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# **The role of policy in an evolving regional economy**

**A case study of the moving media cluster in Skåne**

***Policys roll i en regional ekonomi i förändring – En fallstudie av moving media-industrin i Skåne***

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# List of acronyms

EEG	Evolutionary economic geography [framework]
K3	Konst, kultur och kommunikation (School of Arts and Communication, Malmö University College)
ME	Media Evolution
MINC	Malmö Incubator
MMM	Media Mötesplats Malmö (meeting place for media actors in Malmö)
MMSS	Moving Media Southern Sweden
RIS	Regional Innovation System

# 1 Introduction

There is a growing interest in the role of policy in regional economic development, both among researchers and not the least among policy makers. The notion that a region's economic evolution can be altered by the use of policy has led to the implementation of various forms of innovation policies. Examples include the interest in triple helix cooperation between different actors in the regional economy, enhancing university-industry links and encouraging the start-up of creative industries. In a retrospective, one can see various results. It is clear that the use of innovation policy has to be matched with the regional economy and that not all attempts are successful.

This paper contributes to the understanding of how change in Regional Innovation Systems (RIS) occurs and how it is path dependent by nature. This is done by examining the role of policy in the regional economic evolution through a case study of the moving media cluster in Skåne. The moving media cluster, or the industrial sector active within the field of "new media", has been of interest for researchers studying knowledge dynamics and knowledge bases, among others. In this paper however, the role of policy in the creation as well as in the continuing evolution of the cluster is being examined. By analyzing the results with a theoretical framework consisting of both the notion of Regional Innovation Systems and that of a path dependent regional economic evolution, the study reveals how these theories can be combined and help to better understand how successful use of policy both is based on a path dependent economic evolution and can be a tool for deliberate actions to alter future development trajectories and enable new paths.

This paper begins with a theoretical framework being constructed in chapter 2. The purpose and research question is then based on the discussion on combining the two approaches being held in the end of the theoretical framework and lays the foundation for an empirical study. These are presented in chapter 3.

Chapter 4 consists of methodological considerations, including a discussion on how the study has been conducted. This is followed by a short background of the Skåne region and an introduction of the moving media cluster in chapters 5 and 6. The result from the study is presented in chapter 7 and the role of policy in both the early and current development of the cluster is being examined. Finally, in chapter 8 conclusions are drawn from the empirical results and discussed using the theoretical framework.

## 2 Theoretical framework

This thesis takes off in the field of Evolutionary Economic Geography (EEG), a perspective which offers a middle way (or a “third approach” as Boschma and Frenken (2006:274) puts it) somewhere in between the cultural-institutional approach (see e.g. Simmie, 2005; Martin and Sunley, 2001) and the “new economic geography” advocated by Krugman (1991) among others. Evolutionary economic theory puts emphasis on processes that makes the economy to self-transform from within. With referral to Witt (2003), Boschma and Martin (2010:5) list three basic requirements for theories on economic evolution; they have to be dynamical, irreversible and acknowledge the generation and impact of novelty as the main driving force behind self-transformation. These criteria rules out all theories that deals with history as an initial condition that produces a stable equilibrium outcome.

However, the literature on evolutionary economics is rather aspatial and for geographers to apply a paradigm from one science to another is risky. The attraction to geographers is though the possibility to adopt a broad body of concepts within one conceptual framework (Boschma and Martin, 2010:5-6).

“Put broadly, we can say that the basic concern of evolutionary economic geography is with *the processes by which the economic landscape – the spatial organization of economic production, circulation, exchange, distribution and consumption – is transformed from within over time.*”  
(Boschma and Martin, 2010:6; italics in original)

Theories on processes that generate novelty (e.g. through innovations or new firms), on how spatial structures develops from actions taken by micro-agents (e.g. firms, individuals, organizations) and on how the economic landscape appears to be self-organizing even in absence of central coordination or direction, all have a place within this framework (Boschma and Martin, 2007:540). Through path dependent processes such as new path creation, the geographies of economic development and transformation are being shaped, and these processes might themselves be *place dependent* (Martin and Sunley, 2006:409).

Evolutionary economists have, already from the very beginning, been interested in the influence of institutions on the economic development (Boschma and Martin,

2010:22). Economic geographers have not been late in applying ideas about the role of institutions in their own theories, e.g. through the development of the concept of *innovation systems* (see e.g. Asheim et al., 2005) and by adding the view that innovation processes are grounded in the institutions of a region (Boschma and Martin, 2010:22). During the last 20 years, this approach has greatly improved our understanding of the innovation process (Tödting and Tripl, 2011).

There is an increasing body of literature on “how evolutionary economic geography may inform regional innovation policy” (Boschma and Martin, 2010:25). Tödting and Tripl (2005:1203-1204) challenges the way studies of regional policy are being conducted, pointing at the problems with most studies being concerned with well-performing regions. The models derived from these studies are used in an undifferentiated manner for all kinds of regions. They claim there is no “best practice” in regional innovation policy, and argues for the use of “Regional Innovation Systems” as a good framework for an approach that takes into consideration the differences among regions.

However, regions and their different innovation systems are not static entities and should not be treated as such. In the longer run, considerable change in the subsystem of the RIS often reaches beyond what we would consider to be existing development paths. These changes are not sufficiently dealt with in the literature on RIS, which leads the reconstruction and evolution of RISs to be poorly understood (Tödting and Tripl, 2011).

In the following chapter, an explanation is given to the key concepts that constitutes the theoretical framework of this paper. The emphasis is on how studies of RIS in an evolutionary manner could be conducted, linking the concept of path dependence with RISs.

## 2.1 Path dependence

Path dependence has been given the status of “the first principle” by evolutionary economists and is now spread far outside the field of economics, in to management studies and political science as well as anthropology, history and sociology. In the field of economic geography, there is a strong emphasis on context-specific, locally contingent nature of self-reinforcing economic development. Especially the so-called quasi-fixity of geographical patterns has been of interest to economic geographers (Martin and Sunley, 2006:397-398).



Path dependence is one of the core concepts within the Evolutionary Economic Geography framework, together with related variety and regional resilience among others.

A key characteristic for the term is the notion of an inability for a system to “shake free” of its history. Path dependent processes or systems create an outcome which is dependent on the history of the process or system. Economic development is an irreversible historical process where future outcomes depend on previous events and outcomes.

*”[...] at any point in time the state of the economy depends on the historical adjustment path taken to it.”* (Martin and Sunley, 2006:400; italics in original)

As Håkansson and Lundgren (1997:122-123) points out, path dependence is not equal to historical determinism. Path dependence is rather a probabilistic process, where future paths are dependent on both the current and past state of a system. A path dependent system produces different development trajectories, some more likely to occur than others. History does not determine, but condition, the behavior of socio-economic actors (Martin and Sunley, 2006:402-403).

Within the field of evolutionary economics there are three different ways of defining and explaining the concept of path dependence; as a result of technological “lock-in”, increasing returns or institutional hysteresis. A technological lock-in occurs when the tendency for a particular technological field becomes locked on to a trajectory even if superior technologies are available. An example that is often referred to in the literature is the QWERTY-keyboard layout, as explained by David (1985). This layout is used by practically every keyboard used in offices and homes all over the world, and was created by a series of micro-level “chance” events or “accidents”. These small events had long-run effects on the technological development path taken by computer manufacturers; the layout still dominates even though more ergonomically and technically superior layouts have been invented. By other words, the early decisions made by typewriter-pioneers in the late 19<sup>th</sup> century reverberate through history, closing alternative development paths and validating a particular path. The outcomes do not necessarily have to be rational or optimal. This view clearly diverges from mainstream economic theory, where the development path is governed by an equilibrium state outcome. A path dependent development trajectory, on the other hand, depends on the path taken towards it (Martin and Sunley, 2006:400-401).

Related to David’s work is the view of path dependence as increasing returns, an approach introduced by Arthur (1994) and situated within a complexity theory

framework. Arthur put emphasis on different kinds of increasing returns; fixed set-up costs leading to falling unit costs and increased output, dynamic learning effects, co-ordination effects and self-reinforcing expectations (cf. Krugman, 1991). Arthur is concerned with the emergence of economic macrostructure from microevents and behaviors, not only with the purely technological perspective (Martin and Sunley, 2006:402).

A third version of path dependence is to view it as a result of institutional hysteresis (Martin and Sunley, 2006:402). Hysteresis is a term used within economic theory to explain how a system, in the case of a chock, fails to return to a previous state and takes on a new development path. Hysteresis can be illustrated by a weight being attached to a spring. The weight will stretch the spring, but up to a certain weight the spring will, when released, return to its old shape. If the weight is above what the spring manages to handle, it will become permanently stretched. When a chock exceeds the elasticity threshold of the system, the system will be forced in to a new path that might be both inferior and superior in relation the old path (Martin, 2011:7). It is known that both formal and informal institutions tend to change slowly over time (Martin and Sunley, 2006:402).

“Institutions are both the product of and a key factor shaping social agency: they provide the stability and predictability needed for social and economic actions and transactions, whilst incrementally responding to and incorporating the outcomes of those actions and transactions. The duality of institutions and social agency necessarily means that institutional evolution tends to exhibit path dependence. Like the economy, institutions tend to inherit the legacy of their past.” (Martin and Sunley, 2006:402)

This perspective is somewhat connected to Arthurs theory on increasing returns as a source of path dependence. In a world with increasing returns, institutions do play an important role in shaping the economic landscape (Martin and Sunley, 2006:402). Setterfield (1993:761) argues that in the short term institutions acts as exogenous constraints on the economy, but in the long term they are endogenous to the workings of the economy. This creates a cumulative process where institutions determine the outcomes and evaluation, which in turn affects the determination of individual or organizations, which in turn affects the economic activity and which at last affects the institutions. In this model, there is no tendency towards a determinate long-term institutional equilibrium.

