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National Pilot for Regional Innovation

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Preface

The Project National Pilot for Regional Innovation was initiated in 2006, based on a joint initiative taken by the Value Creation 2010 regional development coalitions in Hordaland/Rogaland and Agder. It was later financed by the Ministry of Trade and Industry and the counties of Hordaland, Rogaland, Vest-Agder, and Aust-Agder. IRIS in Stavanger and Agder Research in Kristiansand were jointly responsible for the project.

The aim of the project is to build on experiences that have emerged from the two programmes Enterprise Development 2000, Value Creation 2010, and the ongoing VRI project (Programme for Regional R&D and Innovation). The aims of the project include discussing the need for improving co-ordination and collaboration efforts between different policy instruments, institutions, and actors that works on a regional level to address the joint challenge on improving the conditions for regional innovation. This can be understood as to contribute to increased knowledge about barriers and possibilities in the use of regional policy measures. It is also ambitious to use knowledge derived from the project in new research applications.

The total project has been subjected to some delay because of issues relating to the budget situation with one of the project stakeholders. However, since February 2008, the project has been on track to completion.

The working method in the project has been to develop working papers and present them at workshops and conferences. This has been done in close collaboration with the VRI project in the Agder region. The project has also benefitted largely from international collaboration. The working language in the project is for this reason English.

Kari Jøsendal has been the project leader at IRIS, and Roger Normann is project leader at Agder Research, they have collaborated on editing this publication. The project resources were divided equally between the two institutions. It is our ambition that the articles in this report shall be further developed for publication.

We would like to give thank to the contributors to this publication, our stakeholders, and the local steering groups, and hope that you find the contributions in this publication interesting and thought provoking.

Stavanger and Kristiansand
February 2008

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Project leader
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Project leader
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Summary

This research publication is the result of collaborative work and builds on insights from several research projects, most notably the *Enterprise Development 2000 programme* (ED2000), *The Value Creation 2010 programme* (VC2010) and the *Programme for Regional R&D and Innovation* (VRI). We have also used statistics and data from other research projects such as for instance *Leadership Values* (Hidle and Normann, 2008). This publication addresses some of the most important contemporary challenges and contextual background for national innovation policies, including topics such as the Nordic model, corporate social responsibility, cluster policies, culture based creative industries, learning regions and steering of regional governance and innovation systems.

This publication is organised into three main parts, the first part, *National Policies and Development Trends,* addresses some of the broader national issues characterising societal and industrial developments.

Hans Chr Garmann Johnsen and Dag G Aasland's chapter, entitled *Innovation in the Nordic Model: a broad perspective on innovation policy,* addresses how the Nordic model has revived in recent years as a narrative on how and why Nordic countries have been successful, both in terms of economic growth and peaceful development, democracy and human rights. Johnsen and Aasland discuss some of the paradoxes, dilemma, and current challenges facing the Nordic model, something that implies understanding the internal and external logic in the relations between the different institutions in the model. Their core argument is that the Nordic model, even if it was a meaningful "model" with reference to the modernisation project before and after the Second World War, has not adopted to later trends for post-modernism and globalisation. This Johnsen and Aasland thinking is illustrated by the shortcomings of recent innovation programmes in addressing these development challenges. A large public sector, made possible by oil revenues, has so far made it possible to maintain relative economic and social stability in spite of the global crisis. However, stability might not mean innovativeness. This is where the "model" today is challenged. A comprehensive analysis of how the "model" has adapted to current circumstances, should look into reforms both in the public and the private sector. However, Johnsen and Aasland's contribution will mainly address changes in innovation programmes for the private sector.

The second contribution to Part I is Kari Jøsendal and Richard Ennals *A postmodern approach to knowledge generation: Beyond the myth of Corporate Social Responsibility.* The topic of this chapter is the lack of attention within the framework of the Nordic model towards one of the most significant development traits in recent years; corporate social responsibility. The innovation programmes discussed in this publication are programmes implemented to develop the Nordic model. These programmes are to a large extent developed to fit manufacturing industries, and are rather conventional in their use of measures targeted at increasing innovation in enterprises. Further, none of these programmes have a specific focus on corporate social responsibility. This may be a weakness considering the global pressures on environmental issues, and a strong international focus on how Norwegian corporations act in foreign territory. The empirical discussion contains examples from the collaboration between three international oil and gas companies, Statoil, Shell and Hydro, and NGOs and various private consultancies. A presentation is made concerning how these three groups of agents play different roles in constructing the concept of corporate social responsibility, and how this knowledge generating process may act as an illustration of a postmodern phenomenon, where relations, communication and immaterial production are centre stage.

The second part, *Regional Practices*, take on a more detailed view of some of the specifics of current regional development practices and innovation strategies. Roger Normann's contribution *Regional Clusters as Public Policy: Is More Research Necessary?*, addresses one of the most influential and important industrial development policies. The paper argues that the regional cluster policies have merits, but that these policies are far from reaching their full potential. Much of this can be traced back to the narrow theoretical origins of cluster theory within the field of economics and strategy, and the failings of transforming an economical macro theory into an actionable theory supporting regional stakeholders in their efforts to systematically build up new competences. Specifically Normann criticises the lack of integration of learning models, knowledge diffusion systems, and governance strategies. Much of this is due to a lack of transdisciplinary approaches within this field of research.

The second contribution to Part II is Kari Jøsendal's *Creative industries and regional development,* where she takes a closer look at the creative industries in Rogaland. Extensive work is taking place in Rogaland concerning the state of art in the creative industries. The sub-sectors analysed in the research described in the chapter have weak spots when it comes both inter- and intra-collaboration. One particular weak relation is towards higher educational institutions. The links to investors and suppliers are also rather weak, and are potential areas of improvement in the effort to increase innovative competencies. Further, special measures should be developed, targeted at micro enterprises, due to the fact that they to a large degree need competence from external sources. Possible measures are to establish agencies to serve needs like marketing, business development and exporting. Finally, in support of a sustainable cluster in the creative industries and widening the market opportunities it is vital that products can reach international consumers.

The third contribution in Part II is Roger Normann's *The Learning Region Revisited*. Here Normann discusses some of the shortcomings and paradoxes in our understanding of regions as governance systems, as innovation systems, and as learning regions. The main problem that is discussed by Normann, drawing on examples from the Agder region, is that the ambitions of facilitating learning and innovative systems often fail, when the legitimate regional needs to manage, steer and control regional governance systems, in addition to institutional needs, are attended to. The paradox is briefly put: regional innovation and regional control, can you have both?

Part III of this research publication gives us a much needed international perspective on national and regional Norwegian practices. Richard Ennals' contribution, titled *Reflections on National Pilot*, takes on the broader perspective when he argues the importance of securing learning and continuity from between different research programmes as well as linking research to an international agenda. Ennals gives us a reminder that there is a world beyond the south coast of Norway.

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1. Introduction

Kari Jøsendal and Roger Normann

The aim of the National Pilot for Regional Innovation project is to build on experiences that have emerged from the two programmes Enterprise Development 2000, Value Creation 2010, and the ongoing VRI project (Programme for Regional R&D and Innovation). The aims of the project also included discussing the need for improving co-ordination and collaboration efforts between different policy instruments, institutions, and actors that work on a regional level to address the joint challenge on improving the conditions for regional innovation. This can be understood as contributing to increased knowledge about barriers and possibilities in the use of regional policy measures. It is also ambitions to use knowledge derived from the project in new research applications.

The project is not an action oriented research effort. It is research that is aimed at reflection on engagements in previous research, and attempts to compare such ideas to current development trends. Specifically this relates to understanding the current implications of one of the most significant features of Norwegian society that is what is often labelled the Scandinavian, Nordic, or Norwegian model. Participation between the social partners is one significant aspect of this model, emphasising the value of work, social equity, and participative democracy are other core values often associated with the model.

The collaboration between the social partners has in Norway produced a series of practice oriented research programmes. These programmes are oriented towards supporting and understanding the workings of Norwegian work-life. The works of Bjørn Gustavsen are paramount for developing this research tradition (Gustavsen, 1992; 1998; Gustavsen, Finne and Oscarsson, 2001). He, in close collaboration with the social partners, designed and managed the research programmes Enterprise Development 2000, Value Creation 2010, and participated in setting up the new VRI programme. The editors of this publication are also proud to be collaborating with a long term research partner of Bjørn Gustavsen, Richard Ennals, who knows Norwegian society well from decades of travels to Norway and Scandinavia, and who is able to bring a much needed international perspective to our discussions (Ennals and Gustavsen, 1999). Helping us in our efforts to avoid being too narrow minded and self centred, when he reminds us about how we can learn from other contexts and how we can bring our experiences to others for mutual benefit.

This report discusses other ongoing economical development trends, much, based on most of the contributors to this publication who have a background from research done within the ED2000, VC2010, and VRI programmes. Based on the influence, thought, and ideas from these programmes, the authors look anew at the Nordic Model, Corporate Social responsibility, Regional Cluster policies, Cultural Industries, and the idea of the learning region. All are concepts that play a very influential role in our society and our thinking on development.

We believe such an approach is important because the “turning point” in the regional economical discourse does not centre on social learning, participatory democracy, and building consensus. There are other ideas and concepts that play a much more significant role to practice. These recipes on what best practice looks like, originate in other context than the Nordic model, and do not necessarily relate to specific characteristics of this model. In a sense they belong to another set of conversations than the Nordic model. The important

question then becomes if this matters for economical and social development, business firm innovations etc.? We seek to unravel a small piece of this important question with this report.

An important basis for understanding why this perspective is important is to consider the alternative. The difference between learning from differences and importing externally developed knowledge is here crucial. Different contexts, competencies, and resources more often than not make externally developed recipes for good practice seldom represent a good match for another place. Learning what the implications and significance of these differences are is crucial in order to succeed with development projects.

The difference might not on paper seem overwhelming, but the difference in terms of epistemology is enormous. Current innovation policies and emerging regional practices can often be interpreted as "one size fits all" adaptations of policy elements that seems to have succeeded elsewhere. A much more sustainable policy is to critically examine what works and what does not, in relation to the contextual specifics in a given location. This also held the key to improved and theoretical insights in addition to the obvious practical benefits of having regional innovation policies that work in an effective manner.

1.1 Changing times

This report from the National Pilot project is written at the beginning of an unfolding drama, at a time of great turmoil in the international economy. Unemployment rates are on the rise as enterprises and governments globally are feeling the impact of an economical recession some experts have started to compare with the depression of the interwar years. Governments are going to be spending large amounts of money in order to keep unemployment rates as low as possible in the years to come. Every government globally, independent of political and ideological orientation, is already allocating large stimulus packages to support the financial sector and their more tangible industries. We can have no certainty about the effects and long term consequences of these dramatic events will be.

What we do know is that it is in times like these that innovations occur, new ideas that will participate in shaping our future. Businesses that are able to adapt and innovate will survive those who stand still and do not change stand a risk of disappearing. History also tells us that new political ideas, models and regimes also tend to emerge in periods of dramatic change.

It is therefore not unlikely to expect that some of these changes, both to political thought and to firm structures, also will be reflected in how we think about regional innovation and economical development, both from a research and a practice perspective. The national pilot project can be read in such a context. The larger idea is to compare different regional development strategies, national trends to ongoing developments.

In this lies also the cue to innovation and new ideas. Learning from different perspectives, looking critically at what works, what it is that does not work, and where we should focus our efforts in order to address the weakness of our previous efforts. That is to say, that in times of drama and great turmoil lay also the potential for great learning and continuous development.

1.2 Report outline

The report is divided into three parts. The first part, with contributions from Hans Chr Garmann Johnsen, Dag G Aasland, and Kari Jøsendal, deals with some of the larger policy issues and development trends that not are specific to regional development, but that none

the less influence regional practices. The first contribution, *Innovation in the Nordic Model: a broad perspective on innovation policy*, addresses the important issue of the future of the Nordic model. It aims at developing a conceptual framework for discussing recent innovation policies. The organising idea of this contribution is to conceptualise the Nordic Model as a narrative, as a specific discourse on development. This links this contribution to the next that has a similar approach to the phenomenon of Corporate Social Responsibility. Kari Jøsendal and Richard Ennals' *A postmodern approach to knowledge generation: Beyond the myth of Corporate Social Responsibility*.

Following these contributions is part II of the report that addresses specific regional practices. The first contribution addresses one of the most widespread and influential theories in social science Michael Porter's use of the regional clusters concept. Normann's contribution is called *Regional Clusters as Public Policy: Is more research needed?* Another very important and influential regional development policy relates to the use of culture as a driver in economical development. Jøsendal's contribution *Creative Industries and Regional Development*, addresses this issue. The last contribution in this segment discusses the idea of the learning region in relation to the emerging regional development paradigm. Normann's contribution is labelled, *The Learning Region Revisited*.

The last part gives us a meta perspective and contextualises the discussions in the report, as Richard Ennals looks at the Nordic model and reflects upon how development practices has changed in recent years and compares developments in other parts of the world economy. Ennals' contribution is labelled *Reflections on National Pilot*.

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PART I: NATIONAL POLICIES AND DEVELOPMENT TRENDS

2. Innovation in the Nordic Model: A broad perspective on innovation policy

Hans Chr Garmann Johnsen and Dag G Aasland

2.1 Introduction[1]

The Nordic model has revived in recent years as a narrative on how and why Nordic countries have been successful, both in terms of economic growth and peaceful development, democracy and human rights. During the Cold War period, the Nordic model was seen as a possible third way between the ideologies of capitalism and communism. With the fall of the Wall, there was less meaning in talking about a *third way.* It is thus surprising that there has been a revived interest in this concept. However, the Nordic model does not any longer refer to a third way, rather to a discussion on whether it is possible to maintain a large public sector, equality in economic distribution, high level of democracy and an innovative private sector and high economic growth at the same time. A question that will exemplify this is whether the Nordic model offers a possible way forward for other countries in the present global economic crisis.

The Nordic model is challenged and there is a need for a transformation of the model to adapt to the international environment (EU, globalisation) both in terms of openness and laws. In order to address this transformation, we need to refer to perspectives and treaties on large scale social transformation. A common acknowledgement in classical works on large social transformations is the interrelatedness of institutions. These include such different works as the study of the transformation from the pre-modern to modernity (Durkheim,1902; Polanyi, 1944; Parsons,1951; Sokorin,1957; Huntington, 1958), the transformation from modernity to post-industrial or post-modernity (Bell, 1973; Lyotard, 1984) and the recent transformation to globalisation (Castells, 1996; Beck, 1997; Fukuyama, 1999; Boltanski and Chiapello, 2005).

The peculiar challenge facing the Nordic model and its narrative comes at a time when globalisation has become the main point of reference in development terms. Nation states are supposed to have lessened their impact, and the fixed and more or less stable system of nation states has been seen as a relic from the early 20th century. In the Nordic countries, this idea of the nation state became in the post-war period an idea of a social democratic nation state. This implied a specific institutional set-up, including a strong ethical base on which to evaluate laws and institutions. It presupposed in many ways a rather close, stable society.

Our purpose is not to take on this broader challenge, rather to present a framework that may illustrate what we think is a paradox or dilemma in the current challenges facing the Nordic model. Still this implies understanding the internal and external logic in the relations between the different institutions in the model. Our core argument is that the Nordic model, even if it was a meaningful “model” with reference to the modernisation project before and after the Second World War, has not adopted to these later trends for post-modernism and globalisation. This we think is illustrated by the shortcomings of recent innovation programmes to address these challenges. A large public sector, made possible by oil revenues, has so far made it possible to maintain relative economic and social stability in spite of the global crisis. However, stability might not mean innovativeness. This is where the “model” today is challenged. A comprehensive analysis of how the “model” has adapted to current circumstances, should look into reforms both in the public and the private sector. However, this paper will mainly address changes in innovation programmes for the private sector.

The following is a sketch of some joint efforts from the two authors to address the question of how to conceptualise the current situation, and subsequently analyse the future destiny of the so-called Nordic model. One purpose of this paper is thus to develop a broad framework for discussing recent innovation policies, programmes and initiatives. We argue that important parts of the rationale for these programmes are to be found in a certain conceptualisation of the Nordic Model. The paper aims at describing the particular configuration of institutions in the Nordic model of society. That is, we will concentrate on the Norwegian version of the model, and show how it plays along with certain concepts within innovation policy, and forms the thinking on innovation. We will try to pinpoint some of the differences between the Norwegian and the Nordic model, however, by and large, the two terms refer to basically the same institutional arrangements.

As a starting point we argue that the term Nordic model has to be interpreted as a grand narrative. In this paper we argue that grand narratives have a formative effect on what is politically possible and legitimate, however, reality and practice might not follow this narrative. However, we try to show that that public innovation programmes in Norway have been adapted to this narrative, and have subsequently formed and been formed by this narrative. Trying to see this in light of the different institutional elements in the Nordic model, we question whether the current development is sustainable.

What happens when the narrative says one thing, and reality is different? A study of the present Nordic model may show that it may in fact be able to adapt to this shift in the grounds of legitimacy of knowledge, if the model may sustain a sufficient cohesion between the normative, the cognitive and the regulative in society.

2.2 The Nordic model as a part of a grand narrative

The discourse on the Nordic Model is an integrated part of the common understanding of the history of the modernisation process in the Nordic countries. Understood as such, the Nordic model can be said to be an ingredient of the "grand narrative" or the metadiscourse in this modernisation project. In *The Postmodern Condition: A report on Knowledge*, Lyotard (1984, pp. xxiii – xxiv) claims that modernity is characterized by a condition where:

> "any science … legitimates itself with reference to a metadiscourse … making an explicit appeal to some grand narrative, such as the dialectics of Spirit, the hermeneutic of meaning, the emancipation of the rational or working subject, or the creation of wealth. For example, the rule of consensus between the sender and addressee of a statement with truth-value is deemed acceptable if it is cast in terms of a possible unanimity between rational minds: this is the Enlightenment narrative, in which the hero of knowledge works toward a good ethico-political and – universal peace. As can be seen from this example, if a metanarrative implying a philosophy of history is used to legitimate knowledge, questions are raised concerning the validity of the institutions governing the social bond: these must be legitimated as well. Thus justice is consigned to the grand narrative in the same way as truth."

As a contrast to the state of modernity, Lyotard (1984, p. xxiv) defines the *postmodern*

> "… as incredulity toward metanarratives. This incredulity is undoubtedly a product of progress in the sciences: but that progress in turn presupposes it. To the obsolescence of the metanarrative apparatus of legitimation corresponds, most notably, the crisis of metaphysical philosophy and of the university institution which in the past relied on it. The narrative function is losing its functors, its great hero, its great

> dangers, its great voyages, its great goal. It is being dispersed in clouds of narrative language elements – narrative, but also denotative, prescriptive, descriptive, and so on. Conveyed with each cloud are pragmatic valencies specific to its kind. Each of us lives at the intersection of many of these. However, we do not necessarily establish stable language combinations, and the properties of the ones we do establish are not necessarily communicable."

As a consequence of this incredulity of the metanarrative, knowledge now needs other kinds of legitimacy. To this problem, Lyotard (1984, p. 36) suggests that "knowledge is no longer the subject, but in the service of the subject: its only legitimacy (though it is formidable) is the fact that it allows morality to become reality."

In other words, knowledge serves as a vehicle from the normative idea to policy implementations. This must especially be the case for knowledge on innovation: From the normative idea of regional development, for instance, innovation research is demanded by the authorities as support for their decisions. The question is then to what extent the Nordic model will be able to adapt to this condition, that is, whether the Nordic model may change its role, from contributing to a metadiscourse on modernity, to instead sustain a consensus from where knowledge can be generated, however not just any kind of knowledge, but a knowledge that may transfer morality into reality.

We suggest that this model may be considered as being a part of the "grand narrative" of the modern project within the Nordic countries. Lyotard (1984) describes such grand narratives – or *metadiscourses* – as having been necessary for legitimating knowledge and creation of new knowledge, in other words, research and innovation. As Lyotard also observes, however, the role of these grand narratives as grounds of legitimacy for knowledge and research has been reduced over recent decades, a development that he relates to the transition of Western societies, from modernity to what he defines as *postmodernity*. This process of "delegitimation" of the grand narratives may thus also apply to the Nordic model. The new, and only possible, requirement of legitimacy for knowledge and innovation under the postmodern condition is, again according to Lyotard, that it allows "morality to become reality".

Subsequently we will argue that "The Nordic Model" is a grand narrative that has survived or reappeared, in spite of, or perhaps in line with, the analysis that we live in post-modern world. The assumption that this theory on narration informs, is that other narratives have to fit the grand narrative, so to speak; that the grand narrative has a *formative effect* on the smaller narratives in society and subsequently defines what in societal terms is regarded as legitimate.

2.3 The Nordic model and its relevance to innovation

The background for addressing this issue of the Nordic model in relation to innovation refers to our engagement in Norwegian research programmes on innovation over the last 15 years. These programmes have been supported by shifting Left and Right coalition governments in Norway. This indicates that the thinking in these innovation programmes have broad support in society.

Increasingly, over the last years, innovation, work life and social development programmes have addressed the "Norwegian" or the "Nordic" model. The assumption seems to be that important insights into social development mechanisms in the Scandinavian context are to be found in specific qualities of this model.[2] A more political based (normative)

argumentation might imply that Norwegian social development should comply with, and not contradict, Norwegian institutional traditions. So to speak, this might be seen as a sort of national counterforce against globalization, the deterioration of the nation state, and threats to the welfare state. Our overall argument that the "Nordic model" favours stability over innovativeness should support this observation.

The institutional preconditions in the form of tripartite co-operation (social partners and the state) have developed the possibility for two parallel processes to coexist: conflict and co-operation. This dualism has made it possible to develop symmetric co-operation (related to business development and regional development) at one level, and at the same time maintain a hierarchically managed, market driven economy on the other.

In fact, the Nordic countries generally, and Norway especially, can claim that they have found a successful answer to that challenge of being globally competitive, and at the same time promote national cohesion, and a high level of general welfare systems.

Support for this opinion can be found in an impressive series of studies over many years that have referred to the specific Nordic deviation from main trends in economic development (Porter, 1990). Hofstede (1980) argued that the Scandinavian countries have a social culture, which makes participation natural. It is claimed that participation gives competitive advantages and increased economic growth (Miller, 1992; Karasek, 1990). Predominantly there has been emphasis on the combination of high taxes, a large public sector and high innovation rate or economic growth in Norway. Based on this, OECD (2007) asks: Is there a puzzle about innovation in Norway?. Furthermore, more sociological studies have pointed at the particular cultural conditions in the Nordic countries, like low power distance (Hofstede, 2001) or tolerance (Florida, 2005). The cohesion of the local societal culture has been argued to influence the conditions for co-operation and thereby innovation (Lundvall, 2002). Even more, particular labour regulations have been argued to have positive external effects on innovation (Parker and Tamaschke, 2005).

This international discourse is supported by domestic analyses. The national discourse has addressed whether specific, historical events of collaboration, a Nordic style of management, the institutional framework of collective wage-negotiations, the tripartite collaboration in work life organisation and social security systems, are the main explanation for the specific feature of the Norwegian model (Emery and Thorsrud, 1976; Byrkjeflot *et al*., 2001; Gustavsen, 2005; Dølvig *et al*., 2007; Gustavsen, 2007; Moene, 2007).

Furthermore, innovation programmes in Norway have referred to international concepts and trends in business development. In fact, the model has adopted and reformulated these concepts. They include concepts like TQM (Peters and Waterman 1982), Clusters (Porter, 1990 and 1998), Mode II (Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow, 1994), learning regions (Florida, 2005), regional innovation systems (RIS) (Lundvall and Maskell, 2000) and Triple helix (Etzkowitz and Leydesdorff, 2000). In fact innovation concepts like TQM, Clusters, RIS, Triple Helix and Mode II can be interpreted in ways that fit the collaborative narrative and subsequently this "Nordic model" (Lundvall, 2002). However it can be argued that these international development concepts are not in particularly aimed at institutional frameworks like the Nordic model, with its close, cohesive and communitarian features. Subsequently there are tensions and dilemmas related to the current innovation initiatives in the Nordic model. In a larger outline of recent innovation initiatives in Norway we have argued that:

> "Norwegian innovation policy programmes address an increasingly complex set of issues, institutions and actors. Although innovation theory supports a larger societal perspective, specific recommendations by evaluators of earlier programmes have concluded that innovation policy should be more targeted and restricted. One explanation is to be found in the new regionalisation policy. We assume that the "Nordic model" is also involved here, implying that society acknowledges the institutional interdependence that we find in Scandinavian countries, including Norway. This makes the issue of the democratic dimension in innovation policy more apparent." (Johnsen *et al.,* 2009)

However, many arguments have been developed in order to give some rationale to the idea that the "Nordic" model matters. We can use knowledge development in the knowledge economy as an example of how established ideas on innovation in the market economy are contradicted, and subsequently give support to the argument that institutional frameworks of the Nordic kind matter:

- The innovation system assumption: close connectedness between university and businesses generates increased knowledge flow, mutual learning and levels of innovation.
- The wage policy assumption: equality of wages has lifted the lower part of the wage level, and thereby spurred investments since labour intensive functions becomes uneconomically.
- The knowledge assumption: innovation is a result of increased flow of knowledge in one field, for instance specialised knowledge in a university that is commercialised, or that supports and creates innovation in businesses.
- The co-operation and participation assumption: a high degree of participation and co-operation will motivate individuals to be creative, and engage in knowledge creation processes.
- The welfare assumption: stable and well organised working conditions will be favourable for developing engagement, creating openness to sharing information, and increasing co-operation.

Subsequently we argue that there are good reasons (or reasonable arguments to support) why the Nordic or Norwegian model has been promoted in Scandinavia, and argued by others to imply a special case of successful combination of institutional set-up, cultural cohesion and an open economy. However, is there really "a model" and if there (historically) were a Nordic model, is it now changed, have internationalisation, globalisation and modernisation altered the preconditions for this model and brought about, what we might call a new institutional regime?

2.4 The Nordic model in a neo-institutionalist perspective

The argument we will promote here is that institutional conditions (Powell and DiMaggio, 1991) play a major role in defining the possibilities and limitations of the "Nordic model". Neo-institutionalism has developed a theory or model that integrated mentality, "storytelling" and culture in "harder" institutional arrangements such as rules, formal organisation and authority. It tries to combine methodological individualism with methodological collectivism (determinism), constructivism with realism, as well as multi-level analysis of social processes.

Below this approach is interpreted and informed by insight also from Habermas' (1997) communicative theory. Habermas has developed a comprehensive framework that allows us

to see mentality, culture and rules and law in relation to each other, both where they coincide and where they contradict.

In order to understand the current status of the Nordic model, we need to describe the particular configuration of institutions that form it. In doing so, we will refer to the distinction Scott (1995) makes between regulative, normative and cognitive pillars. Also we will use his distinction between a societal and an organisational level of analysis. In the table below we have organized Scott's distinctions so that they demonstrate more clearly how knowledge (here embedded in the cognitive) in the Nordic model may provide a language for transforming morality (here included in the normative) into reality (here found in the regulative).

Table 2.1 Features of the "Norwegian model" of work life[3]

	Cognitive →	*Normative →*	*Regulative*
Societal (macro)	Social cohesion , 'protestant ethics'	Collaborative, inclusion policies and semi public institutions, three partite cooperation	Laws on representative system, social security system
Organisational (meso)	Co-operation, team work, self steering teems	Collaborative business development, self regulation, social engagement	Employees right to organise, employees representation in boards
Individual (micro)	Ethics of proximity	Tolerance, solidarity,	Code of conduct

The table above describes the "fit" between different sub-narratives and the grand narrative of the Nordic model. There is supposed to be a close connection between the elements of the model, that is attitude, organisational models and regulations in society are supposed to support each other and be closely linked. In example, the ethics of proximity at a micro level (individual ethics) is parallel with societal (macro-level) ethics and practiced at a organisational (meso) level. Also that this ethics is to be supported by law, like labour rights that are negotiated at an organisational level is supported by the state (law). The totality of this system underlines the collaborative dimension of the narrative.

Subsequently, the common understanding of the Nordic and Norwegian model is that it presupposes a consistency between its normative, the cognitive and the regulative features. Expectations are that the law (regulative) should directly represent moral conduct (normative), or that tolerance at a societal level should be paralleled with individual tolerance. Also there has been a consistency (solidarity) between the macro and the micro level of the model. That is; social self-regulation has played alongside national laws and regulations. In example: welfare rights have not resulted in "everybody on welfare", because of the strong ethics of work. However, the welfare system as such, had not in the Norwegian case, been possible to maintain without oil revenues.

If the regulative mechanisms dominate over, or are more decoupled from, the normative and cognitive preconditions, i.e. the model becomes more "rights-based", then it will be more in line with Anglo-American models. Arguments have been made that this is actually what is

happening to the model (Østerud *et al*., 2003). A more rights based model makes it possible to have less consistency between levels, and less cohesion between social groups. This of course makes competition and flexibility more predominant. This is also a possible and likely development feature of the Norwegian and Nordic model.

A development in a more regulative direction would not imply that the welfare features of the Nordic model are changed. There could still be a considerable regulative, tripartite welfare system, and arguments to support this would still be valid; in example that welfare systems reduce risk in work life and thereby promotes flexibility, or the argument that collective wage negotiations relatively increases the waged level of the lower-level wages, and thereby increases investment in capital equipment. These and similar arguments that try to explain the Nordic paradox, would still make sense, even if the more normative and cognitive aspects of the Nordic model disappear.

