the issues in question, and to be able to test assumptions and perceptions in the field.

Cluster research often has challenges with defining borders. As the CII initiative was a relatively small and formal arrangement, *random sampling* of individuals did not become a topic in this research.

### **Ensuring Credibility in the Research Field While Collecting Data**

During the research, several measures were taken while collecting data. Active involvement in the environment researched is a key part of the research process. Some considerations on this are made in section 3.4.1. I was employed by the organization initiating the CII in which I later researched. In this respect, I was very much involved in the culture I was researching. This means that my professional judgment may have been influenced in terms of research. One of my concerns in this project was to be able to present varieties of perspectives in the process of initiating a cluster effort, which to a great degree have been absent in the literature. Obtaining one true perspective in this case has not been realistic, nor a goal (Lincoln & Guba, 1985; Erlandson et al, 1993; Silverman, 2000).

Ensuring honesty and free speech are important in all research. The tools available to secure this are not that many, apart from encouraging opinions and creating trustworthiness among the researcher and the researched. Only one actor decided not to participate in an interview. I did not pursue an explanation and was never offered one either. Apart from that, I believe that all actors interviewed have been concerned with presenting their perspectives and reflections in the case of the CII.



During the research period I was professionally a part of a group of cluster coordinators, which made reflections on various projects and approaches to cluster initiation.

Meetings were not systematized, but offered valuable inputs when occurring. Peer scrutiny was to a large extent accessible and regular through my participation in the EDWOR II program. As the project underwent changes, important reflections made by peers along the way led to refinements.

There has been a great value to look into notes and comments made during the research process, both in the form of personal memos and as a part of the interview process. For several reasons, a leave of absence from the research after collecting and organizing the data material made time for maturing of reflections and greater distance to the data and the field. Apart from potential benefits of distancing from the field, a longer absence from the research may also have disadvantages, such as losing some valuable inputs which were present but not yet recorded at previous moments (Shenton, 2004:66-67).

### **Ensuring Credibility During Data Analysis**

Member checks involving informants checking the information they provided is the most important tool to secure credibility according to Lincoln & Guba (1985). It is, however not always easy to estimate whether one's own perceptions resemble others. Informants reading transcripts from conversations in which they have participated in may find the wording to be fair and logical, but this does not secure that the researchers interpretation will provide the same account. Nevertheless, the opportunity for the informants to look into the material in which they participated is important. In this research, all interviewed actors had an opportunity to read the transcripts of the

interviews in order to correct any mistakes or delete or rephrase their sentences. They were given a time frame to review the information, with an opportunity to change deadline. Only a few used this opportunity.

The detail level of the CII description is relatively rich, which was a key consideration in order to provide a thick description. Before the research has been finalized, a few external helpers have been asked to read through the data presentation and the analysis in order to review whether the information given is presented in a logic manner.

Finally, a reader should be able to assess the researcher. Information on me as a researcher is provided in section 3.4.1. There are, however, no foolproof ways of guaranteeing credibility. The tools outlined are helpers in order to ensure a level of consideration for the research and the researched.

### **3.5.2 Transferability**

External validity or generalizability refers to the extent to which the findings of one study can be applied to other situations beyond the setting studied. In case study research there is limited basis for scientific generalization. A case study can still be regarded as a contribution to development of theory, which helps in understanding other cases or situations (Robson, 2002:176-177). When it comes organizational studies, Brunsson & Olsen (1998:22-23) write:

*(...) the possibility of developing universal, law-like theories may be rather limited. It is unlikely that students of organizations ever will be able to capture the variety and complexity of contemporary organizational society in a single*

*grand theory. (...) The best we can do is, probably, to locate mechanisms or causal patterns that are frequent, and to point to some conditions that make them more or less likely (Mayntz 1997; Elster 1998).*

This aligns with the considerations made in this research.

In this specific study, opportunities for transferability are an issue. During my years as a professional, I have observed a range of cluster initiation processes, and I believe the findings I present will be relevant also to other cases of cluster initiations. Some dimensions may be highly special and related to circumstances of the CII. Knowledge derived from one context, may be of relevance also in other contexts. In order to take advantage of knowledge, one has to take respective contextual issues into account. The contextual issues must be considered, both in the situation where the research was carried out and where the relevant knowledge is to be applied, to understand whether the fundament of the two situations have sufficient similarities to actually take advantage of the new knowledge (Greenwood & Levin, 1998:79). In terms of transferability, I therefore believe that the reader must make considerations and search for perspectives of relevance to their respective field (Guba & Lincoln, 1995).

### **3.5.3 Dependability**

Researchers using flexible designs need to examine the reliability of their methods and research practices. Dependability involves being thorough, careful and honest when carrying out the research. It also involves being able to show others that this is the case. During this research, plans and notes have been made and kept. The process has been documented and reflections have been written down, in relation to observations made in

the field and during interviews and meetings. Reflective notes have also been made when appropriate. A systematic account along with research is always encouraged by academic staff and supervisors. However, good systems are not always achieved until experience is made.

### **3.5.4 Confirmability**

Previously in this chapter, issues of subjectivity and objectivity have been discussed. When it comes to objectivity, humans usually interfere, leading to inevitable biases. Confirmability is focused on ensuring that findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher. The best tool to ensure this is triangulation, which is dealt with in section 3.5.1. Miles & Huberman (1994) emphasize that the researchers need to admit predispositions and beliefs. Reflective commentary and detailed methodological accounts are also a key solution to help ensure confirmability (Shenton, 2004:72). To the best possible extent, triangulation and details of predispositions and preferences, as well as logic of data, is presented in this research.

### **3.6 Conclusion**

In this chapter I have presented the methodological perspectives of this research, linking the worldviews of constructivism with a more pragmatic approach. My concern has been to understand why the CII had not, with all its efforts, produced any outputs of relevance to its members. The research design is a qualitative case study, which is carried out with an abductive reasoning and with an application of Grounded Theory for

collecting, organizing and analyzing data. The research does not fulfill the requirements of an AR-scheme, but has been influenced by its thinking. Data has ranged from two years of participative observations, in addition to in-depth interviews with key stakeholders, in addition to various kinds of available written material. In sum, the data material available has been extensive and provided a solid fundament for analyzing and answering the research questions. As a single case study, there is no fundament for generalization of the research findings, nor is this a goal. I do however believe that findings in this case are of relevance in other cases of cluster initiation, although any applicability must be found by actors present in the field.



## Chapter 4 – Cluster Theory

### 4.1 Introduction

Clusters provides both a theoretical and practical a fundament for this dissertation.

The goal in this chapter is to contribute insights into the issues and debates influencing clusters. *Cluster theory* is concerned with new ways of increasing economic prosperity and gaining higher welfare within a region, which mainly goes through enhancing innovation.

The theory is about how strong links between actors situated in close geographical proximity increase the opportunity for innovation. It describes the phenomenon of why similar, specialized businesses localize closely and take advantage of both competition and cooperation in developing products and services. An important aspect is to strengthen the ties between knowledge actors within research and business communities (Porter, 1998). This may be done through developing cluster initiatives, in order to increase the possibility for actors to exchange knowledge, information and ideas.

The popularization of cluster theory has contributed to a new field of policy, applied at governmental levels in a variety of nations. *Cluster strategies* have become popularized and have developed into multiple directions. There are however many challenging aspects of clusters; the theories and strategies are under scrutiny, questioning both definitions and the proposed mechanisms of cluster cooperation and innovation enhancement.

The following chapter is divided into three parts. The first part gives a thorough presentation of innovation systems theory, with a main emphasis on Michael Porter's theory on clusters. The second part concerns the main critiques towards cluster theory, highlighting some issues of importance for research. The final part is a presentation on how the cluster theory has become a field for strategy development in the public sector, turning into something of a fashion.

## **4.2 Innovation Systems Theories**

The recent popularization of cluster and cluster-related theories has led to the development of a multi-disciplinary field. The different disciplines contribute with slightly different focus, propose different definitions and highlight different contributions. This makes it difficult to get a solid overview of the field. The following sections provide an outline of cluster and related innovation systems theories, covering National and Regional Innovation Systems (NIS/RIS), Triple Helix and clusters.

### **4.2.1 The Emergence of Innovation Systems Theories**

In the past twenty to thirty years a new field of theories on economic performance have emerged and are increasingly dominating perspectives on innovation and regional development (see for instance Veggeland, 1996; Danson et al, 2000). The theories cover widely, but are more or less concerned with issues on how to achieve increased value-creation within a business field, by taking advantage of various kinds of local opportunities and resources.



The origins of these theories can be traced back to the theory of comparative advantage, introduced by Adam Smith in 1770s (Smith, 1776) and elaborated on by David Ricardo half a century later<sup>6</sup> (Ricardo, 1817). In 1890, Alfred Marshall published the book *'Principles of Economics,'* which was probably the first reflections on cluster thinking ever put in writing.

In this book, Marshall presents considerations on specialized industrial localization and clusters. Marshall's concern was how economic activity was unevenly distributed. He highlighted how related companies have a tendency to settle in geographic proximity to each other and form industrial districts. By locating closely, the enterprises could mutually benefit from each other, forming industrial production systems of larger scales. Such proximity could contribute to innovations of technical and organizational character, as both cooperators and competitors could be kept close, producing unanticipated spillover effects. In Marshall's perspective, cooperation would drive knowledge creation and innovation, while competition would secure the industrial district. These dynamics would be beneficial to the whole system of companies, producing competitive advantage towards external competitors (Maskell & Kebir, 2005; Porter, 2000).

Innovation systems theories over the past decades have gained ground within economic and geographical research communities. Newlands (2003:521) argues that contemporary theories on innovation systems and clusters are more concerned with

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<sup>6</sup> The theory on comparative advantage refers to the ability of a party to produce a particular good or service at a lower marginal and opportunity cost over another.

collective action than the ones advocated by Marshall, and to a great degree neglect issues of competition. As new theories on innovation systems has been proposed, inconclusiveness among researchers on the theories and the relations between them has become more apparent. Various contemporary authors promote different contributions and actors, providing alternative sets of distinctions.

The theory on *National System of Innovation* (NIS) was introduced by Christopher Freeman and Bengt-Åke Lundvall in the end of the 1980s (Lundvall, 1985; Freeman, 1987). They highlighted how innovation relies upon the cooperation between a set of actors such as companies, knowledge organizations like universities, R&D-institutes, technology transfer agencies, business associations, and finance institutions. Freeman defined NIS as “*a network of institutions in the public and private sectors whose activities and interactions initiate, import, and diffuse new technologies*” (1987:1).

Edquist (1997:14) later elaborated the definition of NIS to include “*all important economic, social, political, organizational, institutional and other factors that influence the development, diffusion and use of innovations.*” Innovation systems were further categorized into national innovation systems, local innovation systems, regional innovation systems, technological innovation systems and sectoral innovation systems by various authors.

According to Cooke (1998:6) “*hierarchical ‘top-down’ management of economy and society*” has been “*in retreat, especially with respect to the question of industrial coordination.*” This has left room for new ways of organizing cooperation and

coordination among actors. Innovation system theory defines innovation and technology development to be a result of complex sets of relationships and interactions among actors in the system, and *“the relations between organizations and institutions are important for innovation and for the operation of Systems of Innovations”* (Edquist, 2005:197). A system of innovation consists of the elements and the relationships between them. An innovation system is a social system, and innovations are the result of social interaction between economic actors. Furthermore, an innovation system is an open system, in interaction with its environment (Lundvall, 1992).

Two somewhat different approaches to studying Innovation Systems were proposed by Lundvall (1992) and Nelson (1993) in the beginning of the 1990s. Lundvall's focus was on developing a theoretical alternative to neo-classical economics, and the basis for relations between actors within the innovation systems. In this respect, a key element is learning between dependent actors, emphasizing both the importance of science institutions and commercial actors. For instance Argyris & Schon (1978) focus on companies' capability of learning through a “double feedback loop,” which includes the ability to consider whether one is focusing on relevant issues, and taking advantage both of one's own and others' experience in a given situation. Such evolutionary theory also takes innovation and change effects into account. Relationships between companies has an inclusive and network like character, based on trust, custom and openness to learning. A critique of the neoclassical theory is that it fails to explain both why stakeholders choose satisficing as an alternative to optimal decisions, or why they get involved in networking or partnerships. Furthermore, uncertainty, conflicts and unexpected results are also phenomena that are not present in such theory (Cooke 1989;

Nelson 1995).

Comparatively, Nelson's concern was empirical case studies, with a main focus on national R&D studies. The structure of institutions such as universities, R&D, public organizations and business life is key to a country's value creation. The present culture, ways of organizing, regulations, as well as informal and formal norms all influence a company's ability to innovate and grow. Mariussen & Ørstavik (2005:22-23) notice that the institutional perspectives represented by Nelson have been the ones with the most influence:

*The idea that the institutional system in a country, the whole governmental pyramid, the public funding organizations as well as the research and innovation institutions and the cooperation and organizations within this system, is dependent for a country's ability to realize economic growth, is decisive for the development in a range of nations.*

Both Lundvall (1992) and Nelson (1993) emphasize that the focus on *national institutions* is not absolute. The innovation system is understood as a set of institutions and their relations. Whether the institutions are "*organizations*" or "*rules of the game*," such as norms and cultural accepted ways of acting and established practice, is not obvious. An important challenge in research on innovation systems is how to define the system and its surroundings (Edquist: 2005:183).

Authors like Asheim (2001), Isaksen (2000) and Cooke (2001, 2002) have further added to the idea of national innovation systems, presenting the *Regional Innovation System*

(RIS). As the national framework was replaced with a regional one, the focus shifted toward the region and the institutions and organizations in such a geographical unit. A main theme is their contributions to the development of new technology and an organization's ability to innovate.

*Triple Helix theory* was introduced by Etzkowitz in 1993, and further developed by Etzkowitz & Leyesdorff (1995, 2000), describing an institutionalization of collaboration between academia, industry and public government. They highlighted the role of the universities and research institutions in innovation enhancement. The theory represents a shift from an attention on industry-government relations and the industrial society, towards an attention on university-industry-government relations and the knowledge society.

In addition to placing the university in a more prominent role in relation to innovation, the Triple Helix theory is concerned with the collaborative relationship between the spheres of the university, industry and government. Innovation policy is regarded as an outcome of interaction between the three spheres. A third element is the introduction of 'new roles' of the institutions within all three spheres, which creates potential room for 'innovation in innovation.'

A key concept in Triple Helix theory is the entrepreneurial university, where involvement in socio-economic development is a central mission. This type of university is pro-active in developing and applying new knowledge and acts in accordance to an interactive model of innovation, rather than a linear one. From mainly

being regarded as a source of knowledge and human resources, the universities are also being considered as a key source for technology. While the universities develop their networks, companies increase their levels of technology and engage in competence development and knowledge sharing, which again strengthens technological development and interaction among the institutional spheres. Furthermore, the government has found a new role as a public entrepreneur and venture capitalist. Innovation can no longer be considered an 'in-house' task of companies, but now also involves networks of companies, in addition to government and universities, institutions which traditionally have had no direct role in these processes.

The role of universities in innovation enhancement has led to an emphasis on training students in entrepreneurship, and providing them with new ideas and skills. The scope of training is expanded and may offer opportunities for education in relation to incubation programmes, inter-disciplinary centres, science parks, spin-offs, incubators and venture capital companies. These recent developments have led to a re-orientation among the universities, which has inspired cooperation on research and forming of new companies among the Triple Helix partners. This again has shifted the role of the universities to become a source of regional economic development (Etzkowitz & Leyesdorff, 2000; The Triple Helix Research Group, 2013).

#### **4.2.2 Cluster Theory Under the Loop**

The perhaps most influential exponent of regional economics is Michael Porter. In 1990 he published the book "*The Competitive Advantage of Nations*," introducing industrial localization of business and cluster thinking as key concepts for strengthening a nation's

economy. It was further elaborated in a number of publications (see for instance Porter, 1995, 1998, 2000). Even if the cluster concept was not entirely new, Porter was the one to facilitate the grand export of clusters into the business strategy literature, not only promoting clusters as an analytical concept, but also introducing clustering as a key political tool (Martin & Sunley, 2003:6-7).

Cluster theory is a theory about how localization and company agglomeration may contribute to the competitiveness and success of an entire business field within a region.

Porter (2000:15) defines clusters as:

*Geographical concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g., universities, standards agencies, trade associations) in a particular field that compete but also cooperate.*

Along the lines of other contributions of innovation systems theory, cluster theory represents a shift in attention from state regulation towards a greater degree of self-regulation by key groups in the socio-economy (Cooke, 1998:10-11).

In searching for an understanding of where clusters can be found, Porter (2000:15) claims that the phenomena are present in practically all parts of the globe, in a variety of versions:

*Clusters, or critical masses of unusual competitive success in particular business areas, are a striking feature of virtually every national, regional, state and even metropolitan economy, especially in more advanced nations. The*

*geographic scope of clusters ranges from a region, a state, or even a single city to span nearby or neighboring countries.*

Many influential authors (see for instance Ohmae, 1995; Krugman, 1991) claim that globalization is increasing the importance of localization, rather than reducing it. This may be regarded as a paradox, as the introduction of new and improved technology has been thought to reduce the role of location. Companies benefiting from falling transport costs and trade barriers, may agglomerate with other firms within a geographically concentrated area. This in turn may lead to local innovation and productivity growth.

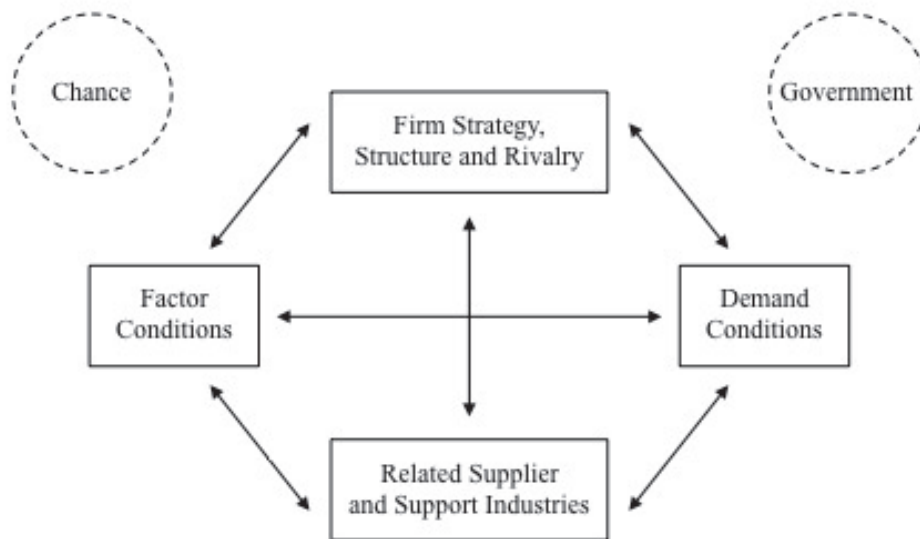
Michael Porter (1998, 2000) elaborates his cluster theory by presenting a model of a competitive advantage, focusing on key aspects of influence to a company's potential for competitiveness. The model is labeled the competitive diamond model (Porter, 1998) and comprises four elements influencing each other:

- *Factor conditions* can be divided into 'basic factors,' such as natural resources and unskilled labor, and 'advanced factors' such as highly competent labor. 'Advanced factors' are unique in a cluster and proves difficult to imitate for actors outside the cluster. Consequently, a nation should put a focus in maintaining such factors;
- *Demand conditions* are conditions reflecting the amount and sophistication of local demand, which again influence standards and innovation within a specific field;



- *Related and supporting industries* may take advantage of similar or identical technologies and develop cooperation which are both complementary, knowledge enhancing and cost effective;
- *Firm strategy, structure, and rivalry* constitute a fundament for stimulating to innovation and upgrading.

### Model 5.1 Michael Porters Competitive Diamond



In addition, the Government and chance play roles in a company's potential for competitiveness. The Government ensures equal conditions and competition within the various business areas. It influences the four main elements in the diamond, creating the best conditions possible. Chance is always an element present in any business. The best way to deal with chance is to develop flexibility in a business field.

The diamond-model shows how externalities play a pivotal part in the success of a company. Concentrated and advanced interactions between the factors in the diamond, also contribute to increased productivity of the involved actors. Companies pursue interests in an environment where actions are uncoordinated. Hence, the prosperity of clusters must be regarded as a “*combination of chance and the law of large numbers*” Steinle et al (2007:236-237).

Porter (2000) further highlights three factors important to the innovative capacity of a company. The first one is joint infrastructure for innovation, including various resources of research activity, education, regulation and public funding, available for companies to take advantage of. The second one is various conditions specific to the cluster. The final one is the quality of the relations between various present institutions and business life.

In sum, the potential success of a cluster is conditioned by two types of factors.

‘Hardware’ factors are related to the economy and market conditions. ‘Software’ factors are more time-dependent and relates to socio-cultural and institutional conditions, including information sharing, trust and entrepreneurial attitudes (Gertler 2004, in Mariussen & Ørstavik, 2005). The ‘hardware’ and ‘software’ factors play an equally important role in the cluster dynamic.

#### **4.2.2.1 Clusters and Networks**

Although rarely specifically emphasized, the cluster must be regarded as a version of a network. The original contributions from Porter (1998b:226) contain two key elements. First, the companies belonging to a cluster must have some kind of connections in the form of networks and social relationships, producing benefits for the companies involved. These connections can be both vertical, focusing on buying and selling, and horizontal, focusing for instance on complementary products and services, the use of similar specialized inputs, technologies or institutions, and other linkages. Secondly, the companies are in relative geographic proximity, increasing frequency of contact, as well as impact of interaction.

Consequently, the cluster can be regarded some kind of *network of businesses* with similar and/or competing interests. This view is supported by the Organization for Economic Cooperation and Development (OECD, 1999, 2007:27), which argues that although networks are not necessarily limited by geographic proximity, networks and networking seems to describe the essence of cluster theory. Hamdouch (2008) suggests that a cluster may consist of several layers of networks. It is reasonable to assume that some networks in a cluster will be formalized, while others are of a more informal character, but may overlap with the formal ones. (See Chapter 3, section 3.4.2 for distinctions on clusters in this dissertation).

#### **4.2.2.2 Clustering**

Clustering can be defined as the sum of activities targeting the development of a cluster, carried out by people present in the cluster. Clustering is both a tool and a strategy,

developed for promoting clusters. Activities are usually performed by public government or facilitator organizations, but include both R&D and private companies within the relevant industry. The goal is to ‘tie’ business and R&D communities closer together, to support them in greater performances in the long run. Clustering is a highly complex task, and there may be a lot of time between visible results.

Searching Porter’s cluster theory brings few concrete answers to what clusters actually do. Several succeeding contributions do however engage in the subject. Martin & Sunley (2003:24) identify four common tools or activities in clustering:

- (1) Creating cooperative networks and encouraging dialogue between companies and various organizations, in order to support information exchange, problem solving and sharing of resources (Lagendijk & Charles, 1999);
- (2) Develop collective marketing of special features of the industry and region in focus, in order to create awareness of its business strengths;
- (3) Develop local services for companies related to design, marketing and finance, targeted at the industry in focus; and
- (4) Identify weaknesses in the value chain of the cluster and work to strengthen and fill the gaps by attracting business and investors (Brown, 2000).

In addition to various kinds of engagement of actors and collective services, which are covered by the points above, OECD (2007-14) emphasizes the initiation of larger-scale collaborative R&D-projects, where more than one research institution/university cooperates with several companies. Although of great benefit to local and regional

economies, such measurements do not necessarily need to be linked to the cluster framework: “*There are many types of network policy that promote information sharing between firms which do not depend on a cluster framework and remit (see, for example, Cooke & Morgan, 1998)*” (Martin & Sunley, 2003:24).

#### **4.2.2.3 Clusters – A Recipe for Success?**

Although concrete activities for cluster enhancement is not part of Porter’s cluster theory, he identifies a set of factors which are common for successful cluster initiatives, which provides some indications to what is regarded important:

- (1) In order to create a competitive advantage, participants need communication and a shared understanding of competitiveness and the role of clusters. It is key that the focus of this understanding is targeted towards productivity and innovation rather than how to reduce taxes, wages or keep control with currency;
- (2) Cluster participants need an ongoing discussion and reinforcement of goals of the cooperation, with a focus on removing obstacles and easing constraints to cluster upgrading;
- (3) The structure should embrace all clusters in a nation or state, meaning that the government should not prioritize any specific initiatives, but strive to encourage traditional, emerging and even declining clusters and let them create and develop their own fundament;
- (4) Appropriate cluster boundaries means that the boundaries of the cluster should reflect natural linkages between participants based on economic reality and not ones set by political measurements or sector definitions;

(5) Wide involvement of cluster participants and associated institutions emphasize that companies of various sizes, as well as key constituencies should be included. Such inclusion prevents ‘difficult’ stakeholders from strong opposition. The initiatives should prioritize development with actors who are concerned with improving conditions for all stakeholders;

(6) Private sector leadership has a higher chance of success, compared to government-controlled activity. This does not exclude the possibility for active involvement by governments. A reason for this is that companies are closer to identifying key challenges and opportunities for the stakeholders. Porter (2000:30-32) writes:

*Letting the private sector lead also reduces the initiative’s political content while taking advantage of the private sector’s often superior implementation ability. (...) Cluster initiatives should be as nonpartisan as possible and should remain independent of any party or administration’s political agenda;*

(7) When speaking of close attention to personal leadership, the need for personal relationships and neutral facilitators for facilitating information sharing, communication and building of trust must be addressed;

(8) Results must be the main motivation of a cluster initiative, derived from a broad vision of the future and a plan for concrete actions. This requires a bias towards action, and entrepreneurial leadership and involvement of opinion leaders is encouraged; and

(9) As developing a cluster is a long-term project, institutionalization is required when it comes to both concept and relationships (Porter, 2000:30-32).

A complex set of factors is seemingly of importance for achieving success in clusters. The responsibility for the various factors seems to be distributed among different types of actors, ranging between public and private stakeholders, as well as between individuals, companies and governments. The opportunity to develop these aspects seems to require some kind of coordinating effort. In reality, such efforts encompass a wide set of challenges in terms of negotiating among participating actors, in order to ensure movements in the same directions. These issues have been touched upon less in the cluster literature.