According to Martin and Sunley (2006:409-413), one of the most interesting test of the theories on path dependence would be to test how a regional economy as a whole is exhibiting path dependent development. Path dependence involves the co-evolution of e.g. technology, institutions and socio-cultural arenas. One of the questions lifted are if it is possible for different simultaneous paths to be fully unrelated? E.g. for different industries, institutions and actors in the economy to show fully unrelated but individually path dependent development trajectories. Even though Martin and Sunley points out that in principle this could occur, it is more likely that a region exhibits some degree of “multiple *related* path dependence” in the local economy. If the level of interaction among the different actors in the region is above a certain threshold, this induces path dependence on the system as a whole. If different types of interrelatedness between industries and other actors develop within a region, this could lead to what Martin and Sunley call “path-interdependence”. This would imply that the path dependent trajectories of individual actors are mutually reinforcing and creating multiple related path dependence. However, the strength of path dependence is not equal in all sectors or across space. Local context, including institutions, play a significant role in determining the strength of path dependence on both micro- and macrolevel.

### 2.1.1 New path creation

Building on the theoretical development made by David and Arthur, Sydow et al. (2005:8) constructs a three-stage model of a path dependent process. During stage one, or the “pre-formation phase”, existing structures and paths provide a stimulating environment for new opportunities. Windows of locational opportunity open (see Scott and Storper, 1987) up and new technologies emerge. However, one (or a few) of the new technologies gain a head start (e.g. through the self-reinforcing advantages given to “first movers” by the market or through decisions made by policy-makers or research institutes) and eventually the open windows of locational opportunity are closed (Sydow et al., 2005:8-9; Martin and Sunley, 2009:64; Martin and Simmie, 2008:186). The second stage they call the “path-creation phase”. The pattern created in the first stage is reproduced, triggered by self-reinforcing processes governed by the regime of increasing returns. During the second stage, emergence of reinforcing events is formed around the activities of the actors that came to be dominating in the previous phase. A new path is created and the whole process becomes more and more irreversible (Sydow et al., 2005:9). The third phase, “path lock-in”, occurs when the critical mass surrounding the activities reach certain size or gains a certain momentum. One particular technology or institution has been adopted and the

lock-in effects make newcomers being forced to do the same. Basically, the new path has been locked in a certain trajectory and there are no viable alternatives (Sydow et al., 2005:9; Martin and Simmie, 2008:186). The three basic David-Arthur stages of a path dependent process do not take in to account that paths eventually dissolve. As a reaction, Sydow et al. (2005:20) suggests a fourth stage; “path dissolution”. During this stage the path is, for some reason, losing its momentum. It could be because of exogenous competition or loss of innovative capacity because of rigidity (negative lock-in). Paths do not only emerge but also eventually stops being relevant for interaction (Sydow et al., 2005:20; Martin and Simmie, 2008:187).

Even with the adaption of Sydows fourth phase in the David-Arthur type model, the emergence of new paths is considered to be the result of an exogenous chock or chance events. Path dependence is seen as a constraint which hinders path creation, instead of seeing path dependence as one possible source of new paths by acknowledging that they sometimes can be enabling. Martin and Sunley (2009:79) finds path creation to vary, both in terms of whether old path dependence constrains or enables new path creation, and in terms of whether the new path is a result of a chance event or a deliberate action. The role of intentional strategic human action should not be underestimated, but in reality the formation of new paths lies somewhere in between the result of a completely random event and deliberate intended creation.

Martin and Sunley (2010:80) discuss possible sources of path creation and illustrate the varieties with a model of four quadrants, as shown in Table 1.

<b>Table 1 Varieties of path creation</b>		
<b>Origins of new path of development</b>		
<b>Place and path effects</b>	<b><i>Deliberate and intentional</i></b>	<b><i>Chance and accidental</i></b>
<b><i>Enabling new paths</i></b>	1. Agents search for opportunities, re-use resources, transfer competences as basis of new growth.	2. Agents gain assets and experience, but accidents and events trigger new path
<b><i>Constraining to existing path</i></b>	3. Designated interventions to break path or switch location to overcome lock-in	4. Unpredictable external shocks and random events break old trajectory and launch new path

**Source:** Martin and Sunley (2010:80)

Until recently, most work done by economic geographers has focused on quadrant three and four, as suggested by the classic model of path dependence. Researchers have however started to focus more on the re-use and transfer of resources and competences, i.e. quadrants one and two. This implies a greater emphasis on the

role of institutions, not only as the designers of interventions but also as the enablers or constrainers of new path creation (Martin and Sunley, 2010:80-81). The term “institution” refers to “the rules of the game in a society” (North, 1990:1). Local institutions and human resources have developed as a result of the economic, industrial and institutional development in a region and can be critical causes of (or a more general input to) the creation of new industries or paths. Local institutions can refer to both soft institutions (such as an inherited entrepreneurial culture and social structures of innovation), and hard institutions (such as the presence of supporting institutions and government provision of infrastructure). This leads to the notion of “place dependence”, where place-specific factors conditions and influences the emergence of paths in certain places. These factors are by no means easy to measure, which is a possible reason for why there are very few studies made to analyze the effects of place-specific path dependent processes (Martin and Sunley, 2010:83).

### 2.1.2 The lack of policy in EEG

As Asheim et al. (2013:1) states, the pioneering literature on EEG clearly distinguish it from institutional economic geography. MacKinnon et al. (2009:133) have raised concerns of a “theoretical relegation” of institutions, social agency and power relations in comparison to the emphasis on for example technological change in the EEG framework. Several other authors have argued that the divide is misleading, and Asheim et al. (2013:2) says that “the policy agenda in evolutionary economic geography has remained largely implicit”.

For example, in the classic understanding of path dependence, an explanation on how new paths are being created is largely missing (Asheim et al., 2013:3). As said above, the role of institutions have in fact started to be examined even in literature on EEG, but there is still a large focus on explanations deriving from the micro-foundations of individual firms and their routines (Asheim et al., 2013:3).

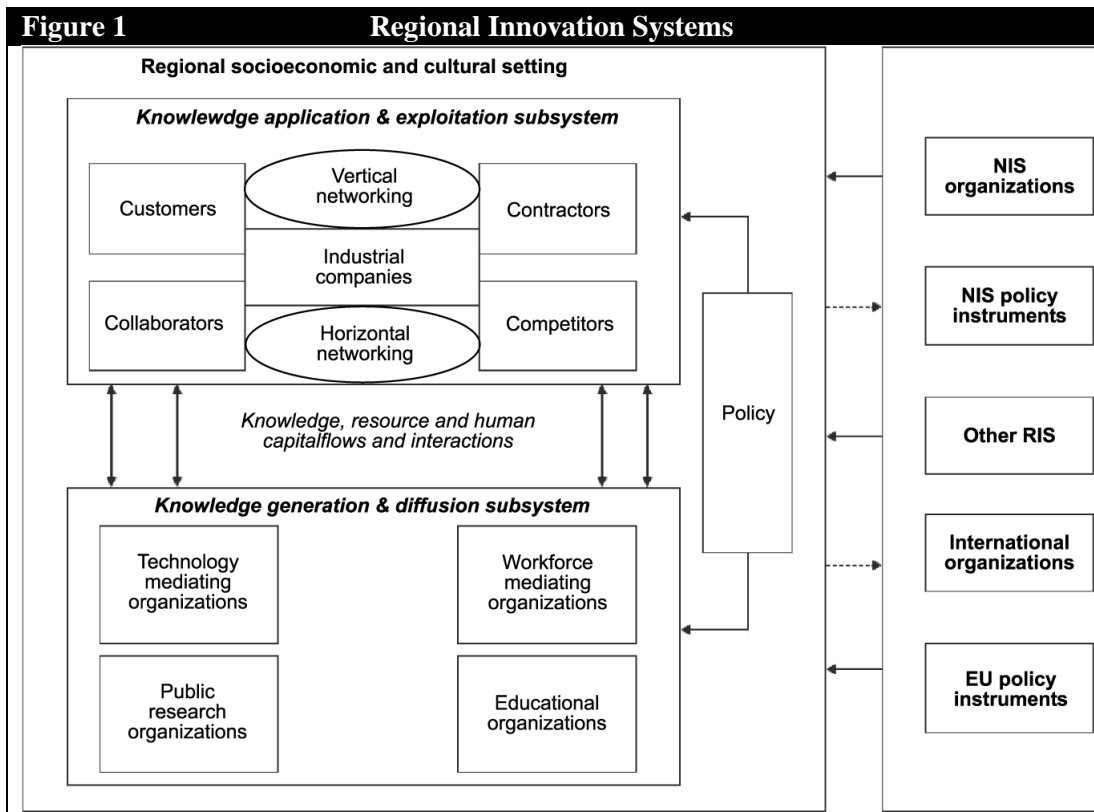
Drawing on conclusions made while going through the literature on EEG and path dependence, there is a lack of understanding of how policy plays a role in the economic evolution of regions. Even though the impact of soft and hard institutions is being discussed in the more recent literature, the explicit role of policy is being neglected. The role of policy is however considerably more present in the current development in the literature regarding Regional Innovation Systems. With its strong policy agenda, the Regional Innovation System approach can be used for analyzing the impact of policy on the regional economy.

## 2.2 Regional Innovation Systems

A Regional Innovation System could be seen as the institutional infrastructure that supports innovation within the production structure of a region. Since the region is increasingly seen as the level at which innovation is produced, the regional institutional setting play a large role in the study of what produces innovation. The RIS approach offers a system perspective of how different actors, or subsystems, of a region interact in the production of innovation (Asheim et al., 2005:11).

During the last decades, a growing body of literature concerning RIS has emerged. This interest of the regional level (as opposed to the national or international level in a globalizing world) has a number of reasons. As compiled by Tödting and Trippel (2005:1205), the reasons vary from the fact that regions differ with respect to their industrial specialization pattern and innovation performance, that knowledge spillovers (which are crucial in the innovation process) are spatially bounded, to the fact that policy competences and institutions are partly bound to regions.

