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Territorial Knowledge Leadership in Policy Networks
A Peripheral Region of South Ostrobothnia, Finland as a Case in Point


1 Introduction

Studies focusing on economic development of regions and cities have, over time, built a fairly convincing case that competitiveness and renewal of regions is based on knowledge creation, valorisation and transfer as well as collective learning and interaction between relevant actors. There also is a broad consensus that innovation is not somehow a spatially blind process but rather, it is highly embedded in a particular socio-economic context (Tödtling et al 2013).

Due to the growing popularity of territorial innovation models (Moulaert and Sekia 2003) there is an emerging need to dig deeper into the practices and social networks embedded in innovation systems and policies. This is reflected in efforts to understand better policy mixes for innovation (Flanagan et al 2011), the different forms of agency (Uyarra 2010; Sotarauta and Pulkkinen 2011) and social dynamics of innovation networks (Rutten & Boekema 2012; Hassink 2012). All this reflects the need to reach beyond the simplified dichotomies that are fairly common in regional innovation literature and study socially embedded processes of learning (Rutten & Boekema 2012). This Chapter joins this line of literature and departs, first, from a conviction that knowledge-based territorial development calls for effective policy networks. Second, as actors are mutually dependent in policy networks policy is therefore both formulated and implemented in interaction of many actors (Kickert et al 1997). Third, to function effectively policy networks call for territorial leadership. The concept of a regional innovation journey is used as a generic metaphor to discuss the evolving development efforts in time.

This Chapter explores the understudied link between agency and territorial development. More specifically, it investigates leadership and policy networks by using one of the most peripheral regions of Finland, South Ostrobothnia, as a case in point. South Ostrobothnia constitutes an interesting case as it, first, is an example of how a region actually can take significant leaps forward by constructing regional elements of an innovation system and connecting its actors to main knowledge hubs elsewhere. Second, South Ostrobothnia is a case of how a policy network can come together and work collectively for a shared purpose. Third, for these reasons this case also sheds light on such forms of leadership that reach beyond those individual organisations and institutions that authorise actors to take the lead. This Chapter sets out to address the following two questions: (a) How is a policy network mobilised for territorial development and how does it function over time; and (b) How is a policy network lead in a situation where there is no actor that might have authority over it as a whole?
2 Conceptual framework

2.1 Policy network

Policy networks have won terrain partly as a result of the failures of the previous models, and partly as a result of the increasing complexity of modern policy problems (Kickert et al 1997). Policy networks belong to new forms of governance that complement top-down policy-making as well as market oriented attempts to make government more business-like (Klijn 1996). This is also reflected in innovation policy, that was for a long period understood only as an outcome of rational decision making (proceeding from policy formulation to decision and finally to implementation), but that is nowadays seen more as a multi-actor process in which the policy content is affected by all stages and levels of policy-making (Kuhlmann 2001).

Following Kickert et al (1997, 6) policy networks are defined as ‘more or less stable patterns of social relations between interdependent actors, which take shape around policy problems and/or policy programmes’. They are not static and hierarchically determined constellations but dynamic living organisms that change as they go. Policy networks remind us that in spite of differing interests, one party is dependent on resources and/competencies controlled by another, and that there are gains if the resources and competencies can be pooled. One important advantage of the policy network concept is that it helps us to understand not only formal institutional arrangements, but also highly complex informal relationships (Kenis and Schneider 1991). In policy networks, individual actors exist not by themselves, but always in relation to other units, and as such, policy networks are not only characterised by multiple objectives but also by multiple identities, and thus may also be emotionally charged. Networks increase complexity and uncertainty that differ from those caused by hierarchical procedures and competitive mechanisms of the market (Normann 2013).