#### **4.2.2.4 New and Additional Roles for Companies, Governments and Institutions**

One important aspect of the cluster thinking is that it challenges the roles of companies, various levels of government and other institutions in enhancing competitiveness. When addressing issues of competition and strategy, companies have traditionally been focused on what goes on *inside* the organization. The cluster understanding suggests that also the company's location and its close environment is crucial for business opportunities. If such an approach should be successful among private companies, additional agendas must be adapted by management. This further means that involved stakeholders need new types of dialogues.

The cluster has to be recognized, together with the company and the industry, as an important unit in the analysis of competition. Additionally the company needs to understand that location is important for the business environment, as its dynamic or lack thereof influence the company.

As for governments, cluster thinking demands both new focus and new roles for public agents. A priority should be on the micro level and on how to remove obstacles to the growth and upgrading of existing and emerging clusters. The clusters are important drivers for increasing export and attracting foreign investments. And as importantly, *“Clusters represent an important forum in which new types of dialogue can take place among companies, government agencies and institutions such as schools, universities and public utilities”* (Porter, 2000:16).

Cluster participants are rarely direct competitors. Presence in a cluster gives opportunities for coordination and development in fields of common concern. By focusing on clusters, companies engage themselves in broader efforts they would usually remain distant towards. The dialogue between the Triple Helix actors (see section 4.2.1) moves to more concrete levels, making it easier to take action.

#### **4.2.2.5 Defining Innovation**

The theory field of innovation is large and widespread. The word *innovation* originates from the Latin word *innovare* which means “to make something new” (Oddane, 2008:18). Joseph Schumpeter, an Austrian-American economist, argues that innovation is the critical dimension of economic change. He defines innovation in relation to five aspects (1934):

- (1) The introduction of a good (product), which is new to consumers, or one of higher quality than was available in the past;



- (2) Methods of production, which are new to a particular branch of industry. These are not necessarily based on new scientific discoveries and may have, for example, already been used in other industrial sectors;
- (3) The opening of new markets;
- (4) The use of new sources of supply; and
- (5) New forms of competition, that leads to the restructuring of an industry.

Schumpeter's definition has had a considerable influence on innovation understanding.

A more recent and widely used definition of innovation was proposed by the Organization for Economic Cooperation and Development (OECD) in 1981:

*Innovation consists of all those scientific, technical, commercial and financial steps necessary for the successful development and marketing of new or improved manufactured products, the commercial use of new or improved processes or equipment or the introduction of a new approach to a social service. R&D is only one of these steps.*

This definition highlights how innovation is relevant not only in a private economy and that there are several steps in the process of innovating.

Value creation and innovation are key words in cluster theory. Michael Porter (1998:45) defines innovation to:

*Include both improvements in technology and better methods or ways of doing things. It can be manifested in product changes, process changes, new approaches to marketing, new forms of distribution, and new concepts of*

*scope... [innovation] results as much from organizational learning as from formal R&D.*

Porter (1998:780) further emphasize that he regards innovation as “*a new way of doing things (termed an invention by some authors) that is commercialized. The process of innovation cannot be separated from a firm’s strategic and competitive context.*”

Porter’s definition is close to both Schumpeter’s (1934) and OECDs (1981) definitions on innovation. OECD and Porter indicate that innovation may also stem from more than the R&D department, and Porter adds that organizational learning is an important source. Further, ‘novelty’ is a key concept in both Schumpeter’s and Porter’s definitions. According to Goffin & Mitchell (2010:9) the ‘perception of newness’ is more valuable than originality itself.

The authors (opt. cit) identify that various definitions of innovation cover issues such as: *What* the change is about, which can be both product and process innovation; *How much* is changed, emphasizing that perceiving the idea as new is more important than perceiving it as original; *The source* of the change, arguing that innovation may take place outside the R&D environments and that for instance organizational learning can be innovation; and, *The influence* of a change, which for instance can be commercial or social. Consequently, Porter’s definition on innovation can be regarded wide, but within the frames of a modern understanding of the phenomenon.

Goffin & Mitchel (2010:2-5) are concerned with factors driving innovation:

*Technological advancement*, which is in a continuous acceleration; *Changing customers*

*and needs*, which alter the markets due to new demands; *Intensified competition*, due to new sources of competition, both related to geography and industry involvement; and, *Changing business environments*, due to a change in markets and openness in terms of regulation.

Comparatively, Oddane (2008:1) distinguishes between five characteristics influencing innovation: *Person, or individual characteristics* which influence knowledge and skills promoting innovation; *Conditions* like work-environmental factors which influence creativity; *Products*, which are the characteristics of innovation; *The process* which characterizes innovation; and, *Partnership*, which makes innovation a social, collective process. According to her, all five facets must be taken into consideration in order to understand innovation. Research on innovation often rests on only one or two facets, which leads to simplified perspectives on innovation.

It is highly complex to manage innovation and there are no easy 'solutions' for doing so. Ideas may be context bound to the environment it has been developed in, which means that changes must be made for adaption into new environments. Recent trends have expanded the focus of management from an attention towards cutting costs, creating lean processes and increasing efficiency towards an attention on developing new products and services. Consequently, continuous innovation is becoming a prerequisite, in a world where the life cycles of products are short (Goffin & Mitchel, 2010:5). Although a variety of researchers have investigated the subject, identifying the success for achieving innovation has proven impossible.

Three versions of expectations may be present when it comes to how increased innovation should occur in a cluster: Firstly, cooperation in a cluster could directly lead to innovative results. Secondly, cluster cooperation could contribute to encouraging innovation among its members, which then occurs between one or a few participants who have developed a relation as a result of the cluster cooperative efforts (Pålshaugen, 2011). Thirdly, cluster cooperation could contribute to encourage innovation, which in general leads to a higher awareness on innovation and trigger cooperative efforts at a regional level, but not necessarily linked to the cooperative effort or any of the companies involved directly. As the mechanisms of cluster cooperation's are difficult to measure, precise findings seem to be limited.

#### **4.2.3 Summarizing Innovation Systems Theories**

Innovation systems theories have all gained ground within economic and geographical research communities over the past two decades. Although cluster theory stands out as the single most influential innovation systems theory in research communities and among practitioners, the field also includes a wide set of related concepts such as knowledge and learning economy (Lundvall & Johnson, 1994), industrial districts (Piore & Sabel, 1984), the network society (Castells, 2000), the creative class (Florida, 2002), open innovation (Chesbrough, 2006) and so on. There are however a great deal of inconclusiveness among researchers on the theories and the relations between them. All in all, the labels are very much interlinked, and it is often difficult to distinguish one from another.

Arriving at a presentation of theories, there seems to be a striking correlation between analysis of innovation systems and analysis of clusters. The “*concepts are different,*” but in a more practical perspective, the differences should not be overestimated (Mariussen & Ørstavik, 2005:23-24; Norman, 2007:11). Highly generalized, Triple Helix theory is most concerned with the role of the university and research institutions, while the national and regional innovation systems (NIS/RIS) are more focused on the system of institutions in the field. Comparatively, cluster theory is concerned with company opportunity for economic enhancement, lacking perspectives on government involvement in the regional field.

The fuzzy boundary between the innovation systems theories sometimes creates confusion. Consequently, the lack of unity in the field must be regarded a key challenge. Integration of theories seems mostly to have been bypassed by scholars.<sup>7</sup>

Comparatively, various types of innovation systems theories seem to have been uncritically mixed together in the practical field. Either way, cluster theory has become a main driver in the theory and policy fields and its critiques will be presented in more detail in the following sections.

### **4.3 Critiques of Cluster Theory and its Responses**

Along with the increasing popularity of cluster thinking, critiques towards the literature and strategies have developed. Authors claim that the concept is seductive, but with a

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<sup>7</sup> A recent article by Ranga & Etzkowitz (2013) introduced an analytical framework of the Triple Helix System of Innovation. The purpose has been to apply to Triple Helix features into the format of innovation systems, in order to develop a systematic framework for the interaction between the institutional actors, widening the scope on knowledge flows.

range of problematic issues, related to concept, theory and empiric considerations (See for instance Held, 1996; Steiner, 1998). A large variety of analytical, theoretical and methodological approaches have been tested in the search for meaning. Some of the critiques are related to the cluster theory itself, and may also be relevant for the surrounding field of innovation systems. Other critiques are more related to what goes on in the practical field, meaning the strategic use of cluster theory in business and policy environments. In the following sections, some main critiques will be dealt with.

#### **4.3.1 A Multi-disciplinary Field**

As already touched upon, theories dealing with aspects of innovation systems are present in social science disciplines ranging from management, economics, business and strategy to sociology and social geography. In practice, this means that versions of cluster theory come in many disguises and with many names, making it almost pointless to label them. It is easy to become confused when trying to get an overview of the field. Many scholars characterize the field as “chaotic,” consisting of various traditions and contributions, as well as related theories. Hence, a unified understanding of clusters is not available (Maskell & Kebir, 2005).

Although different understandings are employed by different academics, some aspects are common. All theories have a joint focus on actors, processes and systems creating a dynamic business development and growth, and they include a variety of groups of actors and territorial levels. Further, learning, innovation and knowledge development, as well as the understanding of these processes as interactive and social, is present in most disciplines.

According to Maskell & Kebir (2005:1) many contributions on cluster theory seem to be more concerned with empirical findings than sorting out theoretical difficulties. The tendency to introduce novelty and slight changes, in addition to integrate concepts from related disciplines without considering tensions of theoretical and methodological art, creates challenges in the field. More than one theorist has critically tried to “tidy up” the theoretical landscape and build bridges between the various schools, without any univocal success.

Porter’s cluster theory seems to have the hegemony in policy making. Martin & Sunley (2003:17-18) argue that the cluster literature fails to adopt relevant and related literature fields, “*Not only are clusters one possible form of source of regional economic growth, they tend to be analyzed as if they are separate from wider processes of regional development.*” This ‘isolation’ of clusters in the theory field may be regarded a critique towards the theorists presenting the cluster theory, rather than a true state of the theory itself.

#### **4.3.1.1 Definitions**

The multi-discipline of cluster and innovation theories has influenced the lack of a unified theoretical framework, and produced a variety of definitions. An absence of precise definitions and solid specifications characterizes the field. Terms have been used differently by different theorists, referring to different things, and subsequently created conceptual and empirical confusion. (Maskell & Kebir, 2005:1; Edquist, 2005:3) Consequently, what a cluster really is can be hard to grasp.

Porter (1998b:226) claims that a cluster is a form of network, occurring within a geographical area, but fails to make a distinction between the notion of clusters and the notion of networks. He argues that:

*The appropriate definition of a cluster can differ in different locations, depending on the segments in which the member companies compete and the strategies they employ. (...) The boundaries of clusters continually evolve as new firms and industries emerge, established industries shrink and local institutions develop and change (2000:18).*

Porter (1998b:204) also emphasizes that the presence of clusters can be found in both centers and peripheries, and be of various sizes ranging from cities, regions, nations and even neighboring countries. As a result, identifying a cluster for research, even in broad manners, becomes a relatively challenging task. Accordingly, clusters vary over time and space, and will take different shapes accordingly.

Cluster definitions vary significantly in different texts. For instance, some have references to spatial boundaries, while others stress organizational and competitive borders rather than spatial ones. A key difficulty of cluster theory is to clearly define what boundaries are present, both in regards to industry and geography.

The necessity of interconnectedness between companies and institutions in the interrelated industries that comprise the cluster is also highlighted in cluster theory. However, what features are necessary when defining 'inter-industrial' is not clear. The connecting links are of both a horizontal and vertical character. The linkages produce



social relationships and networks of benefit for the companies involved. The companies of a cluster must be in geographic proximity of each other, as closeness encourages interaction and value-creation between the companies. Social relations are however hard to measure. How a researcher should measure linkages and spillovers, what strength is necessary to be included, or where the line between strong and weak ties should be drawn, is not defined in cluster theory (Martin & Sunley, 2003:10-11; Hamdouch, 2008:6).

A related problem is the informal character of the links between the companies and organizations. The informality is by many cluster theorists regarded as a reason for the efficiency and flexibility promoted in clusters, but is way more difficult to define. Formal modes of industrial collaborations are often motors to successful industry and innovation-focused networks. This does not rule out the necessity of informal relationships.

Questions concerning conditions for the emergence and evolution of clusters, what sectors, activities, level of industry aggregation or related industries should be included in analysis are all 'less clear' when it comes to cluster theory. Issues related to the strength of linkages and how economically specialized a concentration of companies have to be in order to constitute a cluster also remains undefined. Obviously, there are more questions to be answered. The cluster definition is vague (Fromhold-Eisebith & Eisebith, 2005), and Porter makes few distinctions in order to narrow the field down. Assumingly, the cluster concept is designed to fit universally, which somehow makes it even harder to make sense of it.

#### **4.3.1.2 Lack of Unified Methods**

Closely related to the fact that cluster theories are represented by a specter of academic disciplines, which all have presented their own definitions on the phenomenon, is the problem that there are no agreed upon methods for researching clusters. This is true both for the identification of a cluster and for defining its boundaries. This variety, as well as a persistent segregation among disciplines, further contributes to the diffuseness of the cluster field (Hamdouch, 2008:2-3). Apparently, the use of inadequate methodological approaches is also common. For instance is static research designs used to study dynamic processes (Malmberg & Maskell, 2001; Markusen, 2003).

A distinction goes between identifying a cluster with the attention of verifying its existence and analyzing the network relations within such constellations. In order to get a broader understanding of a cluster, multi-level analyses are suggested by Steinle et al (2007:240-243). This analysis would include a top-down perspective, identified by using a survey questionnaire, with the goal of obtaining an overview of the cluster as a whole. Secondly, a bottom-up perspective would be added, by choosing one or several firms for a more in-depth analysis. The authors argue that the multi-level analysis is a fruitful way for studying cluster phenomena in a broader manner.

Within different disciplines, there are different rules on how to construct objects for analysis and how theories can be constructed and re-proved. In the cluster debate, there is a distinction between the ones believing that a cluster should converge toward “the one best practice” and the ones believing that a competitive economy can build on “several good practices” (Mariussen & Ørstavik, 2005:7). Porter’s perspective is in line

with the latter, while several of his hardest opponents are closer to a methodological understanding searching for an approach closer to universalism. Theorists near the practical field argue in favor of a pragmatic approach, with theory development close to the empirical development.

#### **4.3.2 Proving the Claimed Mechanisms**

Clusters are claimed to raise productivity and increase innovation, as well as competitiveness, profitability and job creation. This increase is to be present in the participating companies, the geographical area where the cluster is located, and in the national economy. “*But what is the evidence for these claims?*” Martin & Sunley (2003:22) ask, concluding that the positive association between clustering and innovation lacks consistency.

Most empirical material is based on case studies, and the selection of cases seems to be quite biased, as the emphasis either lies on best cases in high-tech industries or on single case studies. Research validating the mechanisms proposed in cluster theory is lacking and there seems to be contradictory evidence in the present empirical research.

Some evidence seems to confirm that clustered companies tend to be more innovative than non-clustered ones (Molina-Morales & Martínez-Fernández, 2003). An investigation made by Raines (2000, 2001, 2002) on several European cases concludes that the cluster concept only have a limited influence on regional economic promotion policies, comparing it to results from general institutional and strategic environments (Benneworth & Henry, 2004; Markusen, 2003).

A more recent study made by Fitjar & Rodriguez-Pose (2011), covering more than 1600 companies in the Norwegian city regions, suggest that regional business cooperation has little or no effect on companies' ability to innovate. The number of regional partners has no influence on the innovation capacity of a company. Innovation results are however linked to a company's number of international partners. For each partner, the probability of value creation in a company is increased by twenty-one percent.

Regional change, both in a public and private character, may take decades. As a relatively new line of research the lack of coherent work might be explainable. Rigorous empirical testing presupposes certain simplifications in a relatively complex field, which in itself may be regarded dubious (Malmberg & Maskell, 2001). Maskell & Kebir (2005:13) summarize: *"(...) the role of policy in the development of cluster advantages can only be marginal, indirect and long-term. Results are measured in decades if measurable at all."*

#### **4.3.3 Summarizing Critiques of Cluster Theory**

The main critiques towards the cluster literature are quite closely related. Why are cluster theories so difficult to frame? The critiques concern the multiplicity of the field, leading to a variety of definitions and methods, as well as a failure to identify the claimed mechanisms of a cluster. As the features of the field of cluster theories includes a diverse set of definitions and methodological approaches, making it difficult or almost impossible to measure and compare various research results, a joint stand within research communities is difficult.

Cluster theory avoids explaining how clusters can be constructed, although the emergence of a strategy field has led to a flourishing of cluster strategies for developing cluster initiatives. As the mechanisms between clusters and innovation are not explained properly, the theory cannot explain why innovation as an output of cluster cooperation may fail. Research on the cluster field must be regarded as relatively immature, at least in respect to studying long-term results of structural development within regions. Subsequently, patience may be a requirement for more defining explanations and conclusions.

#### **4.4 Cluster Strategy**

*“It would be tempting to conclude that the notion of clusters has no real significance. Yet this is clearly at odds with the enormous policy popularity of the notion and the generous tolerance granted to the idea by a usually critical academic community,”* Martin & Sunley (2003:29) write. Clusters and its surrounding theoretical field have not only become an important concept in academia the past two decades. Both policy and business makers have taken an interest in the phenomena and increasingly developed (public) strategies to enhance features of clusters at regional, national and international levels.

Some scholars suggest that the spreading of the new versions of innovation and cluster theories came with great timing. It was a kind of “re-invention” of the regional level as crisis in mass production demanded new approaches to production (See for instance Whitford & Potter, 2007). This ‘solution’ was welcomed by the OECD, which already

in the end of the 1990s was eager to promote innovative growth combined with regionalism to its member countries.

During the turn of the century, the OECD published several documents (1999, 2001) presenting the ideas of clusters and national innovation systems, encouraging countries to use cluster thinking as a starting point for boosting national competitiveness. This led to a strategic focus on clusters, and to development of active cluster policies, pursued by a range of governments and international organizations (See for instance Sölvell et al., 2003). The goal was to boost national competitiveness, but the approach seems to have led to great varieties of outputs in recent years.

#### **4.4.1 The Extensive Applications of Cluster Theory – A Fad?**

Already one decade ago clusters were accused of being a worldwide fad targeting academics and policy makers. In the following years, cluster theory was promoted as an analytical concept and a policy tool simultaneously, aiming at international institutions as well as national and regional governmental levels. The interests mainly reached public actors, who were eager to identify success factors and instruments for enhancing the knowledge economy (Sölvell et al., 2003; Fromhold-Eisebith &Eisebith, 2005). The promotion of clusters was regarded as a cost-effective and convenient principle of organizing co-operative efforts across organizations (OECD, 2007:11).

The popularization of cluster theory seems to have been influenced by new alliances between research environments and industry, where consultancy services have incorporated theory into their strategies in order to target the policy field (Normann,

2007:39). Michael Porter has more than once been pictured as the big ‘crook’ of consultancy services by critical academics. A former consultant and Doctor in Philosophy, Matthew Stewart (2009:210) argues that the cluster theory is valuable as a framework, but not as a strategy. He claims that the framework by many business practitioners is regarded idealistic. Although helpful in providing useful reminders and structuring discussion, it cannot be expected to serve outputs within the variety of context present in the real world.

In addition to companies that potentially have experienced the participation in cluster cooperation as valuable, it seems like several groups have an agenda when it comes to clusters. As consultants and researchers are developing business on the popularization of clusters, policy makers are combining a strategy for putting innovation on the agenda with the application of cluster strategies as a useful tool for ‘doing something.’ Another group of actors with an obvious interest are cluster initiative facilitators, who are in search for continued funding of projects, despite the lack of evident outputs of cluster enhancement projects.

The primary intention of Porter’s cluster theory has been to explain the success of companies within a region or nation: The theory was mainly aimed at managers and stakeholders in the business community. Comparatively, other innovation systems’ approaches are more concerned with explaining the success of a region. Respectively, the cluster theory has a business orientation, while other innovation systems approaches are oriented towards public policy (Steinle et al, 2007: 240; Maskell & Kebir, 2005).

The considerations and evaluations of cluster strategies is usually linked to *a group* of

theoretical perspectives, with similar, but not necessarily the same outset. This potentially creates some perspectives on the opportunities and outcomes of clusters, which may not be rooted in the original theories.

#### **4.4.2 Versions of Cluster Initiatives**

Clusters have been used as a guide for developing economic policies, through relatively rough cluster ‘manuals’ of practical guidance (See for instance: Cluster Navigators Ltd., 2001; Rosenfeld, 2002) (Fromhold-Eisebith & Eisebith: 2005, 2008). The OECD (2007:12-14) distinguishes between three types of cluster programs: (1) *regional policy*, usually linked to ‘lagging regions’, but also initiatives originating in other policies which have incorporated regional development dimensions; (2) *science & technology policy*, promoting collaborative R&D in the most promising technology sectors; and (3) *industrial/enterprise policy*, focusing on drivers on growth or the needs of the SMEs.

All three policy areas seems to have moved its focus from a top-down, single-sector approach towards policies that favor cooperative, multi-actor approaches, usually more place-oriented. Most programs in the OECD countries are oriented towards several policy streams, implicitly or explicitly. Innovation has also become a policy goal beyond the science & technology field. Overall it does appear that the level of funding for the majority of these programs is relatively modest, although it may be used to leverage additional funding sources.



The cluster works as an umbrella-notion for a wider variety of initiatives, with different outset and different objectives. There are even initiatives which are considered clusters, which do not identify with or hold the label. Fromhold-Eisebith & Eisebith (2005:1242, 1254) distinguish between *explicit cluster initiatives* and *implicit cluster initiatives* for cluster promotion. The explicit form is a top-down approach, implemented, financed and directed by authorities. The implicit form, which is a bottom-up approach, refers to the cluster idea “indirectly” and is organized and financed by groups of companies. The authors (op. cit) emphasize that drawing a line between the two can be challenging. “*Cluster promotion*” demands an involvement from private stakeholders in “*activating, designing and implementing public efforts.*” Private stakeholders rarely seem to implement cluster efforts without “*some encouragement, small participation or (...) acceptance from public actors.*”

The strategy attention clusters have received over the past decade usually implies one out of three versions. The first one involves support of and/or some kind of intervention with already existing cluster initiatives which have developed naturally, for instance the ‘Italian districts’ in the Northern part of Italy. The second version involves initiation of a cluster initiative in business and R&D environments that are already present and strong, but need assistance to develop further. This has been a common practice in the Norwegian context. A third version involves initiation of cluster initiatives without any previously established or successful business or R&D environments. This type is present in some Asian countries that have experienced industrialization in recent years (Koschatzky & Lo, 2007:6).

According to OECD (2007:14) several instruments are taken into advantage when handling cluster enhancement: *Engagement of actors* includes issues such as the role of facilitators, the level and type of interaction desired, the existence of formal cluster initiatives and spatial considerations of the clusters; *Collective services* includes business advice, skill development or joint marketing, the consideration is how to target services in a way that does not substitute for private provision; *Larger-scale collaborative R&D* involves more than one research institution or university in co-operation with several firms, which often taps into external R&D funding sources and programs. The cluster goes through maturity phases and what instruments are activated, depend on what phase the cluster is in.

#### **4.4.3 Implications of Cluster Strategies as it Stands Today**

Many authors fail to be specific about the distinction between descriptive and normative aspects of clusters. This has been a somewhat confusing aspect when navigating in the innovation systems theories. It is important to make clear divisions between the cluster as a phenomenon (theoretical approach) and the cluster or clustering as an activity (strategy approach). In effect, the lack of clear distinction between the theorizing and strategizing of clusters and innovation theories has contributed to a further blurring of the field.

The challenges addressed when it comes to cluster theory to a great extent seem to be addressed within the strategies as well, ranging from multiple perspective, slightly different attentions, confusion on approaches, to over-simplifications and lack of reflective evaluations. The inflation in the use of strategies among public policy-

holders has produced a fast-moving field, but not necessarily in the same direction or any viable results. Different nations seem to rely on a great variety of approaches (OECD, 2007) and many cluster supporters argue that the approach to clusters must take local differences in social, economic, legal and cultural conditions into account when developing clusters (Newlands, 2003:530).

Differences in understanding drive the field. Cluster theory was introduced and popularized by Michal Porter, with an American approach. His intention was to present a theory with attention on the company and its opportunities to take advantage of externalities in increasing its competitiveness. Subsequently, cluster theory has in particular been adapted by a European environment and turned into strategies, strongly encouraged by the EU and the OECD. These versions are in addition influenced by theories on regional development and opportunities for economic enhancement at a macro level. The cluster concept is still in focus, but it seems like the application of the theory and its transformation into cluster strategy, largely moves attention from the company's meso level to the regional macro level. In reality this leads to somewhat different considerations, which in turn leads to different approaches and goals.

All in all, considerations, approaches and goals may often overlap in interactions between involved stakeholders, but this is no guarantee. A company's meso-level considerations are related to a business focus, while the regions macro level attention is more related to policy thinking. This introduces (at least) two different cultures of interaction, with related, but not completely equal goals. This dynamic will be further dealt with in the analysis.

The theories of clusters and innovation are complex and it takes time to grasp what they are all about. Clusters have on many occasions been presented as a miracle medicine for regional development. Lack of reflections combined with an extensive use of the cluster notion may have been of provocation to leading critiques of clusters. In some respect, there has also been a misuse of cluster thinking both in policy and business contexts.

A key challenge is the lack of robust measurement tools for evaluation, both related to the performance of a cluster initiative and evaluations of the impact of a particular policy intervention. In their evaluative efforts, OECDs report on Competitive Regional Clusters from 2007 (15-16, 138) emphasizes three key lessons: First, there must be an essential logic to why the cluster, as a policy tool, should be selected in favor of other policy tools, in particular the ones which are accessible to all types of companies. Secondly, there must be coherence between policies across and within government levels. As policies originate in several policy streams and at various levels of government, an overall knowledge and understanding of other present policies is necessary. Attitudes tending towards cooperation and correlation between policies are also of key importance. This point touches upon the findings in this study and will be further dealt with in the Chapters 6-9 on analysis and conclusion. Finally, there is always a risk for insufficient private sector engagement in cluster initiatives. It is important to make sure that public sector involvement is somewhat limited and that the plan for public sector withdrawal is realistic. Contributing to cooperation between private actors does not guarantee a continued success.