2.5 The dependencies of the cognitive and normative pillars: The Nordic model and trust in institutions

A feature of what we have called the Nordic model is the cognitive and normative pillars. A common denominator of all Nordic countries is the strong Protestant tradition and subsequently the unity of secular and church power, where the King (political power) was the head of the church. Normativity and (protestant) ethics have been major preconditions in the institutional arrangement in the Nordic model. A particular historical experience might explain the Norwegian sentiment towards this.

Separated from Denmark in 1814 and released from the union with Sweden since 1905, Norway is the youngest among the all relatively young Nordic nations. Compared with the darker history of elder countries, Norway may be said to still keep an image of innocence within the international community. Even when we count the Second World War, the Norwegian people has not yet experienced being deceived by their state authorities. On the background of this history we may talk of a “parental state” illustrating the relation between the state and its institutions on the one hand and its people on the other. Throughout the Norwegian society there is still a trust in state institutions, similar to what Giddens discusses as trust in abstract systems (Giddens, 1990), which is not found in many other comparable countries.

This does not imply, however, that there are no, and not even a few, instances with various forms of individual resistance or disobedience against the state. It is rather the case that this kind of individual counter-behaviour is accepted as if it were an expression of juvenile self-centredness. It seems to be legitimate for individuals to behave immaturely and egocentrically. On the other hand it is accepted, and in fact even expected, that such individual behaviour is prosecuted and corrected by the parental state.

We think that this location of morality at the micro level may be a typical Nordic feature, and we want to discuss why it may be so. Living in a narrative where social, economic and political institutions are viewed as “good”, that is, serving a public purpose of welfare and common goals, ethics and responsibility are values that are not questioned. These values are assumed without saying. As a consequence, there is no, or very little, talk of what we could call humanism in these institutions. Instead, traces of humanism and solidarity are considered as belonging at the micro, person-to-person level, outside the domain of the institutional system. One interesting expression of this personification of the human dimension in society is found in what in a Nordic context is often called an *ethics of proximity* (Jodalen and Vetlesen, 1997).

Ethics of proximity is a phenomenon subjectively experienced in the close person-to-person relation. One may ask whether this approach to ethics is a Nordic phenomenon. Could it be that this ethics of proximity is a typical Nordic reception of international post-modern ethical thinkers like Nussbaum, Baumann and Levinas, adapted and adjusted to the Nordic protestant ethical heritage of Søren Kierkegaard and Knud E. Løgstrup? At least it is worth noticing that all the three above mentioned foreign thinkers address explicitly the institutional and political consequences of their thoughts, while this is rarely brought forward when they are presented by Nordic writers.

Levinas (1991 and 2007), from his position in the central of Europe, suggests how the ethics of proximity is transformed, to be put into practice in a monetary economy (Aasland, 2007): First, it must be acknowledged that the economy and the proximity are two different separate realms; and there is no world "in between". The "real" world, that is, the economy, driven by individual self-interest of the players, is constantly disturbed by ethical challenge generated in the proximity between two persons. Or, to be more precise: The ego's understanding of the economy and his or her role and tasks in this world is continuously challenged in the encounter with the other person, as the presence of the other calls for a responsibility. In other words: Economic behaviour is expected to be egocentric, and acknowledging this is exactly what justifies corrections from others and political regulations of institutions. The problem arises when the institutional system is expected to be "good" in itself, because then corrections and regulations forcing them to take social responsibility cannot be justified as easily. This, we argue below, is an expectation and problem found in the Nordic model because of the type of reliance and trust in institutions we find here. It is subsequently a challenge to the Nordic model.

2.6 Innovation policy: Between proximity and globalisation

The broader challenge to the Nordic model approach may also be seen in the construction of innovation programmes in Norway. There has been a long tradition of workplace development, industrial organisation and currently cluster and innovation policy in the "spirit" of the Nordic model (Gustavsen 2001; Gustavsen 2007). Programmes that are reminiscent of the 'economic democracy' movement in the 1950s and 1960s, have been developed further in the 1990s and up to the present. The programmes have been named Enterprise Development 2000, Value Creation 20010 and currently VRI (Instruments for regional R&D and innovation). A common denominator in these programmes has been the further development of the Nordic Model. The question we ask if these programs have really been contributions to renew or develop the Norwegian/Nordic model, or only reinforced it.

The core of these innovation programmes has been cognitive and normative development through communicative change, social cohesion, connectedness, networks and workplace development through participation. The programmes have tried locally, regionally and inside businesses to mobilise contribution to innovation through participation, engagement and involvement (Johnsen, 2001). If we apply Scott's model to these programmes, we can identify the different institutional elements that are initiated:

Table 2.2 Innovation programmes within the "Norwegian model" of work life

	Cognitive →	*Normative →*	*Regulative*
Societal (macro)	The programmes suppose but does not address modesty, collaborative and democratic thinking: A perception of common efforts to build society	A collaborative milieu between managers and employees (and their national organisations) and regional partners. (VC2010, VRI)	The programmes are based on labour laws, health and security regulations, company laws that institutionalize participation in boards, etc.
Local/organisational (meso)	Creating connectedness and willingness to cooperate, tri partite cooperation in development (ED2000, VC2010)	Regional government i.a. Regional Development Coalition, cluster development. (ED2000, VC2010, VRI)	New regional policy, new role of the counties, regional research strategy and research founds (VRI)
Individual / organisational (micro)	Programmes promote solidarity as a perspective, also integration of community and workplace development (ED2000)	Programmes initiate collaborative project at work, broad participation in development processes, i.e. Dialogue Conferences (ED2000, VC2010)	The programmes establish ground rules for participation, dialogue principles, internal codes of conduct (ED2000, VC2010)

The table indicates that actions at different levels to promote innovation, fits neatly with the overall structure of the Nordic model. It is likely that the Nordic model as a grand narrative, has contributed to giving legitimacy to these different activities and measures. That is, they fit the model in the interpretation that has been used.

The ED2000 programme was based on a communicative theory of development (Gustavsen, 1992; Johnsen, 2001). The programme was to promote dialogue and development at workplaces. The idea was to create collaborative arenas for incremental organisational and technological innovations and improvements. This programme could easily link up to TQM thinking, with quality circles and incremental quality improvements trough decentralised processes in the company. However, the Norwegian twist in this programme was the strong participation of unions, not necessarily found in the international TQM concept.

The ED2000 programme evolved into the next programme called Value Creation 2010 (VC2010). In this new programme, Porter's (1990; 1998) concept of cluster, the fact that the company is part of a local milieu, was addressed. Again, the Norwegian twist to this was to create a regional development coalition based on the tripartite arrangement to supervise company collaboration at a local and regional level. The parallel development of regional innovation systems supported this development, but RIS and the development thinking in

VC2010 had one very important difference, as the one (VC2010) was more based on the normative, collaborative tradition of economic democracy in Norway, while the other (RIS) had a much clearer business network logic based on competitive advantages arguments, as found in Porter (1990 and 1998).

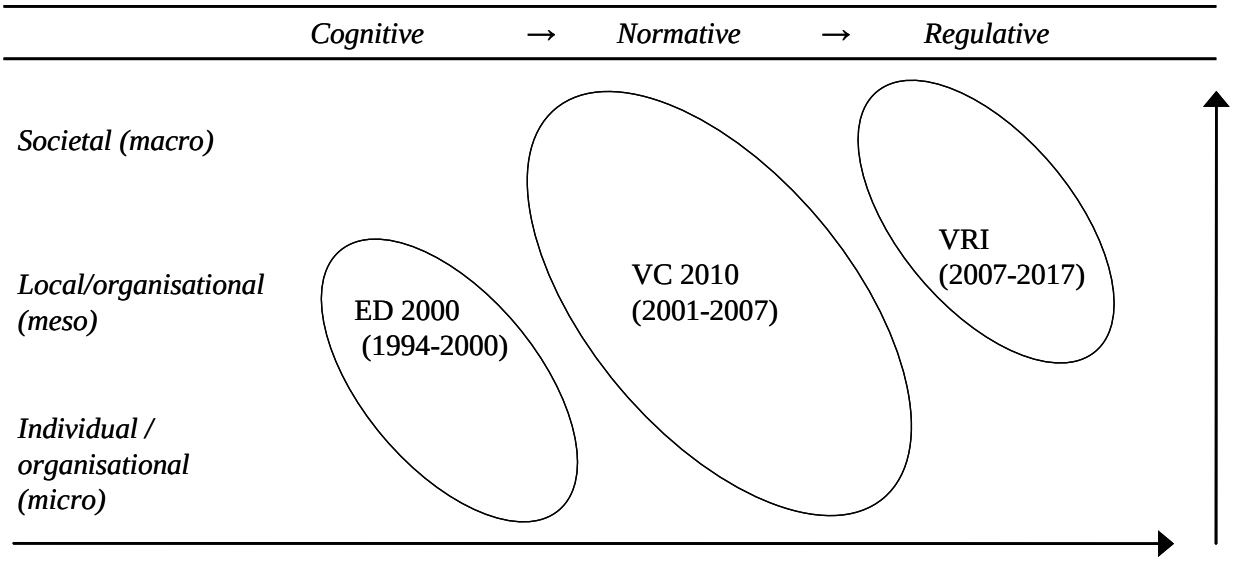
The VC2010 had anticipated regional reform in Norway as part of the regionalisation trend in Europe. However, as the government were to draft this new regional policy, it was natural to include innovation programmes as well. Subsequently, VRI (Instruments for regional R&D and innovation) was launched to take over for VC2010. With the VRI programme, the drivers of the regional innovation initiatives became more institutionalised with the regional county authorities. This implied that innovation policy was co-ordinated with the partnership at a regional level. This partnership was less dominated by the tripartite structure, and more by a sort of Triple Helix structure that co-ordinated different public agencies at a regional level. This, in turn, made issues related to regional governance, more predominant. The next stage in this development, already announced by the national government, to be operating by 2010 is regional research policy and regional research funds, giving regional county authorities a say in development of research and science.

The development of these innovation programmes over the last 15 years has subsequently been a development, from the more micro oriented to the more macro oriented, from the more normative to the more regulative. It has also been a development where international development concepts like TQM, clusters, RIS, Triple Helix, regional governance have been given a Nordic/Norwegian twist. However, as we will argue below, this has developed dilemmas and had its costs.

2.7 Dynamics of the innovation programmes in the Nordic model

As argued above, there has been an evolution of these innovation programmes over time, that seems to follow a trend. The trend has two dimensions in it, firstly, from bottom-up (cognitive, collaborative action) to more top-down (politically, administrated processes), secondly from a more volunteer, organisational process to a more regulated, legally structured and administrative process.

Table 2.3 Evolution of innovation programmes within the "Norwegian model" of work life



The table is supposed to illustrate how Nordic model elements are integrated in innovation programmes. The different innovation policy initiatives over the last 15 years have been fitted to the model. But, as illustrated above, pressure to institutionalise the policy has become more predominant in the later years. As the model indicates, this does not pose big challenges to the grand narrative of the model. The later institutionalisations of the development institutive to bureaucratic bodies like regional partnerships has not been seen as a shift in regime, in power, or as in principle a departure from earlier programmes, rather as a natural development of these programmes.

Core activities in the innovation programmes have been dialogue based development processes. At company level, the dialogue conference has been the main formalised activity. At regional level, the Regional Development Coalition has been the main initiative. These activities have been evaluated, and Action Research has been used as a vehicle for promoting these activities. However, except for some good cases, it is unclear what the real contribution has been from these initiatives[4].

The Regional Development Coalition has been copied by formal instructions from the Ministry of Regional Affairs as institutionalising partnerships in the region. These partnerships are now main drivers in regional development processes. They play into the unclear field of regional governance. These are initiatives that have emerged in spite of the fact that the larger regional reform in Norway (a reform that would have shifted power from national to regional authorities) has been abolished. Subsequently, it is unclear what the larger idea on regional development is, that these initiatives are supposed to be part of. Furthermore, it is unclear what effect these initiatives have on fostering innovation and competitiveness. This unclearness adds to the frustration on where the Nordic/Norwegian model is going.

This innovation programme and policy we have presented here, does not address the issues raised by Østerud *et al*. (2003) on a more rights based development in the Nordic model. It neither addresses the issue raised by Florida (2005) on a more diverse, open society. Innovation policy is still mainly related to the "story" of industrial modernisation in the post-war period. As illustrated by Table 3, rather than challenge and renew the Nordic model, these programmes have reinforced the existing industrial structure, not least by being absorbed into the governance structure of the region.

The problem is, as we see it, that the current interpretation of the meta-narrative, the Nordic model, has not acknowledged the current challenges to the logic of the model in relation to the competitive global environment in which it operates. The predominant *Gemeinshaft* or 'communitarianism' feature of the model creates a sort of unreal in-locking into a normative world that is not sustainable against global market pressure. It also leads us to neglect the fact that Nordic players (exemplified by Norwegian financial institutions), that have a legitimacy as being part of the institutional framework of the Nordic model that supposes sharing social responsibility, in fact are operating in that same way as everybody else. The model becomes an idealised rhetoric rather than a real challenge to the current, global regime. This is an important point.

2.8 The sustainability of the Nordic Model: Old dilemmas and new challenges

Following the critical arguments presented above, it is in our view important that we address and challenge the Nordic model. Firstly, our discussion has shown that the Nordic model has adapted many international concepts and tried to give them a Nordic twist, however, there has not been sufficient debate on what challenges and dilemmas this creates. The dangers are that the concepts are given legitimacy by the Nordic model narrative, although they

conceal business behaviour no different from other countries. Secondly, there has been a development in the programmes towards more institutionalisation, bureaucratization and formalisation without there being a debate on whether this changes the case for these initiatives. Thirdly, we ask if the model has been able to address the real and pressing challenges that our society faces, not least in terms of globalisation and diversity.

Is it obvious that the close connectedness of the Nordic model is meaningful? Should law, social norms end individual conduct be closely connected? A more decoupled system would allow for separate development within the domains. That is, law would state general rules, but not direct actions in a more detailed way. Social norms would allow for more diverse individual action, and so on. Such a more decoupled system or model would be less communitarian, and more market system oriented.

In this last part of the paper, we will try to illustrate some challenges to the Nordic model that we currently find relevant.

2.9 The current financial crisis: A challenge to the Nordic model

The current financial crisis may in fact be a good opportunity to address – and to test – the relation between the society at the institutional level and ethics. In a Keynesian perspective, the crisis is actually not very surprising. When investors prefer financial to real objects of investment, this will represent an increase in savings in Keynes' terminology, which will by itself have a depressing effect and reduce the value over time of the same savings. The only sustainable way out of the depression, still in a Keynesian perspective, would be that investors somehow had a reason to prefer real investments to financial ones.

The financial crisis has revealed that the financial institutions have created their own money, without sufficient security in real assets. Norwegian financial institutions have been shown to be no better than others in this practice. In other words: The Habermasian distinction between *Gemeinschaft* and *Gesellschaft* is just as distinct in Norway as elsewhere. The self-understanding of the Nordic nations may contain a certain naïveté that now may set these nations in a worse position. Within the metanarrative of the Nordic model, financial institutions are social responsible, given by their role as nation builders. The financial crisis has revealed that financial institutions are not more socially responsible in the Nordic countries (and especially when we include Iceland!) than in other countries. From this observation it is not surprising that neither these same institutions, nor the political system that is intertwined with them, are able to show new and alternative ways through the current economic and global challenges.[5]

2.10 The role of the university

As an illustration, and as an attempt to put this discussion in more concrete terms, we want to address the question of the role of the universities within the Nordic model, with a special attention to their involvement in innovation. From the observation that the Nordic model traditionally has a strong normative orientation towards a common goal of highest possible social welfare, the question naturally arises whether the participation of universities in these efforts is compatible with the free and critical role of an academic institution. If we especially consider the involvement of universities in innovation, we may observe ongoing activities here on two different levels: A technological involvement on the micro level, consisting of joint development projects with companies, and a social science involvement on the macro level, consisting of being in dialogue with the political system. Both these involvements give reasons to pose the question above.

Being established as a participating partner within the modern project, the ethical base of the universities is typically *utilitarian*, in contrast to, for instance, universities in USA that were established earlier, in the *Age of Enlightenment*, and thus having a *Kantian* ethical base, emphasizing the free and responsible individual. As these older universities later went into the modern project, they naturally also joined the utilitarian ethos of this project, but still they managed to keep their initial base of a Kantian ethics. This foundation from the Age of Enlightenment seems to have helped them to avoid being entirely absorbed by the unidirectional "forced harmony", driving all institutions sharing the utilitarian ideology of modern social democracy. In the Nordic model there seems to be a price of this harmony: the use of academic freedom to question common views within the mainstream development of society is rarely explicitly encouraged, although it may be accepted.

Compared with universities outside the Nordic countries, the challenge to Nordic universities seems to be how they can manage to meet a double set of expectations: As institutions with responsibility to carry out education and research, they are expected to be models of utilitarian ethics and logic. As organisations, however, they are expected to encourage critical (Kantian) questioning set forth by their own academicians. This requires a good co-operation and a mutual appreciation between those responsible for the university as an institution and those responsible for the same university as an organisation. This double task paves a third way of being involved in innovation: innovation within the universities themselves.

2.11 The internal eroding of the model

A consequence of placing humanism in the private sphere of proximity is that ethics is marginalised to become an issue of person-to-person relations, with little or no connection to person-to-system relations. As a consequence, institutions are absent in most ethical discourse, and ethics is absent in most institutional discourse.

In other words, our argument is that, not in spite of, but rather because of, the normative pillar in the Nordic model, often expressed as viewing institutions as instruments for a common good, Norwegian institutions are neither more ethical, nor more socially responsible than institutions in other countries; the opposite may even be the case. As institutions are expected to show social responsibility, they are subject to less formal regulations than would be the case without these expectations. If we were to pinpoint national deviations and nuances in the Nordic model, it would probably relate to a stronger presence in Norway of ethics of proximity, implying a stronger belief in decentralised, popular solutions and control of institutions.

An illustration; the development towards what is called Corporate Social Responsibility (CSR) is not more visible in Norway than in other countries. In manufacturing industries there has been a certain development in this direction, internationally. This discourse has mostly been a response to the ethical reactions from society to the physical consequences on environment and on human life conditions of manufacturing production, primarily in developing countries. To a far less extent, the presence of ethics is observed in service industries – public as well as private – and even less in the financial sector, an industry that in the spirit of Nordic model is expected to play an especially responsible role in the building the Nordic nations. It fails to do so. However, what is more striking is the lack of debate on these and other shortcomings and failures of the Nordic model.

2.12 Conclusion: Paradoxes and challenges to the Nordic model

The Nordic model narrative includes (and partly conceals) many and contradictory elements. It is norm-based, and at the same time rights based, it is top-down and at the same time bottom-up. It is open and at the same time coercive. It refers to a clearly defined ethics, and at the same time it is plural and diverse in its ethical references.

An issue to be addressed is whether the use of the term Nordic model serves the purpose. The revival of the model is interesting and surprising, but, as we argue, the current social and international regime poses challenges to the model and paradoxes to be acknowledged.

Our argument is that there are challenges and dilemmas related to the Nordic model. If we conceptualise the model as a social cohesive culture, supported by a regulative system, the model is under attack from international trends and globalisation. However, if we can discuss the model as a more loosely coupled system of formal and informal elements and centralised and decentralised processes, it opens up a wider perspective of possibilities within and development of the model.

The argument we have tried to develop here is that the "model" has not developed and adapted to the changing global context, and thereby has at present little to offer as an alternative to mainstream trends. This, we think, is exposed in the current financial crisis where Norway follows the same general pattern as other European countries. Furthermore, we have suggested that the grand narrative that this model represent, conceals its internal contradictions and external shot-comings. This is argued with reference to the current self-justification and lack of real debate over the dilemmas in the model.

Related to the issue of innovation policy and innovation instruments, we have shown inconsistencies in the last decade of innovation programmes. This comes in addition to the fact that the results and outputs of these programmes are questionable. Our argument is that by not addressing the larger systemic challenges in societal development, the innovation initiatives have become even marginal in their economic impact; but more importantly, neither have they contributed to system development, to reforming the Nordic model, nor to give an answer to current global challenges.

As we try to argue, the "Nordic model" is constructed under the assumption that there is a strong link or coupling between different "system" elements at different levels. The logic of close relations (proximity) is relevant at all levels of governance. This is seen in programmes that are built on this assumption. We question the logic of this assumption since we assume that different actors or system element at different levels in the "model" work under different conditions and have different roles and perspectives to consider. Assuming that the model is and should be tightly coupled, might lead to a less plural and innovative system than needed, and one that might be inflexible and inadaptable to global challenges.

Notes

[1] Based on a development of the paper *The Nordic Model: a suggestion to some possible requirements for its survival*, presented at Scancor's 20th Anniversary Conference, Stanford University, November 21st-23rd, 2008 and Innovation in the Nordic model, presented at the Workshop on Multi-level, multidisciplinary research, Participatory research methods and University-society cooperation, University of Agder, December 8th – 9th, 2008.

[2] The case we will refer to is a tradition of regional innovation policy initiatives that has evolved over a long period of time, in particular over the last fifteen years in the form of three large Norwegian innovation programmes, based on tripartite collaborations: Enterprise Development 2000 (ED2000), Value Creation 2010 (VC2010), and Programme for Regional R&D and Innovation (VRI). This series of research and policy programmes has aimed at strengthening regional co-operation, and industrial development (Gustavsen 1992; 2001; 2005).

[3] Adapted from Scott 1995 and informed by Habermas 1997

[4] The VC2010 programme was evaluated by Arnold *et al*. (2005). They made this criticism. However, it is in general difficult to verify specific effect of large, social initiatives like this.

[5] A clear indication supporting this proposition is the so-called "Terra scandal" in 2007. Finance brokers in "Terra Securities", a company grown out from Norwegian saving banks, assisted eight Norwegian municipalities to borrow money with security in their future expected hydro power incomes and invest these money in complex financial products with a high risk in USA through Citigroup (http://e24.no/boers-og-finans/article2122946.ece).

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3. A postmodern approach to knowledge generation: Beyond the myth of corporate social responsibility

Kari Jøsendal and Richard Ennals

3.1 Introduction

In the previous chapter Garmann Johnsen and Aasland make it clear that the Nordic model has not internalised the meaning of corporate social responsibility (CSR) to a sufficient degree. The consequence of this lack of internalising may be a failure to act adequately on challenges in society concerning environmental and societal issues. The lack of attention within the framework of the Nordic model towards one of the most significant development traits in recent years is worth commenting on. This is the topic of chapter five.

As commented on by Garmann Johnsen and Aasland, the innovation programmes ED 2000, VC 2010 and the current VRI are programmes implemented to develop the Nordic model. These programmes are to a large extent developed to fit manufacturing industries, and are rather conventional in their use of measures targeted at increasing innovation in enterprises. Further, none of these programmes have a specific focus on corporate social responsibility. This may be a weakness considering the global pressures on environmental issues, and a strong international focus on how Norwegian corporations act in foreign territory.

On the other hand, if we regard CSR as a reflexive characteristic of the organisation, rather than a separate function or departmental concern, then the test of CSR will be seen in the overall performance of the corporations.

Globalisation is a concept widely referred to when it comes to societal changes at the macro level. It can be defined as “the process of intensification of cross-area and cross-border social relations between actors from very distant locations, and of growing transnational interdependence of economic and social activities” (Scherer and Palazzio, 2008). Turning to corporate social responsibility, there is however not one specific definition of the concept. As a proxy, one may state, according to Frederick (2008), that “CSR occurs when a business firm, through the decisions and policies of its executive leaders, consciously and deliberately acts to enhance the social well-being of those whose lives are affected by the firm’s economic operations”. Current developments in globalisation, including the Credit Crunch and global economic crisis, provide critical incidents which may be seen as testing the CSR credentials of corporations.

The evolution of CSR may be viewed in the light of three main discourses: namely economic, societal and scientific. One aspect within the field of science is to analyse how the meeting between the economic and societal discourses turns into a postmodern configuration where the power of language and narratives are crucial. One central question is how the meeting between the discourses stimulates creativity and innovation, and generates and diffuses new knowledge.

Science is challenged when implementing traditional tools and methods to analyse and discuss the phenomenon at stake. Action Research may well be a methodology especially suited to handle this scientific task. This argument is based on the tradition in Action Research of underlining the importance of dialogue, language and democratic principles. This approach however puts action research itself under scrutiny, as its analytical tools were

developed in the industrial era, and may not be well adjusted to the scientific challenges we see today.

The empirical discussion will contain examples from the collaboration between three international oil and gas companies, Statoil, Shell and Hydro, and NGOs and various private consultancies. We will try to illustrate how these three groups of agents play different roles in constructing the concept of corporate social responsibility, and how this knowledge generating process may act as an illustration of a postmodern phenomenon, where relations, communication and immaterial production are centre stage. Finally, comments will be made concerning how innovation programmes are dealing with these issues.

3.1.1 Postmodernism

The service sector is becoming increasingly important in the economy, both in quantitative and qualitative aspects (Metcalfe and Miles, 2000; Drejer, 2002; OECD). Services are characterised by the central role played by knowledge, information, affect and communication (Negri and Hardt, 2001). As a consequence, the labour involved in this production is defined as immaterial labour, which means that labour produces an immaterial good such as a service, a cultural product, knowledge or communication (*op.cit*). We may argue that we have reached a paradigm in the economy which is dominated by services and information. This is also called a process of postmodernisation, or informatisation (*op.cit*.).

Postmodernism often refers to the cultural sphere, especially literature, philosophy, and the various arts, whereas postmodernity refers to the geopolitical scheme, the latter features globalization and localization, “conjoined in erratic, often lethal, ways” according to Ihab Hassan (2000). Postmodernity concentrates on the tensions of difference and similarity erupting from processes of globalization: “the accelerating circulation of people, the increasingly dense and frequent cross-cultural interactions, and the intersections of local and global knowledge” (Bishop, 1996)

Hassan (2000) also underlines that two factors in particular aggravate the trial of postmodernity in our time: the disparities of wealth among and within nations, and the furies of nationalism, collective identity and mass feelings. These are factors that threaten our democratic ideals, and reveal themselves as a ground on which suppression and exploitation may grow.

The concept of globalisation has been thoroughly discussed in recent years in political, ideological and economic terms. We recognise that human beings, products, services, technology and capital fluctuate across national borders with increasing speed. This implies that geographical borders are given a new meaning. The nation as a territory is becoming the locus of people’s choice for residence, while they look at the global sphere as the interacting space with which they can have a continuous and shifting dialogue concerning ideology, preferences and values. This poses both possibilities and threats to society, depending on what and whose interests you are defending. It also raises important questions regarding the nature and future of the Nordic model.

Along with the rise of a global economy, we observe a postmodern trait, which states that immaterial production is replacing material production as the driving force of the economy. Performativity, communication and co-operation are thus characteristics of the new paradigm (Hardt and Negri, 2004). This notion of immateriality, relations, human imagination and creativity and fluid borders in all respects - in economic terms also labelled post-Fordism (Amin, 1994) - comes forward, and appears as an opposing systemic order to modernism,

associated with traditional social institutions such as the nation, the nuclear family and a Fordist production regime.

Taking these aspects into consideration, we may state that language and communication are the crux of the economic realm today. These factors represent immateriality per se. The traditional way of thinking concerning economic growth and employment is thereby challenged, as immaterial factors are claimed to be more important than traditional production factors such as labour, land and capital.

Language and communication are particularly relevant aspects also when it comes to corporate social responsibility. Creating meaning and behaving according to CSR are challenges that many companies face today, and this may influence how they develop organisational, systemic and economical solutions to fulfil both internal and external requirements. The test will be seen in the overall performance of the corporation, rather than in paper policies.

As Action Research is employed as a methodology in the innovation programmes, a vital question is how Action Research positions itself in the transition from the modern to the postmodern era. The Action Research approach is particularly interesting, for several reasons. Basic concepts in Action Research are dialogue, communication, participation, co-generation of knowledge, democratisation and social action (Elden and Levin, 19??; Gustavsen, 1992; Greenwood and Levin, 1998). The idea of creating ideas and solutions in a community based on equality and respect is important. As is stated in Elden and Levin: *the key is overcoming the expert`s monopoly in defining what is possible for others.* However, the history of AR starts with Kurt Lewin in the 1930s and was followed up in Norway in the 1960s. This means that AR was developed in the industrial era, when production of durable goods was at the heart of economic production. A central question in this respect is what challenges these historical changes, from the industrial economy to what is today labelled information economy, knowledge economy and even the new economy, represent to AR. The concern is however not mainly about the labels as such. The interest is rather positioned in a discourse about how language and communication are employed in creating and establishing content to CSR, which is supposed to fulfil both a democratic and an economic purpose. We consider interventions, and the resulting outcomes.

3.2 Corporate social responsibility

Frederich (2008) has developed an overview of the various development phases concerning corporate social responsibility (CSR) (

Table 3.1). He splits the development in four stages: i) the 1950s-1960s is the period where philanthropy, the conscience of managers and company reputation are drivers; ii) in the 1960s-1970s a new social agenda is introduced where firms are expected to reduce racial and sexual discrimination at the work place, reduce industrial pollution and increase their focus on health and safety; iii) the 1980s-1990s is a period where firms want to create an ethical climate based on ethical principles, they want to establish positive community relationships; they respect stakeholder`s rights, and strive for justice in business transactions; iv) the 1990s-2000s where firms accept their responsibility for corporate global impacts.