The concept of a policy network is a useful tool to understand policy formulation in Finland, where the major policy programmes and decisions are negotiated in multi-actor arenas and related networks (state–region–municipality–firm–university–polytechnic). They represent the Finnish version of the multi-actor policy arenas (Sotarauta and Kosonen 2013), in which traditional models of policy- and decision-making provide only limited explanations as well as practical guidance. This is due to the reforms of the 1990’s when Finland took many significant steps toward a competitive knowledge-based economy that lead to displacement of many traditional regional policy instruments by technology- innovation and knowledge-based mechanisms (Tervo 2005). New developments were not only characterised by changes in legislation but also deregulation and the opening-up of the economy. The reforms were an attempt to (a) create a system that suited the EU regional policy framework; (b) increase the influence of local and regional level actors in matters concerning regional policy goals, strategies and measures; (c) improve the concentration of various (both national and European) regional development funds by programming; and (d) increase co-operation between key-actors. (Sotarauta 1997).

The reform gave the Regional Councils a position as regional development authorities instead of Provincial State Offices’ Departments of Regional development. Regional Councils
are joint municipal authorities and as such are formed and principally financed by the municipalities of the respective region. Even though the Regional Councils were given the statutory responsibility for regional development at the regional level, the regional development funds continued to be divided among many organisations and thus the cooperation and co-ordination between key-actors became a core question in the regional policy success. In 1997, reforms continued as new regional Centres for Employment and Economic Development (TE Centre) were established in every region. TE Centres integrated earlier separate regional service centres of the Ministry of Trade and Industry, labour districts of the Ministry of Labour and the agricultural, forestry and fishery districts of the Ministry of Agriculture and Forestry. All this lead to a situation where local government and the State of Finland shared the regional development responsibility, and started to emphasise the engagement of firms and higher education institutions in the policy formulation much more than had earlier been the case.

3 Territorial knowledge leadership

In regions and many policy networks, a struggle for who has influence on the matters at hand, and who does not, is usually on-going in one form or another. Conscious efforts to reconcile different aims and strategies of many actors, and balance conflicting interests, and look for third solutions between many objectives are always present. Indeed, as Normann (2013) shows, relatively similar regions do not respond in a same way to the challenges of regional development and networks. For his part, Sotarauta (2009) shows that the Finnish regional development practices are to large extent indirect in nature, and those actors being able to shape the knowledge base and the ways other actors think about regional development and their own role in midst of it exercise power and lead the process indirectly. Mobilisation and co-ordination as mutual strategy development call for leadership, and in the efforts to mobilise actors for formulation and implementation of a collective strategy leaders ought to reach beyond managerial activity or standard modes of policy-making.

Leaders are here seen as actors who have a greater range of assets than other actors in a policy network, because of, or in spite of, their formal positions. By definition, in policy networks, responsibilities and sources of power are distributed, thus leaders are required to work across a mix of economic, social, environmental and ethical pressures, and to be able to turn external pressures into internal responses (Bennett and Krebs 1994). They are under constant pressure to make sense of rapidly evolving situations, intertwined processes, social life of networks as well as policy shifts at different levels. Consequently, as Gibney (2011) argues, leaders have become knowledge brokers who stimulate stakeholder engagement (Gomes and Liddle 2010; Beer & Baker, 2012) through knowledge processes (Sotarauta et al 2012). Leaders aim to influence the ways collective interpretations emerge and are shaped, thus, increasingly those people who are able to build bridges between informal and formal initiatives take leadership positions (Horlings 2010). Leadership is hence embedded in the social fabric of the place (Peters 2012) and more specifically in the social relationships of a policy network (see also MacNeill and Steiner 2010).

Leadership is about mobilisation and co-ordination of activities of independent actors; due to the indirect nature of networks, knowledge leadership is tentatively suggested as a
way forward to understand the true nature of leadership (Gibney 2011; Sotarauta et al 2012). Gibney (2011) captures the essence of knowledge leadership by maintaining that ‘at the most basic level, it is a question of what we know, and can come to know … and what we manage to do with this knowledge’. Therefore, collective generation and utilisation of new knowledge is in the core of leadership practices that revolve around generation of strategic awareness, framing, mobilisation and co-ordination (Sotarauta 2010).