In 2008 Fromhold-Eisebith & Eisebith pointed to the lack of good evaluations of cluster

initiatives. Accordingly, empirical evaluations of the effects of cluster initiatives are rarely published. Six years later, this is still a challenge. Outcomes are hard to measure, as it is difficult to know exactly what to measure, what to include and what to leave out, and whether the subjects of measurements really have to do with the phenomenon in focus (the cluster). The complexity of such measurements are very high and at the same time debatable. Innovation and value creation are slow processes, and structural improvements within a region may not lead to results on short term. As the implementation of cluster initiatives is relatively new, evaluations may still be somewhat premature.

#### **4.5 Conclusion**

The past two decades there has been a development from solely observing cluster initiatives as a part of theory forming to creating public strategies for intervention and support. Matthew Stewart writes:

*Most successful strategies emerge through action; they become perspicuous only in hindsight. And this play-it-by-ear kind of strategy making does not result necessarily from a lack of foresight; it often stems from a healthy recognition that the world is generally too complex for our simple plans (2009:210).*

Cluster theory has been exposed to heavy critiques. Some of the critique deals with theoretical fundamentals such as the lack of clear definitions, the lack of clear boundaries, no unification when it comes to the use of methods and the lack of significant results proving that there is a link between cluster presence and higher

degrees of innovativeness. The debate has been heated for a long time. Yet, the theory on clusters has continued to gain ground, in a translated form of strategies for governments and business developers.

The purpose of the *cluster theory* was originally to show a positive link between a firm's ability to innovate and its presence and strategic involvement with competitors and cooperators within a geographically proximate region. Such involvement could benefit all parties. In addition to the advantages of the individual companies, joint engagement between actors within a region could contribute to economic prosperity and competitiveness towards other regions within similar business environments.

The purpose of *cluster strategy* has developed into something a little bit more, or even a little bit different. The cluster strategy is not developed with the outset from a single company. The cluster strategy concerns itself with multiple companies and organizations located within a region, but with the overall attention on regional development. This means that the strategic attention mainly is on contributing to innovation on a *regional* level, rather than the *organizational* or company level.

There are many dimensions of interest, both when it comes to cluster theory and cluster strategy. This study's concern is with why cluster initiatives fail to produce the expected innovative outputs and the consequences of the 'inflation' of cluster strategy. The OECD's report on Competitive Regional Clusters from 2007 (15-16) makes a note on how the escalations in cluster strategies across governance agencies and levels, potentially can contribute to inter-agency rivalries, but does not dwell on it. The case

presented in this study reveals a field where politics and rivalry both among inter-agencies and cluster initiatives are present. The next chapter will present theories on power, politics and organizational behavior. These theories will contribute to an increased understanding of the practical field of clusters and serve as tools for the analysis. The chapter will also present the research questions in focus, as well as the model applied for analysis.





## Chapter 5 – Politics and Organizational Theory

### 5.1 Introduction

In this chapter, theoretical tools and perspectives relevant for the analysis of the case in this study are provided. The main focus is how to understand a cluster initiative when concerned with issues of power and politics. The presentation of theory is followed by an outline of the analytical model developed for this study, as well as the proposition of research questions.

The chapter is organized into five parts. The first part of the chapter presents *network theory*, which is important to understanding clusters and provides insight into all research questions. Networks can be regarded the main shape of a cluster, in addition to a main ‘tool’ used for enhancing cluster cooperation. When dealing with clusters, the divergences in understandings and goals must be taken into account. Politics, power and political features of clusters are major themes in this study, concretized into an emphasis on interests, perceptions, conflicts, strategies and power play. The second part of the chapter covers theory to answer research question number one, which may help explain key *features* of actors in clusters. The theoretical contributions are *interests* and *perceptions*.

The third part of the chapter deals with the theory of importance to research question two, which may help explain types of *behavior* in clusters. The theoretical contributions are *conflicts*, *strategies* and *power play*. The fourth part of this chapter presents a contribution in organization theory, distinguishing two ideal types of organizations: *the*

*action organization* and *the talk organization*. The two ideal types represent highly different versions of thinking and acting in organizational life, and both versions may be present within the same organization. In this study the ideal types are applied into a cluster and network understanding, moving across organizational boundaries. The final part of the chapter is a presentation of the analytical model, which provides a fundament for proposing the research questions to be answered in this study.

## **5.2 Understanding Clusters as Networks**

The following sections present theories on networks. As touched upon in the previous chapter, networks can be regarded as the main form of a cluster, in addition to being a ‘tool’ used for enhancing cluster cooperation. Consequently, network theory is of importance for understanding clusters and provides insight in the fundament of the analysis.

### **5.2.1 A Form of Governance Network?**

The popularization of cluster theories has led to an increase in cluster strategies.

Networks are key tools for cluster development strategies, in the implementation of formal cluster initiatives, and as a form of interaction between actors of informal cluster arenas. Similar to cluster theory, versions of network theory are present in a variety of academic disciplines, such as social anthropology, sociology, geography, psychology and management theory. The various versions of network theory also seem to lack cross-disciplinary reference (Borgatti et al, 2009:893-893; Freeman, 2004, 2011:26-27).

Networks may take many forms and shapes. Jason Owen-Smith (2013) makes a (practical) distinction between (1) *social networks among individuals*, such as friendship, advice-seeking, romantic connections and acquaintanceship; (2) *formal, contractual relationships among organizations*, such as strategic alliances, buyer-supplier contracts, joint ventures, etc; (3) *“informal” inter-organizational relationships*, which flows through people, such as director interlocks, employer mobility, social networks that cross organizational boundaries; and (4) *affiliations, or shared memberships*, suggesting some kind of connection, such as trade associations, committee memberships and co-authorships. Owen-Smith further emphasizes three key mechanisms, presenting networks as: (a) *channels for information and resources*; (b) *status signaling and certification*; and/or (c) *social influence*. He argues that some types of networks invite to more strategic manipulation than others, making them more useful to social and political players.

Owen-Smith’s distinctions provide a general overview of how networks are perceived. Versions of social relationships, formal and contractual relationships, and informal inter-organizational relationships and affiliations may all overlap each other in clusters. The cluster may also be relevant for information- and resource channels, as well as for signaling status or social influence.

Håkansson & Johanson (1998) argue that networks have structures of governance, providing a link between theories on Industrial Network and theories on Governance and Policy Networks. These networks have some kind of link to public government, and hold important features of politics related to issues of conflicts, power and perceptions.

Kickert et al. (1997) provides valuable contributions relevant for understanding network dynamics and issues of power and politics. Their attention lies mainly in how complex networks could be managed, defining policy networks as “*(more or less) stable patterns of social relations between interdependent actors, which take shape around policy problems and/or policy programs*” (1997:6). The focus is on the way networks influence making and implementation of public policy, through the collective action of inter-organizational, corporate actors. Policy networks form the context in which policy processes take place. In policy science, policy networks represent an attempt to analyze the relationship between context and process in policy making.

The actors in policy networks can be various public and private individuals, coalitions, bureaus or organizations. Neither is regarded superior or is in a position to determine other actors' strategies. In the network, the actors cooperate or deal with versions of non-cooperation. Usually the participants have different and quite often conflicting interests, strategies and rationalities. Goals are not set in advance, but are developed as the result of exchanges of information and trade-offs. In order for a policy to be successful some kind of collective action must be realized.

According to Klijn (1997:31-32) three features are important in order to understand networks. First of all, changing interdependencies are a prerequisite for networks. Secondly, individual actors of networks have their own goals. Finally, relations between actors within a network are of a more or less lasting nature. The policy processes related to networks are complex and of an unpredictable character. Many actors are involved

and their preferences may change during interaction. This leads to a variety of strategies and goals and unpredictability in outcomes and realistic targets.

Participation in networks must be oriented towards an understanding of collective actions. The actors in networks interact and participate in games related to their interests in order to achieve goals. Previous strategies of operating individually must be replaced by strategies of contingency, where action is oriented towards other actors' behavior. The idea is to achieve win-win situations for participating, addressed as "converting zero-sum into zero-plus games."

Potential downsides of joint action are costs related to decision-making in the form of money, time and energy spent on interaction. Further, joint action usually means that certain compromises have to be made, causing external political costs. The sum of costs determines whether actors are willing to participate. Even if cooperation is in the interest of actors, theories on collective action and games claims that interaction situations have a structure which usually keeps actors to their non-cooperative strategies (Kickert & Koppenjan, 1997:40-41).

### **Implications of Networks to Clusters**

'Innovation' has become a key word in public policy the past two decades. The emphasis is on how to strategically support economic growth by the support and development of clusters. As clusters have the form and characteristics of networks, key features of the cluster can be recognized in the theories presented on networks and public policy.

The Governance and Policy Network literature offers key insights into the understanding of power and political dynamics, rarely dealt with in literature on cluster theory. Understanding a network as a governance structure provides an opportunity to go more thoroughly in to aspects of power and politics present in and around networks. A key point is the reflexive relationship between the network and its surroundings. Changes may come about inside a network, but may as well be a result of external forces. The fundamental nature cluster theory is its concern with the company and its environment, focusing on how the two may take advantage of each other. When it comes to change, governance theories are concerned with both cooperation and non-cooperation. As a result of different and sometimes conflicting interests and strategies, goals are developed and traded. Joint action leading to innovation is the focus of the cluster, but is not always the main concern of the actors involved. This may create issues of trust and difficulties with realizing the proposed joint goals.

Various interests and perspectives are shaped by the actors' status, ambitions, knowledge and history. The relationship between collective and individual interest and action is an important dynamic in networks. Håkansson & Johanson (1998) claim varieties between actors means that they cannot be seen as a joint force, even if they are influenced by each other. This ever-changing nature creates a dynamic between stability and change in the network, which creates opportunities to increase power for the actors involved.

Comparing policy networks and governance with clusters, the key focus of cluster actors is not on policy-making, but on business development, economic enhancement

and innovation. Yet, a cluster initiative might have ‘policy influence’ on its agenda, to strengthen conditions for economic development and innovation. In the following sections, literature on interests and perceptions will be dealt with, covering key *features* of importance both for understanding and participating in cluster cooperative efforts.

### **5.3 Key Features of Clusters**

Power in organizations is a theme engaging a variety of academics, especially in the fields of political science and sociology. Cluster arenas are mainly concerned with business development and innovation. Still, they are very much influenced by (organizational) politics and ways of behavior. Morgan (2006) has created an image of the organization as a political system. He is concerned with *interests*, *conflicts* and *power play*, all relevant issues in cluster arenas.

Klijn & Teisman (1997:98) argue that policy-making processes cannot be controlled by any single actor. They identify four concepts for analyzing the policy-making process: First, an outcome depends on the strategic behavior of all the actors involved, which creates *a game*. Secondly, actors choose game *strategies* that seem rational in the context of the game they are in. They are based on the perceptions actors have of the game and the important choices that are to be made in it. Several games may develop simultaneously. Third, *perceptions* are constructed by actors and are inspired by the environment they are in. Finally, the network represents the *environment* in which a policy making process takes place.

The analytical model in this study takes into account the combined reflections of Klijn & Teisman (1997), who are concerned with governance networks, and Morgan (2006), who is concerned with politics in organization. In analyzing power and politics, the application of interests, perceptions, conflict, strategy and power play provides a theoretical fundament for analysis. The following sections touch upon literature of importance to understand with *key features* of cluster initiative, related to power and politics. The theory contributions in focus are interests and perceptions.

### **5.3.1 Interests**

‘Interests’ means “*predispositions embracing goals, values, desires, expectations, and other orientations and inclinations that lead a person to act in one way rather than another*” (Morgan, 2006:157). One way of understanding interest in organizational politics is to investigate a person’s domains related to organizational tasks, career and personal life. Organizational tasks have to do with the work a person has to perform. A job also includes work life aspirations, visions for the future and independent career interests. Personal life includes personality and private attitudes, as well as values, preferences, beliefs and various kinds of commitments not related to a person’s work (extramural interests). This personal life also contributes to how people engage when it comes to tasks and career.

An executive is ‘trapped’ between a set of different interests he or she wants to pursue. The tension between these interests makes the executive’s act ‘political’ even before taking into account other organizational members. How people orientate when it comes to these interests and tensions depends on the situations and the people involved. This



means that it might be possible to observe various styles of behavior related to these situations. The styles of behavior reflect a person's preferences when it comes to dedication to organizational tasks, career and/or personal life. Identifying a person's agenda underlying specific actions and activities consequently provides an important tool.

Organizations are often regarded as rational and focused toward a common goal. Investigating organizations as political units provides a set of goggles which reveals that organizations can be fragmented and made up of coalitions, as well as representing a coalition toward its environment. Coalition building is a key dimension in almost all organizations.

A distinction is sometimes made between cliques becoming aware of common goals and coalitions of two or more cliques who unite to pursue a joint interest, often working against a rival network. Pursuing one's interests can be done as an individual, through specific interest groups or through a more general coalition. It is common that a dominant coalition controls important areas of policy within organizations. Usually, such coalitions are connected to key actors and/or management of the organization. The participants pay some kind of price in order to be a part of the coalition and needs to balance this out with the potential rewards by being a part of it. The balance is often influenced by factors such as age, organizational position, time spent in the organization, values and attitudes (Pfeffer, 1981; Culbert & McDonough, 1980; Morgan, 2006:157-162).

### **Implication of Interests to Clusters**

Clusters are composed of various actors, who represent their respective organizations, but who also have careers to take into consideration, as well as various types of private interests. These three fields influence how the actor behaves. To complicate things further, active stakeholders in clusters may have additional goals related to the cluster initiative itself. Various actors rank various interests differently. Sometimes interest-fields compete and form ambiguous interests. As all actors have a set of interests they wish to pursue, on their own and on their companies behalf, as well as potentially on behalf of a cluster initiative, cluster environments will always be inherently political. Quite commonly, actors will form alliances with others who share their interests. Even if the interests of the cluster initiative seem to be united, a closer look may reveal a political environment, and topics competing for priority. In the following part, perceptions are presented, which may be influenced by interests.

### **5.3.2 Perceptions**

According to Termeer & Koppenjan (1997:79) the blocking of a policy process may not only be caused by conflicts of interests or power relations, but also by actors' perceptions of the situation. Perceptions consist of an actors' definition of the surrounding world. This is the sum of problem definitions, images of surrounding actors, the nature of dependency of others, others' dependency of the actor in focus, as well as to the advantages and disadvantages of cooperating. Perceptions are stable and difficult to change, but mutual adjustment is needed in order to achieve joint decision-making, conflict solving or action.

Processes of problem solving can be frustrated by the existence of diverging or conflicting perceptions about the relevant problem, the best solutions and which actors should participate. Actors may disagree on goals and means, but also on the nature of disagreement. Sometimes policy processes become ‘dialogue of the deaf’ where participants don’t reflect on their arguments, but continue to repeat them and talk at cross-purposes.

Perspectives on perceptions vary in the scientific community. A classic approach looks for the ‘best perception’ and argues that there is one true reality, existing independently of and outside the subjectivity of an observer. Perceptions, resources, problems and solutions are all variables in the process of policy making. There are cognitive processes and a true, real, but changing world. Right perceptions reflect the right and true reality, while wrong perceptions do not. An alternative approach, with a more relativistic fundament, which is more in line with the perspectives in this study (see Chapter 3, section 3.2), claims that actors construct their own worlds. In this approach, even ‘impersonal’ or ‘objective’ forces, such as socio-demographic or economic change, have to be interpreted.

Actors are surrounded by complex and ambiguous worlds. A perception is an image that helps an actor to make sense of these worlds, find strategies for action and develop problem definitions. A problem definition can be defined as an interpretation of the gap between the present or expected situation and a desired situation, and the instrumental relations between both (Dunn, 1981). The perception of the problem determines the theme of the interaction, the appropriate solutions and who will be involved.

Perceptions can be applied to problem definitions, but also causal assumptions and basic values. Basic values refer to a fundamental belief system defining a person's underlying identity. The basic values are quite resistant to change. In addition there is an 'outer' policy core, consisting of basic strategies and policy positions, as well as secondary aspects, which consists of a multitude of instrumental decisions. The outer core and the secondary aspects are more easily changed (Sabatier, 1988:139).

Perceptions originate in social interactions, where the perceptions are constructed and reconstructed. People usually prefer to interact with others who share their perceptions and their engagement in interactions depending on the perceptions they have. The interaction again influences the perception of the reality and the construction of it. Changes of perceptions are rare, because people keep interacting with shared perception holders, which again lead to a reaffirmation of perceptions.

The stable interaction leads to social configurations of groups of actors with similar patterns and perceptions (Weick, 1979:35). Sometimes a social configuration can coincide with formal institutional arrangements and policy networks, but usually there is more than one configuration present. As a consequence, problem solving within a network or institution quite possibly will involve actors from different configurations, with different and potentially conflicting perspectives. In order to solve conflicts, perceptions originating in different configurations must be adjusted, if not, policy controversies might evolve.

In order to change perceptions actors must be confronted. But not all confrontations lead to change. A fundament for change must be the actors' recognition of varieties of perceptions, and experience of any problems this causes and an interest in, as well as an ability to reflect on one's own perceptions (Termeer & Koppenjan, 1997:80-85).

### **Implication of Perceptions to Clusters**

The construction of reality is a necessary part of the play going on between actors in a cluster environment. The fundamental understanding in this dissertation coincides with a more relativistic understanding of reality, where actors both consciously and unconsciously construct their own worlds and interpret their surroundings. In the field of a cluster, a myriad of actors, events, challenges and facts must be taken into account at the same time. As the field usually is complex, actors often have to deal with brackets of information quickly, and may have to make decisions or take action without any full certainty. In such cases, perceptions come in quite handy. The environment of the informal cluster is a part of everyday life for most actors and will influence perceptions of the field almost imperceptibly.

Versions of interpretations of what goes on in a cluster are not always tested against each other. Post-rationalization and constructions of a desired reality are relatively common traits in such environments. Moreover, individual actors may have more than one interest, which are not always mutually coherent. This reduces opportunities to predict the future.

A challenge in the cluster arenas may be that the involved actors are not always aware of the existence of different perceptions, and fail to investigate versions of understandings before acting on behalf of a larger group. This may lead to issues of trust and also conflict. As the strategic field of clusters in the real world is relatively new, the framework for and understanding of cooperation is not completely set and may cause additional challenges.

In the previous sections, theories on interests and perceptions have been outlined. They deal with key *features* of clusters in terms of power and politics. In the following sections, theories on political- and power oriented *behavior* will be presented, characterizing actions of actors in clusters.

## **5.4 Behavior in Clusters**

Features of politics such as interests and perceptions influence the behavior in clusters. Theories on conflict, strategy development and power play outline types of *behavior* present in cluster cooperation, of which is important for understanding its dynamic.

### **5.4.1 Conflict**

Conflict usually occurs with divergent interests. According to Dahrendorf (1959:135), conflict concerns itself with divergence in goals, arguing that individuals who possess incompatible objectives, or a desire to obtain something which is not available to all, will lead to relations of social conflict. A further clarification, made by Schmidt &

Kochan (1972:361) is that the *perception* of incompatibility in goals is a precondition for conflict (Pfeffer, 1981:74-75).

Looking at conditions for using power, Pfeffer (1981:68-69) identifies four potential sources to conflicts: *Interdependence* means that the happenings of one organizational actor affect the happenings of others. This ties the organizational participants together, as they share consequences and also provides a potential fundament for conflict; *Inconsistent* or *heterogeneous goals* may lead to different paths among interdependent actors; *Scarcity of resources* may lead power games and investment in efforts to resolve a decision; and, *Heterogeneous beliefs about technology* may produce conflict. All conditions *may* produce conflict, but does not necessarily lead to political activity. This depends on the importance of the decision issue or resource and on the distribution of power.

General level goal statements are a common tool to avoid disagreements, conflict and political activity in organizations. The object is to find the smallest denominator in order for all actors to agree on a joint goal. A consequence of the vagueness of goals is the blurring of organizational actions. Operative goals are necessary in order to secure action (Etzioni, 1964). The agreement on general goals may secure the absence of conflict on a general level, but move actual conflicts closer to where the operative goals are acted out. This move can potentially moderate the intensity of the conflict and have an integrative effect on participants.

Even if interdependence between actors, goal differences or varieties in perceptions of technology is present, these factors are not sufficient for developing conflicts that result in power and political behavior. Scarcity of resources is a necessary precondition.

Schmidt and Kochan (1972:363, see Pfeffer, 1981:75, 79) argue that shared resources are one of the precursors to conflict. Political struggle occurs only when the resources are in short supply, as the incentives to engage increase.

In order to analyze a conflict, it is necessary to understand the features of a specific conflict. Conflicts may occur between people, organizations or rival groups of coalitions. Sometimes conflicts are built into organizational structures, roles, attitudes or stereotypes. Bachrach & Baratz (1970) differ between overt and covert conflicts, and stress that the conflict must be observable. Lukes (2005:28) offers an additional dimension to this perspective, and argues that also latent conflict is of interest when studying power. Latent conflict occurs when there is a contradiction between the interests of those exercising power and the real interests of the ones they exclude.

Organizational politics have the potential of becoming a highly complex affair. Personalities and personality clashes have a great potential for bringing conflict to life. Conflicts can be explicit and visible to the surroundings, or hidden but still influencing daily life in an organization. It is not uncommon that organizational members have concealed agendas, which may influence their ways of acting. Disputes may have roots in organizational history, but influencing present decisions and actions, even without actors being able to identify them. Sometimes conflicts can even be institutionalized within the organization, influencing attitudes, stereotypes, values, beliefs, rituals, and



other aspects of organizational culture, and creating huge challenges for breaking them down. Hence, the present can be shaped by history in subtle ways. To get beneath the surface in conflicting situations, the sources of politics and diversity of interests must be investigated (Morgan, 2006:165-166).

Conflicts in the context of an organization have usually been regarded as dysfunctional and caused by some regrettable circumstances or causes. In more favorable circumstances, conflict would disappear. Pondy (1967, 1969) proposes an alternative view, regarding conflict as a natural condition, which should be accepted, as avoidance is impossible. He further argues in favor of a positive and functional attitude towards conflict, claiming that conflict may stimulate innovation and adaptability and be constructive.

Burns (1961) argues that modern organizations are designed for simultaneously handling competition and collaboration, indirectly encouraging organizational politics. Even if people are working towards a common task, they are often competing for limited resources, status and career advancement. For instance, hierarchical organizations represent both a system of cooperation and a career ladder to motivate peoples' advancement.

### **Implications of Conflicts to Clusters**

Conflict is not a major topic in cluster theory (Porter, 1990). In the field, conflicts in clusters are a common experience. In clusters many types of actors are present. Some are interrelated in one way or another, and most will have one or several goals they

operate towards, which will be in competition with or incompatible with the goals of other actors present at the arena. Scarcity of resources is usually also a challenge, and can range from limited amounts of people and financing to time available for various activities, for example.

In formal cluster initiatives it is common to formulate a joint goal among participating actors. Both in theory and in practice the overall goal is innovation. This means that innovation is expected to be an outcome of joint interaction. Usually the goal is somewhat more specific, but in the outset of an initiative, this is not always the case. Conflicts related to the execution of activities and more operative goals, will potentially occur, especially since limited resources are a common challenge. Another case that may evolve in to some kind of conflict is the variety of expectations of the actors involved. For instance, business- and action-oriented actors will demand more solid and apparent outcome, compared to more political- and talk-oriented actors.

Conflicts in clusters may become relatively complex. In addition to perspectives on approaches and directions, clusters are ideal places for actors who wish to play out personality conflicts. These conflicts are often visible and loud, and relate to the idea of overt and observable conflicts. At the same time, there are usually 'silent' and less visible conflicts ongoing in the field, which may be covert towards the surroundings. Previous encounters, not necessarily linked to any cluster cooperation, may influence the actors' perception and trust and lead to certain ways of acting. Latent conflicts may also be present in cluster environments, as not all actors are invited to participate or have an opportunity to influence.

When perceiving a cluster as a place for action and progress, conflict may seem highly dysfunctional. Actors with business- and action-oriented perspectives will often try to avoid conflict and be concerned with how to perceive the desired action.

Comparatively, actors with more political- and talk-oriented perspectives may regard a conflict as a way to play out certain issues that are not resolved. In the latter perspective, conflict is a natural part of a process and may propose new opportunities within an environment. In certain theories, the idea of conflict leading to innovation stands strong. Yet, conflicts may be destructive in cluster cooperation, preventing a focus on innovation, and therefore opportunities for value creation. The nature of a conflict determines opportunities for cooperation on innovation.

According to Porter (2000), cooperation and competition both have important functions of clusters. This leads to an assumption that clusters are designed to deal with both. Porter does however avoid perspectives on governmental influence, and conflicts playing out among public actors. In Burns' (1961) perspective, the duality of cooperation and competition will encourage some kind of political behavior, as resources are scarce. Compared to organizations, cluster cooperation is however not hierarchically organized, and actors' motivation for achieving some kind of joint advancement is not necessarily the case. In the following section, strategy development for achieving actors' goals in a political environment will be presented.

#### **5.4.2 Strategy**

A common strategy made for exercising power is focused on making the use of less obtrusive power. This may legitimize and rationalize the decision that is to be made and

put focus on decision process, decision outcomes and power and influence itself (Pfeffer, 1981:137). A distinction goes between the analysis of behavior as an instrument for reaching a goal and behavior in terms of its strategic characteristics. Klijn & Teisman (1997:101-102) are mainly concerned with the latter. They define a strategy as “*the set of decisions taken by one actor which reflects the combination of resources and targets they bring into play.*” Three strategies for coordination within networks can be identified: *Corporate strategy coordination* is realized by formal rules, a central authority and collective goals; *Alliances* are realized by negotiation and mutual agreements; and *Mutual adjustment* is realized by the prevailing of autonomous goals and mutual influences.

According to the policy network approach, policy processes are highly interactive and take place in institutional contexts. Therefore, institutional factors must be taken into account when dealing with management of networks. Factors might be interdependencies between actors, their relationships, the rules that guide their interactions and so on. Management strategies should be concerned with two types of strategies. One type for directly influencing the interaction processes, labeled *game management*, and one type for influencing the institutional context, structure and culture of a network, labeled *network structuring*. The latter one may improve conditions for cooperation indirectly, and be of great importance. Independent of management strategy, questions on content, players, their strategies and the institutional arrangements have to be considered.