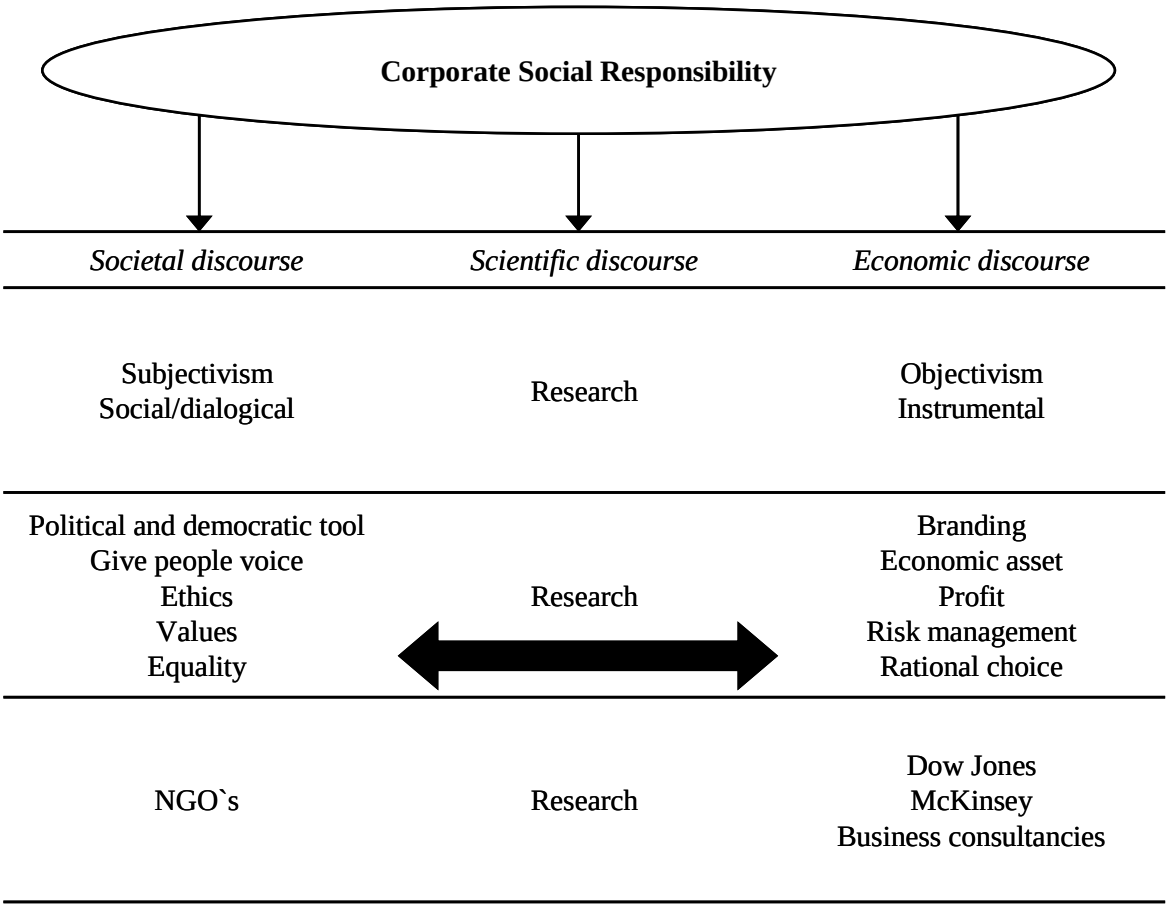
Table 3.1 Four stages of CSR[1]

	Corporate Social Stewardship CSR_1	*Corporate Social Responsiveness* CSR_2	*Corporate/ business ethics* CSR_3	*Corporate global citizenship* CSR_4
	1950s-1960s	*1960s–1970s*	*1980s–1990s*	*1990–2000s*
Guiding CSR principle	Corporate managers as public trustees and social stewards	Corporations should respond to legitimate social demands	Create and maintain an ethical corporate culture	Accept responsibility for corporate global impacts
Main CSR action	Corporate philanthropy	Interact with stakeholders and comply with public policies	Treat all stakeholders with respect and dignity	Adopt and implement global sustainability programs
CSR drivers	Executive conscience and company reputation	Stakeholder pressures and government regulations	Human rights and religio-ethnic values	Globalization disruptions of economy and environment
CSR policy instruments	Philanthropy and public relations	Stakeholder negotiations and regulatory compliance	Mission statements, ethics codes, social contracts	International code compliance, sustainability policy

The period after 2000 is characterised by less focus on theoretical aspects, and increased focus on what is actually happening in this area (Carroll, 2008). Other related themes like stakeholder theory, business ethics and sustainability have received increased interest following the discussion on corporate social responsibility. Carroll (2008) states that CSR has a moral and an ethical component, as well as a business component, and that the concept can be sustainable "only as long as it continues to add value to corporate success" (p. 42). This implies that the business component will receive the main attention.

Based on the above explanations of CSR, it can be stated that the concept encompasses a dialectic process between subjectivism and objectivism, particularism and universalism. Figure 3.1 illustrates this point.

Figure 3.1 Construction of CSR within three discourses



The societal discourse puts weight on the subject and her living conditions in society. CSR may as such be used as a political and democratic tool, encompassing human rights and environmental issues. CSR has also become an instrument aimed at giving groups of people a critical voice, this voice acting as the consciousness of companies exposed to corruption, pollution and exploiting less developed countries. The societal discourse includes discussions on ethics and values, as well as a focus on an equal distribution of wealth in a global perspective. Non-governmental organisations are often seen as representatives for critical voices, trying to influence the behaviour of, for instance, international oil and gas companies. Participation in this set of discourses can change perceptions of the activities of corporations.

Within the economic discourse, the approach is instrumental and objective, focusing on profits. The instrumentality lays in the various approaches to performing business and the use of economics as a frame of reference, whereas the objectivity is a symbol of the economic sphere encapsulating what we may call value free actions and attitudes. Further, spending resources on CSR may be a result of a branding process, where the company wants to improve their reputation within a regime of risk management. A variety of business consultancies are hired by organisations to assist them in balancing their attention to earning money and building a positive image. However, if CSR is merely an optional addition, it is likely to be an early casualty in recession.

A scientific discourse will in traditional terms investigate what CSR means, how it is employed and what are the effects. The scientific approach can be executed within an action

research methodology. This implies an approach consisting of analysing the evolution of CSR, based on how the various stakeholders use their power dressed in different disguises, what kind of rhetoric they use, and how new knowledge is created and transferred into action. The role of the scientist as an outsider within, not doing research on, but with the different actors, is challenged in this case. The scientific contribution may be looked upon as a communicative intervention, fitting into the postmodern scheme where communication itself is the product. Action Research was developed in a period where material production was the driving force of the economy. Today, when immaterial production is becoming increasingly important, Action Research represents an important scientific contribution, but some modifications are necessary. The test of the AR intervention will be whether addressing new concerns under CSR can become integral to the organisational culture.

An intriguing question thus is how to balance the requirements for being efficient and social responsible. It is at this point plausible to draw attention to what is called the economy of identity (Laclau, 1994). What may at first glance seem like a paradox concerning CSR is that this concept covers both an area of subjectivism related to needs, social relations and consciousness, and at the same time relates to an objective and instrumental world where identity, branding and profit reigns. If CSR is to be sustainable, it needs to be articulated in the language of business strategy, rather than philanthropy.

As Prichard (2002) states it: "It (the notion of an economy of identity) helps us understand how communicative practices prepare the ground, so to speak, and are deeply involved in the formation of capitalist relations of production, distribution and exchange". One hypothesis, in connection to this, is that CSR is used as a tool by companies as an identity and branding strategy aimed at gaining goodwill in society. Companies exposing themselves as actors taking CSR seriously, and implementing the concept throughout the organisations, will be part of a discourse aiming at giving these companies a certain reputation. We may link this to a methodological position which implies looking at the world as constituted via discursive formations (Hall, 1997; Miller and Rose, 1990). Through this way of thinking companies are described as responsible and serious as a function of discourse, and not of the features of the companies themselves. As we see, communication and language are the crucial components. With these thoughts as a backcloth CSR can be viewed as a reflector of the new paradigm dominated by services and information. There can be a process of linguistic transformation, whereby CSR is mainstreamed.

3.3 Knowledge spillovers from the Norwegian oil and gas industry

This chapter refers to a project focusing on the Norwegian oil and gas sector and how CSR is constructed under specific conditions. The purpose of the project *Knowledge flows and organisational dynamics: identifying the factors that enable or inhibit knowledge spillovers from the Norwegian oil and gas industry* was to investigate when and how firms in the Norwegian oil and gas industry (O&G) turn to external modes of knowledge sourcing, instead of developing new capabilities themselves. The conditioning of knowledge transfers to (and from) O&G is essential in understanding the potential for outgoing and incoming knowledge spillovers, from the oil and gas cluster to the rest of the Norwegian economy. The focus was on the interplay of knowledge creation and – transfers in organisations operating in Norwegian industries with different knowledge creation and –appropriation regimes: O&G, ICT industries and expert professional consultancies/creative industries. The project was financed by the Research Council of Norway in the PETROPOL programme, and carried out in the period 2002-2004.

Two research questions asked in this project were i) what are the streams of expertise between the creative sector, the ICT sector and the petroleum sector? and ii) in what way are the operations of a) expert consultancies and b) specialised ICT companies integrated in the

organisational and technological innovations of the Norwegian petroleum sector? The topic of CSR was chosen to be the issue of investigation.

In this context a relevant question is how the divergent domains of subjectivism versus objectivism are able to co-exist in the development of CSR, and how this coexistence influences the knowledge production, diffusion and use concerning CSR. And, how can research through an Action Research approach contribute in this knowledge generating process? These questions mirror the linguistic transformations which can be accomplished, including with the support of AR.

The actors involved in working with CSR, in the interface between the oil and gas sector and the expert professional consultancies/creative industries, are many and varied, and their basis for involvement differs. First of all we see the oil and gas companies and their attempt to be transparent and build trust in local communities where they operate, combined with their commercial interests. Second, there are a number of actors who take on different roles in their collaboration with the oil and gas sector. These actors are for example non-governmental organisations (NGO), management consultancies, professional consultancies within the field of humanities, investors and financial consultancies. As a third category we find R&D institutions trying to interpret, analyse and monitor how CSR evolves and is put into active use.

The introduction of these various actors, all of them giving attention to CSR from very different standpoints, draws our attention to how challenges in society puts pressure on organisations concerning developing new services, searching for new work constellations and being alert to new market opportunities. In this picture of very heterogeneous actors it is possible to identify a rather distinct division of labour, where each unit specialises in one particular part of the total concerning the progress of CSR. An additional point to make is the geographical dimension. The actors involved are spread throughout the world, which challenges the level of investigation. In the case of CSR, geographical borders like regions and nations are becoming blurred, as the level of investigation is global.

Table 3.2 gives an overview of some of the actors collaborating with three international oil companies, Statoil, Shell and Hydro, on the topic of CSR.

Table 3.2 Actors collaborating with oil and gas companies on CSR

	Basis	*Service rendered*
ongovernmental organisations:		
Strømmestiftelsen	Religious	Image building; meeting places for managers, employees and customers
Bellona	Environmental	Analyses and facts concerning environmental issues
Red Cross	Humanitarian	Promotion of humanitarian principles; skills and competencies
Professional consultancies/ creative industries:		
Humanistisk Akademi	Philosophy	Assist management groups and individuals concerning questions like communication, responsibility and identity

McKinsey & Company	Management	Help clients make distinctive, lasting, and substantial improvements in their performance and to build a great firm that is able to attract, develop, excite, and retain exceptional people
SustainAbility	Business strategy	Work with clients from the initial assessment of a problem or opportunity, through all subsequent stages: defining the agenda, setting priorities, developing strategies and policies, putting in place management systems, assembling resources, conducting audits, reviews and reporting processes, and encouraging customer and stakeholder engagement
Dow Jones	Sustainability Indexing	Tracking the financial performance of the leading sustainability-driven companies worldwide

These specific actors are chosen to highlight both the diversity in their basis for operating, and the global geographical level. These facts may impose intriguing aspects to the analysis. First, the oil and gas companies are confronting stakeholders with a variety of messages, goals, languages and cultures. Second, there will be structures of power within which the stakeholders have to operate, and which will be more or less observable. As such, these power structures may have a bearing on the development of CSR. For instance, is a high score on the Dow Jones Sustainability Index more important than a high score in the Red Cross monitoring scheme? Third, as the stakeholders are dispersed throughout the world, it is necessary to extend the levels of analysis to include the global level, and not only the region and the nation.

In the early 1970s, the adventure of the Norwegian oil and gas industry started. Today, more than 30 years later, this sector has grown to be the most important and influential sector in the Norwegian economy. During this lifetime, knowledge has been built in fields like technology, construction and internationalisation. Firstly, highly advanced technological solutions have been developed concerning the use of information- and communication technologies like 3D and 4D visualisation. Secondly, we have witnessed the development of unique and revolutionary construction methods in the engineering field when building oil platforms. Lastly, a regional oil and gas cluster has emerged, consisting of a world class knowledge and competence base. To accomplish the demanding and challenging tasks it represents to build an industry, one of the most important aspects confronting the actors in the oil and gas cluster is that knowledge is accessible, and shared among individuals across company, professional and geographical borders.

A relevant question is how this variety of actors influences the development of CSR, and to what extent and how the actors are connected to each other. We recognise that the NGO`s are today confronting a situation that presents the need to take strategic choices concerning future organisation. One such choice will be if the NGO`s should stick with their traditional role of spotlighting issues, or instead mutate towards new forms of service delivery, including closer involvement with the private sector (SustainAbility, 2000). According to SustainAbility (2003) NGO`s will invest heavily in networks in the future, and focus on solutions delivered through markets.

Humanistisk Akademi, McKinsey & Company, SustainAbility and Dow Jones all represent different professional groups. This implies that the services they render to the oil and gas companies vary, both in content and form of delivery. Compared to the NGO`s, who are non-profit organisations, they are profit maximizing companies operating within a market

characterised by strong competition. Do we however witness the contours of a scenario, where the NGO`s and these service companies are converging towards a business model, in which the common denominator is an engagement in sustainable development, where the NGO`s are becoming more like ordinary business partners selling their services on the market, whereas the service companies are taking a clearer position in the struggle for a more democratic society, environmental issues and in empowering people in poor areas in the world?

Or is it the other way round, that the NGO`s are becoming business partners scaling down humanitarian and environmental perspectives, and the service companies are using the concept of sustainable development in their own image building processes, to get a more or less deserved reputation as responsible and ethical partners?

R&D institutions will often be acting as bringing additional components in their roles as interpreters of knowledge and information spillovers between the industries in question. R&D institutions play an important role in this translation activity, and do as such influence the meaning and understanding of CSR.

The project investigated these questions by tracing the knowledge flows between the oil and gas companies, the NGO`s and the service companies, in their collaboration concerning how to give meaning to CSR, and how to make CSR operational. Implicit in these investigations is a question of the ethical rules of the game.

3.3.1 An action research perspective

The starting point of action research (AR) is engagement, rather than maintaining a stance of objective detachment. AR involves interventions, by reflective professionals, monitoring the impact, and planning future actions accordingly. As Kurt Lewin argued, one way of finding out how a system works is to try to change it.

Once we take account of speech act theory (Wittgenstein, Austin, Searle) and structuration (Giddens) it is hard to see how we could revert to a conventional positivist model of social science. Researchers are actors, and not merely observers. The utterances and writings by researchers are also actions.

The Norwegian tradition has given recognition to AR in enterprise development and regional development. The intended output has been co-generated knowledge, enabling the researcher, who becomes engaged in the local discourse, to effect a lasting change which is locally owned. There is a central role for dialogue, in which different actors, including from both O&G and creative industries, become engaged. This is also social dialogue, in that the labour market parties, or social partners, are engaged. The role of development organisations, including dialogue conferences, is to enable reconfigurations, and the engagement of new actors, including NGOs.

In strategic areas of the economy such as O&G, AR offers the means of engaging NGOs in dialogue, transforming strategic discussions in the corporations, and creating new knowledge. The test is in the performance of the corporation in this new setting.

In this project semi structured interviews were conducted with key informants in oil and gas sector and creative sector. The purpose was to profile persons and their role in knowledge transfers between sectors and researchers and NGOs.

The selection criteria were relevance with respect to position, and an experience we believed to be important (Mikkelsen, Engen, Steineke, Jøsendal, Grønhaug, 2006). Key informants that were considered adequate were thus selected based on prior insights about their knowledge and involvement in CSR. This approach allowed the informants to describe and discuss the specific organizational processes and events they found most important for the decisions of the company, in the development and implementation of a corporate social responsibility policy (op.cit.). On the other hand, the creative industry, working more directly with people, and less with physical processes, might be thought to embody certain principles of CSR. The selected informants were interviewed based on a semi-structured interview guide. The interviews lasted for about two hours and were either recorded or made notes from by the researchers.

3.3.2 The role of the researcher

Corporate social responsibility has been put on the agenda in many companies throughout the world in recent years. This is a continuation of the debate about environmental issues introduced in the 1960s. The process of developing the meaning of CSR may require new concepts and new employee and stakeholder constellations. One new concept is the “triple bottom line”, which indicates a company`s overall commitment and performance across environmental, social and economic dimensions. This in turn confronts us with new indicators of how the company is gaining success. Examples of such indicator can be; will the project protect local culture; will human rights be upheld; are the right stakeholders engaged. As we can see, the arena is global, not just one particular company or a region in a country. The interviews we have been conducting also indicate that the meaning of CSR varies. The actors involved are striving for new insight, and searching for indicators that will help to make the concept operational. In this setting, the researcher acts as an interpreter and a mediator, and is thereby influencing the construction of meaning through this interpretation. This represents one kind of intervention from the researcher. In the Norwegian tradition, AR has achieved recognition as independent, rather than commercially driven. Shared approaches to research methodology, and familiarity with issues of dialogue, offer considerable advantages over individual research consultants.

Emerging from a programme such as PETROPOL we find shared perceptions of methodology, with inherent elements of CSR. By linking with wider programmes of enterprise and regional development, a major contribution can be made to social dialogue.

3.4 Conclusion

Corporate social responsibility is a concept which has been developed in various stages since the 1950s. An implication of this is that policy instruments have changed during these periods. CSR is also an example of a global challenge which requires supra-national laws and regulations. It is however also an illustration of how different actors influence the content of the concept. Innovations occur as consequence of dynamic process. New work constellations are created on a national and international level,

The project *Knowledge flows and organisational dynamics: identifying the factors that enable or inhibit knowledge spillovers from the Norwegian oil and gas industry* indicated that when critical incidents occurred signals revealed that the receiving team in the company did not have the absorptive capacity, experience, technical knowledge or the shared language to implement what the source of the warnings had developed (Mikkelsen *et al*., 2006). The knowledge transfer system did not function well enough. The surprise element of the crisis and the conviction that “we are doing the right thing” seem to reduce the importance of new tools within the companies, such as ethical helplines or informative written materials. The

question to be discussed in the companies, and a subject for future research, is thus how far it is reasonable to rely on written "codes of conduct", and the formal structure's ability to govern and give direction to the employees' behaviour in operations, or if informal norms, procedures and insufficient interpretative competence that are not in accordance with the CSR principles are still widespread or exist in the companies. The financial crisis today indicates that early warning systems in enterprises do not function to a sufficient degree. Innovation programmes in the context of the Nordic model should perhaps offer some efforts to elaborate on innovation processes within the framework of CSR in order to increase knowledge in this particular field.

The issues addressed in this chapter are fundamental to the Nordic model, and whether it has a future in the current turbulent global economy. We have concentrated on a sector, O&G, which has enjoyed consistent success, whose profits have underpinned continuing Norwegian prosperity, and which has had links with the creative industries. We have considered a research approach, AR, which involves active interventions, dialogue and reconfiguration. We have argued that it is overall corporate performance which should be considered, rather than particular paper policies or optional initiatives.

The stakes are high. If, in the context of globalisation, and in the face of critical incidents, the performance conduct of Norwegian corporations is not significantly different from that of international competitors, such as from the USA or UK, we may conclude that both CSR and the Nordic model are now myths. If, on the other hand, we can identify distinguishing features, which suggest that overall enhanced performance can be linked to both CSR and the Nordic model, then there are radical implications for future international business strategy.

Notes

[1] Source: Fredrick, 2008, in The Oxford Handbook of Corporate Social Responsibility

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PART II: REGIONAL PRACTICES

4. Regional clusters as public policy: Is more research necessary?

Roger Normann

4.1 Introduction

The ambition from the commissioner of this research project, Rogaland, Aust-Agder, and Vest-Agder County, The Norwegian Ministry of Trade and Industry, and the Confederation of Norwegian Enterprise, was that the project should provide increased knowledge about the opportunities, and barriers inherent in the use of the policy tools that are available both on a regional and a national level. This chapter deals with one of the most prominent and visible part of current public supported industrial development efforts in Norway, namely the strategy of building and strengthening regional clusters. This strategy has gained much support both among businesses participating in such programmes, significant parts of the research community, and at a political level.

It is an ambitious goal to state a contribution to this discourse, as there is much contemporary literature that deals with issues relating to the cluster phenomenon. I do however state that there are important contributions to be made to current understandings and practices. And that these contributions might come from insights stemming from transdisciplinary work, dialogue between research and practice, and international collaboration.

The argument is that policy programmes such as regional clusters in its core parts mainly build on insights from economics spanning from Alfred Marshall's concept of industrial districts in the early 20th century (Marshall, 1919) and especially the modern version developed with central contributions from Michael Porter (1990; 1998a; 2003). The point here is that a theory that gives the economical perspective on development could benefit from insights developed from work with programmes such as Enterprise Development 2000 (ED2000), Value Creation 2010 (VC2010), and recently the Programme for Regional R&D and Innovation (VRI). ED2000, VC2010, and VRI are examples of programmes where local/regional actors and national level intuitions collaborated on regional based research related to industrial and regional development in a more broad sense. The common dominator between these programmes was:

a) Action and practice orientation, the programmes was orientated towards making a contribution to society, e.g. in terms of better work organisations, more democratic and effective network systems, partnerships, development coalitions, and regional strategies (Normann 2007).

b) Researcher involvement, an Action Research, mode-2 type of perspective on research's role in society (Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow, 1994; Greenwood and Levin, 1998).

c) Transdisciplinary social science (Toulmin and Gustavsen, 1996), most of the involved researchers did not work out of Universities but from regionally based research institutions such as IRIS[1] and Agderforskning[2]. Something that probably contributed significantly to that stringent disciplinary academic orientation held a less prominent place in many of the central publications from these programmes than for instance practice and contextual relevance.

d) *Explorative nature*, all of the above-mentioned programmes did not build on a coherent or stringent theoretical framework as for instance one could argue that regional cluster theory is. This can of course both be viewed as strength and as a weakness. If we should choose look at some of the benefits of this we should notice that learning processes, exploring, and knowledge development and sharing, often becomes the prominent feature of explorative programmes (Ennals and Gustavsen, 1999; Finsrud and Mariussen, 2008; Gustavsen, 1998; Gustavsen, Colbjørnsen and Pålshaugen, 1998; Levin, 2002). This is something that could be contrasted to programmes that built on a more internally consistent theoretical framework. For instance the theoretical framework associated with the popular regional cluster concept (Porter 1990; 1998a; 2003). In the cluster theory are relations between causes and effects stipulated ahead of project implementation as a contrast to more explorative programmes (Fricke and Totterdill, 2004; Levin, 2002).

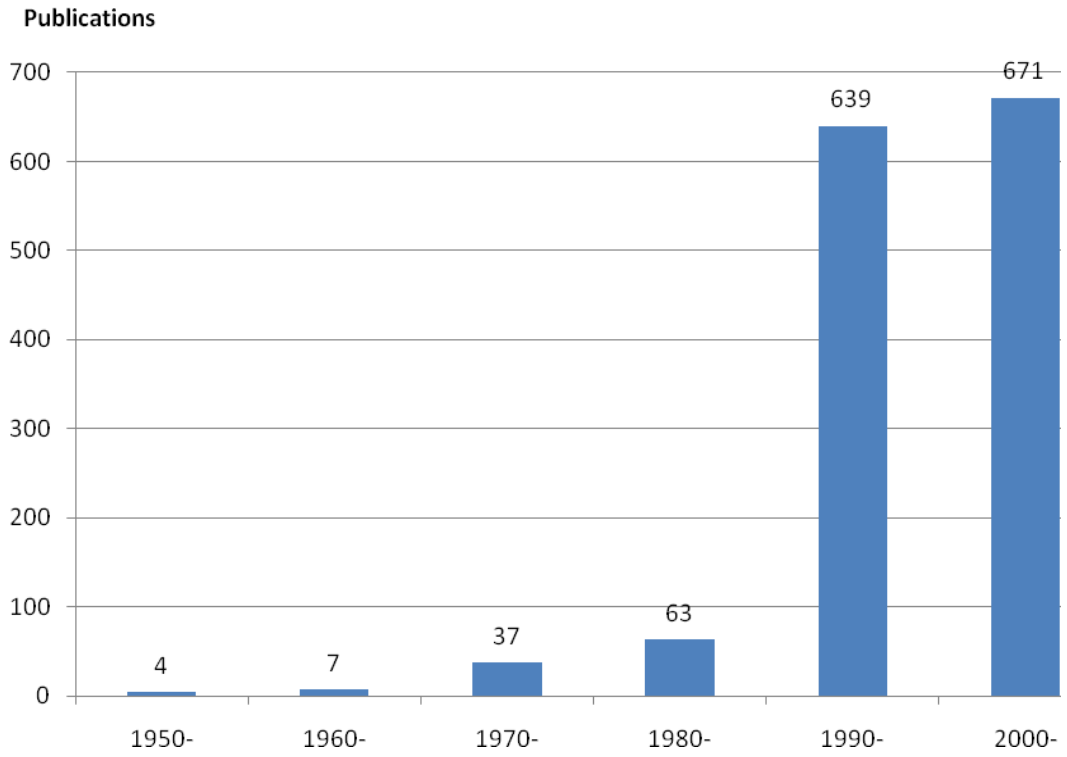
It is a typical that when you have a clear idea about both causes and effects, issues related to learning, exploring, knowledge generation becomes less prominent than when you don't ahead of project implementation have a clear idea about causes and effects. The challenge with the latter approach is of course that it is a more challenging and complex path where the chance of not succeeding is very possible.

I therefore argue here that our existing understanding of theory and practice relating to regional cluster development not necessarily are wrong, it is an argument in favour of expanding the discourse on cluster development out of the confines of the economical analysis from which it departed, based on the strong belief that this would develop and strengthen the theory. It is an important challenge because when the idea and practice of regional clusters departed from the realms of economics and economical geography and into the realm of public policy it effectively outgrew the theoretical framework from which it originally departed. The simple but yet obvious implication of this perspective is that regional cluster practices are long gone, being only a descriptive theory to explain national and regional competitiveness. As a real life phenomenon regional clusters tears down the borders between different academic disciplines, as well as between academia and practice. Academics and other professionals from a wide variety of disciplines and backgrounds should therefore engage and see how practice and theory relating to the regional cluster phenomena could be improved and further developed. This chapter of the National Pilot for Regional R&D and Innovation should be read with this perspective in mind.

4.1.1 Research question

Central aspects of political, academic, and strategic business discourse on the topic of industrial development have changed significantly in a relatively short period of time. For regional stakeholders, politicians, public servants, business representatives, consultants, researchers, business interests groups, etc. the conceptual framework for industrial development from only a few years back must seem strangely old and outdated. We notice this in that it in just a few years has become meaningful to talk and act on the significance of territory for economical development. The 2008 Nobel Prize winner in economics Paul Krugman's wrote in a 1991 publication that the study of location in economical geography has been pushed further and further into the intellectual periphery (Krugman 1991). True then, but not anymore, in a period spanning no more than a decade has the impact of location or territory become the focal point of not only economical geography, but also central in business strategy, and public policy almost everywhere in the industrialised world. The figure below illustrates the growth in attention from the 1990s onwards as international journals have been devoted to clusters and related agglomeration theories:

Figure 4.1: The presence of cluster-related concepts in international journals[3]



The close to explosive attention that nationally and internationally has been devoted to concepts related to the cluster phenomenon from the 1990s and onwards, we can reasonably assume is matched with an attention at a political level when the design of relevant policies and programmes are decided upon.

Public policy in the OECD area both on a regional and a national level are more oriented towards how the regional impact of economical development, and how to best support it. In practical terms this means that almost any public servant and regional governance system actor involved in activities related to industrial development is intimately familiar with the idea that clusters are important for economical development, innovation and growth, furthermore that there is a belief that public policy can play an important role in stimulating cluster development and processes. When a broad range of players, from industry, public administration, academia, politics, as well as various types of new institutions and project organizations, interact on development within the framework of a region, it has promoted forms of interaction that are qualitatively different from what we traditionally refers to as state or market based. This phenomenon, regionally anchored networks and partnership based interaction, can we understand as *regional governance networks*. The plurality formed by many network actors and governance networks within the framework of a region can be described as a *regional governance system*. The term *region* in this context refers to a commonly shared sense of identity, a framework that is meaningful for local actors to discuss development processes in relation to. Put another way, a region is a geography that is perceived as meaningful by local actors to discuss development in relation to.