Strategic awareness refers to a collective ability to monitor and interpret events internal and external to a region, and to make sense of them. Awareness expands to be strategic when actors have the ability to find strategic issues essential to regional development from the long-term perspective. In creation of strategic awareness, the motivation is to draw attention and then divert it to the questions and issues on which focus is needed (Heifetz 2003). Shared strategic awareness is a necessary but not sufficient precondition in truly functional policy networks (Sotarauta 2010). Through framing it is possible to move from a generic strategic awareness towards shared interpretative frames of reference; toward a common vocabulary and a way to perceive the development processes. Framing is important both during the mobilisation of the actors and in finding a direction for policy networks and constructing shared perceptions (Termeer & Koppenjan 1997). In addition, mobilisation of the actors always belongs to the core tasks of actors aiming to take a lead in policy networks. Mobilisation starts with identifying possible participants and stakeholders relevant to the issue at hand, and continues with pooling their skills, knowledge, and resources (Agranoff & McGuire 1999).

Our studies show (Sotarauta & Mustikkamäki forthcoming; Sotarauta 2010) that the above four key practices of leadership call for, first, an in-depth understanding and knowledge of the substance issues related to the issues at hand (substance knowledge). Second, it requires policy knowledge, namely, a good view on how general policy processes and specific policy processes of a field in question come together, and either support or hamper development processes; what policies might best serve the development process under scrutiny and how issues can be pulled through the multiple chain of decision-making to secure funding and robust enough institutional positioning. Third, knowledge leadership draws upon process knowledge that refers to how relevant actors think and behave, what the driving forces of them are, and what the right measures in building networks are and how they can be linked to wider development efforts to gain more power.

4 The case, data and methodology

This paper follows a longitudinal single case study design. As this Chapter does not aim for theory building, but rather is a pre-stage of it, a single case study provides an adequate platform to illustrate how the emerging conceptual framework works in an empirical setting.

Data for this study comes form several sources. First, the study is informed by written material from the Internet, relevant journals dealing with the case under scrutiny, related newspaper articles, annual reports, and respective policy documents. Drawing on the secondary data, the recent history of South Ostrobothnia development efforts and related activities were constructed chronologically. In addition, the empirical data from several earlier studies were reanalysed to flesh out how leadership has actually played out in the
case region (see Linnamaa & Sotarauta 2000; Sotarauta & Kosonen 2004; Sotarauta, Kurki & Lakso 1999; Kosonen 2007). Additionally, the author of this Chapter has participated in the South Ostrobothnian development efforts since 1994. These experiences are used in the analyses but complemented by extensive data. In the reanalysis of the earlier studies, the following themes were extracted from the data and reports: (1) Temporal change - what happened and why in different points of time, what were the significant events and how the sequence of events can be simplified, who did what and why? (2) Policy network - what kind of policy network can be detected, and how did it evolve over time? (3) The roles of actors - who influenced the course of events, how and why – how the policy network was lead in different phases?

4.1 South Ostrobothnia – a region in transformation

4.1.1 South Ostrobothnia In the 1990’s

South Ostrobothnia and its regional centre, Seinäjoki, are located in Western Finland. In 2012, the population of the region as a whole was 194,058, the population of Seinäjoki Town was 59,556. In its regional development plan of 1994, South Ostrobothnia defined its weaknesses as follows: (a) a strong resistance to change, (b) low interaction between the main organisations in the region, (c) dominance of agriculture in the regional economy, and (d) a low innovation capacity. Most of the region’s firms were micro firms employing less than three people (e.g., furniture, farm machinery, carpet-making, and fur-farming), and most of these firms were not particularly well suited to meet the challenges of a knowledge economy. The innovation supporting structures and innovation culture were weak in the 1990’s, and most of the firms were operating on short time horizons (Harmaakorpi et al 2009). In addition, the quantity of research and development (R&D) expenditure and employment in the firms and public organisations as well as educational level were among the lowest in Finland.