Autio (1998:134) provides an illustration of how two subsystems, the “knowledge application and exploitation-” and the “knowledge generation and diffusion-” subsystem interacts within a common regional setting. Later, Tödting and Trippel (2005:1205-1206) included the regional policy dimension neglected in Autios model, by adding the “policy subsystem”. Policy interventions gives the RIS a more planned character and could lead to increased innovation capacity (Asheim et al., 2005:13-16) and in essence; regional, national and international policy actors can have a major role in shaping the development of a RIS (Tödting and Trippel, 2005:1207). Figure 1 shows the main structure of RIS, Autios (1998) model modified by Tödting and Trippel (2005).



**Source:** Autio (1998), adapted by Tödtling and Trippl (2005)

The knowledge generation and diffusion subsystem consists of organizations that in different ways are involved in the production of knowledge and skills, and of organizations that help to diffuse knowledge to other parts of the system. This could be public research institutes, technology mediating organizations (such as innovation centers) and educational organizations. The knowledge application and exploitation subsystem, on the other hand, is made up by companies, clients, suppliers, competitors and industrial cooperation partners. The policy subsystem consists of policy actors, such as political organizations and local governments. Simply put, it is in the knowledge generation and diffusion subsystem where new knowledge is being generated and in the knowledge application and exploitation subsystem it is being commercialized. Innovation can however be the result of incremental or radical change in any part of the system (Tödtling and Trippl, 2005:1205-1206; Autio, 1998:133).

In the ideal case, intensive dynamic relationships between the three subsystems generate a strong innovative environment and leads to economic development (Tödtling and Trippl, 2005:1206). In this paper, emphasis is put on these relationships and how the policy subsystem interacts with the other subsystems. The following discussion on regional innovation policy should be read with this in mind. This paper focuses on how change in Regional Innovation Systems occurs,

giving theories on regional innovation policy within the RIS framework an important role.

### 2.2.1 Regional innovation policy

The RIS approach has a strong policy orientation and provides implications on how to design regional innovation policy. Policies that targets innovation are high on the agendas of policymakers in both the industrial and regional field. Until the 1990s, a policy model that focused on R&D infrastructure provision and different types of financial support for companies was the prime model used by policymakers wanting to enhance a regions innovation capacity. More recently, the emphasis has shifted to the study of high-tech areas, innovative milieu, clusters and knowledge spillovers. Generally, researchers have been targeting well-performing regions, trying to explain their success. Based on these studies, a “new policy model” has emerged, giving attention to high-tech and knowledge based industries, the building up of research excellence, the attraction of global companies and the stimulation of spin-offs (Tödtling and Trippl, 2005:1204).

Even though the new policy model draws on recent conceptual development and includes contributions from several fields of study (new growth theory, the cluster approach, the knowledge economy and theories on knowledge spillovers), Tödtling and Trippl (2005:1204) argues that a more differentiated policy model is needed to take in to consideration the specific strengths and weaknesses of regions. Their main argument is that there is no one “best practice” innovation policy approach which could be used in all kind of regions. The conclusions regarding policy made from studies of successful regions are not fully applicable when constructing regional policy in less favored regions, since their innovation capabilities may differ significantly. Instead, a policy model based on tackling specific innovation barriers in different kinds of regions should be developed. For this purpose, the RIS approach offers a good conceptual framework.

How a specific policy targeting a specific region should be formulated is still rather unclear. Policies should be fine-tuned and place based (Martin and Trippl, 2013), making it hard to create a best-practice guide for formulating the differentiated policy.



## 2.2.2 The lack of an evolutionary approach in the RIS literature

To the contrary of the literature on EEG, the RIS approach articulates a strong policy agenda (Asheim et al., 2013:2). However, critics have questioned the clear separation of the knowledge generation and knowledge application subsystems within the RIS framework. Later developments of the concept have addressed how policy should be used to support the emergence of horizontal inter-industry linkages. This does, in some ways, eliminate the clear boundaries of the two subsystems and treat them as overlapping (Asheim et al., 2013:9).

Thus, the lack of an evolutionary approach within the RIS framework is being addressed in the most recent literature. There is however still a lack of an evolutionary perspective on how policy might be the result of an inevitable process of co-evolution between institutions and the industrial knowledge base (Asheim et al., 2013:12). The RIS approach does not focus on how regions evolve over time, even though some of the more recent developments have started to address this issue. The role of policy in the evolution of regions is however still being neglected.

## 2.3 Path dependence and innovation systems

In this section, the current progress on combining the RIS approach and the notion of path dependence is being presented. In Martin and Simmie (2008:183-185), path dependence is given the status of the main factor to explain how change occur in local economies, but the authors are also acknowledge that innovation is the key to change, renewal and the introduction of new knowledge of and into the existing main development path. But it is inside the local innovation system where the ability to generate novelty by combining endogenous knowledge with exogenous knowledge is being determined. It has shown that some local innovation systems are more effective in absorbing new knowledge and turning it into profit. This is a result of a complex set of relations within the local economies that, together with the size of the industrial diversity, constitutes what knowledge that is available for combinations with exogenous knowledge. By making these combinations profitable, the local economy is gaining momentum. The interaction between this momentum and the surrounding economy determines if the local economy experiences a positive or negative lock-in and the rate of path creation. The combination of theories about path dependence and local innovation systems

gives an explanation primarily to the source of lock-ins and the creation of new pathways.

By using the concept of RIS that deepens the understanding of the different parts of a local innovation system, researchers have developed a tool for explaining differences in innovation capacity between different regions. This capacity is formed by existing structures and thus become path dependent. Tödtling & Trippl (2011), however, argues that this way of seeing transformations in a RIS is too static. They suggest a more dynamic perspective on how to analyze transformation in RISs, with emphasis on how key actors affect in particular path renewal and path creation.

Known sources of stability in a RIS includes, among others, the existence of natural resources, lock-in effects, economies of scale, agglomeration effects and interregional linkages (Martin & Sunley, 2006:412). But in spite of a general stability in the system, there are several examples of instability. A RIS is developing continuously, most often in an intra-path direction. Tödtling & Trippl (2011) are however focusing on the more radical change in a RIS, especially change that affects the knowledge application subsystem since these changes tend to generate effects in other subsystems. They list three types of change associated with path dependent development in a RIS (Tödtling and Trippl, 2011:4-7):

1. Path renewal occurs when existing industries and clusters adapts different types of technology or knowledge to the existing production. The driving forces behind path renewal include external competitors and radical innovation that leads to new technology elsewhere. Renewal of existing paths can be seen as an intra-path change and does not affect the industry structure in the region.
2. Path formation in existing industries is widening the economic base of the region, by a related diversification of the industry structure or by exogenous forces. Related diversification is an endogenous way for regions to redeploy their existing assets and competences to exploit new markets. Exogenous sources of path formation, on the other hand, could be foreign or extra-regional companies acting as a key agent of change in the region. Path formation is followed by a reconfiguration of the regional knowledge infrastructure, that is, in the knowledge generation and diffusion subsystem.
3. Path creation in new industries implies a more radical type of change in the RIS. New firm formation is a crucial element of path creation, often in knowledge-intensive high-tech industries. As discussed above, new paths evolve out of an existing context. It requires existing assets, resources,

competences and often a major transformation of the regional knowledge infrastructure. New paths can also be driven of a strong local demand, e.g. by sophisticated customers.

These three types of change exist to a different extent in different regions. As noted above, it is the existing structures that determine what type of change that is possible. Change could be a result of a cumulative process, but also of a singular effort (e.g. response to a crisis) or strategic measures taken by policymakers. Pre-existing high-tech industry fosters new path creation in high-tech industries, even if the new technology is fundamentally different from the pre-existing. The structures that support new path creation, such as venture capital and knowledge infrastructure, are already in place and the transformations required are smaller (Tödtling & Trippl, 2011:8).

### 3 Purpose and research question

In the theoretical framework the notion of path dependence and RIS has been presented, followed by a discussion on how these can be combined. As formulated in the introduction, the broader aim of this paper is to contribute to the understanding of how change in Regional Innovation Systems occurs and how it is path dependent by nature.

By analyzing the role of policy as a key agent of change in the transformation of the knowledge application or knowledge generation subsystem, one can of course draw conclusions on how the use of policy can change the course of the regional economic development but without acknowledging how policy itself is a part of an evolving system the analysis still become rather static. The belief is that the RIS approach would benefit from an evolutionary perspective on how policy might be a result of a process of co-evolution between institutions and the industrial structure. By adding the notion of multiple related path dependence in the analysis, the role of policy in the economic evolution of regions can be studied in an even more dynamic manner.

Based on the broader aim, the role of policy in evolution of the regional economy will be studied through a case study of the “moving media cluster” in Skåne. This cluster might not be representative for all cluster initiatives; it is rather unlikely that it is. However, by analyzing the role of policy in this particular case conclusions that provide a deeper insight in how Regional Innovation Systems evolve in a path dependent way will be drawn.

Consequently, the following research question for the empirical case in this paper has been formulated:

- “What role does policy play in the evolution of the moving media cluster in Skåne?”

By examining the role of policy in new path creation, the ambition is to show how policy works as a force for dynamical change in the different subsystem of the RIS. Being based on existing assets, resources and competences, policy may be enacted in a way that make the existing path dependence to be enabling, rather than constraining, new paths. This leads us to the sub-question:

- “What effects did the deliberate actions taken by policymakers have on enabling a new path?”

The main focus will be on the role of policy in the creation of the cluster but the study will also deal with the role of policy in the current evolution of the cluster. This leads to a second sub-question:

- “What is the role of policy in the current state of the cluster and has it changed over time?”