The technical terms used for describing cluster processes are agglomeration theories, industrial districts, regional innovation system theories, and cluster theories. These are all theories that in different ways and with somewhat different emphasis deal with the impact of location, innovation, clustering, local knowledge, for economical development.

As I will argue here, the central question from a policy perspective is not so much if clusters "work" or not, or which one of the many agglomeration theories are most "correct" in terms of describing actual evolutionary business industry processes. As I will argue here there is little doubt that there is a phenomenon that relates to clustering of activities, and that such clusters at least in theory can be supported in a meaningful and productive way. The presence of related industries in a location is in itself ample reason to argue that location matters in some way or another. How much and in what way they matter, and the question of if and how these insights can be made into public policy is what matters here. This chapter aims at in as simple terms as possible present what the case for and against the practice of public policy supporting the formation of regional clusters is. I therefore ask:

How should we understand cluster policies as effective regional development policies?

This question therefore concerns some issues relating to how the challenges relating to cluster development should be understood from policy perspective. This means that we should understand what a regional cluster is, what the cluster mechanisms are, and to what extent and in what way it is meaningful to believe we can use public policy instruments to support the design of whole new regional clusters, parts of cluster structures, and stimulate cluster mechanisms.

4.1.2 Chapter outline

This chapter starts out with addressing the issue that regionalisation and globalisation often are considered to be parallel and intertwined processes. Thereafter I briefly discuss and present one of the most well known versions of the regional development concepts, the regional cluster theory made famous by Michael Porter (1990; 1998a; 2003). This is followed by some empirical findings from Rogaland and Agder relating to innovation activities among enterprises in this area. This is followed by a section that describes some of the criticism that the regional cluster theory has been faced with. The chapter is then concluded with a discussion of issues that relates to how regional clusters can be understood as effective regional development policies.

4.2 Globalisation and regions

The idea of the following is to give a brief résumé of the background and rationale for parts of what can be described as a normative regional development discourse. Here I point to some of the elements of what has changed in emphasis relating to regional economical development. Theories are referred to as normative because also have social and priority relevant consequences, they are in a sense of the word also political (Normann, 2007).

Globalization is a phenomenon we should address with a healthy portion of criticism when we want to develop regional and national development strategies. Not because there nothing that legitimately can be described as globalization and the effects of globalization, but because the concept has many different meanings and usages. A general and dichotomised take on the discourse is that the discourse on globalisation consists of normative views from what basically are two camps; those who present theoretical, empirical, normative, and political arguments in favour of the importance of globalisation, and those who held a more sceptical stance. Among those who argue strongly for, we find both extreme neo-liberal positions as those uttered by Kenichi Ohmae (1995a; 1995b), and more moderate "globalists" such as Manuel Castells (2000). If we look at the sceptics, we find those that believe that globalization is an ideological mythological structure with limited empirical explanation (Held and McGrew, 2002; Went, 2000).

Giovanna Vertova (2006b) writes that the debate between sceptics and globalists both is about how the phenomenon of globalization should be defined and understood, and also a debate about how new and unique the phenomenon of globalisation really is. Globalists can claim that globalization represents something entirely new, and therefore is a unique phenomenon. The core of their argument often refers to the development of new technologies that have paved the way for new infrastructure for communication. Globalists like to argue that we are moving towards a more harmonized global society in which differences in culture, language, history means less and less. For example, Kenichi Ohmae (1995a) writes that we are moving in the direction of a borderless global community, where the "national" becomes less and less important, while the regional becomes more and more important. Sceptics point to that globalization in reality only covers a minority of the world's population, and that most of the world in reality is untouched by the consequences of globalization. Sceptics argue that both the degree of "newness" and the effects of globalisation often are very exaggerated by the globalists. Sceptics argue that the economy not is global but internationalized, and that national states still play a significant and important role (Vertova, 2006a).

The academic debate between sceptics and globalists will undoubtedly continue. However, it seems that at least one of the earliest assumptions associated with the globalization phenomenon is losing some weight. This relates to the assumption that globalization processes are the big equaliser in both a political, social, cultural and economical sense. Although globalists argued that global differences between the countries and people will be equalized when market mechanisms freely can swing, there is currently little empirical evidence that support the claim that this will happen. Differences between rich and poor have actually increased in the period that globalist refers to as "the age of globalization" (Vertova, 2006b: 6–9).

Related to the context discussed here, regional development policies, the debate associated with globalization has already had significant implications. Both sceptics and globalists, following different lines of argumentation and with different normative "luggage", has reached conclusions that shares significant similarities. Their "shared" conclusion is that the region as an arena, as a key driver for economical development, has increased in importance. Neo-liberalists, such as Ohmae (1995a; 1995b), point to the region, because it represents a more optimal and effective organizational unit within the global economy than the national state. Sceptics point out that the nation state still plays a decisive role in this phase in the development of capitalisms. They point out that national state policy still is the crucial element in setting up economical competitiveness and growth rates, through for example welfare policies, tax policies, education policies, research policies etc. Globalist counter-argument has been to focus on the role of the transnational companies. These companies are often considered to be outside the national government's control and reach, in that they have the opportunity to exploit and take advantage of geographical differences between different geographical areas, and thereby profit from regional differences. Sceptics have pointed out that the transnational companies often not are as transnational as one might think or could be led to believe. They are often concentrated in specific geographical areas, and that these companies are totally dependent on the social and physical infrastructure that these areas can offer (Vertova, 2006b: 6), for example, the social and physical infrastructure at a specific location – *a region*.

A "third" position that in many ways represents an in between position between what is referred to as globalists and sceptics position, are those that are looking at spatial territory, geography, in *relational terms*. What was here is considered globalist and sceptics have in common is that geography, a territory, often is understood in metric and/or administrative terms. Those who understand the region in relational terms sometimes address the region as a learning region (Gustavsen, Nyhan and Ennals, 2007), or regional innovation systems

based on the understanding of geography, space, as relations in an institutional framework of informal and often tacit relations. The region is in this sense a meaningful concept, since the dialogues and interactions that would not have been possible on a national or a global level, because of the scale, are possible on a regional level.

Such an understanding of a region can be said to be based on five main elements: (1) region is an administrative and political entity with a certain degree of cultural and historical homogeneity and some formal power. (2) A neo-Schumpeterian evolutionary understanding of innovation. This would be an approach that builds on Schumpeter's understanding of capitalism as an engine for change, in combination with Herbert Simon's concept of bounded rationality. Companies are in this perspective, governed by procedures, where some have routinized an innovative activity, while others have routinized an imitative activity. These procedures are reproduced in practice through the organization's memories. If the procedures lead to an unsatisfactory result for a company, it can lead to a search for new routines; if the new patterns are successful they may be adopted as a new and satisfactory behaviour. This then represents the evolutionary aspect of the model (Nelson and Winter, 1982). (3) Networks understood as relationships based on trust, reputation, customs, reciprocity, and reliability. (4) Learning understood also as institutional learning. (5) Interaction driven by formal and informal contacts and relationships (Vertova, 2006b: 9).

4.3 Regional cluster theory

Michael Porter has addressed the apparent paradox that regionalisation and globalisation seems to be intertwined and parallel processes, in a well known article (Porter, 1998a: 77):

> "Paradoxically, the enduring competitive advantages in a global economy lie increasingly in local things - knowledge, relationships, and motivation that distant rivals cannot match."

If we live in a time of global competition, a focus on the region, as Porter states it, should be a paradox. Economic globalisation should make localisation irrelevant, because of speedier transportation, new information infrastructures, and the global market should allow competing businesses to get anything any time. However, Porter (1998a: 78), and many with him, argues that localisation remains crucial to competition:

> "Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include, for example, suppliers of specialized inputs such as components, machinery, and services, and providers of specialized infrastructure. Clusters also often extend downstream to channels and customers and laterally to manufacturers of complementary products and to companies in industries related by skills, technologies, or common inputs. Finally, many clusters include governmental and other institutions – such as universities, standards-setting agencies, think tanks, vocational training providers, and trade associations - that provide specialized training, education, information, research, and technical support."

Porter (1998a) proceeds with explaining how clusters affect competition in three broad ways: first, by increasing the productivity of companies based in the area; second, by driving the direction and pace of innovation, which underpins future productivity growth; and third, by stimulating the formation of new businesses, which expands and strengthens he cluster itself.

The focus on the regional level also mirrors an increasing attention to knowledge, learning, and innovation as decisive competitive elements for businesses and industries. This is particularly important in high cost countries. The governing idea is that much of the knowledge needed for a business to be innovative and competitive is tacit, that is a type of knowledge that cannot be transferred between individuals and institutions in a written form. Knowledge must in a way be tapped from the knowledge milieus and people that developed it, or have access to this knowledge trough networks. This new and locally anchored knowledge is seen as particularly important because many enterprises are part of global value chains. If globalisation also means that information about production can be spread around the world relatively quickly, between different enterprises in different parts of the world, enterprises in low cost countries can use the same advanced production equipment as enterprises in high cost countries. Since globalisation has led to much knowledge and resources being easier to acquire everywhere, the central argument is that knowledge and other resources that are locally anchored and difficult to copy for other enterprises have increased in significance. Locally anchored learning processes and the development of unique knowledge are then central mechanisms in order to gain and maintain global competitiveness in enterprises and industries in high cost countries (Asheim and Isaksen, 2006; Normann, 2007).

4.3.1 Cluster structure and cluster effects

The core idea of cluster theory is that competence, innovation, development is created sustained, and developed through activities that occurs in and between enterprises within an industry or related industries. Porter (1998a: 90) sees the cluster effect in this way:

> "A cluster is the manifestation of the diamond at work. Proximity – the collocation of companies, customers, and suppliers – amplifies all of the pressures to innovate and upgrade."

The framework of Porter's Diamond model is interlinked advanced factors for what Porter calls a competitive advantage for regions. The framework is described likes this:

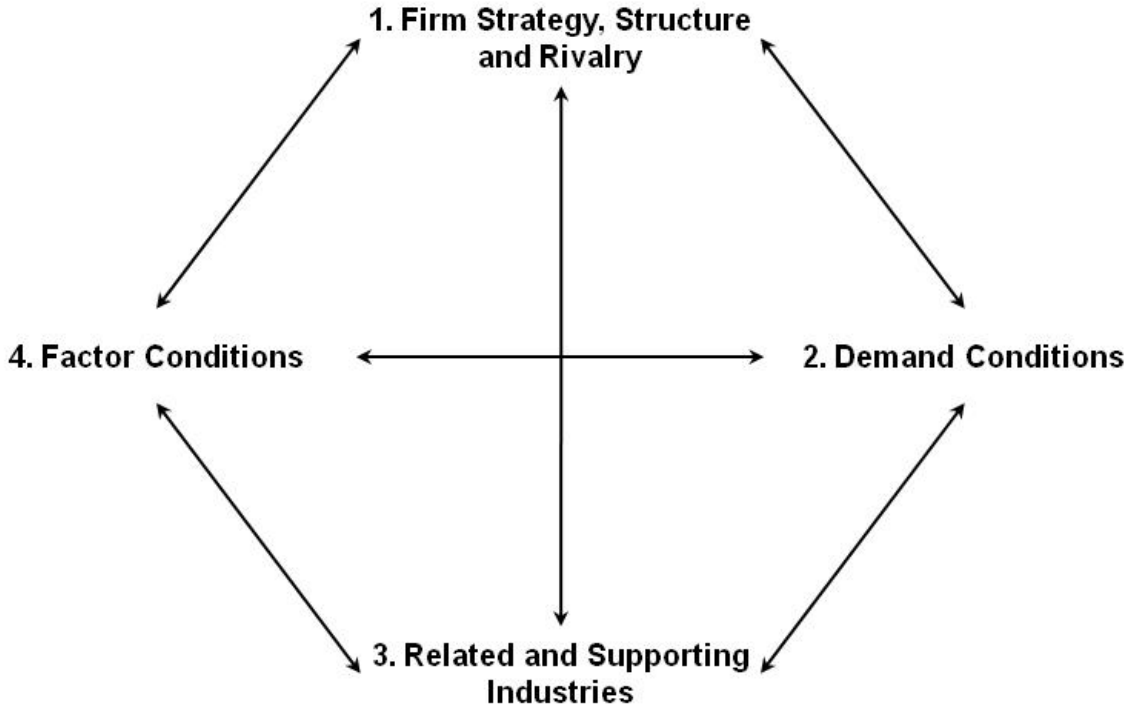
1. *Firm Strategy, Structure and Rivalry* The world is dominated by dynamic conditions, and it is direct competition that impels firms to work for increases in productivity and innovation.

2. *Demand Conditions* The more demanding the customers in an economy, the greater the pressure facing firms to constantly improve their competitiveness via innovative products, through high quality.

3. *Related and Supporting Industries* Spatial proximity of upstream or downstream industries facilitates the exchange of information and promotes a continuous exchange of ideas and innovations.

4. *Factor Conditions* Porter argue that the "key" factors of production (or specialized factors) are created, not inherited. Specialized factors of production are skilled labour, capital and infrastructure. "Non-key" factors or general use factors, such as unskilled labour and raw materials, can be obtained by any company and, hence, do not generate sustained competitive advantage. However, specialized factors involve heavy, sustained investment. They are more difficult to duplicate. This leads to a competitive advantage, because if other firms cannot easily duplicate these factors, they are valuable (Porter, 1998b). These interconnections are illustrated with the following diamond model.

Figure 4.2 Porter's Diamond[4]



The idea of the diamond model is that the effect of one point depends on the others. For example, firms will not to innovate unless there is sufficient rivalry. A high level of rivalry can lead to the formation of unique specialized factors. The greater the similarities in demand for competence, infrastructure, goods and services it is between the actors the bigger are the mutual dependences between them. The shorter the geographical distance there is between the larger is the possibility that scale advantages can be realised through formal and informal couplings between the actors, and thereby increased probability that the cluster achieves self-reinforcing upgrade and growth (Jakobsen, 2008). Jacobsen, (2008) sorts the cluster theory components in cluster structure and effects in the following way. The point is that there is assumed to be a probability of a casual relationship between cluster structure and effects (upgrading mechanisms).

Table 4.1 Hypotheses about structural cluster properties and upgrading mechanisms[5]

Structural cluster properties (causes) →	*Upgrading mechanisms (effects) ranked*
Vertical structure: describes the extent actors are connected in customer/supplier relationships. Can be a chain structure where some business sell to customers outside of the clusters while others within the cluster sell to them or a closed structure, where the businesses only has each other as customers	*a) Innovation pressure* – because demands and innovation impulses can be communicated in a more rich form, more frequently, and more flexible *b) Transaction economizing* – because long term relations creates trust and reduces the need for protection mechanisms *c) Knowledge externalities* – because market knowledge follows the supply stream backwards through the value chain
Horizontal structure: describes the extent of which actors operates within the same market, uses the same resources, has similar technology, products, customers, or geographical market	*a) Knowledge externalities* – because the knowledge is in the firms are related and complementary, and spread through mobility of employees, managers, board members, and through formal and informal communication arenas *b) Critical mass* – because the firms have very similar resource needs
Geographical and cultural proximity: Travel distance between firms, cultural indicators language, education, religion, social group, etc	*a) Knowledge externalities* – because knowledge flows more effectively over short distances, and because cultural homogeneity increases the firm's ability to absorb new knowledge *b) Critical mass* – because co-localisation give a more concentrated development of infrastructure and better use of this infrastructure, and because co-location makes mobility easier *c) Transaction economizing* – because cultural unity gives mutual trust and makes communication effective, and because short distances give lower transportation costs *d) Innovation pressure* – because co-location reinforces customers innovation impulses, and give more possibility for close follow-ups and communication between customers and suppliers
Size: The number of firms and the size of the firms	*a) Critical mass* – because many and large customers makes infrastructure projects, special educational programmes, research milieus, and cluster specific goods and services more profitable

Jacobsen writes that there is no clear cut definition of what constitutes a regional cluster. But that the idea is that the stronger the presences of structural cluster properties are (vertical,

horizontal, geographical, size), the more would the business group resemble a cluster. If none of the factors were present, it would be pointless to talk of cluster properties.

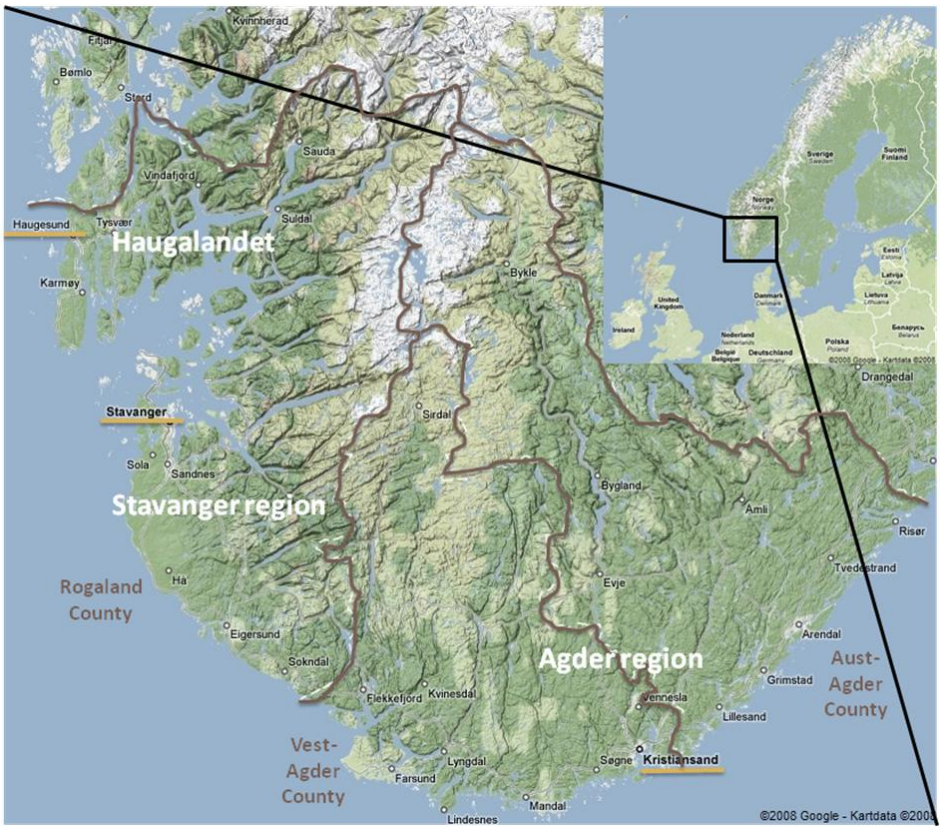
4.4 Regional clusters in Rogaland and Agder

Porter's cluster theory has in a relatively short period of time reached almost inconceivable popularity. Douglas Woodward, a Professor of Economics from University of South Carolina, writes that:

> "Porter's strategy has spread rapidly. It has served as the basis for economic development policy in countries as dissimilar as Japan, Finland, Estonia, Portugal, Singapore, Costa Rica, Nicaragua, Mexico, and Rwanda. At the state and local level in the United States, Porter's influence runs wide and deep; it is the basis for ubiquitous policy initiatives and councils designed to spur cluster development" (Woodward 2005).

The map below illustrates the location of the discussed area. Note that three separate regions are discussed in the following Haugaland in the northwest, the Stavanger region in the centre, and the Agder region in the east.

Figure 4.3 Aust-Agder, Vest-Agder, and Rogaland County[6]



The regional cluster concept has established itself as a central component in the industrial policies in both Rogaland and Agder. The table below lists regional cluster initiatives supported by the ARENA[7] and NCE[8] cluster programmes in Rogaland and Agder. ARENA and NCE are the Norwegian governments, Innovation Norway, cluster programmes. There are currently 19 active ARENA programmes, which get a combined annual funding of NOK 35 million (2008), annual funding per ARENA project varies between NOK 1.5 and 2.5 million. The 9 NCE clusters had NOK 47 million in available funds (2007).

Table 4.2 Active ARENA and NCE clusters in Rogaland and Agder (2008)

	ARENA cluster	*NCE cluster*
Rogaland		NCE Culinology, Food culture cluster in Rogaland (100 firms)
	Arena Brønnteknologi. Centre for Smart and Safe Wells (Oil and gas drilling)	
	Arena Integrerte Operasjoner (IO). Integrated operations in the petroleum's industry	
	Arena offshorefartøy Offshore cluster in Rogaland and Hordaland	
	Gass i Vest Application of natural gas, cluster in Rogaland and Hordaland	
Agder	*Innovativ Fjellturisme* Tourism, travel business at seven destinations in Telemark and Aust-Agder County	
	Arena Fritidsbåt Leisure boat production industry, 118 firms located primarily in Aust-Agder County. Represents 40% of the Norwegian production	
	NODE Norwegian Offshore & Drilling Engineering, 47 firms	

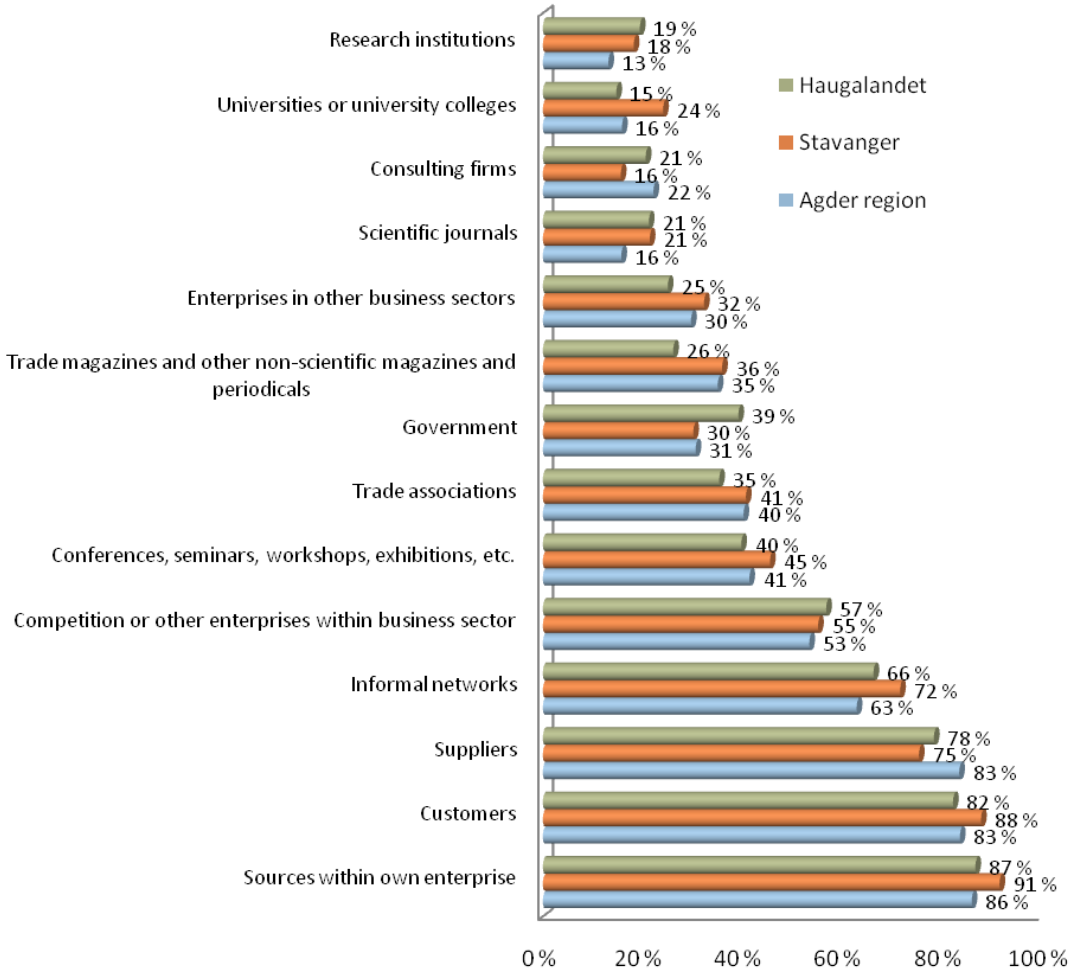
The NCE clusters are the clusters that get most government funding and are also the most prestigious group for enterprises to be a part of. One of the ideas of the ARENA programmes is that it shall help the ARNEA clusters to upgrade themselves into an NCE cluster. As we can see from the table, currently only one NCE cluster is based in Rogaland, Agder remains to get its first NCE cluster. Five of the eight clusters are directly linked to the oil and gas industry, two of them are linked to tourism and culture, and the latest to get status as a regional cluster is ARENA leisure boat [ARENA Fritidsbåt].

4.4.1 Cluster processes in Rogaland and Agder

The following sets of data builds' on a survey that was conducted among leaders in the two Agder counties and Rogaland in October and November 2007. The survey consisted of two parts a web based survey and a phone based survey. A total of 1670 people were interviewed, of these where 706 web based. The survey is checked to be representative on a regional level (Haugaland, Stavanger region, and Agder). The target population was leaders in the industry (firms with more than 5 employees), public sector and politics in Rogaland and Agder. The sample presented in this paper only contains leaders from the industry. 1100 of the 1670 respondents in the whole study are industry leaders. In the tables and figures presented here is the sample varying between 365 and 369. The population, the number of firms with more than 5 employees in the three counties of Rogaland, Aust-Agder, and Vest-

Agder was Q4 2007 12124 (Source Statistics Norway). The margin of error is therefore +/- 5.13 % for the tables presented here. Central for the theory of regional clusters is, as we have seen, the idea of innovation pressure. The idea was that demanding customers and suppliers create an environment that contributes to stimulating for innovation processes. When we asked managers within enterprises in Rogaland and Agder where they got their information from the following picture emerged.

Figure 4.4 Sources of information for innovation activities[9]



The practical interpretation of this figure is firstly that there are no statistically significant differences between the three regions in the samples presented in the figure above. There are however notable (significant) differences between the variables in the lower half and the higher half from the figure above, the innovation sources that are significantly more (group A) and important than (group B) are listed in the table below.

Table 4.3 The innovation sources organised into two statistically significant different groups[10]

	Agder region	*Stavanger*	*Haugalandet*
Source group A			
Sources within own enterprise	86 %	91 %	87 %
Customers	83 %	88 %	82 %
Suppliers	83 %	75 %	78 %
Informal networks	63 %	72 %	66 %
Competition or other enterprises within business sector	53 %	55 %	57 %
Source group B			
Government	31 %	30 %	39 %
Enterprises in other business sectors	30 %	32 %	25 %
Scientific journals	16 %	21 %	21 %
Consulting firms	22 %	16 %	21 %
Universities or university colleges	16 %	24 %	15 %
Research institutions	13 %	18 %	19 %

In the table above we have grouped the innovation sources into two separate groups where group A is significantly (statistically) different from group B. We see that universities, research institutions, and consultancy, government get a relatively low score compared to group A. Something that can be understood, as knowledge institutions do not seem to play a particularly important role as sources of innovation.

On the other hand does it seem like the cluster mechanics play a significant role. Customers, suppliers, informal networks, and competition from other enterprises within business sector seem to play a very important role as sources of innovation. This is something that gives strong support for some of the assumptions about innovation pressure in the cluster theory. However we should also note that the most important factor, even though it not is statistically different from the rest of the factors in group A, is sources within own enterprise.

The significance of work organisation is not conceptualised in the cluster theory as a distinct role, but it lists as one of the most important factors in this survey. Work organisation was of course one of the prime research elements within the ED2000 and VC2010 programmes.

Another issue that we asked in the survey was with whom the enterprises collaborated with on innovation activities. They could here separate between regional institutions, national institutions, and international institutions. The question was if they had collaborated with any of these institutions on innovation activities within the last three years. Table 4.4 gives details. The colouring of this table should be read as green means much collaboration, and red the less amount of collaboration. The interpretation of this table is that firms in Agder, Stavanger region and Haugalandet primarily collaborate with customers and suppliers at the regional and national level and the least with universities and research institutions. National level research institutions and universities seem to be more important than regional and international level research institutions and universities.

Table 4.4 Collaboration on innovation activities last three years (% yes)[11, 12]

		Customers	Suppliers	Sources within concern	Competition	Consulting firms	Universities or univ. colleges	Research institutions
Local/ regional	Agder region	29 %	24 %	18 %	15 %	13 %	9 %	6 %
	Stavanger	36 %	30 %	18 %	15 %	14 %	7 %	5 %
	Haugalandet	28 %	27 %	16 %	21 %	15 %	4 %	4 %
National	Agder region	35 %	33 %	20 %	15 %	20 %	9 %	7 %
	Stavanger	32 %	34 %	14 %	10 %	11 %	12 %	12 %
	Haugalandet	42 %	34 %	16 %	20 %	18 %	15 %	20 %
Inter-national	Agder region	18 %	27 %	14 %	4 %	5 %	2 %	4 %
	Stavanger	16 %	24 %	16 %	6 %	6 %	3 %	4 %
	Haugalandet	7 %	19 %	6 %	1 %	1 %	0 %	1 %

The above table can be read as support for some of the basic premises within regional cluster theory. It can also be read as support for it being meaningful to apply regional cluster programmes in Rogaland and Agder. On the other hand, the cluster concept has not escaped criticism,, but as a theory and policy instrument for industrial and regional development has gained strong support in both political and academic settings. Before we examine some of the criticism that the theory has been faced with, we should summarise why regional cluster theory is so enormously influential and popular.