The steering of interaction processes in the form of *game management* may involve a series of activities. First of all, *network activation* involves initiating interaction processes or games for goal achievement or problem solving. When it comes to activating the actors occupying ‘nodal positions,’ who gets involved and who doesn’t is an important issue. The invited ‘nodes’ must be willing to invest time and resources in to the issues in focus. At the same time, the actors who are not invited must bear to be on the sidelines.

Secondly, *arranging* is a key task. In order to solve problems jointly, actors need to participate in games. A risk in cooperation is to be exposed for free-riders or actors who pull out prematurely. If these risks are reduced, cooperation is easier. One way to achieve reduced risk is to arrange some kind of agreement, contract or joint venture, to regulate interaction. The arrangement should for instance provide regulating mechanisms to handle conflict. Game management potentially invites facilitators to facilitate interaction processes through ad hoc arrangements, directed towards supporting particular games. It is important to make a distinction between *arranging* and *network structuring*, which has permanent modifications in focus, through influencing the structure of a network.

*Brokerage* or matching of problems, solutions and actors involves someone taking the role of a ‘broker’ or intermediary in order to manage a network. Policy processes have become increasingly fragmented. Problems, solutions and participation seem to develop independently of each other and must be brought together. The broker takes advantage of the diversity of ideas, insights and solutions available in a network, which would not

be mobilized without the brokers help. This makes the role of the broker important, but potentially conflicting.

*Facilitation* of interaction is related to creating conditions for a successful development of a consensus building. The network manager must act as a facilitator or process manager, including a vast number of procedural activities. In order to foster conditions for consensus building, the facilitator may employ techniques, such as organizing workshops, conducting surveys, organizing brainstorming sessions, initiating role play and promoting collective image building (Susskind & Cruikshank, 1987:154). These activities contribute towards increasing an understanding of the issues at stake, the diversity of ideas, the ability to appreciate each other's viewpoint and the dedication to joint problem solving.

The difference between facilitation and *mediation* and *arbitration* is that the latter is implemented at a time when conflict is present and the process of interaction is locked. The parties involved are responsible for researching a particular outcome. The mediator is not involved in the conflict and should not have any ties to the involved parties. Arbitration involves a third party who intervenes and imposes a solution if conflict cannot be handled.

*Network structuring* can be regarded as a kind of institutionalization process. If the existing network is not able to handle problems, a modification of the network might be a solution.

According to Sharpf (1978:363) the structure of an organization rarely corresponds ideally to its task. Therefore, he does not recommend reorganization, as they usually are time-consuming and expensive. Structuring a network is challenging. While some scholars have more faith in the use of networks for influence, others are more concerned with the management of networks as a way of mobilizing and bringing conflict up to the surface. Existing networks may be disrupted by new coalitions or issue networks, which may change balance within the network (Kickert & Koppenjan, 1997:44-53, Klijn & Teisman, 1997:105).

### **Implications of Strategies to Clusters**

Both explicit and more implicit strategies are developed in a cluster arena. Some strategies will be focused on a joint approach, while others will be targeted more toward achieving some kind of individual goals. The latter ones will usually not be explicitly communicated toward the surroundings.

When it comes to game management, all pointers as presented by Kickert & Koppenjan (1997) may be present in the cluster arenas. *Activating* networks through some kind of interaction process is a common strategy for achieving a goal. When it comes to formalized cluster cooperation, usually network activation is carried out by (public) facilitator organizations. This is however not always the case, and it is considered a great advantage if actors in a 'nodal position' facilitate the cooperation. *Arranging* seems to be a kind of extension of activating a network, where more articulated agreements are made, but targeted towards a certain goal rather than towards structuring a network.

A *brokerage* may become necessary during a cluster development process. This may happen in both formalized and informal cluster arenas. Who takes this role, and whether it leads to successful results without increased levels of conflict, vary by case. Further, *facilitation* is key for the actors of cluster arenas to participate. Most actors are limited by hectic schedules and need structure and relevant information for active involvement. Good facilitation is however not a sufficient condition for involvement, and the engagement and capacity needed by a facilitator in order to get an overview of the field in focus is not always present.

In a situation where conflict occurs, *mediation or arbitration* is usually needed in order to solve an issue. This is highly relevant in the case of clusters, where conflict occurs between more or less seemingly voluntary and independent actors. As some actors may have an interest in keeping a conflict alive, this might be a challenging task. As in brokerage, *who* takes the role as mediator and arbitrator is not irrelevant. In clusters, the same actors may occur as both brokers, facilitators and mediators, which may create a blurring of roles and trust issues toward surroundings.

Network structuring can relate mainly to the formalized cluster arenas. As pointed out by Kickert & Koppenjan (1997:53) networks, or in this case formal cluster initiatives, may bring conflict up to the surface. Furthermore, the fact that one network or formal cluster arena might disrupt or be disrupted by the environment may rebalance the whole field. In the following section power play and games are presented as key processes of networks.



### 5.4.3 Power Play

The process of policy-making can be analyzed as if it were a game. A game is defined as:

*an ongoing, sequential chain of (strategic) actions between different players (actors), governed by the players' perceptions and by existing formal and informal rules, which develop around issues or decision in which the actors are interested* (Klijn & Teisman, 1997:99, 101).

The result of a game comes from the sum of strategies and interactions of the actors involved. The game is continuously changing, as both players and their strategies evolve. The strategies are formed by the perceptions of the involved actors, who construct their realities and contribute to the dynamics of the game.

Actors' perceptions are constructed within the institutional characteristics of the network. They encounter each other in more than one game, which means that strategies in one game can be influenced by other games involving the same network. In this sense, the relation patterns that have developed within the network over time (as a result of a series of interaction) influence both strategies and game outcomes.

Klijn & Teisman (1997:90-91, 100) emphasize that there has been little attention paid to the context of the game. According to them, analysis should focus on identifying the games, the players and their perceptions and interests. In addition there is a need to focus on potential coalitions and if there are compromises made in the game.

Games are not played at random. Winning the game is a main objective. The rules structuring the game can be formal or informal and involves interactive decision-making. The game is activated when ‘new’ challenges are brought up and action is called upon. When the issues in focus are no longer important, a game ends. Sometimes game players lose interest, as other issues become more pressing or if the opportunities to win the game are low. Consequently, the managers of networks must make sure to choose the right games, in addition to acting in accordance with the game (Lynn, 1981:144-145).

When operating within settings with multiple actors, there is a varying degree of freedom and flexibility of action. It is commonly assumed that involved actors will try to constrain each other, while keeping as much freedom as possible for themselves. Actors may extend the present freedom by developing strategies that fit within the context of the game. The resources that are divided between several actors are used to balance power in games. The games contain uncertainty, which cannot be controlled by any individual actor, but partly be influenced by a group of actors. Consequently, this uncertainty can be seen as a resource.

As similar or the same types of games are carried out repeatedly, the actors’ relations develop patterns that reflect the games (Giddens, 1979, 1984). This leads to constantly (re)producing of the network, through changes in the concrete games. Over time, actors develop expectations on other actors’ behavior, which also influences further interactions. In concrete games, the actors try to identify what rules are appropriate in the current situation and what resources can be used to reach their goals, participate in

current situations or even create new ones. To what extent actors in games are concerned with other actors' strategies, or the structure of the networks and games that they are involved in, and whether the actions of different actors are interconnected will probably vary.

Consequences of interactions and games are not always possible to anticipate. Neither the consequences of future strategic actions or reviews of former ones can be acknowledged or recognized in current and future actions. This leads to uncertainties about consequences and the impact of actors' behavior. Often, the goal of an actor participating in the game is defined or redefined during interaction.

Actors construct ideas on what the game involves during the interaction process (Guba, 1990; Van Twist & Termeer, 1991). Hence, the perceived realities of the actors become important, mediating between a complex reality and behavior. As noted, perceptions are relatively stable, but may develop during interaction and confrontations. This may lead to certain changes in the policy outcomes. Interactions sometimes cause major changes in the perceptions of actors, termed 'a paradigmatic change' (Rein & Schön, 1986). If paradigmatic changes occur, it leads to substantial changes in policies.

Four sources of changes in perceptions can be identified. First of all, changes may occur due to interactions within a game, or in allied games that are played simultaneously. Secondly, the entrance of new players into the game introduces other perceptions and can cause changes in game interactions and patterns. Thirdly, perceptions can be changed by the (un)foreseen consequences of former games which bring about a change

in the game situation and subsequently lead actors to interpret their situation differently. Finally, the consequences of other games outside the network can change perceptions and patterns within the network. Thus, the games within the housing policy network can be influenced by games in for example infrastructure networks (Klijn & Teisman, 1997:100-104).

### **Implications of Power Play to Clusters**

As for policy networks, clusters are influenced by games. The games take place between actors within formal cluster initiatives and between actors or formalized cluster initiatives and the surroundings. As a result, it is not always easy to distinguish who is really a part of the game strategy or controversy. Some decisions are joint, some are individual and some are just blockings of others strategies.

In clusters, the context of the game seems to be of great importance, as it influences what moves are possible to make. Compromises may be present, but not all actions will be known or visible to the involved actors. Rules in formal cluster initiatives might be formalized, but do not need to be. In informal cluster arenas, rules are rarely a topic. Norms will however be present in both places, but do not need to be shared by all stakeholders involved.

Problems are continuously debated among the actors present in clusters. Debates on problems can start off games. When the problem in focus is no longer important, the game is regarded as finalized. Sometimes actors lose interest in the game, for instance when there are difficult to achieve results or when other games seem to be of greater

importance. As there will always be new topics or games to be involved in, what games to choose to invest time and resources in is a continuous challenge, both for the facilitators in cluster arenas, and for all actors involved. Furthermore, all games involve uncertainty, which is not possible to control at an individual level. Sometimes, games can be influenced by a group of actors, as for instance a formal cluster initiative, where actors are coordinated. The uncertainty related to such games can be a resource, but will always bring about challenges.

Similar or the same types of games are carried out repeatedly, and actors develop patterns that reflect the games. This contributes to the reproduction of the cluster initiatives, as a consequence of changes in the concrete games. Actors in clusters also grow expectations on how other actors will behave, influencing the interaction and strategies made for the future. Some actors will develop strategies dependent on anticipations of how other actors may come to act, and make assumptions on whether other actors are interconnected. Sometimes, the perceptions on the interconnectedness of different actions and actors mean that conspiracy theories may flourish in the cluster environments. However, not all actors perceive their presence and actions in a cluster arena as part of one or more games.

Consequences of games in clusters are difficult to anticipate, and there are will always be uncertainties connected to action. This calls for continuous improvisation, and may also alter the actors' understandings of what their goals are. The game is sometimes bigger or has a different fit than the respective cluster, involving issues of relevance to

other kinds of participants. This again leads to challenges in orientation and expectations of the future.

In the previous sections, theories on conflict, strategy and power play have been presented, which are key *behaviors* in networks and organizations. In the following sections, theories on types of organizational focus will be outlined. These theories are of relevance to looking into *consequences of features and behavior* among actors in clusters.

### **5.5 Organizational Attention - Implications for Clusters**

In organizational theory, organizations are sometimes regarded as networks. Networks share important features with the organization. This makes organizational theory potentially relevant when looking into characteristics of networks and consequently also characteristics of clusters. In understanding networks and organizations, a distinction can be drawn between an orientation towards action and business versus an orientation towards talk and politics. According to Brunsson (1989), each represents two ideal types of organizational focus.

Action and business are features that are often put in relation to the private sphere. Comparatively, talk and politics are often put in relation to a public sphere. These distinctions are not mutually exclusive and organizations may contain elements from both kinds of features. In clusters, actors from both public and private environments occur. This means that action/business- and talk/politics-orientation are present

simultaneously. The cluster becomes a meeting place for great varieties in culture, and may potentially produce challenges in understandings and approaches to goals. In the following sections, a theory on ideal types of organizations are presented, outlining issues of *consequence* for cluster cooperation and subsequently also for achieving the expected outcomes of such cooperation.

### **5.5.1 Institutional Environments and Inconsistency**

Collective action is often regarded as the main function of an organization. This means that organizations are usually evaluated on their ability to act and produce some kind of product. There are however organizations that rarely generate coordinated action or develop products, but are still accepted by their environments. In fact, some organizations are less interested in nor even know what they are producing. Relevant examples can for instance be schools or universities.

Conditions for coordinated action efficiently may change faster than the fashions in organizational development. The consequence may be that the institutional norms of an organization are out of step with the organization's requirements for action. If this is the case, a dual set of organizational structures are developed, consequently targeting either institutional or action-oriented norms. The institutional norms represent the formal organization and are often presented in organizational charts. The action-oriented norms represent the informal organization, how things are done in 'reality' and are rarely available in written form.

As a consequence, the organizational processes are divided into ones that generate action and ones that do not, but only the latter remain on display toward the environment. Two façades are developed, one internally and one externally. This can be labeled ‘double standards’ or ‘double talk.’ An example is when the goals of the organization are presented differently to the outside world than to the workforce. Consequently, those on the inside of the organization and those on the outside get divergent ideas on how the organization should be understood and managed.

A division in understanding is often present between various professional groups within the organization. It is common that organizations put great emphasis into avoidance of exposing conflicting norms and demands. Alternatively they might put an emphasis on the norms and demands shared by relevant groups. Some organizations develop an alternative approach, emphasizing and reflecting its inconsistencies in order to gain support, legitimacy and resources. This is for instance common for public organizations such as parliaments or multi-party organizations. Such organizations work to satisfy several environments, exposing their inconsistencies, while often still expected to produce some kind of organized action.

For a greater understanding of an organization’s special features, both the features and the processes creating them must be investigated. It is key to understand how organizations and their members present themselves internally and externally, and to what extent there is a gap in this presentation. Failure to act may create issues of legitimacy towards the surroundings. Both actions and perceptions of the actions must



be researched in order to understand behavior and specific circumstances of action (Brunsson, 1989:4-14).

### **Implications of Institutional Inconsistencies to Clusters**

The cluster is, as presented by Porter (1990, 1998), fundamentally concerned with collective action, although individual actors and organizations may have additional agendas. The goal of collective action is growth and innovation, both at an organizational and a regional level. As there are no easy recipes for innovation, what actually comes out of cluster cooperation is relatively uncertain.

The communicated goal of a formal cluster initiative, both internally and externally, is some kind of innovation enhancement. The understanding on how this should be approached varies. Outcomes of such cooperative initiatives may not be as visible or grand as expected. As a result, the legitimacy of the initiative may decline, both among its members and toward the surroundings. This may however not necessarily happen. The unity among the members is usually 'less set' and the understanding of the goal among them will diverge, both due to the expectations of the cluster initiative, and due to the actual outcomes produced. Following this, a kind of 'double standard' may emerge, as two organizational structures are developed and applied to different actors simultaneously, one expecting action while the other does not.

Brunsson (1998) distinguishes between two ideal types of organizations. One promotes action, while the other promotes politics. In the coming sections, the two ideal types

will be presented, potentially promoting some key aspects also present in cluster cooperation.

### **5.5.2 The Action Organization: Agreements as a Principle**

Organizations structured in order to deal with action are concerned with how to avoid conflict. Situations with conflict should be resolved as soon as possible. Goals and purposes should be shared, both when it comes to recruitment and in terms of the organization's ongoing work. The organizational hierarchy helps conflict solving, as the ones in charge decide on what is 'right,' what should be done and by whom, and by this process generates organized action.

Similarly, a strong organizational ideology, where members possess the same ideas and values, helps with structuring and making sure that actors operate in an organized manner. Sometimes rules are less helpful in solving situations in a variable and unpredictable environment, and a more abstracted ideology might be necessary. A strong ideology can make it obvious what action should be taken, and put less emphasis on alternatives. The organizations devoted to action usually have strong and conclusive ideologies, with high degrees of consistency, meaning that there is coherence between what is said and done.

Action organizations are pragmatic and more focused on solutions than problems. Suppression of conflict is common when the ideology is strong. Quite often, the perspectives of people within such organizations conflict extensively with the perspectives from the outside. As confidence of an organization affects its capacity for

action, and the insider is dependent on generating some kind of action, the insider cannot develop skeptical and critical perspectives to the same extent as an outsider. The action organization cultivates unitary perspectives about itself and the environment, but is not necessarily regarded rational. Its goal is to create enthusiasm, and it does not deal well with criticism. In action organizations, the processes of decision- and action-making are usually short (Brunsson, 1989:15-19).

### **Implications of the Action Organization to Clusters**

The action organization is close to what can be perceived ideal of a formalized cluster initiative, as presented in public strategies and in actual efforts. The expectation is that the cluster is focused on innovation as a relatively clear outcome of cooperation.

Subsequently some kind of action is needed to achieve it. Organization and rules in clusters are rarely well developed, and there might be a range of conflicting goals and purposes among actors. Action organizations are less equipped for dealing with conflicting and unpredictable environments. Larger and informal cluster environments operate without any agreed upon regulations. This is usually also the case for more formalized cluster initiatives. Although equipped to handle conflict, this may not create ideal environments for developing cooperation on innovation.

### **5.5.3 The Political Organization: Structure as a Principle**

The opposite of the action organization is the political organization. 'Politics' are used to describe when different groups with diverging interests interact with one another in various bargaining or blackmailing processes. Various groups exchange resources and power in order to maintain their own interests. The political organization is legitimized

by reflecting inconsistent norms, ideas and demands, and has no need to produce coordinated action. By reflecting inconsistencies, it satisfies the expectations of diverse groups in its environment, who then provide support. Structures and processes are demonstrated to the organization's environment in order to demonstrate its ability to attend to its inconsistent demands.

A fundament for the political organization is conflict. Member's attachment to the organization is rooted in differences in perspectives on what the organization should do. Usually the members are representatives of various groups in the organization's environment, while management usually reflects various groups internally. The goal of the political organization is to maintain conflicts, both to legitimize itself and its members. As the tendency to become and think more alike is common inside organizations, this is an important and challenging task. A tool to maintain differences is to develop several organizational ideologies, reflecting a complex environment with inconsistent ideas. The conflicts of the organization must be demonstrated to the outside world in order to keep the organization's legitimacy. The members often view themselves primarily as representatives of interest groups or organizations with single ideologies (for instance political parties), rather than as representatives of the political organization.

Mistrust and skepticism is accepted in the political organization. According to Brunsson (1989:24) *"freedom of thought can be greater when it does not have to be subjected to the demands of common action. It is difficult simultaneously to promote free, visionary and innovative thinking and free, visionary and innovative action."* The political

organization embraces several ideologies and is prepared to understand the complex and ever-changing world. It is however more concerned with problems rather than solutions.

Outputs of political organizations can be talk, decisions or physical products. Outputs can be used to reflect inconsistent norms in the environment, or in talk and decision. Inconsistency is a natural and expected output of the political organization, both between and within in the separate areas of outputs, talk and products. Hypocrisy is a fundamental type of behavior in the political organization, where talk may satisfy one demand, a decision may satisfy another and supplying a product may satisfy a third. As action takes place in the present, while talk and decisions are about the future, the latter are sometimes exploited as a compensation for the absence of productions or products favoring other interests. This may not necessarily be a conscious tactic by the involved parties, who might just have inconsistent values, interests and ideas. While inconsistencies in talk are related to variations in interests of involved parties, inconsistencies in decisions and productions are often a result of compromises. Inconsistencies may arise between the various outputs (Brunsson, 1989:19-29).

### **Implications of the Political Organization to Clusters**

The political organization is concerned with diverging interests and is used to dealing with inconsistencies in terms of norms, ideas and demands. Talk is more important than action in such organization. The political organization is used to conflict and may even embrace it, as it reflects its variety. Conflicts are maintained in order to legitimize the existence of the organization and its members, and several ideologies are developed simultaneously. The members often represent other organizations or interest groups and

regard themselves as representatives for these views toward the political organization. This perspective works well with the nature of clusters, where the actors represent themselves and/or some organization. The representatives hold very little loyalty to the cluster, but use it as an arena to achieve their own, and not necessarily joint goals. Mistrust is common, as actors over time have learned that other actors are strategic players, and so they adapt and change in order to survive. As the political organization's output may be talk or decisions, and not necessarily products, the expectations of their outcomes is quite different to an action organization.

The mandate of a cluster initiative is innovation enhancement. They are in essence supposed to be less concerned with politics, conflicts and inconsistencies and more with action and visible results. Clusters are composed of a mix of public and private actors and become arenas where politics- and talk-oriented and business- and action-oriented cultures are brought together. Public and private actors usually have different perceptions of goals, as well as on approaches to processes and acceptable outcomes. In this sense, time might become a factor. While political oriented actors can deal with and identify conflicts, talk and issues of institutionalization are in their perspective a natural part of a development process. Comparatively, business oriented actors easily become impatient and expect faster and more tangible results. In itself, this culture clash may potentially create conflict.

Quite often cluster initiatives are managed by public actors, which in nature are more oriented towards political organizational culture. A formalized cluster initiative is supposed to be a unit, someone joining forces in order to achieve innovation. At the

same time, the ones joining forces are expected to compete in order to achieve result. This duality is a complex, if not impossible task, and may definitely create some kind of hypocrisy for the actors involved. The subjects of politics and conflict of cluster cooperation are rarely dealt with in the academic literature or in strategic documents, but are highly present in practical efforts.

#### **5.5.4 Organizations – Business and Politics**

Organizational action can be linked to coordination, integration and uniformity and promote organizational structures, processes and outputs. Comparatively, organizational politics reflects inconsistencies and disintegration. Brunsson (1989:32) argues that theories about the political organization in nature conflict with theories on organizing for action. However, in order to understand the organizations in practice, both make out necessary contributions.

Traditionally, public organizations such as governments are familiar with building legitimacy around a mix of action and politics. In comparison, business organizations are mainly concerned with action. Politics and inconsistency are becoming an increasingly important skill also for companies, a point made by both Brunsson (1989:33) and Porter (2000). Porter claims that companies must understand themselves in the context of their environments, and take other companies and the government into account when making decisions.

Political behavior is usually quite difficult to disguise from interested observers.

Explanations related to how such behavior contributes to external support are mainly

related to results (e.g. functional explanations) rather than to behavior (e.g. causal explanations). Surviving organizations are likely to have a certain measure of conflict, depression and hypocrisy. A causal explanation might be combined with the functional, assuming that individuals believe that 'political' measures will ensure the survival of the organization, that the opportunity to do so is present and that actors intend to do so in favor of pursuing more personal interests. This creates a strategic explanation. Not all causal explanations need to be strategic. Most organizational members place their organization close to the action ideal model, while political nature seldom is understood. Subsequently, if only one or a few people behave in order to help their own or some external group's situation, this contributes to an unintended influence of the behavior of the organization as a whole (Brunsson, 1989:38-41).

*Features and behavior* of power and politics influence opportunities in the cluster field. In this chapter theory on interests, perceptions, conflict, strategy development and power play have been presented, outlining key concerns in cluster cooperation. This outline was followed by a presentation of two ideal models of organizations, in which each represents logic that is brought together in clusters. In sum, the theories presented provide a fundament for looking into consequences of cluster cooperation and lead to answering and concluding on the main research question. In the following sections, the proposed research questions and the analytical model of this study is proposed, providing a key framework for the research.



## 5.6 Analytical Model and Research Questions

According to Michael Porter (1990, 1998), increased productivity and innovation is an outcome of clusters. This assumption has led to the initiation of public cluster strategies, whose main goal is to enhance innovation by active engagement in cluster development. Data from the case in focus - the CI1, as well as observations from other cluster initiatives, made over the past decade, suggest that innovation as an outcome of initiated cluster cooperation rarely is case.

Porter (1998:45) defines innovation “*to include both improvements in technology and better methods or ways of doing things. It can be manifested in product changes, process changes, new approaches to marketing, new forms of distribution, and new concepts of scope.*” This can be regarded a relatively wide, but currently relevant definition. In this study, a second premise has for practical purposes been added: The output must be regarded an innovation by the involved actors in the cluster initiative in order to qualify as innovation.

This study seeks to show why innovation is fundamentally difficult to achieve in initiated cluster cooperation, using the following interlinked observations and arguments:

- Actors in clusters come from both public and private environments. They have a variety of goals, interests and perceptions. This leads to a ‘clash of cultures’ that challenges the focus on innovation. This can be labeled *the feature argument*;

- The mix of interest and perceptions among actors in clusters further leads to conflicting behaviors, strategies and games, resulting in issues of trust, which challenges the focus on innovation. This can be labeled *the behavior argument*;
- The process of developing a cluster while taking *the features and behavior* of actors in to account is underestimated. Although both business/action and politics/talk oriented actors are involved, talk/politics seems to dominate cluster cooperation, which creates issues of legitimization and challenges the focus on innovation. This can be labeled *the politics argument*.

These arguments suggest that the clusters have some features that may challenge the opportunities for achieving innovation as a result of cluster cooperation. Subsequently, the main research question proposed in this study is:

***Why does cluster cooperation seldom result in innovation?***

The main research question rests on two premises. The first one is that there has been a development and popularization of cluster and innovation theories the past two decades. The second one is that this popularization has led to the development of both public and private cluster strategies for innovation enhancement. In other words, these cluster strategies are present both at governmental and organizational levels. This means that clusters are promoted toward the audiences of research, business and government strategists, either in the form of extended business opportunities or in the form of overall regional development.

In a European context, over the past two decades innovation has entered the stage of public awareness, with an emphasis on how to achieve and support development processes with strategic efforts. The term 'cluster' is used on two types of regional arenas for interaction, information sharing and debates. This creates confusion in theory and the practical field. The cluster strategies have led to the initiation of *formalized cluster initiatives*, which are arenas actively used as tools in regional development. The larger and *informal cluster arena* usually provides a fundament for the formal cluster initiatives, and has emerged more naturally over time. Both are in the shape of some kind of network.