## 4 Methodology

To address the research question formulated above, the approach is two-fold. First, existing sources of information, such as literature, policy documents and reports, regarding the role of policy in the evolution of the moving media cluster in Skåne is being used. By analyzing existing material in the light of the theoretical framework above, the purpose is to put emphasis on the deliberate actions taken by policymakers in enabling a new path. When using this type of secondary data, it is important to take into account through which processes the data has been constructed (Cloke et al., 2004:6).

Second, interviews with policy actors involved in the process of cluster evolution have been conducted. The answers they give is shedding light on how policy actors themselves treat the role of policy in the evolution of a cluster and on which grounds action has been taken to enable, or support, a new path.

Finally, the assessed empirics are being analyzed using the theoretical framework, putting emphasis on the path dependent development of Regional Innovation Systems in general and the role of policy in the evolution of the moving media cluster in particular. Conclusions drawn from this analysis is meant to give a deeper understanding of how RISs are evolving in path dependent manner and suggest how to further develop the theoretical concepts.

In other words, a qualitative method is used to answer the research question. The paper is not seeking to make general statements on why regions evolve in certain ways, but to illustrate the role of regional policy in the regional economy and contributing to the existing theoretical framework, why a qualitative study is preferable (Cloke et al., 2004:127).

### 4.1 Epistemological and ontological position

Ultimately, methodological choices are of a philosophical character (Graham, 2005:12). The challenge lies in combining the actual method with the philosophical statements underlying the research question of the study. The starting point for this discussion is the notion of “warranted knowledge” (see e.g. Tool, 2000:27; Graham, 2005:9) and the epistemological and ontological

positions of this paper will be motivated in detail, rather than giving it a pre-defined label to begin with. When contending something, it has to be defensible when questioned and there are benefits of combining parts of different perspectives to create a framework for the present study (Graham, 2005:9-12).

First, to be able to make statements about the epistemological and ontological positions, the relation between theory and empirical observations has to be defined. In this study, an analysis of the data using the theoretical framework is used to draw general conclusions from the particular case. In other words, the method is inductive (Cloke et al., 2004:286-287). However, the view argued by Cloke et al. (2004:222) is that most geography research projects “contain both inductive and deductive moments in a constant, if uneven and sometimes unappreciated, dialogue”. This dialogue, the combination of various “ductions”, can be called retroduction. In retroduction, the stages of deduction and induction are not distinct, but going on iteratively. This means that when writing a paper, proposed hypothetical explanations will derive from the researcher’s conceptual knowledge and personal experience. Later, they might be modified to be in line with preliminary results (Miller, 2003:2-3).

“The writing-up of the research for presentation or publication, rather than a true depiction of the process of logical inference that took place during the research, can be seen more accurately as a specialised account: the employing of a set of literary conventions in order to communicate the research findings in a recognised manner to an expert audience.” (Miller, 2003:3)

The method is supposed to answer the research question by a developmental form of explanation. That is, an explanation that attempts to trace and account for the development of events and processes (Cloke et al., 2004:285; Mason, 1996:127). The aim is to give a causal explanation, an explanation that seeks to answer what actually causes a phenomenon to occur. This requires that relations between the phenomena and the underlying mechanisms which links events with each other, is being revealed. First, knowledge about the underlying structures and mechanisms that are present is needed. Second, the paper needs to reveal in what manner they generate or produce the phenomena trying to be explained (Sayer, 1992; 1997; in Cloke et al., 2004:288). In this paper, the phenomenon is the role of policy and the underlying structures are on one hand the path dependent evolution of the regional economy and on the other hand the character of the Regional Innovation System. By seeking a casual explanation, research put less emphasis on examining large data-sets trying to find statistical occurrences, but more emphasis on the searching

for a process or mechanism that is the cause for an event to take place (Cloke et al., 2004:289).

In one way, the epistemological perspective in this paper is positivist, in the sense that empirical observations are the foundation of science and that they are a valid proof when giving knowledge its legitimacy (Graham, 2005:15-16). At the same time, the phenomena under research are complex both in its own nature, and in the underlying structures and mechanism. Even though a reality exists outside of the construction in our minds (as opposed to the relativist approach), it might be immensely hard to observe. Therefore, this paper takes a critical realist approach when proclaiming that the aim is to understand and explain reality, even if the goal might never be reached with full certainty (see Moutinho and Hutcheson, 2011; in Martin, 2012:33).

## 4.2 Selection of literature

The supply of literature on the moving media cluster in Skåne is relatively meagre. When it comes to the role of policy in the evolution of the cluster it is even scarcer. Taking off in a recent mapping of the cluster initiative, more or less the full extent of literature available at the time of writing has been assessed. This does not however equal the full extent of information needed to fully understand the subject.

The selection procedure has been a process of selecting relevant parts of the available literature, rather than selecting the literature itself. Apart from information needed to give a relevant background, the focus has been on policy aspects in the creation and development of the cluster. These aspects are not the first priority in any of the literature, but by combining information from several different sources the role of regional policy can be analyzed.

## 4.3 The interviews

Through the interviews, primary data for the study is being generated (Cloke et al., 2004:39). When doing an intensive study, a smaller number of interactive interviews are preferable. During an interactive interview, the questions are at first the property of the researcher but are being developed together with the informant by listening, answering and making conversation. One of the major advantages is



the possibility to follow up the answers given by the informant (Cloke et al., 2004:127-129; Esaiasson et al., 2007:283). The interviews will be conducted with “informants” rather than “respondents”, since the purpose with the interviews is to reveal information on what role policy play in the regional economic evolution. The purpose is not to map the purpose and intentions of the people being interviewed, as would have been the case in interviews with respondents (Esaiasson et al., 2007:256-258).

When interviewing informants, centrality is the most common selection principle (Esaiasson et al., 2007:291). ‘Who to interview’ has been partly determined by the use of literature described in the section above. Key representatives of the organs lifted as driving policy actors in the cluster evolution have been contacted and the final result is supposed to give a balanced selection of policy actors representing different interests. The selection is based on the expectation that the chosen informants are able, through their knowledge and positions, to present knowledge that contributes to the explanation of the phenomena under research (see Esaiasson et al., 2007:292).

In this study, five policy actors representing organizations being involved in the evolution of the moving media cluster in Skåne have been interviewed. They represent their respective organization to some extent, but also themselves by their personal engagement in the process. Organizations being represented are the entrepreneurial division of Näringsliv Skåne, the Malmö Trade and Industry Agency, the Region Skåne Business and Regional Development agency and Media Evolution. For reasons of confidentiality, an anonymized identifier is used in the text. A clear list of the interviewees is available as an appendix.

The interviews were conducted at the workplaces of the interviewees in all cases except one, where the interviewee was retired. In that case, the interview was conducted in a café at the interviewee’s old workplace. The interviews was planned to be finished in one hour. In one case, the interviewee only had time for half an hour, why the questions had to be quicker and more direct. This did not turn out as a major problem though, since the interviewee swiftly understood what the interview was about and gave concrete answers to the questions asked. The interviewee complemented the interview by accepting follow-up questions by e-mail. In two cases, the themes of the interview guide had been discussed during the duration of one hour, but the interviews continued in a more informal manner for some additional time, giving a deeper insight to the themes.

The questions asked during the interviews are of course primarily intended to give an answer to the research question. At the same time, they are formulated in a manner that intends to give the interview a dynamic character. The informants

should feel motivated to share their knowledge and experiences throughout the interview (Esaiasson et al., 2007:298; see also Valentine, 2005:111-119). How this is done is shown in the interview-guide (Appendix A). By asking broad thematic questions, succeeded by “follow up”-questions within the broader themes and finally direct questions, the aim is to extract the information that is contained by the informants.

## 4.4 Critique of the chosen method

By relying on the few available sources of information (reports, policy documents and literature) there might be a problem with credibility and authenticity. First, the authors might have undeclared interests that skew the information. Second, the authors might be restricted by funding, the purpose with their research or other factors leading to a different focus on policy than the one in this paper. Since the sources used in this paper all addresses other issues than the role of policy, the information given about policy measures might be tinged by the broader aim in the different literature.

One of the major pitfalls when interviewing informants is that of the selection process failing to give a balanced selection of informants. Especially when it comes to interviewing policy actors, one can presume that the answers will represent the subjective opinion of the informant rather than an objective view of the phenomenon under research. The credibility of the informants can certainly be questioned, especially when it comes to evaluating the impact of a certain policy action. This is compensated for by trying to balance different views in the selection of the informants.

The problems are essentially handled by triangulating between different sources of information. That is, by combining the results of the interviews with the existing literature.

The interview questions are formulated in a manner that tries to eliminate potential problems with the informants having a different understanding of certain terms or concepts than that of the researcher. It is however difficult to be absolutely sure that the informants have the same understanding of central terms, such as “region”, “policy” or even “successful”.

## 5 The Skåne region

The Skåne region is located at the most southern part of Sweden, neighboring the counties of Halland, Kronoberg and Blekinge in the north and surrounded by sea in three directions. To the west, Skåne is connected to Copenhagen through a bridge across Öresund. The population is roughly 1,25 million, accounting for 13% of Sweden's total population. The largest cities (Malmö, Helsingborg and Lund) are located in the west part of Skåne, together they account for about 40% of the regional population (SCB, 2012). Mainly because of migration, the population in Skåne is growing at a faster rate than the rest of Sweden (Dahlström et al., 2010:25). Since the bridge to Copenhagen opened in 2000, the Skåne and Copenhagen metropolitan regions have formed the cross-border region of Öresund (Lundquist and Winther, 2006).

During the industrial crisis of the seventies, the Skåne region went through an economic restructuring process, from heavy industry to a growing service sector and later new sectors such as IT and medical technology. Today, large and medium-sized, often transnational, companies are the major source of employment in the region. The public sector also represents a large source of employment, both in the health sector as well as in the higher education sector (Dahlström et al., 2010:25). The University of Lund is one of Sweden's oldest and Malmö University College has, since established in 1998, grown to be of considerable size today (MAH, 2012). The number of new business in the region is growing at a higher rate than the national average, but lower than in Stockholm county (Skåne-Blekinge län, 2007:25-26).