4.5 On why cluster theory is so popular among academics and politicians

The reasons for policy makers and academics caring about the framework of cluster theory can based on the previous discussions be summarised in the following way.

First, we should conclude that cluster theory is more than a fad. At least if we take a slightly wider definition of cluster theory and include agglomeration theory in general, and focus on the empirical insight that related industries tend to co-locate, and that co-localisation in itself plays an significant role in attracting relevant workforce, customers, suppliers, knowledge etc. It is therefore reasonable to argue that cluster theory is going to sustain its status as a global phenomenon. We are almost finished with the second decade of sustained global attention. Cluster and agglomeration theory has in a sense “survived” globalisation, this makes regional clusters into something more than a faddish phenomena. Therefore are the groundwork of cluster theory, the almost 100 years old “Industry and trade” (Marshall, 1919), probably going to be a central reference for a long time.

The second set of arguments in favour of cluster theory relates to the theoretical arguments underpinning the theory. The systemic argument provided by the economists through cluster theory is internally coherent.

Table 4.1 illustrates some hypothesises about structural cluster properties and upgrading mechanisms, from (Jakobsen, 2008), is an example of how cluster theory can be conceptualised and theorised. The presentation give there should be recognised as a coherent and meaningful interpretation of empirical data stemming from locations with cluster properties. Porters diamond is also internally coherent, it is logical in its surface structure (Porter, 1998b). However, Porter’s diamond has been much criticised for “floating in the air”, not being built on a solid theoretical groundings. This is not the same as saying that the theoretical conceptualisation in cluster theory is flawless or impossible to criticise, as later

discussions will show, but that that such conceptualisations are valid theories that aims at bridging theory and practice, and it should be recognised as such.

The third set of arguments relates to empirical arguments underpinning cluster theory. Even though it is very difficult to empirically provide an unambiguous proof of the cluster effect, we know that firm level actors are most influenced by actors with whom they interact the most with; their customers and suppliers. The survey data presented in this report from Rogaland and Agder can in itself be interpreted as evidence of there being some sort of cluster mechanisms out there. In itself this is an argument in favour of that such relations through systematic support and knowledge based development can be even further developed. The problem is as we shall return to that the practical question of exactly how such mechanisms is best supported not is dealt with in a precise manner within the cluster theory framework.

The fourth set of arguments is those that we could consider more as political arguments. If we examine the economical aspect of cluster policies they are significantly much cheaper than almost any other relevant industrial development policy. The cost of cluster policies compared to for instance tax cuts, payroll tax, tax-based depreciation etc, are microscopic. Cluster policies are also something that government relatively easily can support. Cluster policies do not require much of politicians outside funding. There are very few political risks associated with supporting cluster policies. Politicians across the political spectrum therefore tend to support cluster policies. Another important political argument is that cluster policies make, at least in theory, makes it more difficult to relocate industries to low cost countries. Cluster programmes contribute to securing national and regional workplaces. One of the strongest political arguments for cluster programmes is that they build on mechanism that are local and "unmovable", strong clusters means strongly anchored local workplaces, and that is always a political winner recipe. Cluster programmes therefore tend to have strong support among the social partners. Another political argument relating to clusters is that they can take some of the burden of the governments R&D responsibility. If clusters take more responsibility for upgrading their products and services they need more competence and research knowledge. It could also mean that firms shows more willingness to pay for such knowledge investing more in local R&D departments within specific firms, and collaborating with other firms in setting up external research organisations. Such private sector policies increase nations and regions combined level of R&D and creates demands for competence based workplaces, taking some of the financial burden off governments sole responsibility in investing in R&D. That last political argument discussed here is the fact that cluster policies are politically safe. Cluster policies fits with current rationale, discourse on development (reference the first set of arguments that clusters are more than a fad). In most circumstances politicians take no political risk when supporting cluster policies. Nowadays cluster policies come highly recommended from almost any political branch of significance, and is often accompanied with strong support from the social partners. Something that in the context of the Nordic model is very significant.

This means that it is not a big mystery why cluster polices are so popular among both academics and politicians. The challenge is of course that almost every region wants to upgrade the status of their local industrial environment to the status of a regional cluster. The cluster metaphor is therefore both used and misused for understandable political reasons and this is probably the main reason for the most common cluster type being what Enright (2001) calls wishful thinking or to paraphrase wishful clusters.[13]

4.6 Criticisms of regional cluster theory

Although agglomeration theories such as cluster theories are both widely popular and has grown up a relatively heavy and critical literature that address some of the deficits of the

regional cluster concept (Martin, Cooke and Asheim, 2006; Martin and Sunley, 2003; Wictorin, 2007). Bo Wictorin found in his empirical investigations of the cluster in Sweden no statistical correlations between concentration of corporations and higher productivity. Most of the productive enterprises exist in the larger regions, Wictorin writes, but it is also here that the least productive enterprises are located. Wictorin interprets this as a problem related to assumptions about labour mobility in the cluster theory. Wictorin finds there is a problem with the basic assumption, since the large majority of the workforce does not want to move from a company to another despite them being close. Wictorin writes that labour sits where it sits, and is next to the raw materials the production force that is most difficult to move (Wictorin, 2007).

Wictorins point shows that there might be significant contextual factors that we should be aware of when we evaluate the merits of the cluster theory. Maybe the differences between different types of cluster are so important that significant parts of the theory have to be altered, to fit as an accurate description of processes in a particular location. Therefore, if we accept the paradigm of the region as an instrument and arena for industrial development, so we must also accept that the importance of context-specific understandings also increases.

Cluster theory and other recent regional development concepts represent both a general problem description and a solution recipe. Cluster theory delivers both a perspective on the world rooted in economical competition and globalisation, and an action strategy for how to deal with the problem. This is an important part of the background to the popularity of concepts [14]. World Bank, OECD, EU, and most industrialized nation states have adopted so much of the thinking that this theory represents in their own policy processes and strategies.

The new regionalization perspective on development, as represented here, represents the essence of an interpretation of the consequences of globalization and subsequent action. Two social processes that separately represent large and complex and ever-changing field of research. This is why many have questioned the thoroughness and depth of the thoughts and ideas as a basis for the concepts. 90 years after “Industry and Trade” first was published (Marshall 1919), there are few who question whether agglomeration theories have merits or not. The criticism is more directed toward the utter dominance of one theory, one specific understanding, and the consequent under communication of other complementary and sometimes competing understandings. Asheim, Cooke and Martin (2006b: xvii) thus write:

> “… the mere popularity of a construct is by no means a guarantee of its profundity. Seductive and politically popular though the cluster concept is, there is much about it that is problematic, and in some respects the rush to employ ‘cluster ideas’ has run ahead of many fundamental conceptual, theoretical and empirical questions. Despite the popularity of the concept amongst policy-makers, there has been inadequate theoretical and empirical evaluation of the notions.”

This new rationale to be articulated by, by among others, Michel Porter, through his concept of regional clusters, is said by Asheim and Isaksen (2006) to reflect a growing attention to knowledge, learning and innovation as critical competitive factors for companies as well as whole industries.

The consequence of this, which represent some of the core of Michel Porter’s argument is that since the knowledge and other resources can be obtained in some other way, so to speak, over all, is the real competitive advantage is in the resources that are locally rooted. It is those elements that are locally rooted, and difficult to copy for outside companies, that represent the real competitive advantage. The local anchored learning processes and

development of unique knowledge are thus presented as key mechanisms to achieve and maintain global competitive strength of companies and industries in countries with high costs, such as Norway. The arguments and rationale are is similar, which is the reason why clusters, regions, now seen as perhaps the most important arena that development be carried out ,in that the companies are located on the specific location to be able to survive in the increasingly globalized international economy.

In other words, the focus turns away from sizes as labour, natural resources, government policies and over too (local) knowledge. They argue that this is particularly important and relevant in countries such as Norway, characterized by a relatively high cost economy. Knowledge is the critical factor for companies to be able to develop and upgrade and develop new products and services, and come up with new ways of production and organization; innovation. Connection between the place where these processes take place; the region, and knowledge as a competitive factor is the assumption that the information and knowledge that businesses need to be innovative is very specific and tacit. Tacit knowledge means, among other things, that it does not exist in written form and/or knowledge is such that it does not easily allow it to written; for example, that the given knowledge is specific for a particular tradition, culture, or institution. The critical knowledge they need to innovate and be competitive in this perspective temporarily tied to a specific location, such as a region.

Understanding knowledge and the role different types of knowledge plays in economical development thus becomes central to this understanding of innovative activity.[15] However, it is also an understanding that not necessarily is in conflict with cluster theory but an understanding that calls for an expansion of the perspectives inherent in the cluster theory.

The apparent success of the agglomeration of organised economical activity of similar and related varieties has spurred a long range of economical theories, concepts, and subsequent policies designed at supporting existing and developing new clusters. It is nothing new, as Asheim, Cooke and Martin (2006) write. Well before Porter's influential publications on clusters during the 1990s had theories addressing localisation of economic activity been a central topic in theory both in economics and economical geography (Asheim, Cooke and Martin, 2006a). Martin (2005)[16] note that much of the new focus of on the external economies of industrial locations is in effect a resurrection of Alfred Marshall's notion of industrial districts from the early 20th century.

The critique of the cluster approach therefore stems from what basically is two sources, three if we count economists such as Woodward (2005). Firstly it is stems from the economical geographers that has dealt with the theoretical and conceptual consistencies of cluster theory (Asheim *et al*., 2006b; Martin and Sunley, 2003), secondly it stems from context and practice oriented researchers that from an involved research perspective has been involved in practical efforts dealing with cluster development (Johnstad, Finsrud, Qvale, Haga, Bergum, Leirvik, Brendehaug, Lindeløv, Løvland and Foss, 2007).

The economical geographers have asked critical questions such as what are a cluster, how should we define it? This might seem like an internal academic discourse, but it is not. Defining something, telling it apart from something else, is crucial to understanding at any level. This means that if we cannot demarcate clusters from something that is not a cluster in a precise manner, we can neither understand clusters in a precise manner. Clusters cannot be local, regional, national and international at the same time, such definitions is bound to be meaningless and is also very unsatisfactory from a practical and political point of view. One implication of this is that it has emerged a long range of "patchwork theories" that addresses this and defines clusters in various ways. These definitions do sometimes overlap, sometimes not. It therefore does not make sense to talk of one universal and accepted

notion of what a cluster is in a spatial sense. From a practical point of view this means that if local actors find it meaningful or politically opportunistic to define something as a cluster they will.

Another set of criticisms forwarded by the economical geographers is Porters notion of competiveness associated his cluster theory, his book labelled "The competitive advantage of nations" (Porter. 1990) we find conceptualisations of competiveness that links the concept of how firms compete in markets with how nations or regions compete. The fundamental differences between how a firm competes in the market place and regions and nations as locations with inhabitants with a multiplicity of views and interests are often underscored. Views like these articulated by economist such as Porter (1990) and Ohmae (1995a; 1995b) is therefore often associated with neoliberalism (Normann. 2007), a normative point of view that see most societal and economical developments as best driven by economical market forces, leaving little room for political intervention, and resource allocation.

The economical geographers have addressed cluster theory critically, and found that the cluster theory clearly has been oversold (Asheim *et al*., 2006a: 23). However looking beyond the merits of the theory it should also be viewed upon what it not addresses. What does not cluster theory cover that an effective cluster policy should cover?

The main set of criticism is that cluster theory's strength is on connecting statistical correlations of concentrations of specific economical activities to a theoretical framework, cluster theory. It is not a theory that in any precise manner tells policy makers and practitioners precisely how to develop such desired cluster patterns. This means that from a policy perspective the main criticism of cluster theory is not its explanatory force, ref. the critics from economical geography, it is lack of practical applicability. Here we should have found a long range of publications addressing these issues, but such publications are, even though there are examples, scarce. Not even in publications stemming from participatory oriented development programmes such as Value Creation 2010 do we find this view point articulated (Johnstad *et al*., 2007).

The main set of criticism directed towards cluster theory is therefore linked to its merits as a development theory, as a theory for social change. Because upgrading clusters, getting firms and regional actors to collaborate on development activities must mean that one knows and understands the mechanism, problems, and relevant issues involved in doing this. The economical macro theory of regional clusters does not provide such a framework. Therefore do we don't find discussions of epistemology, knowledge production, knowledge diffusion in cluster theory. This would be crucial in a theory aimed at stimulating innovative activity. We neither find a pedagogical learning theory, a model saying how learning processes best can be supported and developed within a cluster network. We neither find conceptualisations on how regional clusters connect, or should connect, to the regional institutions it's a part of. The relations ship between regional governance and regional clusters is not clear, nether from an empirical or an normative point of view. The theory neither provides much insight into the relationship between cluster organisation and the typical modes of innovation within a particular cluster type. Neither does cluster theory give much insight into ideal types and practically achievable modes of organisation in regional clusters. Cluster theory is not associated with a particular organisational theory. And neither is cluster theory associated with a particular notion of power and leadership roles, all of which plays significant roles in any practical attempts at developing effective regional cluster organisations. When many cluster organisations is successful in spite of theoretical defects, this is much due to practical ingenuity of local stakeholders and involved parties making the best out of a complex situation with resources available.

4.7 Some implications for public policy and research: Where are the knowledge gaps?

Michael Porter (1998b) writes that the role of government and public policy within the regional cluster framework is to encourage companies to raise their performance, for example by enforcing strict product standards. To stimulate early demand for advanced products, focus on specialized factor creation, stimulate local rivalry by limiting direct cooperation and enforcing antitrust regulations. Woodward (2005) summarizes Porter's policy prescriptions in the following way:

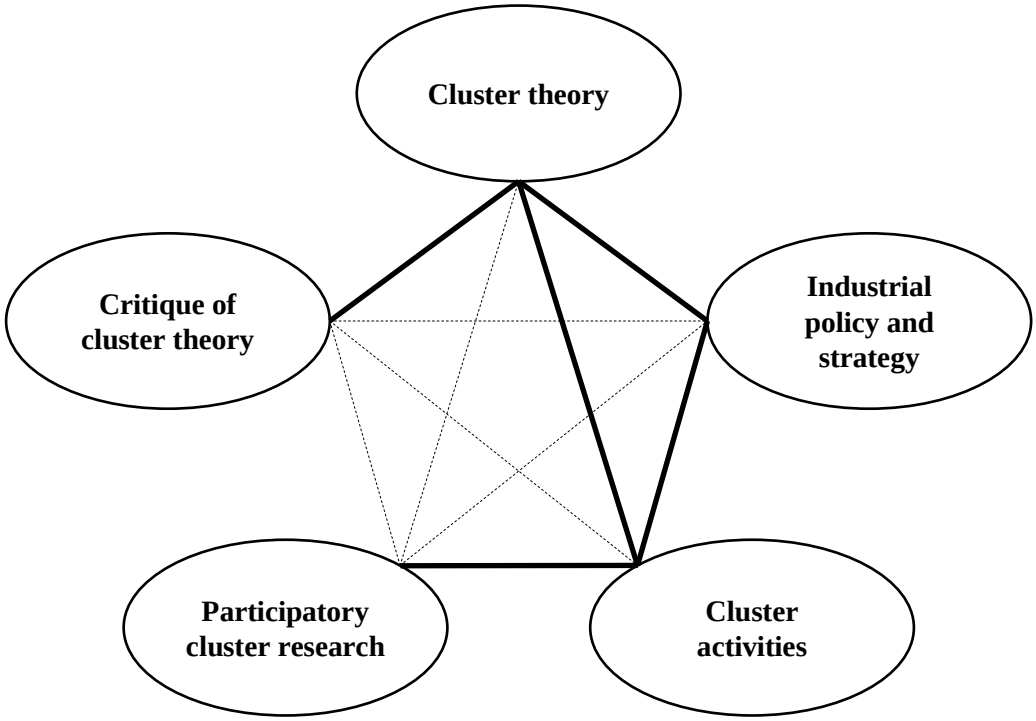
- Support the development of all clusters, not choose among them;
- Strengthen established and promising clusters rather than attempt to generate entirely new ones;
- Top-down government strategies should not guide development. Cluster initiatives are advanced by the private sector, with government as facilitator.

Woodward (2005) writes that to date, there are no known cases where regions or countries have explicitly followed these principles in lieu of industrial targeting, while the central point of Porters cluster theory is there is *no need for industrial targeting* since the goal is increased productivity and competitiveness no matter what type of cluster there is. In a sense all clusters matter equally, and that does not appear to be a political strategy. It is at least a laissez-faire policy and not an active and involved public policy towards industrial development.

What we both from a practical and a theoretical perspective are starting to experience is that where the networked society, network paradigm, governance systems, etc, is getting into trouble relates to the question of leadership. This is reported both from regional network governance systems, and from more thematically specific networks (clusters). The common dominator between the challenges that are described relates much too effective collaboration and leadership. How can think of the leadership function in a way that enables heterogeneous, horizontally structured, multiple interest actors, into collective action that makes a difference?

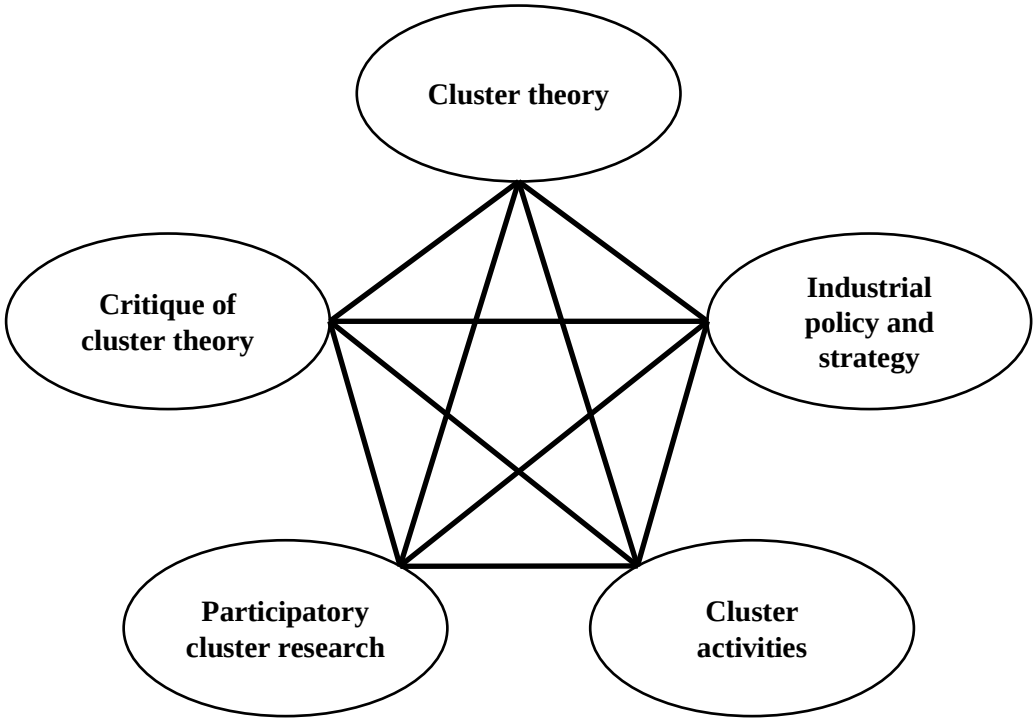
When one starts to review the literature in the cluster field, we discover that it, as a theory, has as discussed both merits and empirical support, but as a policy, the relevant development theory/concept has large gaps. These gaps can be addressed with insights from programmes that are more explorative in nature and less stringently disciplinary oriented ED2000, VC2010, VRI (Johnstad *et al*., 2007).

Figure 4.5 A simplified picture illustrating some of the present knowledge exchange connections and gaps



The above figure is meant to illustrate one simple point that in the field of regional cluster research, practical developments, and cluster policy, is much knowledge about this phenomenon, but that the critical knowledge not is connected. Economical geography's critique of cluster theory is available but this is not communicated to practical contexts (Asheim *et al*., 2006b). Participatory research work on developing clusters has made a long range of contextually set experiences, but this is not communicated back to economical geography, economical cluster theory or policy development (Johnstad *et al*., 2007). Cluster theory is the node and is related to almost everything without practical application (Porter, 1998a; 2003). Effective regional cluster policies would probably emerge more strongly if the existing knowledge related to key fields in cluster theory and practice more resembled the following figure than that above.

Figure 4.6 Picture illustrating free flow of critical knowledge between key fields related to cluster theory and practice



This means that further research and communications is needed. If we imagine the following simple thought experiment. Imagine that you never had heard of Porter or clusters. Let us say that you started with careful, systematically methodological, transdisciplinary and rigorous studies of firm network projects that we now define as clusters. What is the probability that the end result would be something similar or resembling to Porter's cluster theory?

As discussed, it does not appear that the political status of cluster theory is going to be significantly reduced anytime soon. It is therefore a responsibility for research to carefully explain what it is that is missing, fill in the gaps, patch the existing framework, revise and develop.

4.8 Understanding the limitations: What should we learn?

The regional development discourse has become very complex in a very short period of time. It is a discourse that describes an economy that not one actor or intuition; neither government nor the private sector can steer alone. It is a discourse about collaboration and interdependence. It is an economy that is not controlled by the representative politics at the regional or national level or the market alone. It is a governance economy where the national and regional political level, the business level and the network level, academia has become increasingly entangled in a very short period of time.

This is illustrated by the complexity in the regional development discourse. There is also significant debate in the research community about how many of these issues should be understood. It is still large knowledge gaps in the field. For example, we have limited knowledge about the systemic relationships that are assumed to exist on a regional level and the innovation processes that you want in on the enterprise level. Understanding the basics of these relationships is of course crucial in order to develop effective regional development

policies. However, even less is known about the conditions that must be present and how these conditions can be created in the region, for insistence relating to how the region should think of building an infrastructure that support innovation value creation processes within its industry.

The new regional industrial policies need to be untangled and decoded. We must identify what the new policies and theories mean at a very practical level in order for the new policies to be relevant at a practical level. We know that some of the theories have some merits, some are relevant in specific contexts, and some general insights can be extrapolated. This means that we could further our inquiry through addressing some of the following questions:

- What are the key characteristics of the current development discourse?
- What do we know about the limitations and opportunities the different regional development perspectives and concepts represent?
- How can we use insights from research and practical development in such a way that good policies can be forged upon such experiences and reflections?

The ambition with this chapter was not to provide complete answers to these questions, but to state the questions and give some reference to some of the background to this issues.

Notes

[1] http://www.iris.no/

[2] http://www.agderforskning.no/

[3] The figure is an adaptation of equivalent found in (Maskell & Kebir 2006: 32). The table is based on data retrieved from ISI web of knowledge http://isi3.isiknowledge.com/portal.cgi/wos >. The figure is based on search in international journals where the frequency of the following keywords represents the basis: Cluster(s)/clustering of firm(s), Agglomeration -geographic(al) agglomeration(s) -spatial agglomeration(s) - agglomeration(s) of (same industry) firms(s), Geographic(al) concentration(s), Spatial concentration(s), Localized or localized industries or firms, Growth pole, Innovative milieu(s), Industrial district(s).

[4] From Porter (1998b)

[5] Translated from Jakobsen (2008)

[6] Source: Google maps

[7] http://ekstranett.innovasjonnorge.no/templates/Page_Meta____56666.aspx

[8] http://ekstranett.innovasjonnorge.no/templates/Page_Meta____56522.aspx

[9] Survey question: “How important has the following sources of information been for innovation activities in the enterprise the last three years?” Figure lists percentage that answered “to some extent” or “strongly” on the different sources.

[10] Refers to Figure 4.4 Sources of information for innovation activities on page 64

[11] Survey questions: “Has your enterprise collaborated with local/regional enterprises and/or organisations on innovation activities the last three year? (% yes)”. “Has your enterprise collaborated with national enterprises and/or organisations on innovation activities the last three year? (% yes)”. “Has your enterprise collaborated with international enterprises and/or organisations on innovation activities the last three year? (% yes)”.

[12] Conditional formatting function in Microsoft Office Excel 2007 is applied, lowest percentiles are given colour red, transitions into percentiles in the medium range are given the colour yellow, and highest percentiles are given the colour green.

[13] Reference from Teräs (2008: 28).

[14] In addition are they professionally marketed in a way that is unique for a social science theory, this arguments is not discussed here but is addressed in Normann (2007).

[15] This is also a central aspect of the research done in the VRI Agder programme.

[16] Referred in Asheim *et al.* (2006: 5)

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5. Creative industries and regional development

Kari Jøsendal

5.1 Introduction

In this paper the main topic is to discuss cluster development in the creative industries. Questions raised and investigated are how clusters in creative industries develop, and to what extent policy strategies targeted towards clustering in creative industries are adjusted in the creative economy.

The concept of creative industries was introduced in the late 1990s in the United Kingdom, and defined as "those industries requiring creativity, skill and talent, with potential for wealth and job creation through the exploitation of their intellectual property (DCMS, 2001). Creative industries combine the terms creative arts and cultural industries, and bring the arts into contact with the market (Hartley, 2005). Further, Hartley (2005,, p. 6) states that "the concept focuses attention on how contemporary communications and corporate media may be reconfiguring fundamental cultural structures like narrative, story and code on an international scale." The international and communicative aspects signal the omnipresence and thus depth of creative economy, and hence why it is vital to implement the discourse on a regional as well as a national level. The creative economy influences us all.

In this new era there is an increased focus on the interaction among the economic, technological, cultural and social aspects concerning economic growth, job creation, trade and innovation. (United Nations, 2008; Markusen, Wassall, DeNatale and Cohen, 2008; Florida, 2002; Florida, 2005). Statistics show that in the 1990s in OECD countries the creative economy grew at an annual rate that was more than twice that of the service industries and more than four times that of manufacturing. (Howkins, 2001 in United Nations, 2008).

By bringing culture into the discussion on regional development, an attempt is made to draw the attention from sponsoring and public financing, to how art and culture are becoming decisive aspects in economic development. What comes into focus is culture as a vital factor and driver in the economy, and introduces as such a more holistic view on questions concerning economic development and income generation. By including culture and creative industries more closely into the discussion about innovation, economic growth and increased wellbeing for the inhabitants of the region or the nation, the frame of reference becomes wider and it thus enlarges the area for future policy measures.

Chapter 2 provides a short presentation of the creative industries and their characteristics. The intention is to establish a reference to guide a discussion on cluster development in the creative industries in Rogaland. In this discussion it is vital to gain insight in special traits in the creative industries, and the challenges these industries face concerning innovation, income generation and growth. Chapter 2 will also function as a backdrop to the presentation of empirical research in Rogaland on the creative industries following in chapter 3.

5.2 Creative industries: A conceptual approach

In chapter two, definitions on creative industries will be introduced. There is no absolute agreed on definition, and as will be demonstrated in section 5.2.1 several approaches are employed. Chapter two also presents industry characteristics concerning creative industries,

as well as definitions on innovation specifically targeted at illustrating how new goods, services, processes and market approaches are created in the industry segments in focus. Finally, the chapter includes a discussion of clustering in the creative industries, and an overview of which factors in the economy are important drivers of the creative industries.

5.2.1 Definition of the creative industries

There is no agreed on absolute definition on the creative industries. The term emerged in Australia in 1994, and was further elaborated on in the United Kingdom in 1997 through the Department of Culture, Media and Sport (DCMS). The DCMS has published several reports on the creative industries since 1997. In the Creative Economy Report (2008), UNCTAD reviews four models which have been used in recent years in order to systemise characteristics of the creative industries. These models are presented in the table below.

Table 5.1 Classification system for the creative industries derived from different models[1]

UK DCMS model	*Symbolic texts model*	*Concentric circles model*	*WIPO copyright model*
Advertising	*Core cultural industries*	*Core creative arts*	*Core copyright industries*
Architecture	Advertising	Literature	Advertising
Art and antiques market	Film	Music	Collecting societies
Crafts	Internet	Performing arts	Film and video
Design	Music	Visual arts	Music
Fashion	Publishing		Performing arts
Film and video	Television and radio	*Other core cultural industries*	Publishing
Music	Video and computer games	Film	Software
Performing arts		Museum and libraries	Television and radio
Publishing	*Peripheral cultural industries*		Visual and graphic art
Software	Creative arts	*Wider cultural industries*	
Television and radio		Heritage service	*Interdependent copyright industries*
Video and computer games	*Borderline cultural industries*	Publishing	Bland recording material
	Consumer electronics	Sound recording	Consumer electronics
	Fashion	Television and radio	Musical instruments
	Software	Video and computer games	Paper
	Sport		Photocopiers, photography equipment
		Related industries	
		Advertising	*Partial copyright industries*
		Architecture	Architecture
		Design	Clothing, footwear
		Fashion	Design
			Fashion
			Household goods
			Toys

The first model is that of DCMS in the United Kingdom. Creative industries are defined as "those requiring creativity, skill and talent, with potential for wealth and job creation through the exploitation of their intellectual property" (DCMS, 2001). According to UNCTAD (2008, p. 12), the model stems from the policy direction in the United Kingdom concerned about repositioning the British economy as an economy driven by creativity and innovation in a globally competitive world.