The *initiated, formalized cluster initiative* is a smaller type of network constellation that is usually developed into some kind of organization. The formalized cluster consists of representatives from the target business or businesses and R&D. It is however often initiated, facilitated and/or financed by or with support from public governments. These cluster initiatives are definable through a formalized member-base. Who is involved will vary depending on the actual focus, who is admitted, who is interested, etc. Ideally, these formal arenas should be driven by business stakeholders, who increase their legitimacy through knowing the field and its challenges. More commonly, they are initiated and 'held up' by some kind of institution or public government organ, which usually is the case for Norwegian cluster arenas.

The goals of these formal cluster initiatives are usually relatively precise and targeted toward the interests of the members, concerned with concrete cooperation among the involved members and steps for taking action when it comes to innovation cooperation.

Consequently, the formal cluster arenas are expected to deal with some kind of issues of innovation, business development, with a focus on action.

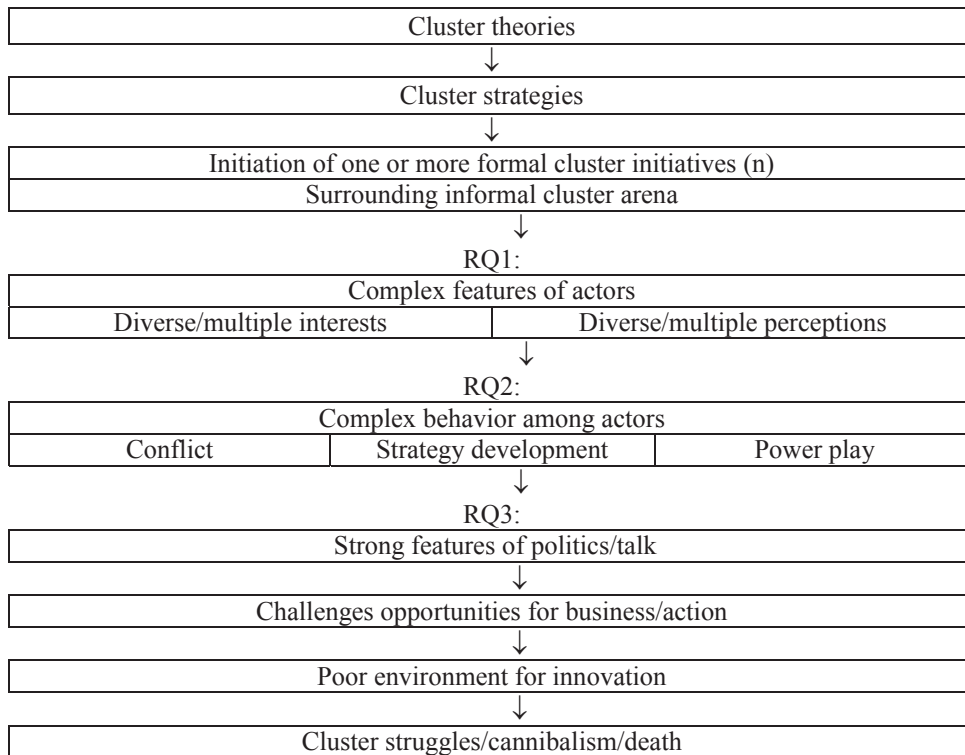
The *informal cluster arena* is a larger arena, a network of interconnected actors, surrounding one or more formal cluster initiatives. This arena is not initiated, but has naturally grown into its state. It relates to a business field and its surroundings, and includes the sum of public and private actors involved in the field, as well as the various formal cluster arenas that may be present. Due to its fluctuating features, it is more difficult to define and delineate who are the representatives in this arena. The informal cluster arena becomes important, as there is a need for conversations related to innovation and cluster development and how the field should be organized. As a result, this arena is more concerned with structural problems of regional development and the politics of innovation.

Innovation enhancement is the main goal of cluster strategizing. A more precise distinction between the goals of the actors involved in clusters can be made: Business organizations focus mainly on meso level considerations or *business development* aspects, while the governmental focus is mainly on macro level considerations or *regional development*.

The research rests on a working hypothesis suggesting that power and politics in and around clusters deflects the original focus of the cluster. This leads to competition and rivalry among the actors present. In order to answer the main research questions, the following analytical model has been proposed, explaining how the features and

behaviors of actors in clusters ‘disturbs’ actors attention on innovation towards talk and politics:

### Conceptual Framework 5.1



The analytical model rests on the proposition of the following sub-research questions:

**Research question 1**  
*When observing cluster initiatives as key outcomes of cluster strategy implementation;  
 What features characterizes the actors of clusters?*

Clusters are complex due to their network-like features. This leads to challenges in organizing the field and consequently also in the attention on innovation. In clusters, actors from both public and private environments meet. They have a variety in

expectations, interests and perceptions, which leads to a culture clash and challenges the focus on innovation. This makes out *the feature argument*.

The formal and informal cluster arenas are in the shape of a network, and includes multiple and diverse stakeholders, from both public and private organizations (Kickert et al, 1997). Although innovation is a joint goal in clusters, these arenas are different to many other types of network constellations, as the involved actors in general have various and diverse interests and perceptions (Pfeffer 1981; Morgan 2006).

The expressed goal of the cluster is innovation and economic enhancement (Porter, 1990, 1998), which in essence demands some kind of action and business focus (Brunsson, 1989). Simultaneously, politics and talk are key components in both the formal and informal cluster fields. The proportion of action- and talk-orientation will differ between cluster arenas, depending on culture and specific circumstances. The diversity in interests of the actors present in the cluster, which further lead to diversity in understandings and perceptions of the actors present in the cluster.

The formal cluster initiative can be regarded as a hybrid organization, accommodating a range of expectations and goals. The hybrid form and the actors' diversities in goals make commitment hard. Involved actors have an overall expectation on outcomes of innovation. Simultaneously, two types of attentions seem to collide: *A regional development orientation*, which is more policy and talk focused; and *a business development orientation*, which is more business and action focused. Actors who have a

focus on business (action) will usually be in majority in the formal clusters, but are not necessarily the dominating force.

Participation in formal clusters is mainly a secondary activity for involved parties. This has influence on interests and prioritizing. Activity and commitment resembles 'voluntary' efforts and the actual drivers of cluster development are usually few. As the formal cluster initiatives represent a range of actors with different views and perceptions (Termeer & Koppenjan, 1997), the actors who are perceived as the most influential usually become the 'drivers' and 'agenda holders' of the cluster initiative. They can get this position for various reasons, such as financial assistance, facilitation or professional competence. The drivers of a cluster initiative holds power over its development, and may through their domination cause conflict of interests internally, towards the informal cluster arena or other formal cluster arenas.

**Research question 2**

*When observing the complex features of clusters;  
What behavior characterizes the actors of clusters?*

The clusters are characterized by complexity, due to their network-like features, mix of public and private culture, and issues of diversity in interests and perceptions, which leads to behavior of conflict, strategy development and power play among actors. This is the sum of *the feature argument and the behavior argument*.

The clusters experience conflicting issues and visible and invisible conflicts, both internally and towards the surroundings (Pfeffer, 1981; Morgan, 2006). As a result,

strategies for achieving various types of goals (Kickert & Koppenjan, 1997) are developed and issues of trust are tested in power play or games (Pfeffer 1981; Klijn & Teisman 1997). This may lead to competition and/or difficulties with cooperation among actors. The power plays and games are often characterized by a ‘cowboy style’ approach to dealing with issues of conflict. This usually heats up the conflict level. Consequently, conflict, strategies and power play leads to difficulties in cooperation. This again leads to attention on political issues rather than business issues, which lead to competition among and between formal cluster initiatives and their facilitators, mainly related to issues on how to organize the field, rather than actual attention related to innovation. A distinction goes between issues of game management, which relates to organizing strategies in relation to political field, and issues of network structuring, which relates to the institutionalization process of a cluster.

***Research question 3***

*When taking the features and behavior of cluster actors into account;  
What are the consequences of cooperation on innovation in clusters?*

The increase in application of cluster strategies has led to the establishment of several formal cluster initiatives. The result is that several formal initiatives end up in a competing or partly competing situation, for instance targeting the same actors and funding. In both the formal and informal cluster arena there is a distinction between what seems to concern public actors and private actors. The stakeholders have (at least) two differing types of interest, which shapes their understandings and approaches in these arenas: politics (talk) and business (action) (Brunsson, 1989).



The formal cluster initiatives are individually concerned with action, business and innovation thinking. The conditions surrounding the formal cluster initiatives lead to a reinforced emphasis on features such as multiple interests and multiple perceptions, increasing the orientation towards politics and talk. Consequently, public actors, who are trained in talk and politics, are much more present and dominating in the cluster field. The political features contribute to increased levels of conflict and competition, strategy development and power play present both within the formal and informal cluster. This means that the attention on innovation as a direct outcome of cluster cooperation becomes increasingly challenging.

A set of actors wish to influence the field of clusters. They are present both at the smaller, formalized cluster initiatives and at the larger informal arenas of clusters. The clusters are characterized by: (1) Actors from both public and private environments, with a variety of expectations, interests and perceptions, which leads to a ‘clash of cultures’ that challenges the focus on innovation; (2) A mix of interest and perceptions, which leads to behaviors of conflicts, strategies and power play or games between actors that result in issues of trust and challenge the focus on innovation; and (3) A process of developing clusters that seems to be underestimated. Although both business/action and talk/politics oriented actors are involved, talk/politics in features and behaviors seems to dominate cluster cooperation, creating issues of legitimization and challenging the focus on innovation.

The arguments outlined make out the sum of *the feature argument*, *the behavior argument* and *the politics argument*. Together they lead to great disturbances in the

development of formal cluster initiatives. These circumstances produce conflict *within* and *between* various cluster initiatives, as well as between other actors present in the informal arenas of clusters.

As several cluster initiatives are oriented towards the same resources, ‘political’ aspects of such cooperation are strengthened. In the longer run, some cluster initiatives are enlarged, some are merged, while others are closed down. In this study, these phenomena are called cluster cannibalism.

Not all actors perceive the goal of innovation as a reachable goal within the formal arenas. Consequently, they participate for various other reasons, which are rarely communicated. These observed features suggest that the cluster arenas have some challenging issues in achieving innovation, but may be useful for other purposes.

## **5.7 Conclusion**

This chapter presents theoretical contributions related to politics and organization theory, which may help explain key features and behavior in cluster cooperation, but is not presented in the cluster theory itself. The cluster can be regarded as a kind of network of interrelated actors with both similar and competing interests. ‘Politics’ is understood as the interaction process between different groups with diverging interests, where the mix of interests and perceptions leads to a behavior of conflict and competition, strategy development and power play among actors. The presentation of theory leads up to the introduction of an analytical research model, proposed to answer

the main research question: *Why does cluster cooperation seldom result in innovation?*

The following chapter introduces the analysis and deals with key features of actors in cluster cooperation.



## Chapter 6 – Features in Clusters

### 6.1 Introducing Research Question One

The goal of this dissertation is to explain why cluster cooperation seldom result in innovation. The main research question rests on the preconditions that the popularization of cluster theories has led to an introduction of cluster strategies that again has lead to the establishment and emergence of new arenas for interaction among public and private actors, of both formal and informal character.

In order to answer the main research question, data from the case of the CII is highlighted, investigating both how the CII has been perceived as a formal cluster initiative and how it has interacted with its surrounding environment, the informal cluster arena, in pivotal affairs. The data used for analysis in the following three chapters are four key events in the life of the CII: Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two.

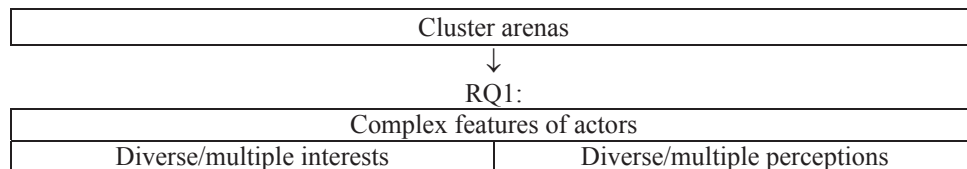
The analysis is concerned with how *power* and *politics* influence cluster cooperation and subsequently deals with features of actors in clusters, behavior of actors in clusters, and what this leads to. In this chapter sub-research question one is proposed for analysis: *When observing cluster initiatives as key outcomes of cluster strategy implementation; **What features characterize the actors of clusters?***

The previous chapters have dealt with theories on clusters and innovation systems, as well as a selection of organizational theories on power and politics. In order to answer research question one, theories dealing with *features* of actors will be applied to the analysis, with a focus on issues related to *interests* and *perceptions*. In the following sections, the analytical framework for the first part of the analysis is presented.

### 6.1.2 Analytical Framework

The meeting between public and private actors within the arenas of clusters exhibits varieties in interests and perceptions. This again leads to cultural clashes and challenges the attention on innovation. This presents *the feature argument*, as outlined in the presentation of the analytical model in Chapter 5, section 5.6. Research question one is proposed to deal with key features of actors in clusters, which are presented in the following part of the analytical model:

#### Model 6.1 Part of Analytical Model Relevant for Research Question One



Both the formal initiatives and informal cluster arenas, which are shaped as various types of networks, include multiple and diverse stakeholders, from both public and private organizations (Kickert et al:1997). Although innovation is a joint goal in clusters, these arenas are different to many other types of network constellations, as the

involved actors in general have various and diverse interests (Pfeffer, 1981; Morgan, 2006). The analysis of interests will be dealt with in part 6.2.

The expressed goal of clusters is innovation and economic enhancement (Porter, 1990; 1998), which presupposes some kind of action and business focus (Brunsson, 1989). Furthermore, politics and talk are key components in clusters. The proportion of action- and talk-orientation will differ between cluster arenas, depending on culture and specific circumstances. The diversity in interests of the actors present in the cluster, which further lead to diversity in understandings and perceptions of the actors present in the cluster (Termeer & Koppenjan, 1997). The analysis of perceptions will be dealt with in section 6.3.

The formal cluster arenas can be regarded as hybrid organizations, accommodating a range of expectations and goals. The hybrid form and actors' diversities in goals make commitment hard. Involved actors have an overall expectation on outcomes of innovation. Simultaneously, two types of attentions seem to collide: A *regional development orientation*, which is more policy and talk focused; and a *business development orientation*, which is more business and action focused. Actors who have a focus on business will usually be in the majority in the formal cluster arenas, but are not necessarily the dominating force.

Participation in formal clusters is mainly a secondary activity for involved parties. This has influence on interests and prioritizing. Activity and commitment resembles 'voluntary' efforts and the actual drivers of cluster development are usually few. As the

formal cluster initiatives represent a range of actors with different views and perceptions (Termeer & Koppenjan, 1997), the actors who are perceived as the most influential usually become the ‘drivers’ and ‘agenda holders’ of the cluster initiative. They can get this position for various reasons, such as financial assistance, facilitation or professional competence. The drivers of a cluster initiative holds power over its development, and may through their domination cause conflict of interests internally, towards the informal cluster arena or other formal cluster arenas.

The following sections deal with the analysis of the four identified main events in the life of the CI1. The main focus of the analysis is on the identification of characteristic *features* of the formal and informal cluster arenas: *interests* and *perceptions*.

## **6.2 Analysis of Interests**

The following sections deal with the analysis of *interests* in relation to Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. Interests of actors make out a key feature of relevance when looking at cluster cooperation in relation to power and politics.

### **6.2.1 Event 1: Funding & Public Competition**

Looking into the explanations on why the ‘announced’ financial support from the NGO never became a reality, or rather, what happened during August 2007 and November 2008, several interests are involved, which might have influenced the process of the



application. The obvious actors who might have had an interest in the outcome of the funding application was the CII, the RBF and the NGO, in addition to various and potentially competing initiatives which were already affiliated with the NGO.

The application for funding concerned the initiation and development of the CII. Funding would provide necessary resources in order to get the initiative started, and at the same time it would contribute with public legitimacy. The Initiator and the CII members had an obvious interest in making this happen. As most of this situation occurred, the CII was still in an early phase, meaning that few people were involved in any issues related to the CII. In reality, only the Initiator had involvement in the application process, and his role was highly limited related the events occurring.

The CII pilot had become a project under the umbrella of the RBF. The RBF had an active facilitator role in developing the CII and had taken charge of developing the application for funding. The facilitator tasks were filled by the Project Manager and myself, who were employed by the RBF to work on the CII. We would form the CII Working Group in the following months. In this respect, both the RBF as an organization, as well as the Project Manager and myself had an interest in success for the CII pilot and consequently also the application for funding.

Initially, a NGO representative had, on behalf of the NGO organization, expressed an interest in funding the CII pilot. Some time later, another NGO representative articulated concern due to potential competition related to other projects in his area of responsibility. It is possible to argue that the two representatives had diverging interests,

or at least, diverging perspectives which led to different priorities in terms of the CII application.

Both the NGO and the RBF had an interest in supporting and/or facilitating the most sustainable and strong projects available in this business field. Whether the quality of the CII pilot project was good enough was never a mutual topic of conversation. At this point in time, the proposal for the CII pilot was reviewed by one of the NGO representatives, and the suggested comments were taken into account when developing the application. On this basis, the assumption was that the quality of the application for a pilot was up to expected standards.

The NGO and the RBF had the same overall goal of enhancing innovation within the Oslo region. At the same time there seemed to be different understandings on how the goals should be approached and who should be involved. In reality the two organizations definitely had overlapping interests, but these interests could also turn into competition, in terms of who would be credited for success, and also in terms of steering approaches and professional perspectives.

Further, the RBF, but the NGO in particular, had additional projects and goals to take into account, which increased the complexity when deciding what priorities to make. The NGO had several other initiatives, of more or less competitive character in their portfolio. These initiatives might have had interests in accessing the same funding, but were to anyone's knowledge, not involved in the events playing out between August 2007 and November 2008. Inside the NGO there also seemed to be differing opinions as

to whether there was any real competition between the proposed CII pilot and other projects affiliated with the NGO.

According to various sources, the managers of the RBF and the NGO had a somewhat challenging relationship. This did not help the communication or the general cooperative climate between the two organizations, but emphasized the potential diversified interests and competitive climate. Whether it actually influenced the situation related to the CII application is difficult to estimate. As the relationship between the two organizations became increasingly tense, it definitely had an impact on opportunities for solving any misunderstandings. The sum of interests of potential relevance in the case of the application for funding of the CII is relatively extensive.

Key interests can be summarized in table 6.1:

**Table 6.1 Interests - Event 1**

<b>Organizations/cluster initiatives:</b>	<b>Overall interests:</b>
<b>The CII</b>	Realize the CII pilot, with a focus on creating business opportunities and solve problems for public actors. Secure funding and legitimacy for the CII
<b>The RBF</b>	Develop successful cluster projects in the RBF portfolio, in accordance with the RBF philosophy: Realize the CII pilot and secure funding and legitimacy for the CII in the longer run
<b>The NGO</b>	Support the best cluster projects available. Secure power over professional development in field, in accordance with the NGO philosophy
<b>Various potentially competing initiatives affiliated with the NGO</b>	Secure funding, secure legitimacy

In the situation developing in relation to the financial application, it seems like there was more than one issue occurring simultaneously. During interviews, several

explanations were proposed to make sense of what might have caused the reluctant process between the NGO, the CII and the RBF. A majority of the explanations then seemed to be related to other interests than the actual application of the CII.

The data material shows that the communication seemed to develop at several 'levels' within the organizations. This means that there was one conversation going on between the CII management and the NGO, a second conversation going on between various representatives in the RBF and the NGO, as well as a third conversation developing between the management of the RBF and the NGO. When dealing with 'loose' organizational and network structures, where there are somewhat unclear boundaries between who is responsible for what, this seems to be a prevalent outcome.

#### **6.2.2 Event 2: Cluster Competition – Part One**

In the events and happenings leading up to the dispute between the CII, the BFO and the CI2, several sets of overlapping and competing interests revealed themselves. First of all, the PDC had an interest in developing successful business projects. In relation to such goal, the company had, among a range of other projects, involved themselves and dedicated time and resources to the CII pilot. Inside the PDC, the responsibility of the CII was mainly the Initiators'. A couple of months into the initiation of the CII pilot, the CII Project Manager was hired by the PDC to contribute to another project. Both the Initiator and the Project Manager had an interest in making their project with the PDC as successful as possible. Simultaneously, they were engaged with developing the CII in the best way. At this point in time, there seemed to be dual and overlapping interests between the CII and the PDC.

Comparatively, the BFO and its representative had an interest in developing the CI2 in accordance to their plans and philosophy. This included attracting (new) members and securing a competitive profile in the making. Additionally, the BFO had an interest in being credited for their contributions in cooperative projects, and the lack thereof became a paramount reason for the fall-out between the BFO/CI2 Facilitator and the CI1 management a few months later. Overall, the BFO and the CI2 seemed to have truly overlapping interests.

Finally, all actors, and in particular the representatives from the CI1 and the CI2, had an interest in being kept well informed about initiatives and opportunities developing in the field, which could influence the development of their activities. Potentially, they may also have had an interest in holding information back, which could secure their competitive position. The sum of interests of potential relevance in the case of the inter cluster competition can be summarized in table 6.2:

**Table 6.2 Interests – Event 2**

<b>Organizations/cluster initiatives:</b>	<b>Overall interests:</b>
<b>The PDC</b>	Overall attention: Create successful business projects. Contributing to realizing the CI1 pilot, with a focus on creating business opportunities for the company, as well as valuable contacts
<b>The CI1</b>	Realize the CI1 pilot, with a focus on creating business opportunities and problem solving for public actors. Securing external visibility in order to achieve legitimacy and attract members in the long run
<b>The BFO</b>	Represent members and issues of importance. Secure funding for maintaining the organization. Secure power over professional development in field, in accordance with BFOs philosophy. Realize the CI2
<b>The CI2</b>	Realize the CI2, with a focus on representing key members' interest. Secure an active and interested member base, as well as funding and legitimacy.

Looking at the situation related to the encounter between the CII and the BFO, data shows that experienced competition and colliding interests seemed to be a main source of conflict. Competition was increasing, due to an increased interest in the business field, and consequently an interest in accessing the same key actors, resources and time. Even if the two initiatives were focusing on different goals, competition became the focus, probably related to the access of various types of (potential) resources. Increasing distrust also appeared and created problems for developing a cooperative platform.

### **6.2.3 Event 3: Public Regulation Interference**

Several organizations seemed to have interests in the issues occurring between the GDO and the CII. First of all, the CII had several active interests. Beyond the overall goal of creating a stable and successful initiative, with well-developed innovation projects, the CII was interested in being legitimized by the GDO. Initially, this had not been a topic, but as the GDO had (increasing) influence over the public organizations involved in the CII, and the organizational landscape was changing in the direction of more influence to the GDO, this was becoming key for providing a successful initiative. The clue was to make sure that the public organizations would remain actively involved in the CII in order for the innovation projects to be further developed. The presence of the public organizations was also pivotal in recruiting new members to the CII.

The GDO on the other hand had an active interest in making sure that the procurement policy was followed and that the demander organizations realized the importance of keeping strictly to it. Furthermore, the public organizations individually had an interest in keeping their autonomy. This was a matter of principle, as they wanted their

participation in various types of inter-organizational activities to be decided by their own discretion, rather than by regulations made by the GDO.

Finally, the RBF had an interest in securing the development of the CI1 and the investments already carried out. These interests were of less relevance in the actual situation occurring between the GDO and the CI1, but made the RBF play a role in searching for information in order to find out details in the reactions of the GDO. The sum of interests has been summarized in table 6.3:

**Table 6.3 Interests – Event 3**

<b>Organizations/cluster initiatives:</b>	<b>Overall interests:</b>
<b>The CI1</b>	Realize the CI1 pilot Secure funding and legitimacy for the CI1. Secure participation from key members of the CI1
<b>The GDO</b>	Secure regulations and GDO philosophy Keep power and visibility towards the public organizations under GDO jurisdiction
<b>The public organizations, affiliated with the GDO and members of the CI1</b>	Secure problem solving Access and knowledge to development in business field, in order to make the best possible choices Keeping autonomy
<b>The RBF</b>	Secure legitimacy for projects in the RBF portfolio

The events occurring in relation to the GDOs ‘disapproval’ of the CI1 came to have large consequences for the life of the CI1. The GDO operated with a set of official reasons in addition to a set of unofficial reasons for the negative reactions towards the CI1. Potentially both had relevance for the events developing.

#### **6.2.4 Event 4: Cluster Competition – Part Two**

Looking into the communication and interactions between the CI1 and the CI3, and how it developed during summer and autumn 2009, it is possible to identify a set of colliding

interests, both between the two initiatives and the surroundings involved. Initially, the CI1 did not believe that the CI3 would cause any form of competition. In the starting phase, the business focus was different and the CI1 and the CI3 seemed to have diverging interests. After some time, the CI3 changed its focus and developed in a direction closer to the CI1. At this point the interests of the CI1 and the CI3 became more similar, but also increased the competitive elements, as they were focused towards a similar member base and resources.

At the time the meetings between the CI1 and the CI3 were held, the CI3 was developing its initiative and had an interest in providing a solid member-base as well as legitimacy for its organization. Some of the members that were interested in engaging were already involved in the CI1. Accordingly, the CI3 was not aware of this when they started their recruitment process.

As facilitators, both the RBF and PDFO had an interest in making their respective cluster initiatives succeed. This would also secure a professional development of the field in line with their diverging philosophies. Somewhat simplified, the main actors who had had an interest in the development and fate of the CI1 and CI3 initiatives are summarized in table 6.4:



**Table 6.4 Interests – Event 4**

<b>Organizations/cluster initiatives:</b>	<b>Overall interests:</b>
<b>The CI1</b>	Realize the CI1 pilot, with a focus on creating business opportunities and problem solving for public actors Secure funding and legitimacy for the CI1 Be the initiative of choice to the actors in the field
<b>The RBF</b>	Develop successful cluster projects in the RBF portfolio, in accordance with the RBF philosophy. Realize the CI1 and secure funding and legitimacy
<b>The PDFO</b>	Secure power over professional development in field, in accordance with the NGO philosophy
<b>The CI3</b>	Secure funding, secure legitimacy Be the initiative of choice to the actors in the field

Looking at the situation developing for the CI1, the presence of the CI3 was causing a new major challenge in terms of competition. As the CI1 faced new difficulties, the most relevant option seemed to be to suggest cooperation between the two initiatives. For several reasons, the CI3 rejected this opportunity. During interviews, various (and potentially pretty farfetched) perceptions on what might have caused the rejection, were proposed by actors close to the CI1.