The Skåne region has a regional council to which elections are held every four years. Unlike other Swedish counties, which primarily deals with health care and regional transport, the Skåne regions competences has been extended to include regional development in general and economic development in particular (Region Skåne, 2013a; 2013b; Dahlström et al., 2010:26). Since the regional council is a directly elected body, this institutional set-up has a great impact on the regions opportunity to formulate and develop region-specific development strategies (Dahlström et al., 2010:26). The Skåne region, together with the Blekinge County, forms a NUTS2-region within the European Union regional system (SCB, 2008).

## 6 The moving media cluster in Skåne

What in this paper is called “the moving media cluster” in Skåne is a broad term used for grouping companies within the “new media” sector. New media is defined by companies that are in the media business, but concerned with the transmission of media through new channels, new forms and by creating new contexts. It differs from traditional media by focusing on the diversification and personalization of media contents and a shift from consumption to production. Examples include companies within the subsectors wireless services, computer games and animation and interactive television and radio (Dahlström et al., 2010:28). Company activities consist of organizationally distinct but functionally related activities. These have in common that they rely on artistic skills as a key complement to more traditional competences in engineering, science and management (Martin and Moodysson, 2011a:1190; Martin and Moodysson, 2011b:8).

The rise of the moving media industry in Skåne is a part of the regions shift from heavy manufacturing industries that traditionally have dominated the regional economy (Martin and Moodysson, 2011a:1191). During the last decade, it has grown significantly with its center on the Malmö-Lund conurbation. The growth represents both continuity and change, as the region has a relatively long tradition of companies within the media industry but mainly “old” media companies, focusing on newspapers and publishing (Dahlström et al., 2010:29; Martin and Moodysson, 2011b:8).

Malmö University College and its interdisciplinary profile is focusing on creative activities and applied science and are trying to remove the traditional borders between different disciplines, partly as a way of distinguish themselves from the older and larger Lund University. Especially the Department of Art, Culture and Communication might have been influential. Moreover, Lund University has its engineering education, Blekinge Institute of Technology with its bachelor’s degree in digital games and private education institutions run vocational education and training programs relevant to the industry (Dahlström et al., 2010:30; Martin and Moodysson, 2011a:1191).

The first step towards the establishment of a cluster initiative was taken in 2003, when Malmö Incubator (MINC) was established in Malmö. MINC is a business incubator founded by the city of Malmö in 2003. As an incubator, their goal is to help entrepreneurs to successful commercialization of their ideas, with fewer risks than in the traditional market. This is done by providing a creative and network-based environment, and by creating a platform for meetings between entrepreneurs, industry, commerce and research and innovation (MINC, 2013).

MINC is still operational and provides support for the commercialization of innovative business ideas. In the same building as MINC, “Media Mötesplats Malmö” (MMM) was founded a year later. It received its funding from the Knowledge Foundation (KK-stiftelsen), Region Skåne and the city of Malmö (Dahlström et al., 2010:30).

Partly as a part of the EU Structural Funds programme for Skåne and Blekinge 2007-2013, Moving Media Southern Sweden (MMSS) was created. It was a cluster initiative created to support networking and collaboration between companies in the moving media industry in Skåne and Blekinge. Apart from promoting the evolution of companies within the new media sector, the initiative was also meant to bring existing networks closer to each other (Dahlström et al., 2010:30; Tillväxtverket, 2011).

Finally, in 2010 the two organizations, MMM and MMSS, merged into one initiative called Media Evolution (ME) which represents the current state of the cluster initiative (Dahlström et al., 2010:30; Media Evolution, 2013a). Media Evolution is a non-profit organization that owns a public limited company running the operational activity (Media Evolution, 2013). It has over 360 members, however not all having actual commercial activities or more than a sales department. In a study done by Martin and Moodysson (2011b:8), they defined the moving media cluster to consist of 71 firms, most of them of small size. This number has most likely increased since the study was conducted in 2009, since the total number of members has increased from 172 to over 360 (Oxford Research, 2011:24).

The aim of the initiative is to promote and strengthening links between companies active within both old and new media and serve as a meeting place for actors involved in the production, consumption and distribution of new media (Martin et al., 2011:560; Martin and Moodysson, 2011b:8).

“More concretely, the initiative claims to support the development of the industry by providing knowledge about new market possibilities and initiating collaboration projects

among the actors in the region [..]; competence development and social networking [..]; entrepreneurial consultations, contact and business development [..]; and access to venture capital. ME also strives to promote the linkages between industry and academia, partly through providing platforms for interaction, lobbying and information campaigns about the university sphere.” (Martin et al., 2011:560).

The activities conducted by Media Evolution are mostly driven in the form of projects. They are organized within five different areas of operation: business development (combining the power of innovation among small companies with the financial and technical capacity available at the larger actors), game and learning (projects to support digital games and learning through digital media), meeting places (creating meeting places for people from different parts of the media business), business intelligence and market research (monitoring the media business from a global perspective) and innovation and development (strengthening the ties between ideas and entrepreneurship by supporting projects that bring the different actors in the innovation system together) (Oxford Research, 2011:25).

Media Evolution City was created by Media Evolution to work as a hub for the media industries in Malmö. It embodies the organization with a house in the Western Harbor of Malmö, where companies can rent office space, arrange conferences and arenas for knowledge exchange (Media Evolution, 2013b).

Media Evolution arranges conferences, meetings, workshops and seminars in an effort to create a meeting place for its members. In a study done by Oxford Research (2011:26-29), a majority (54%) of the members accredited Media Evolution some importance to their business development. Overall, the members were satisfied with the enhanced networking possibilities that were enabled through the cluster initiative. However, only a few states that they have experiences an increase in the accessibility of venture capital or enacted in R&D-projects together with other member. Some members were worried that the growing number of members would hinder the creation of strong links between them, since the “new media” sector represent a great variety of companies. Since this study, the number of members has doubled but there is no recent study showing if the strengths of the linkages have become higher or lower since. Another concern lifted by Martin and Moodysson is that the cluster organization is “more concerned with network promoting activities than supply and sustainment of human capital in the region” (Martin and Moodysson, 2011a:1192).

## 7 The role of policy

Bringing together the results from the interviews with existing surveys of the moving media cluster in Skåne, the aim in this section is to illustrate the role of policy both in the early stages of sectorial development and in the current cluster organization.

It is hard to define when the moving media cluster was actually initiated and even harder to describe a casual chain of events leading to the cluster as it is today. Using the history of Media Evolution described in chapter 6 as the foundation, this section will illustrate the role of policy in the different actions taken towards the current state of the cluster organization.

### 7.1 In the early stages of development

In this chapter, the role of policy in the early stages of development will be examined, with focus on the first of the two research sub-questions: “*What effects did the deliberate actions taken by policymakers have on enabling a new path?*”.

During the nineties, the role of policy in economic development was changing from giving out development aid or subsidies to individual companies or research and development units to engage in more systemic ways. The interest in clusters, as a way of creating value by strengthening industrial sectors and by encouraging cooperation between sectors, was growing and a “triple helix way of thinking” (Interview: Policy Actor C, 2013-12-12) was introduced.

One of the earliest projects related to the moving media cluster was “M-Town”, an organization created to help companies within the so-called “TIME-industry” (Telekom, Internet/IT, Media and Experience) to market themselves and support the emergence of dynamic innovation systems (Larsén, 2005). M-Town was however not an organization leading to the subsequent development of the moving media cluster, but represented a new way of thinking about regional economic development. The organization was more related to the technical aspects of the industry and was a product of the dotcom era.

“We had to permit ourselves to be woolly, because if we limit our ventures to fields we already are familiar with, we will always be one step behind the ones who are more daring in trying new things.” (Interview: Policy Actor C, 2013-12-12)

By the time, M-Town was funded by Region Skåne and had high expectations, but the result was a failure. It was a learning process with very limited results. However, the policymakers were forgiving which gave way for future projects in the same field.

### 7.1.1 Media Mötesplats Malmö

In 2004, the Knowledge Foundation (KK-stiftelsen) initiated the work with creating three “meeting places” in Stockholm, Göteborg and Malmö, as a part of a national policy initiative. From a national perspective, the goal was to create three meeting places within three different industrial fields and a pre-study was conducted. The study was a continuation of a long going process of assessing the strengths and possibilities in the regional economy and was conducted with an idea of nascent industrial sectors as a starting point. This was the first time the regional level was engaged in a national policy venture and the study was performed by Magnus Thure Nilsson, who is now the CEO of Media Evolution City. The pre-study showed that there were several actors within the media industry present in the region, including subcontractors, and the new K3 (School of Arts and communication) department at Malmö University College graduated students in “interaction design”.

However, since the year of 2004 was labeled “the year of design” in Sweden, all three cities wanted to focus on the design sector. After a second round of considerations, the three cities identified different niches within the design sector. In Malmö, the focus was on interaction design. At the national level, it was not clear if the counterpart in the negotiations was the cities or the regional level, but in the case of interaction design in Malmö, KK-stiftelsen engaged both Malmö Stad and Region Skåne in the process.

In creating MMM, the region and the city of Malmö were the driving forces and the project was a result of a nationwide policy effort to create meeting places in nascent industrial sectors. The goal was to develop cultural and creative industries and to generate creative meeting places. The notion of clusters and cluster politics was closely related to the project, but not explicitly pronounced.



“This is how regional development often takes place. You have identified development needs on a national level, almost all cluster initiatives are driven by national policy efforts where Tillväxtverket [Swedish Agency for Economic and Regional Growth] introduce the notion of cluster politics, and where the regions take action based on their own needs and how it looks out in the regions. I would like to describe this venture [MMM] in the same way.” (Interview: Policy Actor B, 2013-12-03)

As noted above, at the time of the creation of MMM there were several companies active within the media industry. These were however not cooperating with each other. The early evolution of the moving media industry took place in the intersection between the existing industry sectors, but at a very slow phase. At this intersection, the city of Malmö and Region Skåne identified possibilities of creating new companies and novelties. By creating a platform, a place for companies to meet, the expectation was to accomplish a faster rate of convergence between the different sectors.