The second model is the symbolic texts model. According to UNCTAD (2008, p. 12), this approach sees the high or serious arts as the province of the social and political establishment and therefore focuses attention on popular culture.

Model number three, the concentric circles model, is based on the proposition that it is the cultural value of cultural goods that gives these industries their most distinguished characteristics. Finally, model number four is the WIPO copyright model. This model is based on industries involved directly or indirectly in the creation, manufacture, production, broadcast and distribution of copyrighted works (p. 12). As such the focus is on intellectual property as the embodiment of creativity that has gone into the making of the goods and services included in the classification.

UNCTAD (2008, p.12) has however adopted the following definition:

> "The creative industries:
>
> - Are the cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs;
> - Constitute a set of knowledge-based activities, focused on but not limited to arts, potentially generating revenues from trade and intellectual property rights;
> - Comprise tangible products and intangible intellectual or artistic services with creative content, economic value and market objectives;
> - Are at the cross-road among the artisan, services and industrial sectors; and
> - Constitute a new dynamic sector in world trade."

In the same line, UNCTAD defines the creative economy:

- The "creative economy" is an evolving concept based on creative assets potentially generating economic growth and development.
- It can foster income-generation, job creation and export earnings while promoting
- social inclusion, cultural diversity and human development.
- It embraces economic, cultural and social aspects interacting with technology, intellectual property and tourism objectives.
- It is a set of knowledge-based economic activities with a development dimension and cross-cutting linkages at macro and micro levels to the overall economy.
- It is a feasible development option calling for innovative, multidisciplinary policy responses and interministerial action.
- At the heart of the creative economy are the creative industries.

In the following the DCMS model of the creative industries will be used. In addition the statements made by UNCTAD concerning the creative industries and the creative economy will act as a backdrop when it comes to economic development.

To get a picture of characteristics of the creative industries is important, because it will influence policy formulation. This motivates an elaboration on i) industry characteristics, ii) the concept of innovation, iii) clustering in the creative industries, and finally iv) drivers of the creative industries.

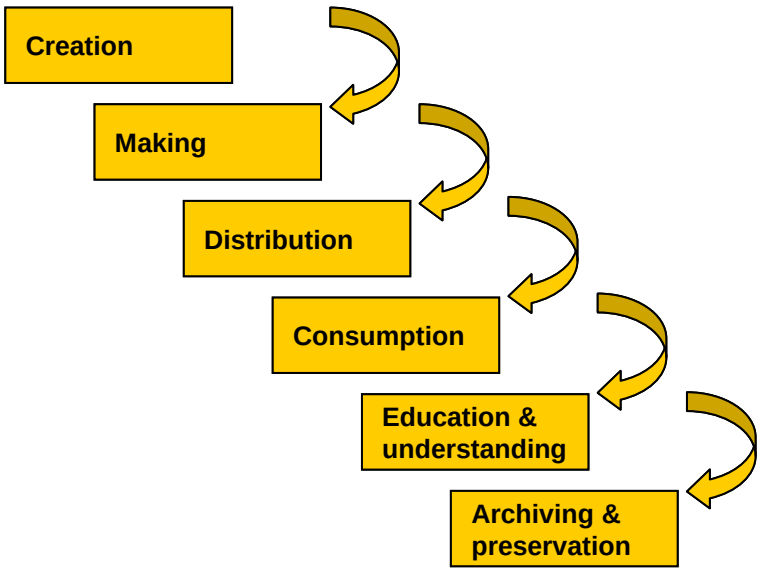
5.2.2 Industry characteristics

Studies on innovation are often carried out with the traditional firm in mind; that is the firm is the analytical unit. This means a firm with clear boundaries for indoors activities and with a certain amount of employees on the pay role. When studying the creative industries however the firm may not be the relevant unit to look into, but the project becomes the object of interest. One particular trait concerning project based organizations is that knowledge is connected to individuals (Lam, 2000a). Product life cycles are short, and activities are organized in short-term inter-firm projects for developing the product (Hesmondhalgh, 2002). This contrasts with the manufacturing sector, where project-based activities are often organized inside the firm (Wheelwright and Clark, 1992). As project teams are dissolved, the tacit knowledge may not be expressed in order to be passed on to the next project, and as such project based work may hamper tacit knowledge to become explicit (op.cit.). Creating arenas for knowledge sharing become vital in these work surroundings in order to pass on vital experience gained from one project to the next.

Further, many part time workers in creative industries deliver products that are intended to satisfy an aesthetic, expressive or entertainment need of the customer (sign value) rather than an utilitarian value (use value) for the purchaser as expected mainly by products arriving from manufacturing firm (Hirsch, 1972; Holbrook and Hirschman, 1982; Lash and Urry, 1994). This implies that the products are immaterial, and often consumed on the spot, like for example a theatre performance. The moment of consumption is thus an experience created in collaboration between the supplier and the consumer. The main idea here is that the product is neither storable nor physical, but rather characterized by being of a communicative art.

It is documented through several works that in the creative industries approximately 90 percent of the firms employ less that ten people (DCMS, 2005, Jøsendal *et al*., 2004). These studies also indicate that the majority of firms are located in central areas close to larger cities. The findings are relevant when looking at the supply and value chains in the creative industries. A six-stage model is introduced in the UK which includes the following stages in the value chain:

Figure 5.1 Value chain in the creative industries[2]



This model has showed that the processes of original creation were dependent on small-scale firms, and larger firms are distributed across other stages of the value chain (Taylor, 2007). According to this author it has a particular status in the creation part of the value chain, and it is also at that stage the intellectual property is created. As such the creation stage is particularly important when it comes to securing the right to the creator. Innovation can however occur in each of the six stages.

A final comment that will be made concerning special characteristics in the creative industries is the role of business risk. Taylor (2007, p. 183) comments that "what distinguishes creative products from other types of use-value is that their economic value exists in an unstable relationship with their symbolic value." Prediction is thus difficult, and this poses a special challenge to firms in the creative industries concerning how to manage risk. One way of adapting to risk is for larger organisations to establish relationships with smaller organisations. This is often because large organisations seem to be in distributing stage in the value-chain, and thus become dependent for product on the smaller producers (Bilton, 1999 in Taylor, 2007). The seeming interdependence between large and small organisations constitutes a rationale for increased co-operation.

5.2.3 Innovation in the creative industries

Innovation research has a long history, and there are several lenses through which one may study this concept. The question of how to enhance innovation is studied from the view of the firm, from a networking perspective, from an innovation system perspective and within the frame of clustering. All of these views put emphasis on different aspects concerning what factors that enhance innovation. As the history of innovation theory has a long record, the methods and theories are developed in periods characterised by a different economic structure that what we see today. Manufacturing industry was the dominant production regime when the basis for today's research on innovation was established. This presents a challenge when the aim is to analyse economic development and innovation in the creative economy.

The Oslo Manual (OECD, 2005) sums up much of recent empirical research on innovation, and presents a method for how to classify innovation. According to the Oslo Manual, four

areas of innovation are distinguished: product, process, marketing and organisational. The Oslo Manual further states that "*an innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practises, workplace organisation or external relations* (p. 46). Innovation is traditionally defined according to functional qualities of goods and services, and innovation indicators like R&D, patents, total innovation expenditures and innovation sales shares are primarily designed to analyse technical innovation in the manufacturing sector (Kanerva, Hollanders and Arundel, 2006). A central question is thus if innovation in creative industries fits the definitions in the standard documents, or whether new definitions must be employed.

In line with industrial development, new definitions of innovation are presented, based on the functioning of the creative economy. These definitions are soft innovation, artistic innovation and stylistic innovation.

5.2.3.1 Soft innovation

Soft innovation is a new concept, defined as changes in either goods or services that primarily impact upon sensory perception and aesthetic, rather than functional, appeal (Stoneman, 2007, p. 2). According to Stoneman (2007) this concept encompasses two main types of innovation: i) innovation in products that are not generally considered functional in nature but instead offer aesthetic appeal, and/or appeal to the senses or the intellect (music, books, film, etc.), found particularly in the creative industries; ii) aesthetic innovations in industries where the output is not aesthetic per se but functional, these characteristics being sight, touch, taste, smell and sound (new design of cars, new food products, etc.) . Soft innovation may also relate to branding (*op.cit*.). The challenge in this picture is how to measure soft innovation, and how to analyse the innovation process.

Stoneman (2008) reports that in publishing in the UK there has been an increase in soft innovation indicated by a rapid turnover of best selling titles. Concerning recorded music there is extensive soft innovation indicated by data on launch patterns, but only a few of the launches are significant when it comes to sales. In the video game industry soft innovation is also measured in terms of the launch and sales of new games. Like books and records many new titles are launched concerning video games, but only a few are successful and thus significant. When looking at books, recorded music and video/computer games both extent and nature of soft innovation are illustrated by using industry-specific metrics building upon data relating to the number of new titles launched (*op.cit.,* p. 23).

5.2.3.2 Artistic innovation

Castaner and Campos (2002, p. 32) investigate innovation by arts organizations, and define artistic innovation as the programming of work that is new to the field, whether it is locally or globally. Innovation is thus viewed as a complete departure from the existing conventions. The authors also distinguish between two dimensions where arts organizations can innovate. These dimensions are content and form. A method for content innovation is the combination of multiple art forms (*op.cit*.). Castaner and Campos (2002) further state that interaction with the audience, and how the interaction is designed, is a key formal dimension of artistic innovation. Thus, multidisciplinarity and interactivity are said to constitute important innovations in addition to the more traditional repertoire innovation. Observation of multidisciplinarity and interactivity will require sophisticated and time-consuming empirical methods compared to observing repertoire innovation.

There is substantial evidence of the repertoire dimension of artistic innovation, that is on the adoption of contemporary works. The evidence is found concerning symphony orchestras and opera theatres (*op.cit*.).

5.2.3.3 Stylistic innovation

A third concept is stylistic innovation (Cappetta, Cillo, Ponti, 2006). Style is in this context defined as "*a code composed of elements that join together like letters of the alphabet and are mixed up and thus give life to umpteen combinations"* (Barthes, 1983; Eco, 1976; Simon-Miller, 1985 in Cappetta *et al.,* 2006). Style is viewed to be a temporal phenomenon with a short life span (op.cit.). Aesthetics is also a vital concept in connection with style. The aesthetic of a product or a service is *"the sensory experience it elicits: it is related to those characteristics that create a product/service`s appearance, such as materials, proportion, colour ornamentation, shape and size* (Lawon, 1983; Rafaeli and Vilnai-Yavetz, 2005, in Capetta *et al*., 2006). The authors thus define style as both an aesthetic and a symbolic choice a company makes regarding the products/services, their main features, and how they are combined (p. 1275).

Based on the above, stylistic innovation becomes the reassignment of social meaning to an existing product and/or from the change of the aesthetic characteristics of a product generating both a new product – from a physical point of view – and a new meaning (*op.cit*., p. 1275). The important point here is that the meaning changes; that is the innovation is intangible. It is important to note in this context that the stylistic innovation occurs only if it is perceived and used by a specific social community (*op.cit*.). This puts a special strain on companies in their branding efforts and communication abilities.

Capetta *et al*., (2006) refers to the fashion industry and fine fashion in the context of stylistic innovation. Well known actors in the fine fashion industry are Armani, Dior, Gucci, Louis Vuitton and so forth. Style is the main product in this industry. Innovation rate in a company is measured as the number of citations about new styles related to this company divided by the total number of citations totalized by the same company for that year. The magazine Vogue Italia is the basis for the population of the citations, and 228 issues were analysed in order to create a list of styles and companies.

As becomes clear from Table 5.2, innovation in manufacturing industries and creative industries vary in several respects. Innovation is traditionally defined according to *functional qualities* of goods and services, and innovation indicators like R&D, patents, total innovation expenditures and innovation sales shares are primarily designed to analyse technical innovation in the manufacturing sector. In the creative industries, innovation is mainly immaterial, and has strong communicative and aesthetic aspects. Innovation indicators also diverge in several respects.

Table 5.2 Concepts of innovation in the creative industries

	Soft innovation	*Artistic innovation*	*Stylistic innovation*
Authors	Stoneman, 2007	Castaner and Campos, 2002	Capetta, Cillo and Ponti, 2006
Innovation	i) The introduction of any new aesthetic product (music, book, fashion, art, video games etc.) ii) Innovations in industries where the output is not aesthetic per se but functional; sight, touch, smell, image; marketing	The programming of work that is new to the field, whether it is locally or globally	Change in the aesthetic and symbolic elements of products and services
How to measure innovation	Book sales New recordings to the market Launch and sales of new games Food sector: line extension (new flavors, sizes, models, applications, etc)	Multidisciplinarity Interactivity New repertoire	The number of citations about new styles related to a company divided by the total number of citations totalized by the same company for that year

5.2.4 Clustering in the creative industries

As thoroughly elaborated on in Chapter 4 Regional Clusters as Public Policy by Roger Normann**,** cluster theory and policy have been on the agenda for decades. Industrial clustering is a well defined concept, and employed in several studies worldwide. There are however critical comments to the cluster concept. According to Pratt (2004, p. 3) there is: i) considerable vagueness as how to empirically define a cluster (in terms of size, number and co-location of firms, or social, cultural or economic interactions); ii) it is not clear which criteria of evaluation might be used to assess success of the cluster per se; iii) there is disagreement as to whether cluster can be created de novo; iv) it is not clear whether it is appropriate to apply a generic policy to all sectors, or whether some industries require separate treatment. Pratt (2004) argues for a specific rather than generic policy for the creative industries. In the context of this paper creative industries cluster is referred to as a sectoral and geographical concentration of enterprises. For further definitions see chapter 4, written by Normann.

A challenge that is reported in several studies on the creative industries is that of how to classify the industries, as indicated in chapter 2.1 above. Disagreements concerning what the creative industries consists of may hamper a thorough study of particularly the quality of relations between the nodes in a cluster due to relations being overlooked. Further, in comparative analysis between regions and countries a common definition will be an advantage in order to engage in discussions about and development of relevant policy measures. To operationalise the concept of creative cluster is therefore a challenge.

Pratt (2004) asks if the notion of creative cluster is an appropriate tool for the governance of a creative cluster, or of it is a relevant point from which to begin an analysis of the creative

industries (p.1). The author states that the key area of weakness in the cluster literature is the lack of attention to business organisation (p. 4.). Pratt (2004) brings the concept of governance to the forefront, because by looking more closely into this we may be able to bring clarifying aspects to the debate about production processes and differences within creative industries (p. 4). The importance is to take notice of the difference between firms in the creative industries, and how these firms relate to each other and to other actors in the economy.

When analysing the creative industries, it is important to look at the production or value chain. In this way we will be able to capture the specificities and particularities of each industry. The value chain tells us the story of how a product or a service starts from being an idea, to become an item sold on the market, and by analysing each step it is possible to point out the weak spots in the value chain and develop suitable interventions. It is however also important to get a grasp of horizontal relationships in the creative industries, meaning both qualitative and quantitative aspects of the relationships. Pratt (2004) mentions two kinds of linkages; the traded and the non-traded, whereas the non-traded (informal exchange of skills and knowledge, material and labour) are the most important. "The crude measures of employment in the creative sector are less helpful than more detailed breakdowns by production chain function" (Pratt, 2004, p. 18). We need research on the spatial dimensions of the production systems and on the particularity of the flow (*op.cit*)

In the cluster literature, the concept of critical mass is often elaborated on (Andersson, Serger, Sörvik, Hansson, 2004). The concept is that a certain minimal concentration of expertise needs to present if the cluster is to achieve inner dynamics. A critical mass also serve as a buffer to exogenous shocks or if a key company should choose to locate elsewhere (*op.cit*.). Of special interest is however the notion of path dependency. This indicates according Andersson *et al.* (2004) that "future industrial strongholds depend critically on where the assets and skills available today in a particular location display sufficient critical mass". Thus, the history of each sub-sector in the creative industries will be decisive for future growth. Andersson *et al.* (2004) also underline that it is not clear what geographical concentration of actors that is needed for enabling critical mass.

5.2.5 Drivers of the creative industries

The Department for Culture, Media and Sport, UK (DCMS, 2007) gives a presentation of drivers of creative industries. In policy administration, knowledge about forces driving economic development in creative industries is important in order to build an appropriate portfolio of instruments. First of all, demand for creative goods has increasing marginal utility, meaning that demand for creative goods and services increases the more creative goods are consumed. Thus, to encourage more people to consume creative goods is important and facilitate Public procurement is also an important driver of the creative industries. In this respect it is vital that employees engaged in procurement have the necessary training and education.

Second, according to DCMS (2007) education and skills are one of the foundations on which the creative industries can build their business to compete with the best internationally (p. 129). Research indicates that the work force in the creative industries has a higher proportion of people with university degree than the rests of the population (DCMS, 2007; Jøsendal *et al*., 2005). Diversity is also claimed to be a driver of the creative industries. This includes factors which are normally connected to diversity, namely ethnicity, gender, age and religion. In addition cognitive diversity is included, meaning "the capacity of different sets of knowledge when interacting to produce better decisions and outcomes" (p. 138).

A fourth driver is networks. Several research contributions state that networking enhances innovation and competitiveness[3]. Networks represents arenas for knowledge transfer, creating trust, sharing risk and gaining access to new technology. It is also a facilitator for sharing tacit knowledge. Finally, aspects like public investment, business-building capacity and intellectual property should be considered as drivers for the industries in question.

The Nordic Innovation Centre (2007) also presents information of drivers for growth in the creative industries. First of all is that demand is stimulated for example by early exposure to culture and, and by increased marketing of Nordic products and services to rise the awareness of quality in the Nordic region. Second, increased skills in entrepreneurship, business management and finance will enhance growth in these industries. Thirdly, the Nordic Innovation Centre (2007) signals that more diversity concerning people and partnerships are central factors for further growth. Diversity includes factors like ethnical background, culture, gender and skills. As a fourth aspect is added the importance of collaboration that traverse boundaries, whether boundaries being sectoral, geographical, technical or cultural. The Nordic Innovation Centre is quite explicit that social and business networks are an absolute necessity for a dynamic, innovative and growth-oriented creative industries sector. However, it is also stated that there are too few networks, and that the existing networks do not cross sectoral boundaries to a sufficient extent. It is further claimed that existing networks are state directed and thus organised in a top-down way. The importance of bottom-up created networks is underlined in the report.

The topic of intellectual property is also a driver of the creative industries. Approximately 70 percent of a company`s value is located through its intangible assets, compared with 40 percent in the early 1980`s (op.cit.). It is of vital importance that the topic of intellectual property is put high on the agenda in order to value and protect the work of the employees in these industries. Finally, a concern that is underlined by the Nordic Innovation Centre is the under-development of assessment and value chain models for the intangible assets of the creative industries. This fits with the comments made by Pratt (2004) as indicated in the chapter of clustering in creative industries. One important reason to look more closely into the value chain models is the opportunity to present accurate and relevant information to investors.

5.3 Creative industries in a regional context: A practical approach

In this chapter a regional policy agenda is introduced in section 5.3.1. The following sections present results from research undertaken in Rogaland during the period 2004 to 2008. A central question is the degree of coherence between regional bodies and authorities concerning development policies targeted at the creative industries.

In Rogaland several studies have been undertaken to map and analyse the creative industries. In the following the objective and main results from the studies will be presented. The results will be discussed within the framework of cluster theory, and commented on concerning policy implications.

5.3.1 Regional policy

When Rogaland Research (now IRIS) conducted the first survey of the creative industries in 2004, three planning documents were identified which were to give directions on how to enhance cooperation between creative industries and traditional industries. These three documents were a strategic plan for culture, a strategic plan for economic development and the regional development plan, abbreviated to RUP. In the plan “Culture in Rogaland – strategic plan for Culture 2004-2007” it is presented as goal to co-ordinate existing policy

measures with the regional economic development plan RUP. The main objective with the strategic culture plan is to enhance new ways of thinking, creativity, innovation and co-operation across disciplines.

In RUP for Rogaland 2003 culture is mentioned as a specific area of attention, and within this specific area is a project named culture and economic development. The objective is to establish closer contact between cultural producers and traditional industries. This particular project did however not receive funding in 2003, but was expected to get support in 2004. Further work in this area would be accomplished after Rogaland Research had finished the survey on Creative Industries.

In the Strategic plan for industrial development in Rogaland 2000-2003 there were few signs of an overall planning concerning increased collaboration between cultural actors and other industries. However, in the document Cultural policy towards 2014 (St.mld. nr. 48, 2002-2003), the Department of Culture and Church argues for the main issues in cultural policy for the next ten years. One area of discussion is the interface between culture and traditional industry. Concerning culture topics like financing, employment and marketing are highlighted. Looking at traditional industry the document discusses the possibility of creating competitive advantage through increased cooperation with cultural producers and through an aesthetization of traditional industry. On the other side the document also refers to the importance of the autonomy of artists, and their opportunity to be independent, and not subjected to any constraints when producing their art.

In connection with the strengthening of the county council as a regional development actor, strategic co-operation with other regional parties has become decisive. The county council is now a partner more than a regulator. This role is manifesting itself through how the county council supports co-operation between regional actors and projects.

By studying political documents on the community level in Rogaland it was revealed that there were marginal reflections on how to integrate culture and traditional industries in order to facilitate knowledge spillovers between the industry segments. The various communities and inter-community institutions had a distinct different focus on how to develop cultural institutions and how to develop traditional industry.

This segmentation of policy areas and policy development may have the effect that culture and creative industries miss opportunities concerning learning from traditional industries, and vice versa. However, there seem to be few studies at a regional level on what kind of knowledge spillovers that may arise, and how it can be facilitated.

5.3.2 Creative industries in Rogaland 2004

5.3.2.1 Main objective of the study

The first report on creative industries was published in 2004, containing both a quantitative study and a qualitative study on creative industries in the county of Rogaland (Jøsendal, Berg, Westnes, Claussen, 2004). In this study the definition made by Department of Culture, Media and Sport, London, was employed, as indicated in table 1. In addition museums, libraries and a category labeled “other” were included. This gave a total population of approximately 4000 firms. From this population 1700 firms were picked randomly to receive a questionnaire. The main intention of the study was to map employment, income generation, financing and exports in the creative industries in the county. Some questions were added concerning networking and the need for new knowledge. Twelve in depth open-ended

interviews were conducted with interviewees representing twelve industry sectors in the creative industries. The study also provided a picture of the status quo before the big event taking place in Rogaland when the region in 2008 became one of the two capitals of culture in Europe.

The project was a part of the programme Value Creation 2010, and as such partly financed by The Research Council of Norway.

5.3.2.2 Results of the study

First of all it was recognized that the reply rate was low. Only 21 percent of the firms returned the questionnaire (N=362). Due to this low response rate an attempt was made to find out why so few wanted to take part in the survey. Twenty firms which had not responded were selected arbitrary and contacted by telephone. The investigation confirmed that the database was not updated, which implies huge challenges in the effort of analysing the creative industries.

The study showed that approximately 1800 people were employed in the firms replying on the questionnaire. These firms sold goods and services for 1,3 billion Norwegian Kroners. The survey further revealed that approximately 90 percent of the firms were micro enterprises, that is 3,7 percent more than in the economy in general at the time of the survey.

If we look at employees with permanent jobs we find that 37 percent are women, while 63 percent are men. Concerning part time employees there are 65 percent women and 35 percent men. This indicates a skewed division of women and men in these industries.

Approximately 35 percent of all employees in the survey have a university or a university college degree. Statistics from the Statistics Norway show that in Rogaland 21,5 percent of the population over the age of 16 have a similar degree (2002). We may then anticipate that employees in the creative sectors have a higher educational level than the average educational level in the population in this county.

It is interesting to note that 15 percent of the companies state that they want upgrading in both marketing and creativity. We would perhaps expect that as artists they are more interested in learning more about marketing, as we tend to regard them as experts on creativity. Only 4,4 percent of the companies need more competence concerning administration and 5,2 percent need more competence on management. It thus looks like the companies are in need of knowledge on business and knowledge that support individuality, originality and fantasy.

In the survey we asked how many of the firms that exported their products or services to international markets. We found that 27 percent brought their products and services to markets outside Norway, while 73 percent did not. We wanted to know why the firms did not export internationally, and asked the respondents to agree or disagree to six statements. Approximately 90 percent disagree that they have tried, but not succeeded. This leaves ten percent that agree or partly agree to the statement. It thus seems like many of the firms have not made any attempts at expanding their markets to an international arena. Why do they not export their products and services? We see that 50 percent of the respondents agree or partly agree that they lack knowledge on possibilities to export. It is within publishing, design, architecture and crafts that we find most of the firms that lack knowledge on exports.

Concerning external relations informal arenas and networks are more important to the respondents than formal arenas and network. This was also underlined in the interviews. Approximately 45 percent of the firms are located in a central area in a city, whereas 34 percent are located outside a city centre. Nearly 80 percent are thus located in central areas. Choice of amenities is first and foremost based on costs, closeness to important customers and the fact that there is a variety of industrial sectors in the neighbourhood.

If we look at suppliers to the firms who responded on the survey 47 percent are located in the community, while 13 percent are located abroad. Approximately 56 percent of the customers are also living in the close community, and only five percent abroad.

5.3.2.3 Policy implications

The survey revealed several areas where policy measures could be developed. As for the fact that the great part of the firms in the creative industries is micro enterprises, this indicates that measures targeted at larger enterprises will not fit the needs of micro organizations. One example is arranging conferences or other meeting places aimed at industrial actors, including creative industries. In organizations with one, two or three employees, there is very limited time to attend arrangements at day time, even though the theme of the conference or meeting is relevant for the firms. Such arrangements favour larger organizations with a staff committed to different tasks. In micro organizations the employees must have the ability to multitask, and can as such not rely on colleagues to solve problems and do the daily chores. Thus, other forms of arenas need to be created.

A second policy implication is the educational needs on business and creativity. To learn how to run a business and generate necessary income is a challenge to actors in the creative industries. The reason for this state of affairs can be manifold. First, one question is if the teaching institutions educating people working in the creative industries have implemented sufficient courses in business management. To gain the necessary skills requires a learning environment specially designed for these industries. Second, and connected to the above aspect of micro enterprises, there is limited time for the enterprise to devote resources to business management in the midst of the daily production process. A policy implication is that educational courses in business management should be designed, aimed particularly at creative industries.

A third and final policy area is how to reach international markets. The survey revealed an extensive need for measures aimed at increasing sales of goods and services from the region to foreign consumers. In 2004 the firms in the creative industries reported on lack of knowledge on how to export, and a lack of international contacts and networks. In order to strengthen the creative industries in the region relevant measures will be to enhance the knowledge base on how to reach international markets, and to facilitate export activities.

5.3.3 The audiovisual industry in Rogaland

5.3.3.1 The objective of the study

The study “Development of the audiovisual industry in Rogaland” was published in 2005 (Jøsendal and Hauge, 2005). The study is based on fifteen interviews with various actors in the audiovisual industry in the county. The main aim of the study was to analyze how the audiovisual industry could increase competitiveness and become more sustainable in the long term. Two aspects were highlighted. First, the study investigated economic spillovers to the rest of the economy from making two long playing films in Rogaland. Second, a regional innovation system was mapped to analyse cooperation both intra- and extramurally in the

audiovisual industry in the county. The intention was to look at what kind of sub sectors and professional groups were involved in film production; that is to take a closer look at the value chain in this particular industry. This implies looking at factors concerning input (like equipment and transport), the production process (like actors, directors, writers) and distribution of films.

The focus in the analysis was on what kind of knowledge or information flows within the system and across the boundary of the system. An important aspect is the division of labour in knowledge generation and utilisation, because this kind of specialisation gives each actor a unique position in the system. As the actors possess valuable knowledge, it is important that knowledge and information sharing are facilitated. This may in turn affect the quality of the interrelatedness among the parts of the innovation system.

5.3.3.2 Main results

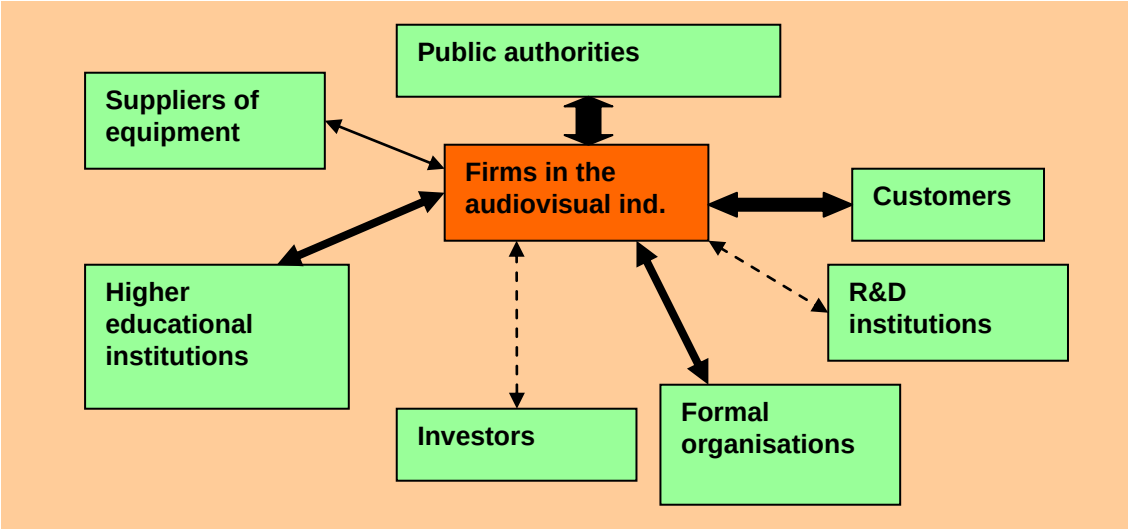
The study in Rogaland reveals that the actors in the audiovisual industry have high ambitions, and that the production will increase during the next five years. This concerns producing long playing films, documentaries, TV productions and commercials. One of the main results of the study is that the audiovisual industry seems to consist of "a group of families", as one interviewee said. The informants state that there are too many actors trying to be independent of the other actors in the industry, and this hampers co-operation. The tradition of not co-operating makes it difficult to establish meeting places where knowledge can be shared.