### **6.2.5 Summary of Interests**

The previous sections show how a range of interests among actors were at stake in the four events analyzed. Key interests were related to developing the CI1 as an initiative, to developing other cluster initiatives, or alternatively to hindering competition or the presence of the CI1 or another cluster initiative. Additionally, actors close to the cluster initiatives, such as the ‘facilitator organizations’ RBF, BFO and PDFO had interests related to ensuring their own position, using their respective cluster initiatives as tools in fights. Finally, ranges of interests related to the involved actors and organizations of

the cluster initiatives were present, of which the data in this analysis is not able to say too much about.

The analysis shows a fuzzy overview of the landscape where a variety of actors represent more than one interest. All in all, the opportunity to keep track of these interests when participating in a cluster seems to be limited and will potentially cloud actors' involvement. The multiple and diverging interests among actors potentially leads to multiple and diverse perceptions. In the next part of this chapter, perceptions related to the four events of the CII are analyzed.

### **6.3 Analysis of Perceptions**

The following sections deal with the analysis of *perceptions* of actors in relation to Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two.

Perceptions of actors make out a key feature of relevance when looking at cluster cooperation in relation to power and politics.

#### **6.3.1 Event 1: Funding & Public Competition**

The perceptions in the case of the CII funding application can be distinguished into three main categories, with subsequent sub-explanations:

##### **1) The relationship between the NGO and the RBF**

*a) General (competitive) climate between the facilitators in the regional field*

- b) Different professional perspectives related to the development of the cluster field*
- c) Poor communication between the NGO and the RBF*
- d) A challenging relationship between the managers of the NGO and the RBF*

## **2) Issues related to the NGO**

- a) Challenged systems for handling of proceedings inside the NGO*
- b) Internal debates/conflicts on what projects to support by the NGO*

## **3) Sensitivity related to the CII itself**

- a) Sensitivity of the project and the project idea - competition*
- b) Issues related to how the CII was designed*
- c) Sensitivity related to the Initiators role in the project*

The perceptions revealed targeted the understanding of the *specific actors* and the *involved organizations*, as well as the understanding of the *actions* occurring, where some seemed to be interlinked. Some of the interpretations also seemed to be related to previous experiences of cooperative efforts and conflicts, rather than on actual events occurring during the case of the application.

For instance, in the period between August 2007 and November 2008, the trust between the NGO and the RBF seemed to be declining. The two organizations had, previous to this time period, had several encounters challenging their relationship, mainly related to different professional perspectives on approaches and developments in the field.

A key perception among the CII-engaged actors was that the financial resources seemed to be held back due to controversies related to certain elements of the RBF or the CII. This was not possible to prove, but the perception seemed to hold strong and shape an understanding about NGOs unwillingness to participate with financial support or legitimacy.

Apart from perceptions related to the relationship between the NGO and the RBF, both internal issues related to the NGO and issues related to the CII itself were offered as explanations.

There is little reason to suggest any single dominating explanation of the perceptions presented. They may all have had some relevance for the situation occurring, and could have occurred simultaneously, as neither can be regarded mutually excluding. Different perceptions were proposed by different people, both during the events occurring and during the reflective interviews in relation to this research. In retrospect, it seemed like several of the actors involved favored more ‘conspiring’ explanations, an element which will repeat itself in the following analysis.

A relatively long list of perceptions related to how the funding situation developed was revealed, both during interviews and in observations. These perceptions contributed to a distrustful environment, and led to a more competitive and less cooperative climate between the NGO and the RBF.

### **6.3.2 Event 2: Cluster Competition – Part One**

Interviewing the involved parties, it seemed like the CI1 management was convinced that the strong reactions of the BFO/CI2 Facilitator were strictly connected to the potentially competitive aspects of the newly established CI1 and the planned CI2. The BFO/CI2 Facilitator did not reject the competitive aspect.

The BFO/CI2 Facilitator perception was (partly) that the CI1 representatives had been holding back information about the establishment of the initiative intentionally, while they had a chance to learn more about the CI2s plan of action. The Facilitator did not however reject the idea that the whole situation was rooted in a somewhat untidy handling.

As a result of the confrontation occurring, the BFO/CI2 Facilitator had become increasingly concerned with searching for potentially ulterior motives related to the CI1. A key motive was found as the most important company involved in the CI2 turned out to be a major competitor to the PDC's subsidiary company. This would potentially increase the competition between the CI2 and the CI1 further, as they were subsequently representing two competing companies. As both the Initiator and the Project Manager, key representatives for the CI1, was now representing both the CI1 and the PDC, it was possible to regard the CI1 as a tool for the PDC and their subsidiary company.

The CI1 and the CI2 had overlapping interests, which led to a conflict of interest, mainly related to who would get access to actors and resources. In addition, several

actors were operating with more than one ‘hat,’ which created an untidy impression externally and consequently perceptions about motivations for disclosing information. In comparison to the other events analyzed in this study, the CI1 here seems to be the one ‘offending’ another party. Consequently, the data available includes less perceptions and speculations than what is found for the other events analyzed.

### **6.3.3 Event 3: Public Regulation Interference**

The main perceptions in this case relate to the various agendas of the GDO and the CI1, in addition to the agendas of the Initiator in particular. The GDO had expressed the importance of the procurement policy and the demander organizations involvement in inter-organizational initiatives. This became their ‘formal reasons’ for the negative attitudes towards the CI1.

A perception revealed during interviews was that the GDO had an increasing need to position and show their power towards the public organizations. The case with the CI1, where the GDO eventually demanded that the public organizations be kept away from the Initiative, might have been an exemplification of this.

Another perception mentioned by several key sources both on and off the record, was related to the GDO’s suspicions toward the Initiator of the CI1. The Initiator’s former involvement in a conflicted case was suggested as the main reason. During this process he had become a contested figure in parts of the business, and the history of this process had followed his name. His engagement in the CI1 could potentially lead to new similar

challenging situations for public regulations, something that was assumed the GDO wanted to avoid.

During interviews, it seemed like the GDO had missed out on the project fundament of the CII, where the innovative projects, suggested by the involved CII members had been the main focus. Rather, the GDO had concentrated their attention on what was a suggested project related to influence over the procurement policy. This project was never realized. The CII had initially suggested this project in order to get the demanders and the GDO involved. Eventually, the GDO seemed to have put all emphasis on this suggested project in order to reason the negative attitudes towards the CII.

Simultaneously they had ignored the original intentions of the CII. The biases toward the Initiator were never openly discussed, but by many parties it was assumed that this was the main reason. The fact that a similar initiative with the same constellation of actors as the CII was allowed to continue their activities, supported this perception.

The events in the relationship between the CII and the GDO were influenced by previous negative experiences between key actors. The situation also seemed to be characterized by a personal focus, and ulterior arguments seemed to be used in the formal communication between parties. When it comes to dealing with cluster development, the importance of previous experiences of key actors is pivotal. In order to develop activities and achieve results, legitimacy and trust both inside a cluster initiative and toward the environment must be taken into account. The previous experience and use of ulterior arguments combined led to distrust between the involved

parties and was strengthened by development of various perceptions on motives and interests.

#### **6.3.4 Event 4: Cluster Competition – Part Two**

Looking into interests and why things ‘went wrong’ in the situation developing between the CI1 and the CI3, a range of perceptions were presented by the stakeholders involved with CI1. First of all, there were several theories related to why the CI3 did not want to involve the CI1 in their business. The CI3’s official explanation was related to the fact that as a new initiative they had to keep to their core focus. Additionally, they were concerned with keeping the design approved by their financial contributors. The CI1 management had perceived a negative attitude toward the CI3 and did not completely believe the formal explanation.

During interviews, the CI3 made an admission about the reluctance to cooperate, which was related to the reduced legitimacy of the CI1. The CI3 was worried about inheriting the bad relationships in which had developed between the CI1 and its surroundings, such as the GDO and the NGO. This fact had already been confirmed by sources close to the CI3, but was never articulated formally.

Interviews and conversations with the RBF Manager did however reveal additional perceptions about the development of events. The CI3 was facilitated by the PDFO who was also engaged in other regional cluster projects. As the RBF had made the funding situation challenging for one of the other regional projects, it was assumed that the PDFO had influenced the CI3’s decision. Both the RBF and the CI1 had become



increasingly aware that the ‘goodwill’ toward them was limited. Furthermore, the RBF had previously been engaged in negative encounters with one of the owners of the PDFO, as well as the former employer of the CI3 Facilitator. These situations may have influenced negative attitudes and definitely provided ‘growth’ to perceptions about an active opposition against both the CI1 and the RBF.

Looking at the situation developing for the CI1, the presence of the CI3 was causing a new major challenge in terms of competition. As the CI1 faced new difficulties, the most relevant option seemed to be to suggest cooperation between the two initiatives. For several reasons, the CI3 rejected this opportunity. During interviews, various (and potentially pretty farfetched) perceptions on what might have caused the rejection were proposed by actors close to the CI1. As the CI1 was closing down, these perceptions had little influence on the events of the Initiative.

### **6.3.5 Summary of Perceptions**

In the case of the CI1 and the four events analyzed, the multiple and diverging *interests* of actors led to multiple and diverse *perceptions* of actors. The previous sections show how perceptions were present in all four events related to the CI1. From the interviews, it seems like the perceptions of the CI1 supporters were stronger in the three events where the CI1 experienced the ‘losing’ part. In the events occurring with the BFO and CI2, it appeared to be easier for the CI1 parties to analyze the situation as competition without presenting any additional ‘conspiracy’ theories. The perceptions present in the events of the CI1 were mainly related to ulterior motives of the parties involved, which led to actions working in disfavor of the CI1. Perceptions on ulterior motives also

seemed to ‘stick’ to the actors who had previous negative encounters, even if the encounters had been sorted out.

## **6.4 Conclusion**

*When observing cluster initiatives as key outcomes of cluster strategy implementation, What features characterize the actors of clusters?* The multiple and diverging *interests* of actors led to multiple and diverse *perceptions* of actors, which both became influential *features* of the interaction among the actors related to the CII when looking at cluster cooperation in relation to power and politics.

The analysis of research question one, searching for key features of actors in clusters, investigated four events related to the case of the CII. They revealed the meeting of a variety of interests and perceptions in the interaction in and around the arenas of the CII. The *feature argument* of the analytical model argues that the mixed culture of public and private actors leads to highly different expectations, varieties in understandings and goals, as well as in the approach to goals. This again leads to a culture clash and challenges the focus on innovation. Consequently, features of interests and perceptions of the actors in the cluster influenced opportunities for innovation.

The data showed that actors’ interests and perceptions diverged in many directions, at the people level, the organizational level and at the ‘regional’ level. All in all, this made it difficult to keep an overview of the field, which created elements of conspiracy thinking and distrust. The multiple and diverging interests and perceptions of the actors

in the CII further influenced the behavior of actors in the clusters. In the following chapter, research question two will deal with characteristics of *behavior* of actors in clusters. The attention is focused on issues of *conflict*, *strategy* and *power play*.



## Chapter 7 – Behavior in Clusters

### 7.1 Introducing Research Question Two

The goal of this dissertation is to explain why cluster cooperation seldom result in innovation. The analysis is concerned with how *power* and *politics* influence cluster cooperation and deals with *features* of actors in clusters, *behavior* of actors in clusters, and *consequences* of actors' features and behavior in practical cluster efforts. In this chapter sub-research question two is proposed for analysis: *When observing the complex features of actors in clusters; What behavior characterizes the actors of clusters?*

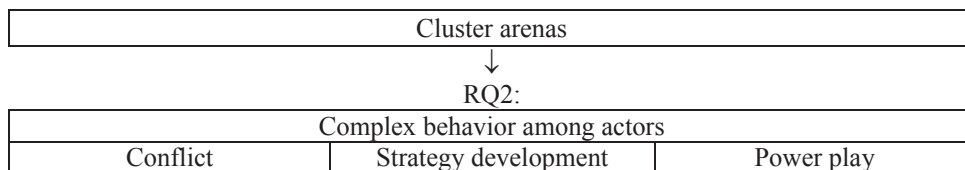
The previous chapter dealt with an analysis of *features* of actors in clusters. The chapter concluded that multiple interests and multiple perceptions are key features of actors present in a cluster. This conclusion rests on data from the case of the CII.

In order to answer research question two, theories dealing with *behavior* of actors in clusters will be applied to the analysis, with a focus on issues related to *conflict*, *strategy development* and *power play* in clusters. Data from the same four events of CII will be used during the analysis: Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. In the following section, the analytical framework for the second part of the analysis is presented.

### 7.1.1 Analytical Framework

The formal and informal arenas of clusters are characterized by complexity, due to their network-like features, mix of public and private cultures, and issues of diversity in interests and perceptions. This leads to political behavior such as conflicts, strategy and power play between involved actors, which challenges the attention on innovation. This makes out the sum of *the feature argument* and *the behavior argument*, as outlined in the presentation of the analytical model, Chapter 5, section 5.6. Research question two is proposed to deal with key behavior of actors in clusters, which are presented in the following part of the analytical model:

#### Model 7.1. Part of Analytical Model Relevant for Research Question Two



The clusters experience conflicting issues and visible and invisible conflicts, both internally and towards the surroundings (Pfeffer, 1981; Morgan, 2006). As a result, strategies for achieving various types of goals (Kickert & Koppenjan, 1997) are developed and issues of trust are tested in power play (Pfeffer 1981; Klijn & Teisman 1997). This may lead to competition and/or difficulties with cooperation among actors. The power plays and games are often characterized by a ‘cowboy style’ approach to dealing with issues of conflict. This usually heats up the conflict level. The analysis of

conflict will be dealt with in 7.2, the analysis of strategy will be dealt with in part 7.3, while the analysis of power play will be deal with in part 7.4.

Consequently, conflict, strategy development and power play leads to difficulties in cooperation. This again leads to attention on political issues rather than business issues, which lead to competition among and between formal cluster initiatives and their facilitators, mainly related to issues on how to organize the field, rather than actual attention related to innovation. A distinction goes between issues of game management, which relates to organizing strategies in relation to political field, and issues of network structuring, which relates to the institutionalization process of a cluster.

The following sections deals with the analysis of the four identified main events in the life of the CII. The main focus of the analysis is on characteristic *behavior* in cluster arenas: *conflict*, *strategy development* and *power play*. As the three categories were interrelated in the field, there will be some overlaps in the analytical discussions.

## **7.2 Analysis of Conflict**

The following sections deal with the analysis of *conflict* in relation to Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. Conflict between actors makes out a key behavior when looking at cluster cooperation in relation to power and politics.

### **7.2.1 Event 1: Funding & Public Competition**

The proposed CII pilot identified some goals and concepts which several other actors and initiatives also were pursuing, either partly or wholly. This may have caused conflicts of interests between the CII and similar initiatives. The CII was not however aware of this at the time when the application was filed or in the months following. Certain representatives of the NGO had suggested a (potentially) competitive situation between some national projects and the regional CII, while other NGO representatives had denied that this was an actual dilemma. The experience and perception of competition among cluster initiatives would increase in the time to follow, and also increasingly become a source of conflict, but at the time when the financial application was filed, the CII was in general perceived as a new initiative by its supporters.

Issues related to how the CII was designed may have influenced the NGOs interest in the time of the application. At the time of the application, the design was not set. In the following months, the NGO suggested certain changes in communication with the RBF. These were related to both the change of name and a change of involved actors. For practical reasons, the suggested changes were not taken into account at the time of suggestion, and as the relationship between the NGO and the RBF declined, this ‘avoidance’ may have been interpreted as lack of good will and flexibility.

Another potential source of conflict was the role of the Initiator of the CII. He was regarded as a controversial figure in the business field. However, neither the NGO nor the RBF had any extensive knowledge on his status in the field at the time of the application. At the present time, he was perceived as a resourceful and motivated driver



for building a cluster initiative, equipped with a good network of connections and highly relevant goals for making it happen. Hence, using the controversy of the Initiator as an explanation for the challenging situation around the funding application would seem less likely. Consequently, there are reasons to pursue other factors in order to explain the increasingly tense atmosphere.

Events occurring in and around the CII application process illustrate the general cooperative climate between key actors in the national and regional innovation system. In this time period, the RBF and the NGO were increasingly experiencing an overlap in tasks and interests. As the two organizations did not seem to find an optimal form for cooperation, a competitive climate seemed to increase. But the NGO and the RBF were in reality only partly competitors. In certain projects, they were cooperating, and in others, they were either a part of the development chain or in no direct competition.

Different professional perspectives related to the development of the cluster field could have influenced the CII application process. Divergent approaches to the field between the RBF and the NGO may have strengthened the reluctance to cooperate. As the approach to the pilot was not finally set when the CII pilot was kicked off, any reluctance among the NGO representatives must have been potentially rooted in previous experiences with the RBF and not the CII pilot design itself. In the early phase the NGO was also invited to be an active participant in the CII with potential influence on the design and approach to the project. The data material revealed NGO's attempt to 'correct' certain elements of the CII design after the project was kicked off, through communication with the RBF. In the end, neither the RBF nor the CII corresponded to

these ‘corrections,’ which may have influenced NGO’s reluctance to get further involved with the CII.

Poor communication between the NGO and the RBF also seems to be a relevant point when it comes to the process and outcome of the application of the CII. Most information seemed to go through informal channels, leading to few binding agreements or information which could be counted on. A challenging relationship between the managers of the NGO and the RBF did not help the communication or the general cooperative climate. Whether it actually influenced the situation of the application is difficult to answer. It is however quite probable that the issue of bad communication was a result of the challenges in the relationship between the NGO and the RBF.

Conflict of interests and competition related to concrete project development was emerging between the NGO and the RBF. As the NGO was in charge of funding and had a role of granting developmental projects within the region, they were suspected of using this power to make it more difficult for successful projects related to the RBF. This was a strong allegation, which had no real proof. The climate between the two organizations had developed negatively over the past years, resulting in several conflicting situations, as well as re-negotiations and suspected power plays. The CII situation seemed to strengthen these suspicions, as previous experiences suggested a lack of trust.

In the final phases, the relationship between the NGO and the RBF became heated. It may seem farfetched that the discount or even the mishandling of an application for a

cluster initiative should lead to conflict between two such experienced public actors.

The increased experience of competition and lack of trust may explain the context of the situation, if not necessarily the actual outcome. Most of the points presented may have some explanatory force. The multiplicity of explanations reveals a complex situation in the regional landscape, in this case mainly between the NGO and the RBF, which in the end may have had an effect on the opportunities of the CII.

The back and forth of feedback on the CII application from the NGO resulted in an increase in conflict between the NGO and the RBF. The conflict may have had its sole source in what occurred in the case of the CII. Still, in the past years the NGO and the RBF had increased its competition level, which may have caused the CII to be used in a conflict or game going on between the two public actors. Hence, the CII itself may have had less to do with how events developed. Either way, the trust level between the stakeholders of the NGO and the RBF seemed to decline over time, due to other events and due to what happened in the case of the CII. This may have led to a reduction of opportunities of related projects and cluster initiatives.

### **7.2.2 Event 2: Cluster Competition – Part One**

In the situation occurring between the BFO/CI2 and the CII, there seemed to be an obvious conflict of interest. Even if the two initiatives only had partly overlapping agendas and apparently had the opportunity to cooperate, there would still be elements of competition between them. The competition would be related to access to companies, as well as people's time, resources and activities. Additionally, there were issues of credibility for the facilitator organizations (in this case the BFO and the RBF), as

maintaining successful initiatives would be important for developing other opportunities.

However, at the point when these events occurred, neither the Initiator nor the Project Manager seemed to be appreciably worried about potential competition. The CI1 was already established and a group of key stakeholders had committed themselves to involvement in the pilot phase. From the BFO's perspective, it seemed like several of the companies relevant for membership in the CI2, were already involved in the CI1. This could lead to difficulties in engaging important companies, and competition related to the use of their time and resources. At this point it seemed like the CI1 was a step ahead of the CI2 and more concerned with executing their planned actions, rather than with the potential competition.

During the interactions between the BFO/CI2 Facilitator and the CI1 Project Manager and Initiator, a blurring of roles definitely became an issue. The CI1 Project Manager and the Initiator were operating with two hats at the same time, representing both the PDC and the CI1 simultaneously, but without being explicit about it. The members of the CI1 had early on been made aware of the double role of the Project Manager, information which was also available in minutes from meetings, so the double (and overlapping) agenda was not purposely hidden.

Either way, this information was not in the hands of the BFO/CI2 Facilitator and the blurring of roles led to a lowering degree of trust and difficulties with clearing the air after the following confrontation between the CI1 and the BFO/CI2. Emphasis was

made from both sides, but did not result in any real reconciliation. The fact that the CI1 management had taken credit for work that the PDC had been involved in, without the mentioning of them, probably provided less ground for renewed cooperative efforts, even if this did not seem to be a pivotal point.

In relation to the events developing in the first encounter between the CI1 and the CI2, data shows how the blurring of roles led to issues of trust and consequently conflict and competition rather than cooperation. The experience of competition was highly present from the BFO's perspective, even if the CI1 and the CI2 actually had somewhat different interests. They could potentially also have created opportunities for cooperation. As the CI1 representatives seemed to be mixing agendas and blurring roles, accordingly without any awareness of how it looked from the outside, they contributed to creating issues of trust, which probably also led to a greater focus on the competitive parts of the initiatives and consequently direct conflict. Emphasis to clear out the discussions between the CI1 and the CI2 did not result in any long-term agreement or cooperation. This lack of binding commitment after emphasis to sort out an encounter also seems to be a pattern in the data material repeating itself.

### **7.2.3 Event 3: Public Regulation Interference**

In relation to the events developing as a result of the situation between the CI1 and the GDO, data shows how the reduction in public legitimacy had a major impact on how the CI1 could develop. During spring 2009, the CI1 encountered challenges with the GDO. After experiencing positive feedback in January 2009, the feedback from the meeting in April 2009, was highly negative. The GDO was concerned with the

constellations of actors involved in the CII and how they played a role toward regulations of impartiality. They emphasized the (potential) blurring of roles. They further instructed the public actors to keep away from the CII, which made operations more difficult. At a later stage, the negative bias toward the Initiator was communicated off the record to several parties.

Data shows that the conflict never played out into any open encounters, which means that the amount of data related to direct discussions are limited. Compared to the other events, there was never any competition related to these events, which means that the conflict had somewhat different sources.

#### **7.2.4 Event 4: Cluster Competition – Part Two**

In relation to the events developing between the CII and the CI3, data shows how competition and strategic play in the end led to the downfall of the CII. CI3 and CII became competitors first during the phase when CI3 was reinvigorated and changed direction towards something closer to the CII. This occurred mainly in the second half of 2009. A conflict of interest emerged, as the two initiatives were targeting similar goals, as well as (potentially) the same business and organizational environment and financial resources. The CI3 may possibly have had their attention on other potentially competing initiatives, but this is not revealed by the available data. Further, the competition was probably much more noticed by the CII, who had struggled with both development and conflicts over some time. The competition never played out to the extent that it caused any actual encounters between the two initiatives.

### **7.2.5 Summary of Conflict**

The previous sections show how conflicts occurred in the four events analyzed, and how they played out in two of the events analyzed. Two types of interrelated conflicts seemed to occur simultaneously: Competition between the cluster initiatives and competition between public or institutional actors, both dominated by the public and institutional actors.

Data shows that conflict occurred somewhat differently in the four events analyzed. In the events related to the financial application, conflict played out between the two facilitator organizations - the RBF and the NGO - mainly due to competition. With close links to the RBF, the CI1 seemed to suffer due to the relationship between the facilitator organizations. In Event 2 conflict due to competition was also present. This played out between two key actors present in the CI1 and the Facilitator of the CI2/BFO. At the present time, the CI1 did not experience the competition as threatening and made less 'fuzz' about the events occurring. This conflict may relate to what Pfeffer (1981) identifies as scarcity of resources. In the events that played out with the GDO, there was an experience of conflict, but this was not related to competition. The events never materialized into any direct encounters. Comparatively, Event 2 playing out between CI1 and CI2 involved major competition, but did not result in any direct conflict encounter.

All in all, conflict and the experience of competition became a major issue for the CI1. Sorting conflicts and competition out occupied a lot of time, which took focus away from the planned tasks of the CI1. The conflicts seemed to be more present among the

public and institutional actors than among the private companies. The conflicts and the experienced increase of competition among actors related to the case of the CII led to a development of strategies, also including perceptions on other actors' strategies. In the next sections, an analysis of strategies in relation to the four events in the case of the CII is presented.

### **7.3 Analysis of Strategy Development**

The following sections deal with the analysis of *strategy development* in relation to Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. Strategy is key for understanding behavior in cluster cooperation when looking at issues of power and politics.

#### **7.3.1 Event 1: Funding & Public Competition**

In relation to the events developing in the financial application involving the NGO, the CII and the RBF, data shows a mix of perceptions related to strategies played out behind the scenes and actual encounters and conflict. In the surroundings related to the CII application, more than one strategy was present. As previously mentioned, both the RBF and the NGO had explicit strategies and public mandates related to developing cluster initiatives, but with somewhat different perspectives, approaches and opportunities to carry them out.



Extended from the RBF strategy, the development and activation of the CI1 as a formal cluster initiative became a new and explicit strategy. Here there was a focus on a joint approach involving a set of key stakeholders in the field. The strategy of developing the CI1 was carried out by the RBF in the role as a public facilitator organization.

When it comes to the situation related to the application, various implicit strategies may have been developed by the involved actors in order to influence the outcome. In relation to the application, there were no implicit strategies made by the CI1 as far as to what is found and known through data collection. The data material can not reveal much information on implicit strategy development of the RBF or the NGO, even if the material exposes a great deal of perceptions on strategies carried out by the 'counterpart.' Mainly, ongoing conversations along the research, as well as interviews, exposed that representatives of the CI1 and the RBF had perceptions about an active strategic approach by the NGO.

Theory suggests that strategies are influenced by patterns of relations. Some kind of pattern between the NGO and the RBF seemed to have been established even before the presence of the CI1, leading to distrust and challenges of cooperation. Whether the strategies were developed beforehand or were just a result of post-rationalization is definitely a topic. In relation to the theory touched upon, the events occurring between the NGO and the RBF may be characterized as game-related rather than connected to the institutionalization process.