By using policy, Region Skåne and the city of Malmö, by appointment of the national policy incentive, took the step to create a platform for finding these points of convergence between the industrial sectors. By taking into account what industry that was already present in the region and identifying opportunities to create innovation and novelty in a new industrial direction. If not creating a new industry sector altogether, at least creating a new “direction of innovation” (Interview: Policy Actor E, 2013-12-16). These points of convergence would not have been found without the policy initiative, and the initiative did not originate from the companies active within the sector. There were no interaction between the companies at this time and there was no “cluster waiting for support”. The industry was however not late on engaging in MMM and even if the first step was taken by policy actors and some companies were skeptical in broadening their field of commerce, the industry was soon involved in the continuation of the project. It is not, however, enough to talk about policy to be a catalyst of regional economic development. The initiative that led to the creation of MMM came solely from three levels of policy actors, the national, regional and municipal level. According to the policy actors; without their initial idea the project would not have existed.

### 7.1.2 Moving Media Southern Sweden and Media Evolution

MMSS was a cluster initiative initiated by Region Skåne. It was created by a top-down process, by Region Skåne together with actors that already had public funding in different forms. This included Film i Skåne, Medea (a media research centre at Malmö University College), NetPort (a triple helix-project within the ICT industry in Karlshamn), Boost Hbg (an incubator in Helsingborg) among others. The mission was to build a platform based on the experiences from MMM, that is, a platform for creating novelty by combining different industrial sectors. By this time, the cluster was just a stack of companies present in the regional economy and the goal was to bring order among these companies, by identifying common goals and interests.

Before the work on a cluster organization was initiated it was unclear if the moving media sector at all existed within the regional economy. Policy actors created an industrial agglomeration, with Region Skåne as one of the main contributors to the organizational development. At the same time, it is hard “to separate the chicken from the egg” (Interview: Policy Actor D, 2013-12-06) and tell what came first, the industrial sector or the policy initiative leading to an industrial agglomeration where a new industrial sector emerged in the intersection of the existing industry. Nevertheless, it is clear that policy actors played the leading part in creating the cluster organization.

“We have had an utmost important role during the whole development. We have been the main financial contributor to many parts, together with others but we have taken a big part. The challenge was actually how to create a cluster in a sector consisting of very many small actors that can’t create this interplay by themselves, but rather sees each other as competitors.” (Interview: Policy Actor B, 2013-12-03)

Simply put, there would not have been any cluster within the field of moving media without the driving policy actors. There was however two crucial differences in the role of policy in creating MMSS compared to when MMM were started. First, both policymakers and the industry had confidence in MMM and when initiating MMSS the organization could continue building on this confidence. Second, MMSS was created with funding from the EU Structural Funds programme, which gave it substance in relation to other policy initiatives, among policymakers, the academy and the industry.

The EU Structural Funds programme financed the cluster initiative with in total SEK 75 million, which had a great impact on the future development of the project. At the same time, one of the greatest challenges was to anchor the ideas induced by the cluster initiative, among the companies within the industry. Apart from continue building on the confidence that existed for MMM, the organization labeled itself as a neutral player, owned by its members. The members were companies within the media industry, policy actors and the academy. By including the companies in its construction, MMSS was trying to seek confidence from the industry. This was intended to overcome the initial points of critique against the cluster initiative. Some actors found the media industry to be a bit fuzzy, with a majority of small companies and no real key drivers of economic growth.

“If it would not have been for a strong political or public initiative, which stood up and said that ‘this is a prioritized area of growth that we will back for a long time’, we [MMSS] would not have been able to engage the industry. The industry’s involvement is based on the strong dedication from policy actors from the beginning [...]” (Interview: Policy Actor E, 2013-12-16)

Policy actors have had a guiding role in all parts of the development of MMSS. Both by direct engagement in the project and by defining the terms of the financing originating from the structural fund programme. In other words, in creating MMSS the policy actors involved was the city of Malmö, Region Skåne and the European Union (by the structural funds programme). Region Skåne was involved both direct and indirect, by formulating the application for seeking money from the EU. The national policy level was not present, but since MMSS was building on the confidence from MMM, one can see it as national policy had an indirect, but remote, impact on the creation of MMSS.

There are policies flowing through society originating from the national (and in extension global) level, which sets the agenda for policy actors on all geographical scales. At the time of the creation of MMSS, the policies flowing through society was those of meeting places, creativity, innovation, entrepreneurship and cluster development. These policies permeate the whole field of activity.

As Region Skåne was the main initiator, the city of Malmö had to take a stand on its involvement in the cluster initiative. At that time, the benefits for the city of Malmö were questioned and one of the city’s demands was the creation of a physical structure representing the heart of the cluster. The city of Malmö was not

interested in participating without getting anything in return. The demand for a physical structure could be seen as a part of the ongoing transformation of Malmö's "Western Harbour", which had been taking place since the late nineties. The policy actors in the city of Malmö had a vision of large companies being attracted to the western harbor area. The development of this area was driven both by policy actors and by construction companies, with the aim to attract companies to the old shipbuilding area. In this area, Malmö University College and the incubator MINC, among others, were already located. The demand for a physical structure representing the cluster initiative was one of the factors that ultimately led to the establishment of Media Evolution City.

In 2010, MMSS and MMM merged in to Media Evolution. This did not however change the main stakeholders in the projects, and was rather a question of a more pronounced branding of the cluster initiative.

“Without the ‘Deus Ex Machina’, when the God in the greek mythology steps in and induce peripeteia, change the direction of the drama, it would never have worked. It [Media Evolution] would never have been an initiative taken by the industry, never. They would have continued looking at MIT with wide eyes, thinking that ‘what happens there could not happen here’” (Interview: Policy Actor E, 2013-12-16)

Taking the initiative was seen as one of the greatest purposes of policy actors. By seeking synergies in combining existing industrial sectors, policy actors had to build on these prerequisites and initiate a new concept rather than just enforcing existing industrial sectors.

### 7.1.3 MINC

MINC was initiated solely by the city of Malmö and financed by the city together with strategic partners. In the beginning, the initiative was not completely uncontroversial, since it was unclear if the city should finance individual business ventures. As time went by, both policymakers and the industry did however notice the positive effects of financing an incubator and MINC was regarded as a place where entrepreneurs and innovators received education as well as funding.

The incubator did not target any specific industrial sector and was, different from IDEON in Lund, not only focused on the commercialization of academic research. MINC even targeted the commercialization of innovations in the service sector, something unusual among other incubators. When the city of Malmö started

MINC, it was done by the city alone and an incubator was not explicitly “requested” by the companies. The initiative came from certain people within the city of Malmö and the purpose was to create new job opportunities by the creation of new companies. The city regarded the initiative to be of interest not only in Malmö, but also in the region, since it offered the opportunity for entrepreneurs from all over the region to come and work with the incubator. Region Skåne was however not interested in financing a part of the initiative.

Even if MINC was, and still is, completely disconnected from the somewhat parallel development of Media Evolution, the two concepts have influenced each other. The companies active at MINC are not all necessarily participating in Media Evolution, and all are not even a part of the moving media industry. Nevertheless, the work done with MINC showed that public actors had the potential of being a facilitator of regional economic growth and gave inspiration in the future development of initiatives enacted by policy actors.

The location of MINC in the western harbor area further strengthens the notion or a relation between the two initiatives. Even their activities are unrelated; MINC can be seen as one of the many factors leading to the decision of locating Media Evolution City in the western harbor, with the incubator already in place when MMM was initiated. The same way as MMSS was building on confidence in MMM, the creation of MINC gave confidence in the kind of policy initiatives that they both represented.

#### 7.1.4 The role of the universities

Malmö University College was engaged in the cluster initiative at an early stage, and later Lund University was included as well. They were however not a driving force. The academy was present and their role was taken into consideration by policy actors, but at the initial creation of the cluster their engagement was limited. The energy driving the initiative forward was originating from the policy actors.

Nonetheless, after the initial step was taken by the policy actors, the universities became more involved but was still not leading the development. The K3 department at Malmö University College was considered to be an exciting construction which fascinated policy actors, but it is not clear how much it actually contributed to the development of the cluster. On the other hand, many of the entrepreneurs in the companies contributing to the cluster had an academic background.

The aim with the universities involvement was to reach a bigger reciprocation between the universities and the companies, small as well as larger, in identifying innovative actors and business ventures. In this way, it was a classic form of triple helix. At the same time, the involvement of the universities was not of such magnitude that they worked as a proxy of national policy, as might have been the case if they were initiating the cluster development. The K3 department at Malmö University College was a driving force, by its way of fascinating policymakers and creating interest in the field, rather than being a driving actor.

### 7.1.5 Policy actors' initial expectations

The expectations on the cluster were to strengthen an industrial sector and to create new business opportunities by bringing about different types of meetings between at least two different industrial sectors. The goal was not explicitly to create a new industrial sector. There was however a notion of exploiting the potential in creating novelties by crisscrossing different competences, and that this could lead to the development of an industrial direction that did not already exist. The initiatives leading to the creation of Media Evolution were seen as a direction of innovation that could ultimately lead to a whole new direction of the regional economy. In this regard, the cluster initiative is not a traditional effort in strengthening a particular industrial sector, but rather an initiative leading to a future development in a specific area. The media industry is considered to be a part of the swing in the regional economy, from the old shipbuilding industry.

“Policy actors definitely have a part in this swing; it is not inherent for anyone else. The moving media industry is a part of the swing, a way of adapting a new direction of the economic growth; a direction initiated by policy makers.”