Another important result is that there is a need for competence on how to run a business. Increased professionalism in business is a requirement if the industry is to become sustainable. Several of the informants claim that marketing and sales are weak spots. Lack of focus on business aspects also results in working for free for friends and acquaintances, and thus reduces income generation. Professionalism also includes knowledge on how to be a demanding customer towards suppliers. It is important to create a business climate in the audiovisual industry consisting of demanding customers, and to stimulate to professionalism in the whole value chain.

Finally, the study indicated that there are several networks in audiovisual industry in Rogaland, but that the networks are surrounded by rigid borders. The potential for learning between the networks is thus reduced. As the industry is project-based, learning seems to be an individual task. There were few arenas to compensate for the individualization concerning learning and knowledge sharing.

There are several higher educational institutions in Rogaland, constituting an environment for supporting various industry segments. The analysis suggests that the actors in the audiovisual industry do not make use of this environment to a sufficient degree. According to innovation studies, it is of vital importance to establish relations with both private and public institutions, in the effort to increase innovation and thus competitiveness (Lundvall, 2002; Braczyk *et al*., 1998). Figure 1 illustrates the relations between firms in the audiovisual industry and other actors in Rogaland.

Figure 5.2 Actors and interactions in the audiovisual industry in Rogaland[4]



The thickness of the arrows indicates the strength of relations. As figure 1 indicates firms in the audiovisual industry have close contact with public authorities. This contact consists of applications for funding, but also of a general dialogue. The firms have also tight cooperation with customers. There is also to a certain extent relations between formal organizations, but these relations are weaker compared to public authorities and customers. This also is the case concerning higher educational institutions. The weakest links are between the firms and suppliers of equipment, R&D institutions and investors.

5.3.3.3 Policy implications

One significant trait in the film industry is that film production is organised as project work or temporary organisations. This kind of organising is characterised by a high degree of renewal concerning action, but a low degree of renewal when it comes to knowledge (Asheim, 2003). Knowledge spillover during the project period may be sufficient, but the act of sharing knowledge from one project to the next could be hampered due to the temporary work situation. In a traditional organisation with more regular working hours and continuity, it is easier to secure knowledge transfer, because the employees do not leave the premises as soon as the specific task is accomplished. Knowledge spillovers between various projects may thus be a challenge, and constitute a policy area where measures can be taken.

A second policy area concerning the audiovisual industry is collaboration with higher education institutions (HEI`s). There have been and still are good relations between firms in the audiovisual industry and the University of Stavanger, but during the interviews a clear need was expressed for increased cooperation. One particular aspect which is mentioned is that the University of Stavanger should engage students more closely into the film production. One measure is to establish a closer contact between the University and the film producers in the region.

As illustrated in figure 1 the weakest links are between the firms and suppliers of equipment, R&D institutions and investors. Thus, measures should be taken to strengthen these links.

5.3.4 Collaboration between creative industries and R&D

5.3.4.1 Main objective

The main objective of the project is to analyse how interaction between R&D and industry can be a source to regional innovation and economic growth. A vital question is how the interaction manifests itself, and if the interaction is intentional and driven by strategic choices or grow as self initiated processes on an ad hoc basis. The intention is to get a grasp of the role of the R&D sector in innovation processes in the petroleum sector and the creative industries in a comparative perspective. One question elaborated on is whether the R&D sector develops their own strategies related to their role as regional entrepreneurs. The rationale behind this question is to investigate to what degree R&D institutions adapt to industrial changes in the region. This includes the discussion about if and how R&D integrated with various industrial clusters.

The project is a three year strategic institute programme financed by The Research Council of Norway starting early 2006 and ending early 2009. The paper "Resources, innovation and linkages between firms and higher education institutions" (Westnes, Jøsendal, Gjelsvik, 2009) is work in progress and will shed light on the questions of why and how firms link up to higher education institutions (HEIs)[5] in their efforts to innovate. The industries in focus are the audiovisual and design industries. As the term "firm" is a rather general concept, and may include firms varying from micro organisations to large multinational corporations, producing a variety of products and services, it becomes vital to elaborate on how the resource based view is able to explain the strategic choices made by highly different firms operating in different markets concerning linking up to HEIs.

The paper "Investigating interaction between higher education institutions and creative industries. A case study" (Jøsendal and Berg, 2009) is also forthcoming early next year. The main concern of this paper is to elaborate on why and how firms in the creative industries interact with HEIs, as well as to focus on factors that either enhance or hamper collaborative activity.

5.3.4.2 Results from the study

Interviews are conducted in the audiovisual and design industries. Twelve informants were asked questions concerning their interaction with HEIs. There is a unified opinion that more co-operation with R&D is needed on several levels. First, it is revealed from the interviews that new knowledge on sales and how to communicate with an audience is required. Universities may also have various work methods to share with the firms. There is a need for dialogue partners to discuss, for example, sales methods. One suggestion is also that HEI`s may act as intermediaries between firms in the creative industries and traditional industries. Second, the interviews clearly indicate that there is little or no interaction between the actors in the creative industries and HEIs on a more strategic level. R&D institutions are not involved in strategy development in the firms involved in the study, and there is no dialogue concerning planning for future tasks. One informant said: *small firms cannot develop all functions needed in an organisation*. Hence, the firms are dependent on access to external resources, and HEIs could be one of these resources.

A third aspect is that some of the interviewees make it clear that they are not aware of what kind of collaborative activities that may be relevant. They have never thought of it as a possibility, and as such no contact has been made. However, as the topic is approached, both interest and curiosity are revealed. This indicates that there is a potential for increased collaboration between creative industries and HEIs.

An observation made during the interview is that firms tend to view HEIs as organizations with different purposes, mandates, value and reward systems, cultures, and codes of practice. Since these are often non-compatible and sometimes in conflict, communication and collaboration can be problematic.

5.3.4.3 Policy implications

A first implication is that the there is a need for knowledge concerning sales and how to communicate. It is also a reflection from an interviewee that universities may have various work methods from which the firms can learn. Some of the interviewees also suggest that HEIs may act as intermediaries between firms in the creative industries and traditional industries.

The interviews also clearly indicate that there is little or no interaction between the actors in the creative industries and HEI`s on a more strategic level. R&D institutions are not involved in strategy development in the firms involved in the study, and this is an area with a potential for collaborative activities.

A third aspect which is important to note is that the interviewees were not aware of what kind of collaborative activities may be relevant. It is unknown to the interviewees what HEIs may offer concerning interaction with the firms, and as a result it is difficult for the firms in the creative industries to engage in the topic of how to cooperate with higher education institutions. HEIs need to be more visible to this industry sector.

5.3.5 Creative industries in Rogaland 2008

5.3.5.1 Main objective

A follow up study of the mapping of creative industries in Rogaland will be finished in February 2009. This study will present a comparison between the situation in 2004 and 2008 in variables like employment, sales and export.

Results and policy implications are yet to be defined.

5.3.6 Developing technological communication platform to enhance place branding in Suldal

5.3.6.1 Main objective

The main objective of this project is to enhance Suldal's attractiveness as a destination for tourists and inhabitants[6]. There are two sub-goals: i) mobilize resources (both human and economic) in order to increase collaboration between actors in Suldal to facilitate innovation in place branding; ii) develop an interactive technological communication platform to enhance marketing of the region towards tourist and inhabitants. The project team consists of a consortium of five private firms and four public organisations, in addition to three researchers from IRIS. It is financed by The Research Council of Norway, and is a part of VRI. The partaking organisations contribute by devoting time to the project. The time span of the project is 1st of September 2008 until 30th of December 2010.

Four main challenges are defined in this project. The first challenge is how to enhance Suldal as a tourist destination. The second challenge is how to establish a sustainable innovation system in the tourist industry in the region. Challenge number three is how to develop an

interactive technological communication tool in the interface between two innovation systems; the tourist innovation system in Suldal and the innovation system in the audiovisual industry in Rogaland. The fourth challenge is how the branding process in Suldal both involves and affects women and men in the region, and how the production of information on the web is suited to fit both women and men.

To make Suldal more visible on the map depends on various factors. It is however important to strengthen the efforts which have already been started in the region, and refine the vision and strategies the partners have stated. "Welcome to the Treasure Chamber Suldal" is an ongoing marketing project initiated by Suldal Tourist Board and Suldal municipality. This is an example of a traditional marketing activity. To be able to come up with creative ideas and projects, the partners involved are of the opinion that new forms of networking and to develop a common communication platform are steps in the right direction. This is based on the partners own statement that they need to appear as a more unified region.

Tourism is part of the experience industry, and is facing several challenges in developing and securing the quality of the unique experience (Rusten and Pettersen, 2006). These challenges are caused first by the fact that firms in the experience industry seem to operate in a rather fragmented way. This may hamper the firm's visibility in both the national and international market place. Thus there is a need for a common strategy concerning branding. Second, branding of a region requires some kind of umbrella organization, or an organization positioned to co-ordinate the firms in the experience economy. As this industry to a large extent consists of small enterprises, co-ordination becomes a vital aspect in order to achieve scale advantages. As a third aspect concerning the challenges the firms face, Rusten *et al*. (2006) underline that both small and large firms should be stimulated to co-operate, as they may learn from each other. Thus, creating arenas for knowledge flows becomes important. According to the partners in this project the challenges mentioned above also fit the situation in Suldal.

The main objective of this project is to develop tourism in a area which, although sharing many landscape features with the fjords further north, is less recognized as a tourist destination. Two important variables will support the long term goal of growth in tourism. First, increased co-operation among the relevant actors, and second establishing a technological communication platform consisting of information to tourists and inhabitants. These are short term goals, and results are relatively easy to document.

By focusing on qualities of the area an objective is to make the inhabitants proud of their region. Increased tourism and self-esteem of the inhabitants are however medium and long-term goals. This implies that results may not be visible the first or second year. A monitoring system is therefore important to establish when the project starts to be able to document the development process.

5.3.7 Innovation in the creative industries

The main objective of this project is to increase the practical and theoretical knowledge on innovation processes in the creative industries[7]. Two sub goals are identified: First, to analyse inter- and intra-organizational alliances between organizations, both cultural and non-cultural, which are collaborating with Stavanger2008, (European Capital of Culture) and second, to analyse if and how events like Stavanger2008 implement a more innovative basis for cultural production in creative industries. The project started 1st of September 2008, and will finish in September 2009. A paper with the main results from the study will be presented at the Stavanger Innovation Summit in June 2009.

The project “Innovation in the Creative Industries” is a part of a project portfolio administered by Stavanger Centre for Innovation Research. The Innovation Centre highlights the challenges that the city region in general, and the Stavanger region in particular, are meeting in the globalized and advanced economy. “Strengthening local capabilities for innovation” is a main focus for the Centre and the research program. The role of culture is of highly relevance, and the status as European capital of culture creates the opportunity to use the region as a “natural experiment”, as it is stated in the “call for research proposals”.

One central question to be analysed is the concept of innovation in the creative industries: Does *innovation in creative industries differ from innovation in traditional industries, and if so, how?* An implicit issue is thus if innovation processes in creative industries and manufacturing industries are enhanced by different or similar stimulus. This may be of vital importance to both firm management and policy makers.

A second important question is: Do *structural changes at macro and meso level have impacts on micro level, and if so, how?* That is, how for instance new coupling of actors, new channels for financing cultural production and so on affect the cultural producer/firm? More specifically: *What is the capacity to learn from others and to generate innovative processes in the organisations that deal with cultural production*?

This research project has the European capital of culture as its starting point, with a focus on how such mega events can create the basis for intra- and inter-organisational innovation among established organisations in the creative industries. In addition, the increased importance of the tertiary sector, the new economic paradigm emphasising informatisation and immaterial products, implies that the creative industry may be understood as forerunner to the economical development. Thus, studies of this sector can be seen as a vision for the future of the economy in general.

In this project 10-15 major cultural producers in the region will be selected (the theatre, the symphony orchestra, the centre for visual art and art ware and so on), and focus will be on their network of relations to a) subcontractors, b) other collaborating cultural producers and artist and c) sponsors and other financial resources.

5.4 Conclusion

The following table presents a summary of the projects in this section.

Table 5.3: Summary of the projects

Project	*Objective*	*Result cluster/network*	*Policy implications*
Creative industries in Rogaland 2004	Map economic factors	47% of suppliers are located in the community, 12% other parts of Rogaland 56% of customers are located in the community, 14% other parts of Rogaland	Special measures should be developed targeted to micro enterprises Educational needs on business and creativity Need measures to reach international markets
Audiovisual industry in Rogaland 2005	Analyse how to increase competitiveness and become more sustainable	Weak links to R&D institutions, investors and suppliers of equipment Strong links to public authorities and customers. Sub-groups in the industry who do not collaborate	Strengthen the links to R&D, investors and suppliers Establish agencies to serve needs like marketing, business development etc. Increase relational competence
Collaboration between creative industries and R&D Focus on audiovisual, design and architect industries 2006-2008	Analyse how interaction between R&D and industry can be a source to regional innovation and economic growth	There is a need for increased cooperation with HEI`s. The relations are weak today	Educational needs on sales and communication HEIs may act as intermediaries towards other industries Need for closer contact on a strategic level HEIs need to increase marketing
Creative industries in Rogaland 2008	Map economic factors		
Developing technological communication platform to enhance place branding in Suldal 2008-2010	To enhance Suldal`s attractiveness as a destination for tourists and inhabitants	*Questions to be answered:* How does the experience industry cluster function in the region? Who are the actors? How to integrate audiovisual industry and experience industry in innovative activities?	
Innovation in the creative industries. September 2008 – September 2009	To increase the practical and theoretical knowledge on innovation processes in the creative industries	*Questions to be answered:* If and how innovation in creative industries differs from innovation in traditional industries? How will new coupling of actors affect the firms? What is the capacity to learn from others?	

All of the projects connect to cluster theory in some way or another, or to theory on networks. As the above presentations indicate, extensive work is taking place in Rogaland concerning the state of art in the creative industries.

Questions to be raised are if there are clusters in the creative industries in Rogaland, who they are and how they function. According to the data base Ravn Info approximately 4000 enterprises in Rogaland fall into the category of creative industries. The film industry is a sub-sector where initiatives have been taken in recent years to establish a cluster, and where actors are in a process of co-ordinating at a strategic level. As such, the film industry has received attention in the region based on their success concerning both production of film of high quality, and the ability to put film in the agenda strategically. However, the sub-sectors analysed in the research described above have weak spots when it comes both inter- and intra-collaboration. One particular weak relation is towards higher educational institutions. The relations towards HEI`s must be seen on two levels. First, there is a need for skills concerning for instance business development, creativity, marketing and communication. Second, the actors in the creative industries ask for collaboration on a strategic level. The relation and co-operation with HEI`s are thus particular important policy areas in the future. The links to investors and suppliers are also rather weak, and are potential areas of improvement in the effort to increase innovative competencies.

Further, special measures should be developed, targeted at micro enterprises, due to the fact that they to a large degree need competence from external sources. Possible measures are to establish agencies to serve needs like marketing, business development and exporting. Some sort of co-ordinating activities between actors in the sub-sectors will be to engage a marketing person on a collective basis.

Several of the firms in the creative industries also report that there is an aspiration to reach international markets. Hampering factors are however lack of knowledge on how this can be accomplished, and a lack of international networks. In support of a sustainable cluster in the creative industries and widening the market opportunities it is vital that products can reach international consumers.

Notes

[1] Source: UNCTAD, 2008

[2] Source: Taylor (2007)

[3] Networking and innovation: a systematic review of the evidence, L. Pittaway, M. Robertson, K. Munir, D. Denyer, A. Neely, International journal of management reviews, Vol. 5-6, Issue 3-4, p. 137, 2004.

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[4] Source: Jøsendal & Hauge (2005).

[5] To be interpreted as universities, public research organizations and all other similar institutions dedicated to the advance of scientific knowledge.

[6] Suldal is a municipality situated in the north east of Rogaland County, Norway. Suldal has nearly 4000 inhabitants, of which approximately 1200 people live in small rural communities outside the municipality centre. The landscape stretches from the coast with fjords in to valleys, woods and up to the untouched mountain areas. As a destination Suldal is rural and typically an outskirt county, and has a centuries old history of being an attractive area for recreation.

[7] Creative industries consist of advertising, architecture, art and antiques, craft, design, designer fashion, film and video, interactive leisure software, music, performing arts, publishing, software, television and radio (DCMS, 1998)

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6. The learning region revisited

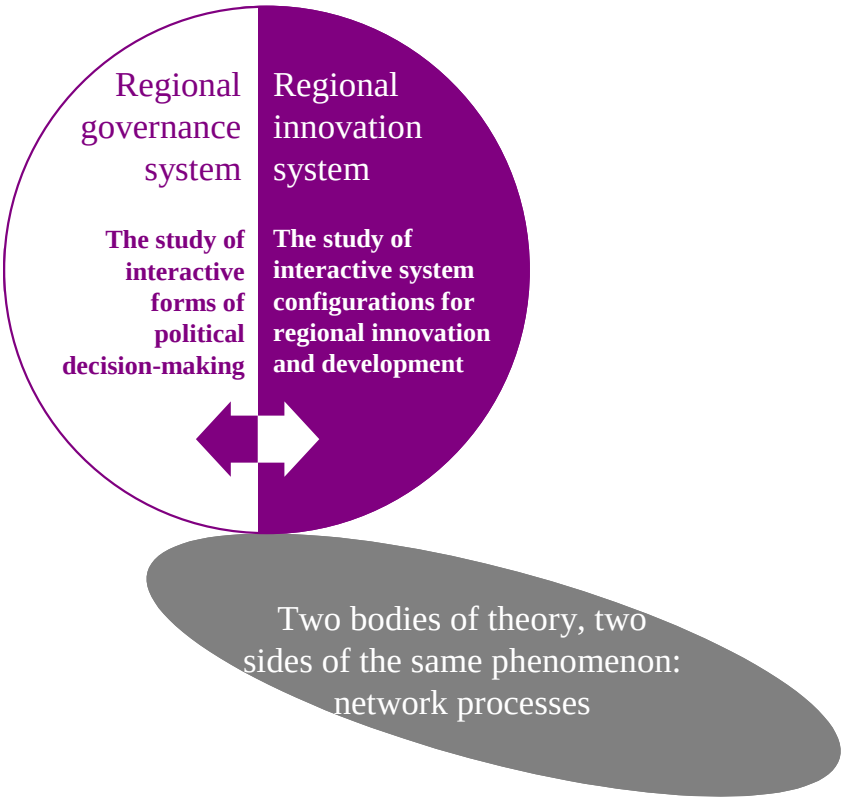
Roger Normann

6.1 Introduction[1]

When Richard Florida wrote *toward the learning region* in 1995, the central argument and observation was that regions was becoming the central unit in order to facilitate growth in the increasingly global and knowledge based world capitalist economic system. The origin of the concept learning region is in addition to Florida (1995) in Rutten and Boekema (2007) also associated with Asheim (1996), Morgan (1997) and Storper (1993). However, a decade later actors are still struggling to identify what it is that constitutes learning in a regional context, and how such learning processes best can be facilitated in different types of regional contexts. The learning regions theory might be developed for the "Silicon Valleys" of the world, but what happens when less favoured regions, in terms of insufficiencies in critical mass of knowledge capital to initiate accumulation, growth and economic development processes adjust their development policies to the regionalist paradigm? Such questions are central to research on the total systems configuration, institutions, programmes, projects, networks, temporarily organisations, aimed at promoting innovation and development in an regional context that increasingly are being conceptualised as regional innovation systems (Asheim, 1994; Asheim and Cooke, 2006; Asheim and Isaksen, 1997 and 2002; Cooke, 1992).

This article argues that in order to understand such dynamics, it is not sufficient to view the regional development system primarily as a support system or instruments for innovation and/or individual and institutional learning. The regional innovation system must also be viewed as a highly politicised interest mediating system; *the learning region is also a political regional governance system*. This article articulates the view that these two perspectives knowledge diffusion/ institutional learning and governance and regional organisation, even though they originate from separate disciplinary stances, economical geography and political science, are mutually enriching both for a better theoretical understanding, and for efforts aimed at giving direct practical support to regions and regional actors, in their efforts in developing and facilitating more democratic and relevant support systems for regional innovation and development. As much of the regional innovation literature and the regional governance literature in effect study the same phenomena, network processes aimed at regional development, from different theoretical angles, as illustrated with the figure below:

Figure 6.1 Regional governance or regional innovation systems?



The aim of this paper is to discuss how one insight from the governance literature nuances the view on regions as networked systems with an extensive capacity for learning.

6.2 Regional meta steering of governance networks

Richard Florida's (1995), basic observation was the outline of global knowledge-based capitalism compromising the new role of the workers (knowledge workers), and that regions are becoming focal points for knowledge-creation and learning in the new age of capitalism, as they take on characteristics of learning regions. A learning region was understood as supposed to function as repositories of knowledge and ideas, and providing the underlying environment or infrastructure which facilitates the flow of knowledge and ideas, and provide an underlying environment or infrastructure which facilitates the flow of knowledge, ideas and learning. Thus, the learning region itself in this perspective would be *the* crucial element in facilitating innovation and economical growth in the increasingly global and competitive world economy. Therefore also the act of facilitating processes and institutions aimed at addressing the learning regions challenge should be seen as a recognition of globalism and regionalism in essence as the same economical transformational process (Florida, 1995).

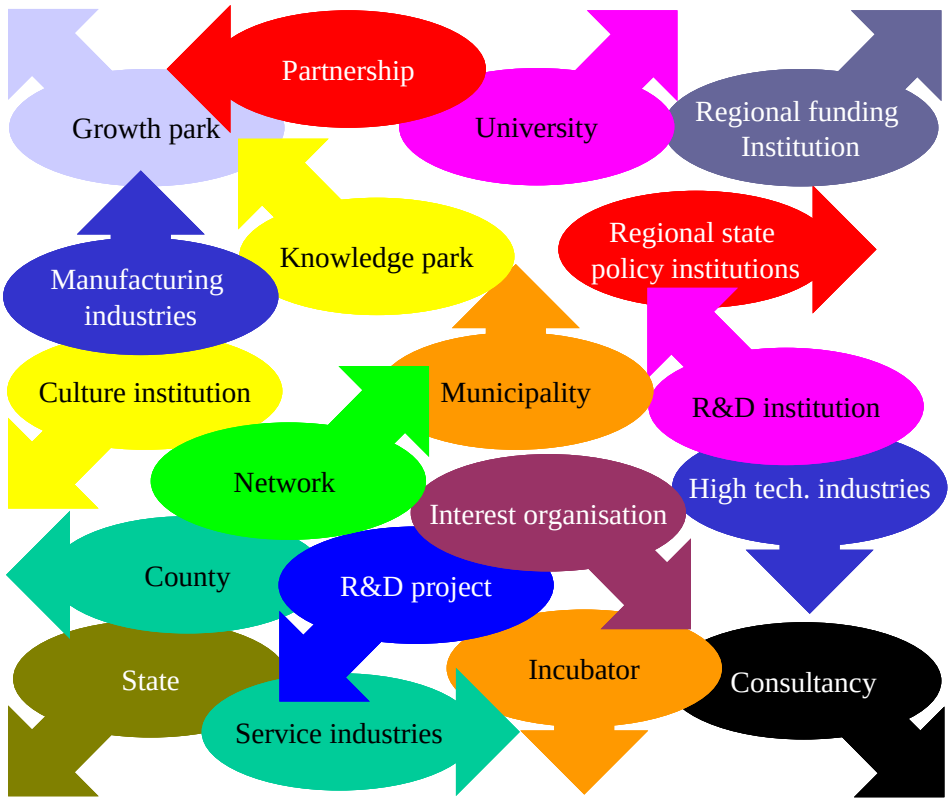
Norway and Agder, has as most other Scandinavian and European countries responded forcefully, instrumentally and relatively similarly to this new regionalisation paradigm. This has had at least two significant implications, which both are observed in Florida's (1995) article, extensive institutional transformations, and an unambiguous orientation towards the "new-economy".

Regionalisation has come to mean the realisation of a series of specific institutional developments, for instance set up of different types of temporarily organisations, networks, partnerships, development coalitions, projects, financing institutions, growth parks, knowledge parks, business networks, etc. with accompanying members from consultancies, public administration, businesses, interest organisations, politics, research, colleges and universities, etc.

Secondly regionalisation has also come to mean that regional development resources primarily has been channelled and fuelled into areas of the economy which has been commonly been interpreted as knowledge intensive. The main development focus has for the most part been on what is represents the future advantages in industrialised western societies, and implicitly also oriented away from areas of the economy that has been interpreted as old or traditional. The prime instrument for setting such agendas has been regional development policies. A central component in what is being conceptualised as regional meta steering of governance networks (Normann, 2007).

Regional policy plans and regional development agendas are in regions with governance networks aimed at regional development (a regional innovation system) the single most important common point of reference for co-ordinated action, meta steering, regional resource allocation, and institutional development. This is so because in order for regional governance systems, with limited vertical formal decision- making powers, to function there must be some level of consensus present between network participants, and between different networks and institutions. Most theories about governance assume that there has to be a governing idea, a discursive framework, about the direction of development in a particular place. Without the presence of such meta steering mechanisms one could theorise that that the regional governance system could look as depicted in the figure below, where collective action and co-ordination is absent.

Figure 6.2 Regional governance without meta steering (theoretical start position)



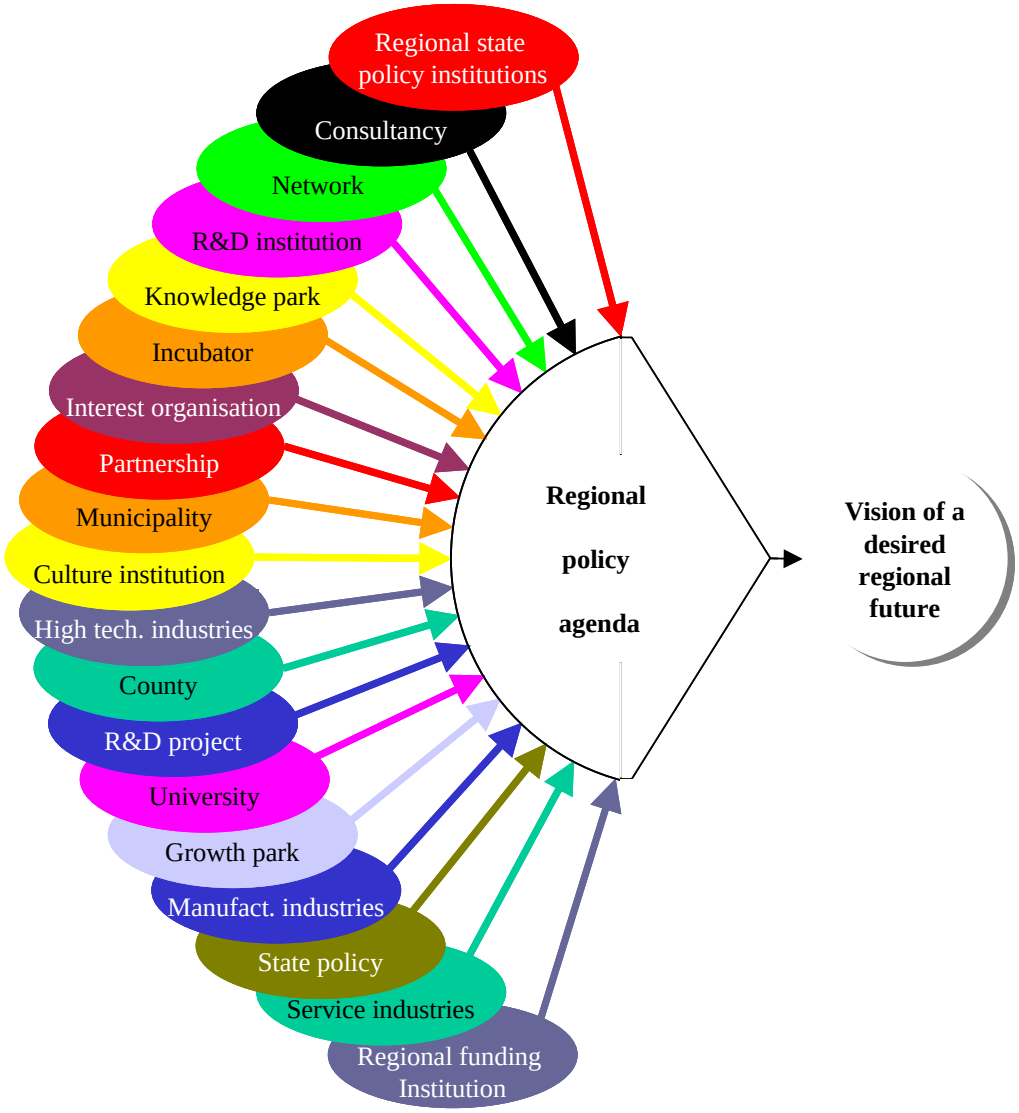
Since the picture above is not consistent with empirical observations of regional governance (innovation) systems practices, there is ample reason to believe that such systems, in various ways and to various extents, are meta steered. Thus, meta steering is central to most theories about governance, and regional meta steering of governance networks can in this context come to mean many things. Kooiman emphasises that this means that hierarchical regulation of governance networks must be meta steering in an indirect form (Kooiman 1993), understood as manipulation of the institutional and organisational aspects of the governance framework. Something that Scharpf (1994) calls "horizontal coordination in the shadow of hierarchy". Others emphasise the institutional aspects more, and understand meta steering as reinstitutionalisation, shaping, and development of identities and capacities in specific and wanted directions. The aim is to meta govern actors' identities through influencing the institutional rules and norms in the network, and produce specific forms of knowledge, tell stories of "best practice", create symbols and rituals and systematically work with attitudes. All of which is meant to influence actors' images of themselves, of others, and their joint mission. Meta governance of actor capacities can be done through the creation of new rights, resources, competencies, and new forms of political know-how, or through the distribution of these between different actors, networks, and levels of steering (March and Olsen, 1995). Lastly others have emphasised the discursive powers embedded in such systems, and understand meta steering as an actor(s), institution(s), coalition(s), organisation(s), or regimes mobilisation of actor's energies and capabilities within a discursively constructed framework (Dean, 1999; Foucault, 1991). A recent work discussing some instances of regional meta steering in the Agder region has made meta steering of governance networks operational into the following set of activities (Normann, 2007, p. 307):

'Regional meta steering of governance networks is to…

(1) … develop a regional policy agenda.
(2) … finance the agenda.
(3) … set up new institutions and networks that are supportive of this agenda.
(4) … use the rationale inherent in the regional development concepts to legitimize both the new structures and the policy agenda.
(5) … attempt (and succeed with) to dominate the public sphere and discourse with this agenda.
(6) … work systematically for a closer integration of the public sector and the new governance networks.
(7) … be relentless in your focus on the importance of regional consensus relating to regional development issues.
(8) … change and control existing institutions directly.'