### **7.3.2 Event 2: Cluster Competition – Part One**

The PDC, the CI1, the BFO and the CI2 all had explicit strategies for making their respective goals come true. Both the CI1 and the CI2 had a goal of engaging key business players in their cooperative efforts. The PDC and the BFO also had agendas for engaging key business players in various activities, but had no competitive agendas, apart from succeeding with the activities they were involved in, which turned out to overlap.

The respective actors' goals were not necessarily known by the other actors involved in the encounters, but would be accessible if they were sought out. The BFO did not however learn about the existence of the CI1 in the early phases, which made the BFO/CI2 Facilitator increasingly suspicious. It is doubtful whether this lack of knowledge was a result of an intentional strategy to hold back information made by the CI1 actors. However, this was not possible to determine by the BFO/CI2 and the perception created trust issues. In developing both the CI1 and the CI2, there was an obvious interest in keeping informed about what was going on in the field and a temptation to keep information back to make sure that the initiatives were competitive. This awareness probably contributed to a different kind of behavior, and potentially also to a different kind of strategy development along the way.

The explicit strategies related to the development of the cluster initiatives probably led to more detailed implicit strategies, which were formed in order to achieve a specific set of goals. The goals of the CI2 and the CI1 seemed to be partly colliding. However, any details on strategies are not available in the data material.

In relation to the events developing in the first encounter between the CII and the CI2, data shows how the blurring of roles led to issues of trust. Consequently, the BFO/CI2 Facilitator assumed that the CII actors were proposing strong competition rather than cooperation. This again led to difficulties in sorting out the conflicts and probably increased the level of strategic planning from the BFOs part. Even if the core of conflicts was related to issues of institutionalization and network structuring, the strategies playing out seemed to be more connected to a game.

### **7.3.3 Event 3: Public Regulation Interference**

In relation to the events developing as a result of the situation between the CII and the GDO, data shows how the reduction in public legitimacy had a major impact on how the CII could develop. During February 2009, the CII was established as a formal organization. The CII's strategy had been to involve the GDO in the development of the Initiative. This would secure legitimacy and provide a wider institutional involvement, which had previously been a request by the NGO.

In order to get the GDO engaged and to provide new activities in a period where the public actors seemed to be disengaging, a special project was proposed related to procurement policies. This suggested project was diverging from the originally intended projects and was an effort to get the public actors re-engaged. The GDO later used this project proposal as an argument against CII, arguing that the roles inside the CII were blurred. Furthermore, they made sure that the public organizations had to withdraw from the Initiative, which made the fundament for the CII substantially weakened. The

CIIs legitimacy was reduced and consequently the attractiveness of the supplier organizations likewise. As a result, a conflict was emerging.

Eventually, the case of the CI1 and the GDO became a conflicting situation where the CI1 had the feeling of losing favor to another initiative. Whether this was due to a misunderstanding related to the CI1s suggested project or an actual strategy to hinder the development of the CI1 is not possible to determine. But the suspicion about active strategy play by the parties involved in the CI1 remained long after the initiative was closed down.

#### **7.3.4 Event 4: Cluster Competition – Part Two**

In relation to the events developing between the CI1 and the CI3, data shows how competition and strategic play in the end led to the downfall of the CI1. At some point, the CI1 started to realize that the Oslo region was somewhat too small for the existence of two cluster initiatives with so many similarities. At the time, at least three different strategic solutions were possible in the relationship between the CI1 and the CI3. The first one was a continuation of activities from both initiatives, ‘ignoring’ the other initiatives’ action. This was the line in which was first chosen by the CI1. At this point the CI3 assumingly was unaware of the CI1’s existence, which means that they did not have any strategies directed towards the CI1. In the following months, the CI3 was approaching several of the members of the CI1, meaning that the initial strategy seemed to have created greater competition between the two initiatives.

A second strategy was to secure closer cooperation between the two initiatives. As the competition increased, the CI1 suggested closer cooperation, in order to make sure that the development in the two initiatives was coordinated. When the CI3, for various reasons, turned this invitation down, only a third obvious final strategy seemed realistic: One of the initiatives had to shut down or give in to the other.

During its reinvigoration phase, the CI3 positioned itself much more strategically and successfully than the CI1 had managed in the previous phases. First of all, they managed to create legitimacy towards the GDO, which the CI1 lacked. Secondly, the CI3 managed to secure funding through a tailored program from the NGO, which would provide resources for the Initiative over several years. As the CI3 was in a flow, both in terms of legitimacy and in terms of funding, the CI1 realized that a continuation of activities for their own part would make little sense. The CI3 would more easily be able to offer what the CI1 was struggling with. This made the decision about closing down easier and offering whatever was left of the initiative to their competitors.

The CI1 may have made a pivotal decision when deciding not to get engaged in the CI3 application during spring 2009. But based on the previous year's experiences with both bureaucratic delays and various kinds of conflicts, taking up important time and hindering a focus on developing the innovation projects, this decision seemed sensible at the time. This was not the first time the CI1 was coming across initiatives with similar and competing agendas, but the meeting with the CI3 became the most urgent one. In reality, the competition was targeting the same resources such as organizations, time and funding. Apart from the turndown and the actions and considerations made

around that time, there are few actual indications that the CI3 strategically positioned itself in relation of the CI1 or was engaging in any power game.

### **7.3.5 Summary of Strategy Development**

The previous sections analyzed strategy development in relation to four pivotal events in the life of the CI1. Implicit and explicit strategy is at some level a part of any organization, and is developed between various actors. In theory, a distinction between issues linked to game management, which relates to organizing strategies in the political field, and issues linked to network structuring, which relates to the institutionalization process, is made. In the events of the financial application, it may seem like both the RBF and the NGO eventually developed strategies for achieving what they wanted. Consequently the CI1 became a tool for a strategic play between two public actors in competition in a form of game management. The CI1 on the other hand was at the present time more concerned with network structuring.

In the events playing out between actors in the CI1 and the representative of the BFO, the BFO experienced the actions related to the CI1 as strategy maneuvers in order to get competitive advantages. It is probable that this conflict was mainly related to network structuring concerns, as the institutionalization process was challenged, although a form of game management between the involved actors took place. In the third event analyzed, the situation occurring between the CI1 and the GDO was experienced by the CI1 as a strategic play of the GDO targeting the CI1. Initially, the CI1 had developed a strategy to attracting the interest of the GDO, but this strategy must have backfired in conduction. The strategy can be regarded as a form of game management, as the

concern again was more ‘politicized.’ Data occurring in relation to the CI3 events, revealed a set of interchangeable strategies from the CI1’s side related to network structuring, as well as perceptions on strategic play from the CI3, which may be regarded as closer to a game management perspective.

All in all, it seems like the accusations and perceptions on strategy among the actors was a challenge for the involved parties in the analyzed events, as little was known on the other actors’ plans, but much was assumed. What can be regarded as an actual strategic maneuver and what can be regarded as an output of mere chance of events seems to be less possible to determine. The conflicts and the experienced increase of competition among actors related to the case of the CI1, led to a development of strategies, also including perceptions on other actors’ strategies. The strategy development further led to power play among the strategic actors. In the next sections, an analysis of power play related to the four events in the case of the CI1 is presented.

#### **7.4 Analysis of Power Play**

The following sections deal with the analysis of *power play* and games in relation to Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. Power play and games are key to understanding behavior in cluster cooperation when looking at issues of power and politics.

#### **7.4.1 Event 1: Funding & Public Competition**

During its existence, the CII and its surrounding environment were influenced by several power plays and games. The events related to the financial application may be regarded as a single game between representatives of the CII, the RBF and the NGO. Hence, the game was going on between actors representing a formal cluster initiative, the CII and actors representing actors in the larger surrounding cluster arena, the RBF and the NGO. At the time, the CII management experienced it as challenging to get an overview of who was really a part of the controversy or game, but more so to understand what it was really about. In other words, to the CII management, the situation made little sense.

During interviews, it was easy for the involved stakeholders to make assumptions that the situation had become relevant due to an already (partly) strained relationship between the NGO and the RBF. The perceptions of the CII management and the RBF representatives seemed to lean toward an understanding of an active game strategy against the CII development. The conclusion was that the game was really about the two organizations, and that the CII was used as a piece in this ongoing game. The perceptions on the interconnectedness of different actions and actors mean that conspiracy theory had a position in the presented assumptions. It is however important to emphasize that not all actors perceived their presence and actions in the cluster arena as part of one or more games. Also, certain strategies seem to be expressed only in the aftermath of events.



It can only be speculated on whether the representatives of the NGO acted jointly or individually, as a blocking of the RBF strategy or just as a cause of unfortunate coincidences with no planned strategy. Two alternative explanations were offered, which had little to do with any strategic behavior. The first explanation was related to internal proceedings in the NGO, which might have created confusion on who was in charge and what information to give out to the applicants. The second explanation is related to internal conflicts in the NGO on what projects to support. In the following period, there were several relevant projects presenting themselves with similar frameworks and content. Informal information given to the representatives of the CI1 and the RBF by a selection of NGO representatives revealed different opinions on whether the CI1 should receive funding. Potentially, games and strategies may have been going on inside the NGO as well, presenting an additional aspect.

Seemingly, any presence of a game related to the CI1 application ceased to exist by the end of 2008, where the CI1 had received funding from other sources and had closed the communication with the NGO related to this case. The debates and controversies between the NGO and the RBF did however continue, on and off, in the following period. The two actors had been involved in several games over the years, and their involvement may have influenced the outcome of the CI1 funding application.

Theory suggests that the outcome of games and power play are influenced by patterns of relations. Some kind of pattern between the NGO and the RBF seemed to have been established even before the presence of the CI1, leading to mistrust and challenges in cooperation. In cluster arenas, the context of the game seems to be of great importance,

as it influences what moves it is possible to make. The NGO and the RBF should be regarded as a key context of the CI1, in addition to being players in the larger and informal cluster arena.

#### **7.4.2 Event 2: Cluster Competition – Part One**

During the happenings occurring in the relation between the CI1 and the BFO, data shows how actors experienced a fast moving field. The activities in the businesses were developing quickly and it was difficult to keep an account of relevant information. This may have influenced the experience of the other parties playing games and sitting with more information. The BFO/CI2 Facilitator may have experienced that the CI1 representatives were using information in order to get a competitive advantage, while keeping information on their own activities back. The encounter between the involved actors resulted in a temporary solution, which was never actually carried out. In the end, the actors individually decided to keep away from each others activities, and cooperation was never carried out.

#### **7.4.3 Event 3: Public Regulation Interference**

In relation to the events developing as a result of the situation between the CI1 and the GDO, data shows how the reduction in public legitimacy had a major impact on how the CI1 could develop. In retrospect, ambiguous communication between the GDO and the CI1, in this case represented by the Initiator, may have led to the commencing downfall of the CI1.

The involved actors in CI1 were concerned with the possibility that an active power play had been staged by the GDO in order to stop the development of the CI1. This perception was supported by the fact that another similar initiative was allowed to continue their activities, with a basis similar to the CI1's. Uncertainty about whether the GDO had hindered the public actors in involvement even before the procurement project was suggested remained and led to tenacious perceptions that the GDO had created a strategy against the CI1 and played out games to hinder the continuation of the Initiative. Either way, the relationship between the GDO and the CI1 became damaging for the CI1.

The events between the CI1 and the GDO are probably the most unique events in this analysis. The relationship between the CI1 and the GDO was influenced by previous experience between key actors and person focus. The events were characterized by politics and limitations of legislation that influenced the opportunities of the CI1 in the long run. Probably, this is not a situation often encountered when dealing with cluster development. Still, power play and games targeted at hindering specific activities of a cluster initiative, or dominating actors, is potentially more common in clusters.

#### **7.4.4 Event 4: Cluster Competition – Part Two**

In relation to the events developing between the CI1 and the CI3, data shows how competition and strategic play in the end led to the downfall of the CI1. Conflict of interests and competition occurred, but no direct conflict played out. As previously dealt with, the GDO, which was involved in legitimizing the CI3, may have had some kind of power play toward the CI1, but this was beyond the CI3 handling.

The CI1 had increasingly struggled with legitimacy. Important institutional actors in the environment were skeptic or negative towards the Initiative and key actors involved were hindered from participating. Whether this was related to misunderstandings of the CI1 agenda, perceptions on a hidden ‘political’ agenda or pay back for previous encounters with specific members or organizations, is difficult to estimate. Possibly all are relevant and viable explanations. The CI3 probably had no power play in mind, but was concerned with securing own development. Nevertheless, the situation developed in a way making it more difficult to develop the CI1s planned innovation project. Key actors, time, resources and legitimacy were lacking.

As the CI3 emerged, with both stronger financial resources and institutional legitimacy, they became a relevant competitor and source for cluster development in the Oslo region. At the point where they received institutional funding, they were, for several reasons, less interested in cooperation with surrounding initiatives.

The CI1 management on the other hand was exhausted after dealing with a range of issues of quarrelling and power play, which only indirectly related to the development of the innovation projects. After experiencing a series of challenges over an eighteen-month period, the CI1 chose to close down the initiative, leaving the development to a greater equipped cluster initiative.

During its two years of activities, the CI1 experienced a series of challenging events. Some were active efforts of game and power play, while others probably can be regarded a result of ‘coinciding’ events. While the CI3 probably did not intend to play

any games, the presence and development of the CII became a great challenge for the involved actors, in the end resulting in the closing down of the Initiative. The CII was in the end 'defeated' by a competitor.

#### **7.4.5 Summary of Power Play**

The previous sections analyzed power play in relation to four pivotal events in the life of the CII. Data shows that power play and games occurred somewhat differently in the four events. The events occurring between the CII, the RBF and the NGO can potentially be regarded as active games and power play by the RBF and the NGO in order to achieve desired results. Comparatively, data in relation to Event 2, indicates less active game and power play, at least as experienced by the actors involved in the CII. Event 3 had stronger indication of power play, at least as perceived by the CII members, as GDO actors both directly and indirectly hindered the CII's proceedings. Finally, the events with the CI3 probably shows limited power plays and games, even if the assumptions as reported by the CII actors and its supporters suggest otherwise.

Over time, actors seemed to develop expectations on other actors' behavior, which may have influenced further interactions and the development of strategies and power play. The use of power play and games in order to achieve a result is probably highly common in and around clusters. Consequently, it must be taken into account when it comes to actions in clusters.

The conflicts and the experienced increase of competition among actors related to the case of the CII led to a development of strategies, also including perceptions on other

actors' strategies. The strategy development further led to power play among the strategic actors. All in all, conflict, strategy development and power play seems to be important features of the events playing out in relation to the CII.

## **7.5 Conclusion**

*When observing the complex features of actors in clusters, What behavior characterizes the actors of clusters?* The multiple and diverging features of actors, such as interests and perceptions, led to various types of conflicts between actors in the case of the CII. This further led to strategy development between actors who were eager to dominate the development of the field, which again led to power play among participants. This makes out the sum of *the feature argument and the behavior argument*, as outlined in the analytical model in Chapter 5, section 5.6.

The analysis of research question two shows that conflict, strategy and power play were important elements of behavior in the key events experienced by the CII. Competition was a source of conflict, present in all three of the four events of CII analyzed in this chapter. The competition was mainly experienced as a challenge among public and institutional actors, as well as between the cluster initiatives these actors were facilitating.

A distinction between what concerns public actors and private actors in the field of clusters should be made. The public and institutional actors dominance of agendas in this field may in turn have 'driven' private actors away. Public and institutional actors,

who are trained in talk and politics oriented thinking and behavior, seemed to dictate the cluster field, both at the formal and the informal arena. They were also usually the drivers of conflicts and political behavior.

In addition to conflicts with the surroundings, there will always be some kinds of internal conflicts in formal cluster initiatives. They are however perceived as a natural consequence of cluster cooperation and more extensively dealt with in the traditional cluster literature.

The multiple and diverging features of the actors in the CI1 influenced the behavior of actors in the cluster, leading to conflicts, strategy development and power play. This took away resources and consequently also the attention on innovation enhancement within the CI1. In the following chapter, research question three will deal with consequences of political features and behavior of actors in clusters.





## **Chapter 8 – Consequences of Cluster Initiation**

### **8.1 Introducing Research Question Three**

The main research question of this dissertation is concerned with why cluster cooperation seldom result in innovation. In Chapters 6 and 7, analysis has shown how features and behavior of power and politics are relevant when it comes to cluster cooperation. In this chapter, research question three is proposed for analysis, asking: *When taking features and behavior of cluster actors into account, what are the consequences of cooperation on innovation in clusters?* By this, research question three proposes a summary of the analysis of research questions one and two, while pointing toward some implications for such cooperation, related to the question of innovation.

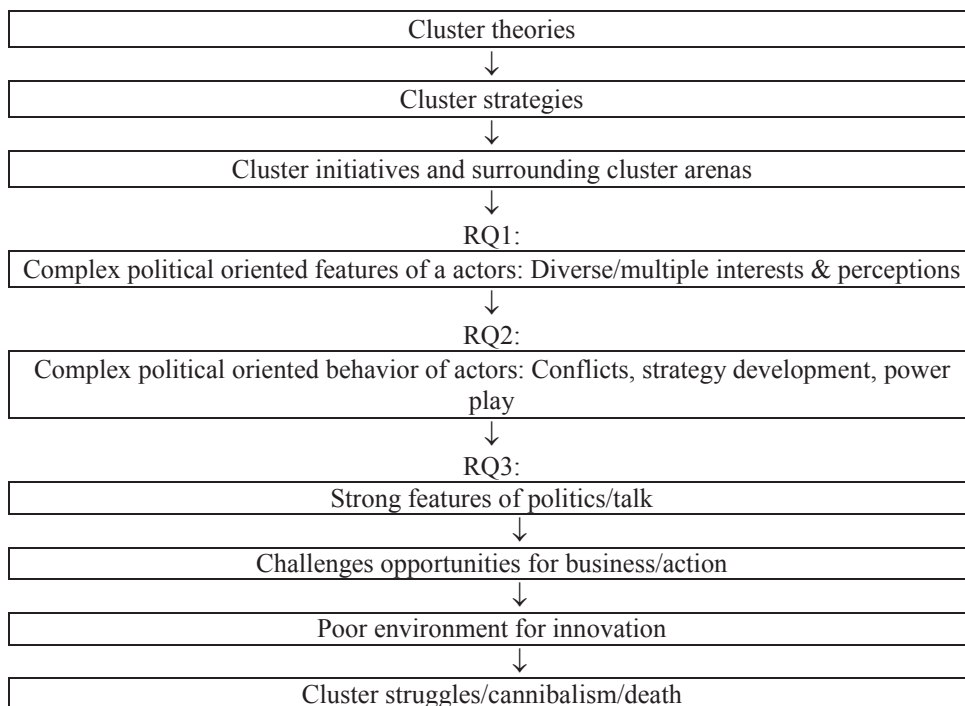
Data from the same four events of CI1 will be used during the analysis: Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two. In the following section, a reminder of the analytical framework relevant for the third research question is outlined.

#### **8.1.1 Analytical Framework**

The formal and informal arenas of clusters are characterized by complexity, due to their network-like features, mix of public and private cultures, and issues of diversity in interests and perceptions. This again leads to political behavior such as conflict, strategy development and power play between actors. The processes of developing cluster

arenas, taking these issues into account seems to have been underestimated. Although both business/action and talk/politics oriented actors are involved, talk/politics in features and behaviors seems to dominate cluster cooperation, creating issues of legitimization and challenge the focus on innovation. Consequently, innovation as a direct outcome of cluster cooperation becomes difficult, and cluster arenas compete and either grow, die or get eaten, which can be labeled cluster cannibalism. This makes out the sum of *the feature argument*, *the behavior argument*, and *the politics argument*, as outlined in the presentation of the analytical model, in Chapter 5, section 5.6. Research question three is proposed to deal with consequences of features and behaviors in clusters, which provides a summary of the analytical model:

**Model 8.1 A Summary of the Analytical Model**



A set of actors wishes to influence the field of clusters. They are present both at the smaller, formalized arenas and at the larger informal arenas of clusters. The arenas are characterized by:

- Actors in cluster cooperation come from both public and private environments. They have a variety of expectations, interests and perceptions. This leads to a ‘clash of cultures’ that challenges the focus on innovation. This can be labeled *the feature argument*;
- The mix of interest and perceptions leads to behaviors of conflicts, strategy development and games between actors, resulting in issues of trust and challenging the focus on innovation. This can be labeled *the behavior argument*; and
- The process of developing cluster arenas while taking the features and behaviors of actors into account seem to be underestimated. Although both business/action and politics/talk oriented actors are involved, politics/talk in features and behaviors seems to dominate cluster cooperation, creating issues of legitimization and challenging the focus on innovation. This can be labeled *the politics argument*.

The sum of *the feature argument*, *the behavior argument* and *the politics argument* leads to great disturbances in the development of concrete/formal arenas for clusters. These circumstances produce conflict *within* and *between* various cluster initiatives, as well as between other actors present in the informal arenas of clusters.

In both the formal and informal cluster arena there is a distinction between what seems to concern public actors and private actors. The stakeholders have (at least) two differing types of interest, which shape their understandings and approaches in these arenas: politics (talk) and business (action) (Brunsson, 1989).

The formal cluster initiatives are individually intended for action, business and innovation thinking. The conditions surrounding such initiatives do however lead to a reinforced emphasis on features such as multiple interests and multiple perceptions, increasing the orientation towards politics and talk (Brunsson, 1989). The political features contribute to increased levels of conflict and competition, strategy development and power play present both within the formal and informal initiatives. This means that innovation as a direct outcome of cluster cooperation becomes increasingly challenging. The analysis of political versus business orientation related to the formal and informal cluster arenas will be presented in section 8.2.

Not all actors perceive the goal of innovation as a reachable goal within the formal arenas. Consequently, they participate for various other reasons, which are rarely communicated. This suggests that the cluster arenas have some challenges in achieving innovation, but may still be useful for other purposes.

The following sections deals with an analysis of the four identified main events in the life of the CII, The main focus of the analysis is on the identification of consequences of the cooperation on innovation within clusters, taking previous findings into account in addition to looking at actors' orientation toward business and politics.

## **8.2. Analysis of Business/action & Politics/talk**

Cooperation in clusters is targeted toward innovation and business development.

Simultaneously, key features and behaviors among actors present in these arenas seems to be related to an orientation toward power and politics. The following sections deal with the analysis of business/action and politics/talk in relation to Event 1: Funding & public competition; Event 2: Cluster competition – part one; Event 3: Public regulation interference, and; Event 4: Cluster competition – part two, showing how the attention of the CII was diverted from its original focus.

### **8.2.1 Event 1: Funding & Public Competition**

The issues dealt with in the events occurring in regards to the CII application seems to be more closely related to Brunsson's (1989) features of political and talk organizations than to any features representing business and action oriented organizational environments. Apart from the CII, the main actors involved, the NGO and the RBF, were public organizations that were used to dealing with politics and talk, even if both were established to contribute to and facilitate business- and action-related environments. This contrast might in itself create a challenge, as the culture these public organizations represent, as well as the culture they are assigned to handle, are relatively divergent, both in approaches and in goals.

During the months dealing with the application, talk - but also lack of talk - seemed to characterize the interaction between the NGO and the RBF. An increasingly conflicting landscape between two organizations was about to reveal itself. As previously

mentioned, the NGO and the RBF seemed to have several interests which could be regarded as mutually cohesive, but also potentially competitive and conflicting. During interviews, the perceptions of the involved parties seemed to indicate the latter. The increased competition led to a conflicting landscape and power play, as the conflict between the NGO and the RBF played out. At this point the CI1 as an initiative was in a starting phase and it was apparent that the public actors were dominating the ground.

### **8.2.2 Event 2: Cluster Competition – Part One**

When it comes to the events occurring between the CI1 and the BFO/CI2, the actors involved were mainly focused on developing opportunities for joint cooperation for the companies and organizations they were representing. But while the CI1 was established in order to develop innovation projects and action, which relates to the attention of an action organization, the CI2 was more concerned with politically focused agendas, related to a talk and politics organizational behavior. In this respect the CI1 and the CI2 had some fundamental differences in perspectives. The BFO, as the facilitator organization, was used to dealing with politics, both concerning a divergent internal member base and in communications with the surroundings. In reality the BFO was closer to the features of a political organization, which was reflected in the actions of the CI2.

The situation occurring between the management of the CI1 and the Facilitator of the CI2 had features of divergent interests as a result of competition, in addition to negatively developing perceptions. This again led to decreasing trust among the actors. The conflict of interests due to (potential) competition resulted in a conflict among the

involved actors. Even if a solution to this conflict was proposed and agreed upon, both parties seemed to withdraw when the actual solution was to be carried out. The incentives to contribute to cooperation were limited.

In summary, the interaction between the BFO/CI2 and the CI1 had characteristics of what can be characterized as organizational talk and politics, where diverging interests and conflict was highly present.

### **8.2.3 Event 3: Public Regulation Interference**

Even if the CI1 was concerned with the opportunity to develop business and focus on action, the events occurring between the GDO and the CI1 was characterized by and mainly influenced by political features. In many respects, the GDO as a public organization functioned as a link between talk and action within the public field, and was used to dealing with politics. The organization also had experience in handling conflicting issues. The management of the CI1 on the other hand, was less experienced with such organizational focus and behavior, and the framework of the Initiative was not set toward handling it. The communication also involved the PDC, who was oriented towards business and action and had less interest in politics and talk.

Both interests and perceptions among the involved actors were divergent. In the long run, the GDO intentionally made sure that key participants of the CI1 were hindered from participating, consequently from developing the initiative further. Whether this was related to the principle sides of the procurement policies, rooted in worry that the CI1 would overstep regulations, or the actual bias against actors in the CI1, is not

possible to determine. Potentially, all arguments could be simultaneously viable. Either way, the interaction between the two parties had strong characteristics of politics, much to the frustration of the CI1 management and the PDC.

#### **8.2.4 Event 4: Cluster Competition – Part Two**

Both the formal cluster initiatives of CI1 and CI3 were developed for enhancing action and innovation within their specific business field. This relates to what Brunsson (1989) labels action organizations. The expectation is that cluster initiatives are focused on innovation as a relatively clear outcome and consequently oriented toward the kinds of action to achieve it. Action organizations are less equipped for dealing with variable and unpredictable environments, which the regional cluster field can be easily regarded.