(Interview: Policy Actor C, 2013-12-12)

This would ultimately lead to the creation of new companies within the region and the relocation of companies to the region, which would create new job opportunities and economic growth. The meetings have to lead to business opportunities in the long run. In this, the cluster initiative is expected to be a part of the region's marketing strategies. By branding the city as a creative place where interesting companies meet, it attracts interesting companies and people. This can lead to spin-off effects where one thing leads to another and competences are used in new ways.

“Overall, it is about strengthening the economy in all possible ways, both by creating a cluster organization that is visible and by creating a [physical] place where these companies could meet and learn from each other and even make business with each other” (Interview: Policy Actor D, 2013-12-06).

However, in the perspective of the city of Malmö and Region Skåne, the purpose of engaging in the cluster initiative is to function as a catalyst. When the cluster initiative is self-sustaining and the industry has the capabilities to continue on their own, the support by policy actors should stop. This is true for all kinds of developmental work in which policy actors are engaging. In the case of Media Evolution, the goal was to create a sustainable platform that would survive also after the withdrawal of public funding.

## 7.2 In the current state of the cluster

This chapter deals with the second of the two research sub-questions: “*What is the role of policy in the current state of the cluster and has it changed over time?*”

If one should try to define the cluster today, it is unclear if Media Evolution represents the full extent of the moving media cluster. One can define the cluster as all companies active within the industrial sector and that are somewhat connected to each other. A membership in Media Evolution is not necessary to actually be a part of the cluster. When Martin and Moodysson (2011b:8) did their study, they used the cluster organization to find companies and excluded companies within the organization rather than included non-members to their definition of the moving media cluster. No matter how the cluster is defined, the cluster organization shall be considered to play a major role in the evolution and definition of the cluster, why it is synonymous with the moving media cluster in this paper. For a further insight in how Media Evolution works, see chapter 6.

Media Evolution has become a neutral platform between the different actors; policy makers, the companies, the universities and others. The organization has evolved from being a classic cluster organization, to the ambition of being a platform for digital business ventures in all industrial sectors, rather than a platform for the new media sector. This might not have been the purpose when the organization was initiated, but the cluster organization is evolving in phase with the regional economy. Today, Media Evolution seem to be moving towards the status of an actor in society rather than a cluster initiative. The field of moving

media in the regional economy is a sector in constant change, to predict the future development of this specific sector is hard.

“Cluster’ is just one way of expressing it. There is an idea about pointing out a candidate for development but suddenly the initiative has outgrown itself.” (Interview: Policy Actor E, 2013-12-16)

Still, creating platforms for different actors to meet is a priority among policy actors. The cluster initiative has been successful in overcoming the competitive agenda among companies and has achieved good levels of cooperation between small- and medium-sized companies. The companies now clearly see the benefits coming from the initiative. According to the policy actors, Media Evolution has a remarkable support by the industry it represents. This has been acquired by listening to its members and by the construction itself; in extension the membership fees come in return to the members in the form of different kinds of support.

By financing Media Evolution and being represented in the board, Malmö Stad and Region Skåne as well as several other policy actors (Region Blekinge, Helsingborg Stad, Chamber of Commerce and Industry of Southern Sweden and representatives from the universities in Malmö, Lund and Blekinge) still have a significant amount of influence over the present evolution of the moving media cluster.

The situation that is a result from the large funding by the EU that ended in 2012 is that a greater engagement by the original initiative takers has been necessary, both financially and in terms of organizational influence, during the last year.

“The public is now in a position where one has to examine its position, because of the programme period with EU support has come to an end [..]” (Interview: Policy Actor C, 2013-12-12)

The view of the current role of policy differs slightly among the interviewees, which indicates differences in the perspectives being represented. Therefore, the current role of policy will be presented with this in mind.

### **In the perspective of Media Evolution**

In the perspective of Media Evolution, it has to adapt its organization so that the policy actors will find it attractive to continue the financing. A long term involvement of policy actors is still considered to be a key factor in attracting the



industry to become members. To some extent, the public authorities are customers, buying different types of services from Media Evolution. If the organization can continue to improve its facilities and show effectiveness in attracting members, the support from policy actors is expected to grow exponentially. This leads to larger official commitments ordered by the city and the region, but also to a larger policy support in the long term.

### **In the perspective of Malmö Stad**

Malmö Stad keeps financing Media Evolution because of its importance as a platform for the industrial sector, but one has gone from an initiator to the role of a contributor. The city of Malmö find it important to keep its influence over this platform and does so by continue its financial support at the same vigor as in the initial phase. The influence is used to induce the visions of Malmö Stad on the development of the cluster organization. In this respect, the cluster organization is still a part of a larger development agenda in the city. To integrate Media Evolution in this agenda is a major goal of the current participation in the project. Still, the decision to continue its engagement in the initiative is constantly being revised based on the developments that have taken place.

Going from an initiator to a contributor does not mean that that Malmö Stads engagement in Media Evolution has abated, but that its role as the builder of a new industrial sector has moved towards the role of a reinforcer of an existing industrial sector. The long term goal is still to eventually withdraw its support, but since the cluster organization represents a vital part of the development agenda of Malmö Stad this will not happen until the organization is able to survive on its own. To continue its growth, Media Evolution will need more resources and it is crucial that policy actors in Malmö Stad get good results in return, both in terms of city marketing and get return from the increasing importance of the industrial sector that is represented by the field of new media.

### **In the perspective of Region Skåne**

Since the period of the EU Structural Funds programme has come to an end, the regions guiding role has decreased in this regard. However, the region still takes a very active role in the development of the cluster. This is done by its engagement in the board of the organization, which is a result of its continuing financial support.

“We are involved in formulating the operational plan of Media Evolution and they have to succeed in both delivering results to their members [...], the companies, so that they feel satisfied, but also to deliver some kind of growth within the

[digital] media sector that connects to our [Region Skåne] commitment, the reason for why we support this financially. We want to see that these companies gets some interchange but also that our region is experienced as attractive by taking a position within this field.” (Interview: Policy Actor B, 2013-12-03)

Still, from being an initiator the policy actors from Region Skåne has taken one step back and now consider them to be located in “the rear seat” of the evolution of the cluster organization, with the industry moving to “the front seat” and the companies setting the agenda to a much larger extent than earlier. That indicates that even if the policy actors at the regional level are very influential, they are supporting initiatives coming from other directions within the organization rather than inducing their own. Since these policy actors are working with several other initiatives parallel to Media Evolution, they get a kind of “umbrella vision”, more of a systematic view and takes on a role different than earlier.

In the perspective of Media Evolution presented above, focus is on the changing nature of the cluster organization. This view is somewhat related to the shifting focus of policy actors at the regional level; from cluster policy to a broader form of innovation policy. Instead of looking at the specific needs in an industrial sector, policy actors give an increasing attention to the needs of a broader market and are searching for alternatives to the cluster model.

“I see [policy actors] as a gardener that examines what one would like to grow and knows what the market needs, in a global perspective.” (Interview: Policy Actor C, 2013-12-12)

This shift leads to an increased interest in inter-cluster cooperation. Discussions on how to create synergies by enabling the different clusters present in the region to cooperate and exchange knowledge in the field that lies in between the clusters. From using the companies as “building blocks”, policy actors are now looking at using the existing clusters in a similar way.

## 8 Conclusions

In this paper, the role of policy in the evolution of the regional economy has been examined through a case study of the moving media cluster in Skåne. The case study has been conducted following the research sub-questions: “*What effects did the deliberate actions taken by policymakers have on enabling a new path?*” and “*What is the role of policy in the current state of the cluster and has it changed over time?*”. By examining the role of policy with these questions in mind, in chapter 7.1 and 7.2, the broader question can now be answered.

*“What role does policy play in the evolution of the moving media cluster in Skåne?”*

The study shows that policy on a national but particularly a regional and a local level played a major role in the creation, and in the evolution, of the moving media cluster. The policy initiatives were based on the current assets and resources in the Regional Innovation System, but did originate solely from the policy subsystem rather than from the universities of the industry. The study has also shown that policy still plays an important role in the current evolution of the cluster, but that the impact is changing in its nature.

The first step towards the creation of a moving media cluster was taken when Media Mötesplats Malmö was initiated as a result of a nationwide policy effort. Policy actors on all three levels, national, regional and local, were however involved in the process and together they played a key role in the creation of MMM. The goal was to seek points of convergence between existing industrial sectors to create a new direction of innovation. At this time, there were no interactions between the companies targeted. Policy was exclusively the driving force behind this initiative and it would not have happened without the policy actors taking the initiative.

In other words, the policy subsystem started an initiative that led to change in the knowledge application subsystem. The change was somewhat radical, but the initiative built on the existing structure of the knowledge application and knowledge generation subsystems and thus was path dependent by building on existing assets, resources and competences.

Moving Media Southern Sweden was started in the same way as MMM, as a policy initiative originating solely from the policy actors of Region Skåne and

Malmö Stad. The national level of policy actors was not included in this initiative, but MMSS was still an indirect result of a cluster policy agenda flowing through society and originating from the national level. MMSS worked in a similar way as MMM and targeted companies in partly overlapping fields, but MMSS was an explicit cluster organization aiming at the media industry. The policy initiative led to an industrial agglomeration in the intersection of existing companies, creating a new industrial sector within the field of moving media. When creating MMSS, the policy actors built on both the existing industrial set-up and on the confidence earned through the work done by MMM. The regional and local policy actors also got exogenous support in the form of financing from the EU Structural Funds programme, giving even more self-reliance to the initiative. The cluster initiative was not a traditional effort in strengthening a particular industrial sector, but rather an initiative leading to a new direction of innovation and consequently a new industrial direction. It was the initial expectations of the policy actors to create a new direction in the regional economy, by implementing policies based on the existing assets in the economy.