In addition to the economic challenges, the new rapidly changing regional and innovation policy landscape was both a source of anxiety and hope for South Ostrobothnia. As most of the local and regional development actors were trained and knew well the “old regional policy”, they felt uncomfortable with the new national policy that stressed endogenous efforts, competitiveness of regions, technology and eventually also regional innovation capacity. However, the reforms also lead to an establishment of South Ostrobothnia as a formal region. Earlier, South Ostrobothnia had been acknowledged as a traditional functional region but not an administrative one and many of the decisions concerning regional development policy were made in the provincial centre, Vaasa. South Ostrobothnia became institutionally rather well prepared to meet the challenges; it had resources of its own and institutional development actors. The regional development policy started to revolve around the institutional core that consisted of the newly established (a) Regional Council of South Ostrobothnia, (b) the Centre for Employment and Economic Development, and (c) the Town of Seinäjoki.
4.1.2 South Ostrobothnia in the 2000’s

In spite of the challenges of the 1990’s, 15-20 years later it can be concluded that South Ostrobothnia has been able to construct a regional advantage by strengthening its regional innovation system and connections to the main Finnish universities and also abroad. Of course, South Ostrobothnian RIS is still quite small and fragile, and in the early stages of development, but regional activity in themes related to knowledge and innovation have increased significantly. Even the leading Finnish newspaper, Helsingin Sanomat, published in 2010 an article titled ‘Seinäjoki is the most attractive: The Town has invested millions in supporting growth’. In the article, it is shown how young, well-educated people return with their families to their home-region as there are now more opportunities for them than earlier. One of the secrets, claims the article, is that the region has invested in expertise, education, research and specialisation. It even observes that instead of the few individuals with doctoral degrees ‘there now are piles of them’ (Table 2). For its part, Talouselämä, one of the main business magazines, titled an article praising Seinäjoki as ‘It is the attitude that counts, proves Seinäjoki’. The article concluded that instead of becoming a showcase of low-tech Finland, the town became a symbol of a stubborn resistance of what was seen as an inevitable trend (Asenne... 2010).

Transformation can be seen not only in the newspaper and magazine articles but also in the statistics. Of course, in comparison to the main regions in Finland the figures are still low (see Table 1), but it is possible to argue that the region has taken several steps in its innovation journey. Both R&D expenditure and R&D employment have increased and also the level of highly educated people has been increasing. More broadly, the region is not losing population anymore and the regional centre, Seinäjoki, has been growing steadily (Table 3).

TABLE 1. The growth of R&D expenditure (total, € mill.) and employment (person years) in Finland as a whole and by the three leading regions and six university consortium regions 1995-2010 (Source: Statistics Finland, PX-Web statfin database) (regional centre in brackets)

<table>
<thead>
<tr>
<th>Region</th>
<th>R&amp;D exp. 1995</th>
<th>R&amp;D exp. 2010</th>
<th>R&amp;D emp. 1995</th>
<th>R&amp;D emp. 2010</th>
<th>R&amp;D exp. 95-10 (%)</th>
<th>R&amp;D emp. 95-10 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>2172</td>
<td>47866</td>
<td>6971</td>
<td>79979</td>
<td>221.0</td>
<td>67.1</td>
</tr>
<tr>
<td>Three leading regions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uusimaa (Helsinki)</td>
<td>1102</td>
<td>2966</td>
<td>23031</td>
<td>34451</td>
<td>169.2</td>
<td>49.6</td>
</tr>
<tr>
<td>Tampere region (Tampere)</td>
<td>211</td>
<td>1119</td>
<td>5090</td>
<td>10142</td>
<td>430.2</td>
<td>99.2</td>
</tr>
<tr>
<td>Northern Ostrobothnia (Oulu)</td>
<td>184</td>
<td>970</td>
<td>4215</td>
<td>8574</td>
<td>428.6</td>
<td>103.4</td>
</tr>
<tr>
<td>University consortium regions*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satakunta (Pori)</td>
<td>42</td>
<td>90</td>
<td>893</td>
<td>1202</td>
<td>114.0</td>
<td>34.6</td>
</tr>
<tr>
<td>Päijät-Häme (Lahti)</td>
<td>22</td>
<td>58</td>
<td>471</td>
<td>931</td>
<td>165.8</td>
<td>97.7</td>
</tr>
<tr>
<td>Southern Savonia (Mikkeli)</td>
<td>11</td>
<td>33</td>
<td>271</td>
<td>819</td>
<td>200.6</td>
<td>202.2</td>
</tr>
<tr>
<td>South Ostrobothnia (Seinäjoki)</td>
<td>9</td>
<td>33</td>
<td>231</td>
<td>667</td>
<td>254.2</td>
<td>188.6</td>
</tr>
<tr>
<td>Kainuu region (Kajaani)</td>
<td>10</td>
<td>21</td>
<td>305</td>
<td>453</td>
<td>105.0</td>
<td>48.7</td>
</tr>
<tr>
<td>Central Ostrobothnia (Kokkola)</td>
<td>4</td>
<td>16</td>
<td>83</td>
<td>266</td>
<td>342.9</td>
<td>220.1</td>
</tr>
</tbody>
</table>
University consortia were introduced in 2004 as a new element in the Finnish higher education system. They operate in six locations: Kajaani, Kokkola, Lahti, Mikkeli, Pori and Seinäjoki. University consortia gather university activities under a single umbrella in such regional centres, which do not have a university.