The environment surrounding the CI1 was developing fast and proved to be more unpredictable than assumed. The CI1 management was put in a position where they had to deal with multiple interests in the informal cluster surroundings. In the case with the newly emerged CI3, interests quite quickly collided. This further led to a range of perceptions that influenced decision-making and varieties of more or less realistic explanations for why things developed the way they did.

In reality, the CI1 and the CI3 had become competitors, targeting many of the same available resources and actors. But even if the two organizations had a conflict of interest, conflicts never developed. As the CI1 was losing ground, the board tried to develop a strategy for survival, suggesting a cooperative effort with the CI3. After much back and forth talk, the CI3 formally turned the offer down, arguing that they were in a



phase where efforts had to be focused on internal development and making sure that the funding sources were satisfied. Sources later claimed that the actual reason was the CI1s loss in legitimacy and politically sensitive status.

The characteristics of the environment the CI1 was dealing with in relation to the CI3 have great features of politics and positioning. Even if the formal cluster initiatives had goals which related to a business focused organization, both its facilitator and its environment was focused politically, increasingly dealing with diverging interests and inconsistencies in norms, ideas and demands, rather than action. The actors involved had experience from handling politics and conflicts of interest. These actors were of public or institutional character, with time to handle issues of political importance.

#### **8.2.5 Summary of Business/action & Politics/talk**

The previous sections have analyzed how talk and politics have dominated the interaction in the four events in the life of the CI1, even if action and business to a main degree was the objective of the cluster initiatives. The features of interaction between the various actors involved in the four events have some differences. Still, all represent examples of a talk and politics orientation in the fields and clusters, rather than an action and business orientation. Potentially, interaction *between* organizations will always have such characteristics, in particular when public actors are involved. Independently, the events developing in relation to the CI1 and the CI1 itself, may also have opened the initiative to this kind of politics and power orientation.

The four events analyzed occupy a majority of the resources and time spent on developing the CII. These events also illustrate how talk and politics influence the daily life and whereabouts of a cluster initiative and how easily attention was placed on things other than cooperation on innovation. Features of politics may be a natural and necessary part of any formal or informal cluster arena. A byproduct of such orientation may however be that talk and politics contribute to reduce legitimacy of the formal initiatives towards the business-oriented actors. Action and business-oriented stakeholders will expect more attention toward action and innovation than toward talk and politics.

Furthermore, talk, politics and disagreements among actors is time consuming. The public facilitator actors in the field surrounding the CII, seemed to have both more experience, focus toward and time to handle such political issues. Comparatively, the private actors close to the CII had less interest in such issues, and were mainly concerned with how to gain quick wins from the cluster cooperation. As long as cluster arenas are influenced and steered by public and facilitator actors, the relationship between the goal of innovation/action/business and the presence of talk/politics will probably continue to be a paradox.

### **8.3 Conclusion**

*When taking features and behavior of cluster actors into account, what are the consequences of cooperation on innovation in clusters? Multiple interests and perceptions of actors in clusters further leads to conflicts, strategy development and*

*power play* among the actors in clusters, which challenges attention toward innovation in favor of a focus on power and politics. This makes out the sum of *the feature argument, the behavior argument and the politics argument*, as outlined in Chapter 5, section 5.6. The increased popularity of cluster enhancement projects, combined with the (misled) focus on power and politics, leads to increased competition among cluster initiatives and public and institutional facilitators and creates a kind of cluster cannibalism in the field.

The field surrounding the CI1 was strongly influenced by the popularization of cluster strategies that emerged in the first decade of 2000. The data material shows the complexity in the field of clusters. Even if business and innovation was the goal of the cluster cooperation, no innovation occurred as a result of the CI1, at least not as experienced by the involved actors. Rather, a lot of ‘playground quarrels’ and conflict was taking place. Politics came into focus in favor of business and innovation.

In addition to external forces seeking to reduce the relevance of the CI1, the lack of outputs inside the Initiative contributed to the downfall of the CI1. In the surrounding cluster environment, several similar cluster initiatives and public and institutional actors were competing. Realistically, there was not enough critical mass in the Oslo region to serve the inflation of initiatives oriented toward the same business field. This led to cluster cannibalism. Consequently, some initiatives died out, others were merged, while others again grew stronger and more visible. After a year of struggle, the CI1 died out, while pieces of it were picked up by another more competitive cluster initiative, which developed into a stronger and more powerful unit in the business environment.



## Chapter 9 – Politics and Innovation in Clusters

### 9.1 Introduction

The previous chapters have discussed in detail the arguments related to why *initiated* cluster cooperation does not always lead to innovation, showing how the attention of the involved actors easily moves toward issues of power and politics. The arguments are based on findings from an Oslo-located cluster initiative, the CI1, looking into four challenging events in the life of the Initiative. These events played out between actors directly involved in the CI1 and actors in the surrounding environment, and cost most of the attention of the CI1 management. In total, they represent examples on how political *features* and *behavior* play a substantial part in dealing with clusters. The events lead to challenges *within* the cluster initiatives in the cluster arena, as well as conflicts *between* the cluster initiatives and other actors present in the field. As the popularization of cluster strategies has increased the initiation of cluster initiatives, competition among these initiatives and the involved actors emerged, leading to a kind of *cluster cannibalism* in the field. In the longer run, some cluster initiatives are enlarged, some join forces, while others die out. The following sections summarize key points from the analysis and point to some practical implications of the popularization of cluster strategies.

## 9.2 Findings and Summary of Analysis

*Why does cluster cooperation seldom result in innovation?* This study has been concerned with challenges related to *initiated* cluster cooperation, facilitated by public or institutional actors. Michael Porter (2000:15) defines clusters as:

*Geographical concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g., universities, standards agencies, trade associations) in a particular field that compete but also cooperate.*

He argues that clusters contribute to enhance productivity and innovation. Porter (1998:45) further defines innovation:

*...to include both improvements in technology and better methods or ways of doing things. It can be manifested in product changes, process changes, new approaches to marketing, new forms of distribution, and new concepts of scope.*

In this study, a second condition for defining innovation as an output of cluster cooperation has been added: In order to be counted as innovation, the output must be regarded as an innovation by participating actors. Porter's theory on clusters can however not explain why cluster constellation fails to produce innovation. The data of the CII shows how a cluster initiative set out to cooperate on innovation was not able to achieve any such output. The study contributes to new insight on what brings challenges to cluster cooperation, related to how power and politics influence the field.

The popularity of the cluster strategies resulted in a development of a range of smaller *formal cluster oriented initiatives* in Norway in the first decade of 2000. This boom became most apparent in the capital region, Oslo, where the population is the largest,

the educational level is the highest, and the presence of companies and research environments likewise. The increased existence of various types of cluster-like initiatives is a result of key public and institutional actors putting cluster enhancement on their strategic agenda, encouraging the development of inter-organizational initiatives with an innovation focus.

These arenas or initiatives were formed almost simultaneously, and received help from various facilitator organizations who had cluster strategy on their agenda. The goals of the formal initiatives were usually relatively precise and targeted toward the interests of the members, concerned with concrete cooperation and steps for taking action for cooperation on innovation. Consequently, the formal initiatives were expected to deal with some kind of issues of innovation and business development. As more cluster initiatives were developed, more actors were competing for the same resources, focusing their attention on the same pool of organizations, people, time and funding. Furthermore, most initiatives could be assumed to have an agenda of expanding their attention and member-base, in order to develop the fundament for their 'cluster' initiative and become leading in their field.

In 2009, the sum of cluster-oriented initiatives in a Norwegian context seemed to make out a whole new field of innovation stakeholders. Surrounding the smaller, formal cluster initiatives, a new *informal cluster arena* was appearing. This arena was larger, but without any distinct borders. Due to this arena's fluctuating features, it was more difficult to delineate key representatives. Actors (more or less) present in this arena were various representatives from public and private funding and facilitator agencies,

business organizations, research and business organizations as well as a range of formal cluster initiatives mentioned.

In both the formal and informal cluster arenas, new kinds of conversations, debates and controversies took place. These new arenas became meeting places for an undefined mix of business and political logic, representing both private and public interests.

Although the formal and informal cluster arenas included both public and private actors, they appeared to be dominated by public and institutional actors with more time and political experience at hand than what is common for business stakeholders. They were to a greater degree concerned with issues related to regional development and politics of innovation, rather than with practical issues related to achieving innovation within cluster constellations. In the case of the CII, meta-conversations on how to organize the larger field of stakeholders involved with issues of innovation, politics and regional development seemed to get a disproportionate amount of attention. Disagreements on such issues further contributed to conflicts and a dominance of political orientated behavior.

The analysis shows how multiple *interests* dominated the CII and its surrounding environment. These interests were related to individuals, concrete organizations and companies, cluster initiatives or issues of regional development. Some actors had business considerations and were focused on opportunities to achieve some kind of innovation, while others were more political and power oriented. The sum of these



interests complicated the field and created various kinds of conflicts of interest and power play.

*Perceptions* on other actors' interests, actions and involvement also seemed to flourish in the field. In relation to the events challenging the CII's existence, perceptions among the involved CII actors was definitely stronger if the CII was the one 'attacked.' Then, 'conspiracy theories' on 'ulterior motives' on strategies seemed to be nurtured. Perceptions on other actors' agendas provided a fundament for a distrustful environment of actors, and further led to attention toward competition and conflict.

Data shows that *conflict* occurred somewhat differently in the four events analyzed. In some events, actual conflict was apparent, while in others, competitive aspects were the most visible and conflict did not result in any actual encounters. The dominating participants in conflicts were the public and organizational 'players,' who had motivations for, experience in, and time to involve themselves in politics and quarrels.

*Strategies* related to the events of the CII, were of both implicit and explicit nature. They could be divided into issues of relevance to the institutionalization of the CII, which can be labeled network structuring, and issues of relevance to win a certain game, which can be labeled game management. Both types of strategies were present and sometimes seemed to overlap among actors involved in and surrounding the CII. Perceptions on strategies developed by other parties also seemed to flourish.

*Power play* occurred somewhat differently in the analyzed events. In certain events active games seemed to be played out, while in other such activity did not seem to be as ‘operative’ or intended. Either way, the situations playing out were time consuming, difficult to keep track of and took away important focus from the *planned* activity of the CII.

The complexities of the cluster and the diversities of interests and perceptions of the actors involved invited various kinds of *political* behavior. Conflict, strategy and power play were important elements of behavior in the key events experienced by the CII. This may be natural features of inter-organizational interaction and therefore assumingly also cluster cooperation.

The popularization of cluster strategies increased the initiation of cluster initiatives, leading to a new form of *competition between initiatives*, as well as *competition between the actors initiating the cluster initiatives*. As several cluster initiatives were oriented towards the same resources, ‘political’ aspects of such cooperation were strengthened.

In the case of cluster cooperation, *action and business* would be expected as the fundamental orientation of actors, with a goal of innovation enhancement. Consequently, the dominating presence of *politics and talk* in and around the CII contributed to a reduction in legitimacy of the formal initiative toward the business-oriented actors. Private companies ended up as observers of a politicized field, which contributed to support their prejudice on involvement with public governmental actors.

As public actors dominated the cluster field, and talk and politics became increasingly time consuming, private actors lost interest. As a result, the relationship between the goal of innovation through business and action and the strong presence of politics and talk became a paradox. It produced unintended results and influenced the opportunity to innovate within a cluster context. In sum, the observed features and behaviors suggest and may explain why the CII had challenges in achieving innovation.

In the long run, successful cluster initiatives can be enlarged and join forces to become stronger, while others die out. In this study, these phenomena have been labeled *cluster cannibalism* and characterize the somewhat ‘brutal’ nature of the cluster field, as observed in the case of the CII. The popularization of cluster strategies led to a competition between the actors initiating and facilitating cluster initiatives, as well as between the cluster initiatives themselves. In the case of the CII, the cluster cannibalism led to a restructuring of the cluster field. The CII was not able to provide any significant results related to innovation, while other cluster initiatives represented increasingly strong competition. Consequently, the relevance of the CII was highly reduced and in the end led to its downfall. In table 9.1 a summary of findings from events analyzed in the case of the CII can be found.

**Table 9.1 Summary of Findings from the Events Analyzed in Chapter 6-8**

	<b>Event 1: Funding &amp; public competition</b>	<b>Event 2: Cluster competition – part one</b>	<b>Event 3: Public regulation interference</b>	<b>Event 4: Cluster competition - part two</b>
<b>Interests</b>	Coherent interests among <i>facilitator organizations</i> , turning into	Similar, but (partly) competing interests	Divergent interests	Similar, but competing interests

	competition			
<b>Perceptions</b>	Flourishing among CII stakeholders	Less among CII stakeholders, more among CI2	Flourishing among CII stakeholders	Flourishing among CII stakeholders
<b>Conflict</b>	Conflicts of interest and competition between public 'facilitator' organizations. Potential competition between cluster initiatives	Conflict of interests and competition between involved actors in relation to respective cluster initiatives	Conflict between public regulator and specific actors in the cluster initiative	Conflict of interest and competition between initiatives, potentially also between 'facilitator' organizations
<b>Strategy</b>	Game management between facilitator organization, network structuring interests for the CII	Network structuring in focus both for the CII and the CI2, which resulted in game management	Game management between actors in the CII, also representing the PDO, and the GDO	Network structuring in focus both for the CII and the CI3, potentially game management as a result, in addition to potential game management between facilitator organizations
<b>Power play</b>	Power play between facilitator organizations. Actual encounters	Less presence of power play/games. Actual encounters	Power play on who had final word. No conflict acted out	A perception on power play among CII stakeholders, not possible to determine. No conflict acted out
<b>Business/act ion versus Politics/talk</b>	Strong presence of politics/talk among involved actors	Presence of politics/talk among involved actors	Strong presence of politics/talk among involved actors	Presence of politics/talk among involved actors

<b>Learning/ Conclusions</b>	Public and institutional facilitator organizations in the cluster field influence the opportunity for development	Blurring of roles, trust issues, influence opportunity for cooperation. Negative experience stick and lead to negative perceptions	Previous history among actors influence opportunities for cooperation, external legitimacy is key for development of cluster initiatives	Cluster cannibalism: Strong features and behavior of politics may alter opportunities for cluster initiatives in the field
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The presence of politics, power play and cluster cannibalism shifted focus of the CII, which contributed to the lack of attention on innovation and therefore also on the prospects for innovative outputs. A concern proposed in the study is how public and institutional rivalry influence opportunities for cluster initiatives to achieve successful results. Initiated cluster initiatives are often facilitated by public or institutional actors. Findings suggest that facilitation done by this type of actor may both directly and indirectly contribute to the presence and potentially also increase the political-oriented focus. The facilitators may contribute to an important level of knowledge on approach and access to funding, but may at worst ‘damage’ the cluster initiative’s potential, due to misplaced focus. The perspectives of the business and research environments must be able to dominate, requiring engaged actors from the field.

The events presented in relation to the case of the CII may potentially be regarded as trifles. The importance of presenting them is however related to showing how cluster cooperation easily gets off track due to politics, strategy development, power play and cluster cannibalism. Such issues should be taken into account when looking into cluster performance, independent of other explanations as to why a cluster initiative fails to ‘deliver.’

Even if the presented events may seem like bagatelles, they were experienced as highly relevant in the field. They concern issues like who was in charge in the field, who was allowed to steer the professional development, who behaved like competitors and who was willing to cooperate. In sum, the events could be perceived as playground quarrels touching upon power and personal likes and dislikes, occurring in a field where ‘kings’ or ‘queens’ of various organizations in the cluster want to make sure their domain was not threatened.

A ‘cowboy style’ approach performed by many of the players in the field over time caused an increasingly distrustful environment. This again challenged the cooperative efforts of the actors involved in and around the CII. Consequently, what was originally regarded overlapping interests easily transformed into competing interests. For several reasons, including this conflicting and competitive situation, certain external actors indicated a desire to reduce the (potential) relevance of the CII.

Many cluster initiatives have been accused of being without ‘content.’ As active participation in cluster initiatives is a secondary activity for most involved parties, actual engagement can be reflected in the initiatives’ relevance, opportunity to influence and how activities develop. In the case of the CII, the lack of engagement among participants became a defining turning point. As touched upon, the disengagement may have had several explanations. Independent of reason it contributed to reduce both the opportunity of the CII and its legitimacy.

Simultaneously, the cluster environment around the CII was increasingly ‘populated’ by various types of competition, both between clustered initiatives and between public and institutional actors with close links to respective cluster initiatives. Consequently, issues of concern became not just what went on within the formal cluster initiative. The cluster cannibalism, meaning what went on in the informal and larger arena, between cluster initiatives and/or public and institutional actors also became relevant topics. Many processes went on at once and a full overview was not possible at the time. A total overview probably never will be possible in processes of cluster development efforts.

For the politics-oriented participants, various types of conflicts escalated in relation to the development of the formal initiatives. Findings also indicated that some actors, especially the public ones, had an interest in maintaining conflict, in order to gain attention and to ‘influence’ the field in their desired direction.

The environment surrounding the CII influenced the opportunities of the initiative. Actors present in clusters had a mix of visible and invisible agendas. Hamdouch (2008:20) emphasizes that clustering processes can be driven by ‘invisible hands,’ in addition to the visible ones. Grasping who is ‘driving’ a process or game may be an impossible challenge in the heat of the moment. A blurring of roles also influenced the field of the CII and initially created difficulties of trust among actors.

The conclusion in this study is that politics and power play are a much more important part of cluster development than given credit for in both theory and strategy.

Consequently, politics must be taken into account in relation to clusters.

Simultaneously, it is necessary to emphasize that certain actors seem to have a tendency to 'read too much politics into the field' and support its dominating features. This again easily leads to an undervaluation of private actors' interests, which should be avoided in cluster cooperation. In the case of the CII, the boom of initiatives wanting to serve the same business field led to a deficit of resources and relevant actors in the Oslo region. Realistically, there was not enough of a critical mass of actors to serve the increase in cluster initiatives oriented towards the same business field. Competition increased and someone had to give in. The situation led to a kind of cluster cannibalism, where the CII was shut down, due to strong competition from other initiatives.

### **9.3 Potential Implications of Cluster Strategies in the Field**

As argued previously in this study (see Chapter 3, section 3.5.2), case study research offers little opportunity for generalization. Consequently, generalization has not been an objective of the research. This does not mean that there are no relevant lessons of importance to other cases of cluster initiation. In order to take advantage of a study's knowledge in another setting, one has to take contextual issues into account, both in the situation where the research was carried out and where the relevant knowledge is to be applied. This will help to understand whether the fundament of the two situations have sufficient similarities to actually take advantage of the new knowledge (Greenwood & Levin, 1998:79). Such perspective requires that the reader themselves make the considerations and search for perspectives of relevance to their respective practice or field.



A recent study produced by International Research Institute of Stavanger, involving more than 1600 companies in the five largest Norwegian regions, reveal some interesting findings: The number of regional partners seems to have little effect on the innovation-rate of a company. There does however seem to be a strong and visible connection between the ones who are the most innovative and their number of international partners. The data material indicates that each international partner increases the probability of a company's innovation on products by twenty-one percent (Fitjar & Rodríguez-Pose, 2011). The authors quantitative findings corresponds with this study's qualitative ones, which argues that cluster cooperation does not necessarily lead to innovation.

Cluster theory seeks to explain how a company could enhance its business and innovation through cooperation and competition locally. Cluster theory can however not explain how clusters are created or why innovation fails to occur in such constellations. As clusters have been widely promoted as a strategy for enhancing innovation in regions (EU, 1995; OECD, 2007), the theoretical fundament proposes some challenges. Conceivably, *the application of* the cluster theory is more problematic than the theoretical fundament itself.

Innovation may be a naïve expectation of cluster cooperation. Potentially, Michael Porter's (1990, 1998) cluster theory has been misinterpreted. But his lack of limitations and precise definitions of clusters leaves great room for misconceptions. For instance, Porter (1998) seems to be relatively unclear about *where* innovation in a cluster actually takes place. From time to time, innovation occurs within a business field in a region.

Whether this is a result of cluster-initiated cooperation or completely different factors undoubtedly varies.

Pålshaugen (2011) underlines how the Capital Project recognized that innovation does not necessarily occur at the joint cluster arena, but may occur *as a result of* meetings, knowledge and bonds made at this arena. Possibly, innovation occurs outside the cluster arenas, due to higher attention among involved actors. But then, what makes the cluster label unique from other types of initiatives or arenas? Does the 'cluster' have something additional to offer? And furthermore, does this mean that the institutions involved do not really expect innovation as an explicit outcome of cluster cooperation?

During interviews, several of my business-oriented informants explained that they expected few, if any outcomes of participating in a cluster cooperation effort. One informant was advised by colleagues to keep efforts at a minimum, but wanted to use it as a business-networking platform. The same colleagues had experiences with similar types of initiatives, with little or no experience with achieving any (measurable) success. This questions whether participants camouflage the defining arguments and interests of cluster participation. For instance, networking and monitoring of competitors may be viable explanations for involvement, rather than any expectation of cooperation on innovation.

Potentially initiated cluster initiatives are really not developed for achieving innovation. In a Norwegian context, when looking at cluster initiatives considered successful, their role in the environment seems to be connected to their ability to create attention toward

the companies and research environments involved in the cluster effort. But is this really innovation? These initiatives are concerned with attracting the right organizations and people, in order for the involved actors to access important resources. The cluster initiative brand and market the businesses and research environments they are representing. They also initiate and maintain conversations, internally and externally, on key interests of the business field. To be fair, access of people and organizations, marketing and agenda settings are all mechanisms that may be regarded as important in obtaining increased innovation, but such tasks cannot be recognized as innovation itself.

The observations made in this study concerns perspectives of initiated cluster development that to a little extent seems to have been acknowledged or regarded as relevant in previous research. Cluster environments and cluster cooperation seems to be intrinsically political. Organizations and actors involved have diverse and potentially conflicting interests, which sometimes lead to power play, strategic behavior and cluster cannibalism.

The tendencies towards competition and conflicting behavior seem to have been most present between institutional and public actors. The revealed competition has mainly been experienced between the actors operating on the larger informal cluster arena, but has simultaneously influenced the opportunities of the formal cluster initiatives. Clusters have potentially become arenas for playing out conflict and power games between public and/or institutional organizations through cluster cannibalism. This definitely is beside the intentions and attention clusters have been getting the past

decades. Consequently, power play and conflicts contribute to hinder a focus on innovation.

Brunsson (1989:11) argues that traditional theories on organizations make it difficult to understand attributes of disintegrative art. Consequently, disintegrative attributes are regarded as dysfunctions, which should be corrected. He further suggests that both integrative and disintegrative qualities of an organization may be of relevance for the organization, depending on context. This insight may be applicable to the field of clusters. It is important to emphasize that conflicts in cluster environments are not necessarily bad. It is possible to imagine that certain conflicts are necessary in order to organize and prepare the cluster field, focusing attention toward the most sustainable concepts. As pointed out, the cluster field is still immature. In a Norwegian context, the past decade represents a phase of experimentation with approaches to cluster cooperation. A tentative conclusion must be that improvements on various levels seem to be necessary in order to become more relevant to the cluster's stakeholders.

If strategic cluster efforts are continued as a public instrument for innovation enhancement, several new theoretical and empirical debates should be called for. In a Norwegian context, evaluations are still needed. The organizing actors of the policies of innovation, both at national and regional level, needs new conversations on possible outcomes of initiated cluster arenas. Furthermore, there is a need to investigate necessary prerequisites for developing and improving cluster efforts. In this respect, conversations on competition and behavior in the informal cluster arena, looking into

overlapping and possibly competing institutional agendas, leading to cluster cannibalism, should also be addressed.

Potentially, an overall coordination of cluster efforts should be considered. Over the past decade, actors surrounding the formal cluster initiatives seem to have been unable to agree on and cooperate on any joint direction. The cluster environment has an interest in clarifying tasks and roles of the present cluster initiatives, as well as of the institutional actors involved, in order to secure the available resources.

Some cluster initiatives have a focus on business development for companies, some have a focus on enhancement of research, while a third group has a more strategic attention toward regional development. Even if issues are related, the varieties create slightly different attentions and approaches, and there seems to be little awareness on this variety in the field.

Debates on cluster management and involvement should be strengthened. The uniqueness of managing efforts with a complex mix of public and private interests must be emphasized and investigated further. Presently, it seems like management and necessary institutionalization processes of a cluster effort have not been taken seriously enough. In order to improve the cluster field, 'politics' must be accounted for when dealing both theoretically and empirically with clusters.

## 9.4 Conclusion

The goal of this study has been to show and explain why certain features of cluster cooperation easily interfere with the intended goals of innovation and business development. The presence of various types of politics in the cluster influences the attention of the initiated cluster initiatives. The cluster becomes business- and politics-oriented simultaneously. The complex mix of business and politics in the field and diversions of attention plays a role in achieving results. Consequently, colliding understandings, expectations and goals operate along each other. As a result, innovation as an output of cluster cooperation becomes fundamentally difficult to achieve.

The objective of the cluster is to increase innovation, economic prosperity and competitiveness. The way to do this is to enhance activity potentially leading to innovation. There are however no 'true' answers to what activities will lead to innovation. Clusters are complex initiatives, leading to complex processes and complex management. Consequently, cluster cooperation quite often lead to unintended results not related to innovation. This dissertation introduced what happened in *one case* over a relatively *short time*. The findings indicate that at present time, cluster arenas seem to be arenas more relevant to public politically oriented stakeholders, than for private, business oriented companies.

At best, cluster initiatives can contribute to knowledge enhancement, cooperation and opportunities for innovation. That is, if business and innovation is the actual agenda of the involved actors. At worst, cluster initiatives become tools for 'positioning' and conflict among public and institutional facilitators. Cluster strategies today seems to

have become strategies for organizing the policy field of innovation, rather than a way to actually achieve innovation. Efforts of cluster enhancement will definitely develop and change in the long run. In the mean time, a more nuanced conversation on clusters should be encouraged.

*(...) I was becoming sadder and sadder: If a reader skips a single sentence of my novel he won't be able to understand it, and yet where in the world will you find a reader who never skips a line? Am I not myself the greatest skipper of lines and pages?*

Milan Kundera, *Immortality*, 1989:365



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