Here, the agents of the policy subsystem was inducing change in the knowledge application subsystem building not only on the current industry but also on confidence earned from an earlier initiative. This indicates that the creation of MMM not only led to change in the knowledge application subsystem, but also in the policy subsystem. The development was path dependent in terms of the visions of policy actors was building on existing pre-requisites. Together with the creation of MMM and the change in the RIS it led to, it is possible to perceive a form of *incremental new path creation* where policy actors have played an important role throughout the whole process. The path dependent development of the innovation systems involved occurred on different geographical scales, why it is hard to completely analyze. Change occurred in the knowledge application subsystem in the innovation systems of Malmö Stad and of Region Skåne, but originated from the policy subsystem also on the national level, most explicit in the case of the creation of MMM.

At the same time, both Region Skåne and Malmö Stad were working with other innovation policies targeting different parts of their respectively innovation system. One example is the case of MINC in Malmö, an incubator initiated and driven solely by Malmö Stad, giving support and vocational training to entrepreneurs coming from all over Skåne. According to the study, MINC did not have an active role in the creation of MMSS and are not directly related to Media Evolution today, but as a part of the knowledge application subsystem (created by policy) it have influenced the way policy actors have been thinking about the

cluster initiative. This, together with the different geographical scales mentioned above, brings a complexity to the analysis.

The role of the universities was rather the one of a supporter of the direction set out by the policy actors than the one of an initiator of a new direction. Malmö University College was included in the work with the cluster organization at an early stage, but was not a driving force. Still, the strength of the knowledge generation subsystem that the universities represented was certainly taken into account when evaluating the possibilities prior to both the MMM- and MMSS-initiatives. In this regard, the knowledge application and knowledge generation subsystem merged into one overlapping subsystem in the view of policy actors, since the state of the knowledge generation subsystem was included in the analysis of the current assets and resources made by the policy actors.

All together this indicates that the initiatives taken by the policy actors ultimately led to a new path being created within the regional economy, but that the process was incremental through several steps. Prior to every step, the current state of the RIS was influencing the policy being formulated. In this way, policy initiatives inherited the path dependence existing in the system, building on incremental changes to ultimately result in a new path. This indicates that the policy being implemented was the result of a process of co-evolution between institutions and the industrial structure. The actual policies being enacted did not explicitly originate from the industry or the universities but were influenced by the current state of the RIS and inherited the path dependence existing in the system, in a way that cannot be neglected in a dynamic analysis of the regional economic evolution.

The merging of MMSS and MMM into Media Evolution was rather a question of a pronounced branding of the cluster initiative than that of a whole new organization, but in the light of the above it still represented a step towards a new path in the regional economy. Today, Media Evolution has become a neutral platform between the policy actors, the companies, the academy and others and is evolving in phase with the regional economy. The policy actors in Malmö Stad and Region Skåne still have a significant amount of influence over the development of the cluster organization, but the initiatives are no longer coming from the policy actors. Now, the role of policy is more that of a supporting actor, integrating the cluster organization in its own agenda but contributing to the evolution rather than being the only driving force. From being a driver of change, policy becomes a force participating in the lock-in of the current development path. One should however take into account that it is unclear if the current lock-in is of positive or negative character.

By going from initiative takers to the role of contributors of a development being led by the industry, policy actors are no longer taking an active role in creating a new path. The nature of Media Evolution has contributed to a maturing industrial sector and the Regional Innovation System can be analyzed in a more static manner. The RIS is now developing continuously in an intra-path direction rather than changing radically. In this case, one cannot say that policy play a minor role in the evolution of the regional economy, but policy is no longer the solely most important key actor of deciding the development direction. Instead, Media Evolution itself has become the most important actor, representing both policy actors and the industry.

## 8.1 Place dependent new path creation

Looking at the case of the moving media cluster in Skåne, the evolution of the new industrial sector can be seen as a new development path within the regional economy. That is, the emergence of the moving media cluster represents new path creation, the second phase in the basic David-Arthur type model discussed in the section about path dependence in the theoretical framework.

However, the basic David-Arthur type model is not enough for explaining how the new path was created in the case of the moving media cluster since path dependence is seen only as a constraint which hinders path creation. In this case, the new path creation was a result of a deliberate and intentional search by agents for opportunities and re-use of competences as the basis for new growth. By seeking synergies at the intersection of *existing* industrial sectors, policy actors used resources and competences currently available in the regional economy to create a new path (see Table 1 in chapter 2.1.1). The process was deliberate and intentional by the policy actors and did not originate from the industry already existing in the region. The path dependence that characterized the regional economy was *enabling* a new path to be created rather than constraining it. One can however say, that it was the use of policy in the process that *made* the path dependence to be enabling. If the deliberate process would not have been initiated to make use of the regions existing resources, the path dependence in the regional system could have been constraining in terms of locking in the existing industry in its old paths. Without the intentional policy enacted on local, regional and national levels, the path dependence existing in the system might as well have hindered the creation of a new path.

In other words, whether the path dependence existing in a regional system is enabling or constraining new path creation is *dependent* on the actions taken by agents in the system in which the path creation takes place. This gives support to the notion about multiple path dependence in a regional economy, but also proves the need of integrating the notion of path dependence in the model of Regional Innovation Systems. In the case of the moving media cluster in Skåne, the policy subsystem intentionally used the existing resources in the region to create a new path, making the old path dependence to work as enabling for the new path to come in place. This would not have happened without the policy initiative and the old path dependence would rather have been a constraining force in the regional economy. The question on whether the old path dependence is enabling or constraining is not a question about “either or” but differs from time to time depending on the actions taken within the RIS subsystems.

The new path creation was *place dependent*, since the existing hard and soft institutions was a decisive factor in making the old path dependence be enabling for a new path to emerge. Policy actors played a major role in reconfiguring the social structures of innovation and in creating hard infrastructure in the form of Media Evolution City. In this case, the institutions included in the policy subsystem had a major role in creating a new path in the regional economy. At the same time, the initiative taken by the policy actor was well founded in the current state of the knowledge application subsystem, which indicates a case of co-evolution between the institutions and the industrial knowledge base. The innovation policy being enacted in the case examined in this paper is adapted to the regional conditions, both by the engagement of local and regional policy actors and by the nature of the policy initiatives which are formulated in a way so that they take in to account the regional background.

## 8.2 Limitations of the study and further research

The paper is not intended to give a full conceptual understanding of the contemporary development of neither the notion of path dependence or Regional Innovation Systems. Both concepts are relatively new and there is a constant discussion of how they should be used, defined and how to address the specific issues lifted by researchers. Some aspects of these discussions have intentionally been left out of the theoretical framework since they would not contribute to the broader aim of the paper.

This paper gives a deeper understanding of the role of policy in the regional economy, by mapping the role of the policy subsystem in new path creation in the case of the moving media cluster in Skåne. In general, further empirical studies of the path dependent nature of change in Regional Innovation Systems are however needed.

Any comments on what impact the conclusions in this paper could have on policy implications have intentionally been left out. How to formulate a successful policy is still up to policy makers to find out. However, by acknowledging how the use of policy can make the path dependence in a Regional Innovation System to be enabling in the creation of a new path, policy actors might have the opportunity to formulate policy “beyond best practice”.



## 9 Summary

The broader aim of this paper is to contribute to the understanding of how change in Regional Innovation Systems occurs and how it is path dependent by nature. At first, a theoretical framework consisting of the notions of path dependence and Regional Innovation Systems is being constructed, discussing how a combination of the two can be used as a tool for analyzing change in Regional Innovation Systems.

The empirical study derives from this discussion. The role of policy in the case of the moving media cluster in Skåne is being examined by following the research question: “*What role does policy play in the evolution of the moving media cluster in Skåne?*”. Using a qualitative research method, a triangulation between existing sources of information and interviews with policy actors is conducted. The paper seeks a casual explanation to the role of policy in the emergence of moving media cluster, using a form of explanation that attempts to trace and account for the development of underlying processes.

The empirical study shows how policy played a major role in the early stages of new path creation, mainly by assessing the existing resources and competences and taking the initiative to create novelty in the intersection of existing industrial sectors, and still plays an important role in the current evolution of the cluster, however in the role of a supporting actor rather than the one leading the development.

When combining the two theories, the analysis reveals that a successful use of policy is based on a path dependent economic evolution and can be a tool for deliberate actions to alter future development trajectories, including enabling new paths. The role of policy is given the status of a key agent of change in the transformation of the Regional Innovation System and through a co-evolution between institutions and the industrial structure the economic evolution becomes place dependent. The change is thus incremental, where the current state of the economy influences the policies being formulated through every step of the process.

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# Appendix A – Interview guide

The interview guide has been translated from Swedish.

- Theme 1: The role of policy in new path creation
  - What existed pre-cluster?
    - Small, scattered companies without any contact with each other?
    - Was there already a “cluster” waiting for support?
  - Who or whom initiated the work with creating a cluster organization?
    - The companies?
    - Politicians?
    - Universities?
  - What were the pre-requisites?
    - Financing from EU?
    - Conflict of aims or convergence?
  - What was the role of policy in the work that led to the establishment of the cluster and in the initial development of the industry?
    - Was policy a driving force?
    - Was it enabling? Or constraining?
  - Was policy “initiating” or “following” or both?
  - What were the expectations when working with the cluster initiative in an early stage?
    - A new development trajectory for the region?
    - A reinforcement of existing industry?
    - Or something else?
- Theme 2: The current role of policy in the development of the cluster
  - What role does policy have in the current evolution of the cluster?
    - Enabling or constraining?
    - Diversification? That is, capture new potential development trajectories and support them, or to reinforce the initial direction of development (moving/new media)?
    - By what means are policy actors trying to influence the development of the cluster?
      - More than just through the cluster organization?

- Does the current cluster meet the initial expectations?
  - Does the cluster organization live “a life of its own” or is it controlled by policy actors?
- Theme 3: General development
  - What are the expectations for the future development of this part of the regional industry?
    - Growth? Stagnation? Transformation?
    - What are the main challenges ahead?