Theories of governance say that regional governance systems need to be meta-steered in order to function. This article assumes two distinct approaches to meta steering, one emphasising effectiveness, a top-down strategy, that addresses narrow societal interests. This is a managerial approach to development – set a strategy and implement it. Another approach to meta steering is one that emphasises efficacy, which is a bottom-up strategy that addressees broader societal interests – set a socially robust strategy and implement it. The common challenge to both of the meta steering approaches is how to coordinate collective action in a network system where there is very little formal decision making power. A schematic depiction of a regional governance system that is fully meta steered is illustrated with the figure below, all of the development actors are oriented toward the same aim, interest and future vision:

Figure 6.3 Fully meta steered regional governance systems



As the previous figure, this figure is assumed to represent an extreme outer boundary that not should be expected to represent any real life experience. There are however many indications that regional governance systems by default are disposed to adept to the latter model more than the first, because governance systems are by default inclined to prioritise effectiveness over efficacy.[2] The fact that competence, culture, creativity, clusters, and technology are central to so many regions' regional development strategies in the Nordic countries is an indication of this and that:

a) there is a widespread tendency among regional stakeholders to adapt to/borrow from development strategies developed in other regions and/or
b) regional stakeholders/ regional governance systems seek guidance in the rationales and logic inherent in regional development concepts, such as triple-helix (Etzkowitz and Leydesdorff, 1997), regional clusters (Porter, 1998a; 1998b), creative class (Florida, 2002; 2005), learning region (Florida, 1995), knowledge economy (Cooke, 2002), regional innovation systems (Asheim, 1994; Asheim and Cooke, 2006; Asheim and Isaksen, 1997; 2002; Cooke, 1992), etc. and/or

c) there is instructional power originating from national, international/European policy institutions instructing how regions should address their challenges and/or
d) ideological manifestations on local/regional development practices.

If explanation a-d was without any merit, and Nordic regional development policy agendas share many similarities it would mean that the local contexts and challenges are either very similar, or that Nordic regional development actors have given priority to effectiveness over efficacy in addressing their regional development challenges. If the latter is the case, there are many opportunities for improving on efficacy when addressing regional development in many regions in the Nordic countries. Governance systems must also balance effectiveness against efficacy, which should be understood in terms of local context relevance, applicability, sustainability, and continuous learning. The act of balancing effectiveness against efficacy can be understood in terms of being a regional meta governance steering paradox (Normann, 2007).

6.3 The problem of creating actionable knowledge

The two approaches to regional meta steering, effectiveness and efficacy, also represents two fundamentally different takes on the central questions concerning development efforts, whether it is in the private or the public sphere, in an organisational, or regional setting. The labels that used are *linear- and interactive knowledge modes of knowledge production*. The goal of both approaches is to provide society, practitioners, and academia with new insights and knowledge. The goal is to establish knowledge that is useful in application, actionable knowledge. Actionable knowledge signifying established knowledge, or learning processes leading forth to knowledge, that it is possible for practitioners to act upon in order for them to meet their development expectations.

The interactive mode of knowledge production is mirrored in a different approach to the role of "science" in knowledge production in society, known as Mode-2, signifying that knowledge is generated in the context of application (Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow, 1994; Nowotny, Scott and Gibbons, 2001). Mode-2 signifies that problems and possibilities in society not longer as a rule is defined by disciplinary minded academic actors and interests within Universities (Mode-1), but by those who uses the knowledge, the professionals (Gibbons *et al*., 1994). The core of the Mode-2 argument is also mirrored in much of the literature relating to Action Research[3]. A central features of Action Research being characterised by trans-disciplinary and participatory approaches to development. Action Research means to integrate practical lay peoples' understanding of a problem with researcher's perspectives. The implication of such a view is that academic based research will represent an almost seamless integration of practical problem solving and intellectual reflection (Greenwood and Levin, 1998; Levin, 2004; Levin and Greenwood, 2001).

The contrast to this is *the linear knowledge chain* (Levin, 2004) or the linear mode of knowledge production, on the other hand represents a more traditional and positivistic approach to knowledge and the production of new-knowledge. In this perspective, there is a sense of ultimate truth, certainty about the ontological reality of the world, which in turn consequently puts externally developed knowledge "pure science", or academia, in an authority based position over other types of non-academic knowledge.

Note that it not is argued here that one of the approaches is superior to the other in every thinkable circumstance, but that these two approaches apply and are relevant in fundamentally different settings. I argue that what determines the implicit relevance of one of the two approaches is the nature of the problem, or challenge, the development effort that is thought to be addressed. In other words, what determines the relevance is the ontological

nature of the problem, or more precisely the ontological interpretation of the problem. A development problem can be interpreted through different combinations of the degree of goal-clarity and means-clarity. Thereby providing us with a matrix in which indicates where the interactive and the linear model are most applicable. The figure below represents an attempt at illustrating this relationship.

Figure 6.4 Problem identification matrix[4]

		GOALS	
		Definite	Indefinite
MEANS	Definite	**A) Established practice** *Description:* A very similar problem or challenge has been dealt with before. *The central questions are of a managerial nature:* who does what and when?	**C) Negotiations** *Description:* There is uncertainty or disagreement on what needs to be done, what *can* be done are known. *The central question is:* how shall we come to an agreement on what needs to be done?
	Indefinite	**B) Experiments** *Description:* The problem is identified and/or agreed upon, how to best deal with the problem is unknown. *The central question is:* how shall we solve this problem?	**D) Chaos** *Description:* There exists neither an understanding nor agreement of the problem, or of the resources available. *The central question is:* what is the nature of the issue?

The nature of most real-life development projects is of course more complex than it is possible to capture by a two-by-two figure. The figure is however believed to illustrate a genesis of what it is that constitutes the basis for the diverse understandings of problems in different settings.

If we are certain about the status and nature of a challenge or problem that we are faced with, know what it is, and what it is not, for instance when being in a situation that we have faced several times before, then is it also natural and sensible to use knowledge that has proven viable before. This resembles quadrant A, when identified as such a situation, it allows those involved in the development project to shift promptly from a seeking mode to an implementation mode. Here participants can and should, in terms of effectiveness, use established knowledge and practices. In such a situation is it nothing wrong with; in fact, it is perfectly sensible to apply to the linear model of knowledge production. The only problem being that quadrant A, for the most part will represent a special case, a rare exception, rather than the rule.

If our development team knows, what the problem is but not how to solve it, quadrant B, then they must, experiment with different solutions they think might be effective in order to deal with the problem at hand. Examples of such situations can for instance be the employment situation in a rural area, unsatisfactory rate of new product developments/innovations in a corporation, decline in living conditions for segments of a population etc. In such situations will those involved in improving the situation often be faced with a magnitude of solutions to the problem? Just picking up a textbook from a library, hiring a consultant with a recipe will not automatically solve the problem. This is a situation where stakeholders and others involved (the demos) will have to rely on their own abilities, their contextual competence (knowledge of historical, institutional, economical, cultural, social and political circumstances specific to that location), and most importantly their ability to learn and apply new knowledge in action. In these types of situations will an approach that resembles the interactive model be more relevant in order to address the problem than the linear model.

In quadrant C, there is disagreement or uncertainty on what the problem or goal of the development effort should be or is between those concerned. Such situations can develop when stakeholders or participants holds different interest and intentions. The way forward is to meet and develop an agreement upon what it is that should be done. In this situation is it not so much question of what mode of knowledge production that applies but on what principle or method for negotiating different interests that applies to the situation. When such issues are resolved will the development effort move into quadrant B or A, depending on the type of the development project.

Quadrant D resembles a chaotic situation where it exists competing or fundamentally different takes on what the problem is, and what should and can be done. In terms of resembling a real development project is it this situation that probably is the one that resembles a 'real world' development situation the most. Focus in these types of situations will be on learning, understanding the nature of the challenges at hand and seek to develop methods for dealing with them. In such situations doesn't the logic inherent in the linear mode of knowledge production apply. Efforts to implement solutions developed by a not involved, or contextually unaware third party will be superficial, and one risk that more harm than good is accomplished – a situation comparable to hiring a Cadillac mechanic to build a BMW using a manual from Toyota. This is a situation where only context sensitive knowledge and initiating local learning processes apply. When participants have addressed either what their available means or agreed upon some shared goals, the development effort could move into situations B or C.

Most development projects would probably be significantly easier to execute and implement if involved actors would agree upon defining their project in terms of one of the quadrants above in an initial phase. Because such an agreement also would constitute the basis for a process, where at least the initial steps of the development process was defined and understood by those involved parties. There are however, forces that works against such a simplistic approach to the first phases of a development project, this in spite of the obvious benefits of adapting the mode of knowledge to the kind problem one is faced with. If we just focus on the knowledge generation process itself, most would probably agree upon the sense in applying an interactive model of learning, and that this would be an instrumental first step in terms of securing that the knowledge produced where actionable. This is however probably more of an exception than the rule in 'real world' development projects, four reasons for why this is so is discussed in the following.

First, stakeholders that hold a strong interest in certain outcomes of a process must be expected to work against situations being defined as anything else than quadrant A, this because when you do, you also open up the process to such an extent that it becomes more

difficult to predict what the outcome will be. Maybe the project ends up not serving your agenda or interests after all.

Second, humans tend to favour and seek control and stability over complexity and uncertainty. It could therefore be argued that there is an inherent "gravity" in every development project, which compels actors from uncertainty towards certainty and control (from situation B, C, and D towards situation A, which beholds an image of control and predictability). This is of course a "gravity" that is totally unrelated to the type of knowledge that actually is needed in order to address the challenges at hand in a meaningful way. It seems a plausible assumption that we tend to construct meaning and rationality upon layers of uncertainty just too able to do something, to act on the issue whether it is helping or not.

Third, one should not underestimate the institutional efficiency and economical demands of the environment. Using what is understood as a 'long time' on a process is often viewed as wasted time and resources. Development participants and stakeholders therefore often feels pressured to produce results fast and show some results of their work. This also contributes that actors prefer define their projects as belonging in quadrant A in front of any other, time consuming alternative.

Fourth, the organisational development literature is filled with examples of the role that managerial myths and fads plays in establishing the "whats" and "hows" of development. Copycat activity is a well-known and established activity within the larger development sphere. It is simple really, for project stakeholders to reduce the risks of development through applying to the development norms of the day. This phenomenon has plagued market-exposed corporations extensively since the early 1980s. Fluctuations of the market, has lead managers all over the world into a frenetic search for solutions to the challenges this represented for them, and the management gurus has been more than willing to fill the gap. Of the 27 fads highlighted by Richard Pascale in Managing on the Edge in 1990, two thirds where spawned during the 1980s. Since then, the process has only speeded up. Needless to say, the message communicated to firms around the world from the management gurus is far from consistent (Micklethwait and Wooldridge, 1997). In the market driven economy, firms are constantly trying to improve themselves, organisational development is not something they do now and then but has more or less become an institutionalised activity in line with producing services and products. It is not uncommon that firms have 12-15 managerial concepts at work simultaneously, thus meaning that TQM, BPR, JIT, Benchmarking, MBO, and more plays in chorus within many firms, something that is bound to make way for increased complexity and many unforeseen effects.

This phenomena is however relatively new in the regional context. When in a regional setting the questions could be if we should support and invest in information-, robot-, bio-, or nano-technology, or should we support the industry that actually exists. How important are network and cluster building to the growth of the economy, or is it the business culture itself that we should address? In a regional setting, this approach to development is not TQM, BPR, JIT etc, but easily identified through concepts such as "Clusters", "Triple-Helix", "Learning Region", "Creative Class", and more. Commonalities for all these concepts are that they are 'recipes' describing both what you like and how to make it, thus containing both problem descriptions and solutions for regional stakeholders to apply to, and thereby allowing them a firm grip on quadrant A. The consequence is of course a series of development initiatives that at least to some extent are decoupled from the context and the pressing issues in the location in question.

The argument is that what is hampering development process from getting into the "right" knowledge generation track is more than an unwillingness to relate to local knowledge, but that there exist a much larger institutional and ideological framework that restrains actors.

6.4 Conclusion

If meta steering of governance networks is necessary in order for such systems to function, can this be done either through prioritising effectiveness or through prioritising efficacy. Effectiveness represents in this context the managerial approach to development – set a competitive development strategy and implement it. Regional governance systems have proven in practice to be useful tools in order to realise and implement such ambitions. As long as there is a general consensus about the regional development agenda, the discursive framework of development, the governance system will be able to function with respect to development and implementation (Normann, 2007). Efficacy represents in this context the democratic approach to development, which addresses a plurality of societal interests stemming from civil society, industry and politics that among others include issues of sustainability. This can be phrased as – set a socially robust strategy and implement it. The solution to the regional meta-governance steering paradox is to identify the right balance between legitimate conflict of interests while maintaining collaboration (Jessop, 1998; Rhodes, 1997). If consensus is too dominating, one risks losing in the innovative capacity of the system (Jessop, 1998). If one discursive framework gains hegemony, alternative and latent development strategies and potentially better development paths can be lost (Normann, 2007). On the other hand, if conflicts are too dominating one risks network negotiations to break down and development is unsuccessful (Kickert, Klijn and Koppenjan, 1997).

It is therefore of crucial importance for achieving sustainable regional development that regions, in their efforts to develop regional development policy agendas, are able to address issues relating to both effectiveness and efficacy. Arguably, this aim can be achieved through raising awareness about such a development dilemma, which is particularly important to address in regional systems where regional governance networks play an increasingly dominant role in the progress and execution of regional development strategies. The solution, it is argued, is to address efficacy and secure local relevance and applicability through introducing more democratic values and practices into regional governance systems (Normann, 2007). The dilemma noted represents a problem of a generic nature that is assumed to be just as relevant in any regional system with a significant influence of governance networks. It is therefore believed to be an equally relevant research and development question in all of the Nordic countries. A working assumption is that regional governance systems are inclined to give priority to effectiveness over efficacy when addressing the regional meta-governance steering paradox. Thereby also assumed too much operate in a linear- mode of knowledge production. One of the findings from a recent thesis work about regional development in the Agder region concludes that this dilemma with current governance configurations still is largely unsolved and/or unaddressed (Normann, 2007).

Notes

[1] An earlier version of this paper was presented at the 2nd workshop on the "Knowledge Economy: new directions in work organisation and regional innovation", at Agder University College Kristiansand, Norway, Monday 26th and Tuesday 27th, February 2007. The article is partly based on findings in a thesis discussing regional governance in the Agder region Normann (2007).

[2] See discussions under the next heading.

[3] Who mirrors who is of course debatable, the point made here is that there are overlapping views.

[4] Variation of Bygholm & Boisen (2004: 216)

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PART III: AN INTERNATIONAL PERSPECTIVE

7. Reflections on National Pilot

Richard Ennals

The preceding report is an interesting collaboration between researchers working on development programmes in adjacent Norwegian regions. The collaboration was facilitated by engagement in a series of common national programmes for enterprise development and regional development, and an associated national doctoral programme in Enterprise Development and Working Life, based on action research (AR). The authors have taken the opportunity to reflect on both theory and practice.

The report is also methodologically interesting, as, despite the recent avowed focus on AR, the contributors come from broad backgrounds in the Social Sciences, including economics, political science and philosophy. They deploy a variety of research methods.

The tone is more derived from theory than from practice. The writing comes from within the Norwegian discourse, which means that much is taken for granted, and is not made explicit. One advantage of including a co-author from outside Norway is that the experience of the National Pilot project can be considered against the background of cases in other parts of the world. During the course of the National Pilot, innovative work has been undertaken in Pakistan and Mauritius, informed by the values underpinning the Scandinavian Model of Innovation, and by lessons learned on, for example, the pragmatics of network orchestration.

7.1 Continuity

Norway has been remarkable for the continuity of policies underpinning national programmes for research and development in enterprise development, which have given considerable emphasis to the regional dimension. ED2000 and VC2010 developed regional modules which followed consistent principles, and involved close engagement by the labour market parties (eds. Gustavsen *et al* 2001; ed. Levin 2002). This meant a distinctive relationship between researchers and the labour market parties, and recognition of the active role of research in enterprise development and regional development.

Some of these experiences were reported in *AI & Society* 19.2 2005 "Mobility, Technology and Development", and in *AI & Society* 23.1 2009 "The Enlightened Workplace". They are also reported in the 2008 Kingston Business School Working Paper "Integrated and Participatory Innovation" (eds. Claussen, Haga and Ennals, 2008), and in chapters for the 2009 Nova Science “Handbook of Regional Economics", edited by Frank Columbus ("Integrated Innovation" (Claussen, Haga and Ennals, 2009) and "Democratic Innovation" (Johnsen, Karlsen, Norman and Ennals 2009). Papers were presented at the Regional Studies Association conference in Prague in May 2008, and at the Regional Innovation Policies seminar in Santander in October 2008. Approaches to learning from such cases are set out in "Work Organisation and Europe as a Development Coalition" (Ennals and Gustavsen, 1999), and "Learning together for local innovation: promoting learning regions" (eds. Gustavsen, Nyhan and Ennals, 2007).

VRI is larger and more diffuse than VC2010, and was not designed on the basis of recommendations arising from the evaluation of VC2010. It is now interesting to find a National Pilot project emerging within VRI, in principle enabling conclusions and experiences to be diffused bottom up. I could make comparisons with phases of national programmes in the UK in the 1980s, where I was a research manager. There was the similar experience of

evaluation being conducted on the Alvey Programme by Erik Arnold, now of Technopolis, but of the conclusions being disregarded by government, which used other criteria when reaching decisions.

We could locate these two phases within an account of what *IJAR* 4.1-2 2008 has called "Programme Learning". This enables us to draw on relevant experience from overseas, such as Sweden, Finland and Germany. It also reminds us of the qualitative difference between research conducted on single projects, and work as part of national managed programmes. I should recall the absence of equivalent programmes during this period in the UK.

Perhaps surprisingly, the papers which comprise the chapters in this report do not seek to build on the tradition of continuity from ED2000 and VC2010. Rather they might be seen as casting doubt on claims made by others for particular approaches to regional development. They do not report from case studies supported over the years on those programmes, nor do they seek to learn from differences. Instead, they stand back and adopt a more traditional social science perspective. At the same time, the influence of the shared experience of the national programmes, and the Nordic Model, are inescapable.

7.2 Differences

Although both IRIS and Agder were active participants in ED2000 and VC2010, and also worked together on EDWOR, there are marked differences in their projects and ways of working.

Of course, they are differently situated in geographical and institutional terms, with different regional economies and balances between sectors. IRIS is a research institute with extensive engagement in commercial research and consultancy. Agder University is a newly designated university, seeking to establish a reputation for academic research, and working in close association with Agder Research.

Their versions of the "Triple Helix" can be contrasted, noting that neither fits the standard paradigm. Patterns of engagement by researchers can be explored. For example, in Agder, a leading role is played by the University (see Karlsen's work). However, Normann reports the limited extent to which the University and other academic institutions are seen as actors in regional development (see also Johnsen *et al*., 2008 and 2009).

In Stavanger, IRIS is owned by the University, but the work of the research institute seems to have little connection with the regional mission of the University (see Haga's work). Instead we see long-term commitment by major companies in the off-shore industry and process industries. This offers valuable insights, for example into Corporate Social Responsibility, which is seen as a reflexive characteristic of the organisation, rather than assigned to a separate department.

In both cases the underlying political and economic realities are inescapable. Large income streams for oil are boosting state funds, and enabling the support of research. Interventions in regional development programmes, such as cases reported elsewhere by Claussen *et al*. (2008 and 2009) and Haga (2009), have enabled Norwegian enterprises to withstand challenges from global competition, through creative innovation. However, with the ‘credit crunch’ and global economic downturn, there is some uncertainty about the future. Some financial sponsors have encountered difficulties.

7.3 Oiling the wheels

Both Stavanger and Agder benefit from major income streams from oil, and operate in a funding environment where the national government has accumulated large reserves, to be invested for the future beyond oil. Norway has been able to pursue the "high road" to innovation and productivity improvement.

A contrast can be made with the UK, where North Sea oil was privatised, and the income used to finance tax cuts and unemployment. The UK tends to pursue the "low road", with outsourcing and downsizing (Totterdill, 2009).

Companies such as Statoil, Hydro and Aker Stord have clearly played major roles, in both economic and research terms. They represent living laboratories. Traditionally Corporate Social Responsibility has been central to their vision, perhaps reflecting the strong ongoing government presence in ownership of the companies.

7.4 Regions

Beneath the rhetoric of regional development, on which some doubt is cast in the chapters from Agder, there are clearly issues to discuss in each region.

For IRIS, the fragmenting of counties and decision-making, with Rogaland and Hordaland, contributed to the ending of innovative research with workplace interventions, and the dispersal of the core research team. The continuity of ED2000 and VC2010 has been broken. Having earlier achieved a critical mass of experienced researchers, following staff mobility, the IRIS team are now working under pressure, with many personnel changes.

For Agder, there is a recent history of jostling for position, involving rivals in a small but affluent region, not driven by crisis. At the University there has been creative regrouping, engaging researchers from varied paradigms. As in the UK, there have been pressures on a new university to emulate the behaviour of older universities.

In Norway as a whole, enthusiasm for regional policy and regionalisation appears to have diminished. Perhaps the units had become too small. Perhaps the flows of public funds have revived earlier tensions and jealousies. The Nordic Model may have lost its novelty.

In this context, the current collaborative research on Multi-Level Governance (Normann *et al* 2008) is highly significant. However, it has yet to be established how far the analysis can be taken at this stage, beyond identifying the different levels which need to be linked in some way, with dynamic implications. We should not underestimate the achievement of arriving at a common language in which to discuss cases across Europe.

7.5 Conclusions

It would be possible to identify generational change. I am working with another project, the Nordic Benchlearning Project, with a team of experienced editors, and leading researchers from each of the Nordic Countries, reflecting on their experience in the context of the Scandinavian Model of Innovation. That project draws on engagement in and evaluation of a series of national programmes. One view, in the context of the current global crisis, is that the Scandinavian Model (itself a family of related models) has much to offer the world in the next phase.

The present report, by comparison, appears more hesitant and sceptical about the validity of some of the claims made by the previous generation of researchers. It represents ongoing work, and will benefit from vigorous dialogue. It would be interesting to know more about the assumptions that were made by the funders, and the nature of the wider target audience. At present the tone is somewhat removed from the world of practice, which I had previously seen as the focus of VRI. Perhaps it is intended to provide an academic background, from a position of detachment. If so, I would see that as a retreat from the engaged stance of Action Research.

Let me close with reflections on international cases, which might appear to be remote from the experience of these Norwegian regions, but where the comparison has proved to be important.

In the North West Frontier region of Pakistan, a new programme is being launched, based on Quality tools applied in education. Using the example of Haga's work with "The Arrow" (known in Pakistan as Ishikawa's Fishbone Diagram), a common vocabulary has been developed and deployed. A national convention launched a new programme, based in effect on a set of regional modules, facilitated by network orchestration. The background of government policy is very different, but the approaches chosen for interventions are remarkably similar.

On the Indian Ocean island of Mauritius, government policies and engagement with civil society have had much in common with the Scandinavian Model of Innovation. The former British colony has free education and health services, and generous universal pensions. National and international conventions have been set in the context of what would be seen in Europe as regional development. The example of Emilia-Romagna, with a culture of small businesses operating in a supportive environment, has motivated Norwegian and Swedish researchers in the past, and has resonance for Mauritius. Mauritius has two official languages, English and French. It houses a diverse population resulting from a series of migrations from Africa, the Indian sub-continent and China. It is multi-ethnic, multi-faith, and harmonious.

We must recall the ongoing influence of globalisation. There is a world beyond the south coast of Norway.

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Appendix to Chapter 2

Overview of informants in each of the oil and gas companies and NGOs

Company, NGO	*Informants*	*Position of informants*
Hydro	4	Head of CSR; adviser CSR; adviser CSR, Oil and gas division; vice president
Shell Norway	3	Vice president information and communication; adviser, communication; former line manager
Shell International, London	6	CSR adviser; manager, training/organizational learning; scenario adviser; social reporting responsible; development economist; social performance adviser
Shell International, NL	1	CSR responsible
Statoil	4	CSR responsible; senior CSR adviser; internal control adviser; CSR adviser
Confederation of Norwegian Business and Industry	1	Chief adviser, ethics and CSR
Strømme Foundation	1	CEO
Norwegian Church Aid	1	Advocacy Campaigner
Amnesty Norway	1	Manager, partnerships
Red Cross	2	Key account managers
World Wildlife Fund	1	Adviser
Humanistic Academy	1	Chief Adviser
Sustainability, London	1	Consultant
	1	Adviser
Accountancy firms	3	Deloitte & Touche, KPMG, Ernst & Young

About the authors

Dag Aasland (1950) is educated in mathematics, logic and economics at University of Bergen, and has a PhD in agricultural economics, Agricultural University of Norway 1979. He is Professor in economics at University of Agder where he works on ethics in economics and management. Several of his publications are linked to Emmanuel Levinas and his relevance for understanding the meeting between economics and ethics. His latest publication include: *Økonomiens grenser og etikkens nødvendighet: En vei til Emmanuel Levinas* (Cappelen Akademisk Forlag 2005).

Richard Ennals (1951) is Professor of Corporate Responsibility and Working Life at Kingston Business School, where he has been professor since 1990, and has visiting professorial posts in Sweden, Norway and Lithuania. From 1986-90 he was Staff Development Officer at Kingston College. Previously he was research manager at Imperial College Department of Computing and the DTI Alvey Directorate in Advanced Information Technology, where he had responsibility for the Logic Programming Initiative and Highly Parallel Computer Architectures, and for innovative programmes of technology transfer. He had led work on computers and education, with projects around the world. His initial academic background was as an English scholar at King's College Cambridge, where he read Philosophy and History, before teaching history in secondary schools in the UK and Nigeria. He was chairman of the Council for Education in World Citizenship, now merged with Citizenship Foundation. He is a board member of the UK Work Organisation Network, was 2004-8 a board member of the UK National Commission for UNESCO, and is vice chairman of the World Council for Total Quality and Excellence in Education.

His latest publications include *Dialogue, Skill and Tacit Knowledge* (Wiley 2006, edited with Bo Göranzon and Maria Hammaren), *From Slavery to Citizenship* (Wiley 2007), and *Learning together for Local Innovation: Promoting Learning Regions* (Cedefop 2007, edited with Bjørn Gustavsen and Barry Nyhan)

Hans Chr Garmann Johnsen (1955) is professor at University of Agder and professor II at NTNU. His field of research is work-life and innovation. He has an MBA from NHH, cand.polit. in political science from University of Bergen, and a PhD from Copenhagen Business School within organisational sociology. His recent publications include *Fra forvaltning til dialog* (Høyskoleforlaget 2005), *Metaforenes tyranni* (Høyskoleforlaget 2005), and *Kritikkens forgreninger* (Høyskoleforlaget 2008).

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