TABLE 2. Population with a Doctoral degree in Finland as a whole and by the three leading regions and six university consortium regions 1990 and 2010 (Source: Statistics Finland, PX-Web Statfin database)

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2010</th>
<th>90-10 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FINLAND</strong></td>
<td>13007</td>
<td>36104</td>
<td>177.6</td>
</tr>
<tr>
<td><strong>Three leading regions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tampere region</td>
<td>1057</td>
<td>3376</td>
<td>219.4</td>
</tr>
<tr>
<td>Northern Ostrobothnia</td>
<td>931</td>
<td>2674</td>
<td>187.2</td>
</tr>
<tr>
<td>Uusimaa</td>
<td>7031</td>
<td>17354</td>
<td>146.8</td>
</tr>
<tr>
<td><strong>University consortium regions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Ostrobothnia</td>
<td>50</td>
<td>277</td>
<td>454.0</td>
</tr>
<tr>
<td>Päijät-Häme</td>
<td>134</td>
<td>546</td>
<td>307.5</td>
</tr>
<tr>
<td>Central Ostrobothnia</td>
<td>36</td>
<td>143</td>
<td>297.2</td>
</tr>
<tr>
<td>Satakunta</td>
<td>128</td>
<td>486</td>
<td>279.7</td>
</tr>
<tr>
<td>Southern Savo</td>
<td>109</td>
<td>388</td>
<td>256.0</td>
</tr>
<tr>
<td>Kainuu region</td>
<td>47</td>
<td>166</td>
<td>253.2</td>
</tr>
</tbody>
</table>

TABLE 3. Population change in South Ostrobothnia and Seinäjoki Town 1985-2010 (Source: Statistics Finland, PX-Web statfin database)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Ostrobothnia</td>
<td>200733</td>
<td>201413</td>
<td>201509</td>
<td>196205</td>
<td>193944</td>
<td>193514</td>
<td>194058</td>
</tr>
<tr>
<td>Seinäjoki</td>
<td>44820</td>
<td>46948</td>
<td>49092</td>
<td>50521</td>
<td>53619</td>
<td>57417</td>
<td>59556</td>
</tr>
</tbody>
</table>

5 The regional innovation journey

5.1 Collective anxiety - mobilisation of a policy network

It has been argued that a regional innovation journey begins (Benneworth 2007) when a group of actors come together to express dissatisfaction with the lack of regional innovation and a willingness to work collectively to address the identified problem. The first step in the South Ostrobothnian regional innovation journey in the mid-90’s was not exactly a conscious collective step but rather, a series of more or less well-integrated expressions of anxiety that ‘something must be done’. Being embedded in the collective anxiety, the regional innovation journey of South Ostrobothnia was mobilised by the three key institutional actors, each individually but also collectively. In spite of some tensions between the Town of Seinäjoki and the region (Linnamaa & Sotarauta 2000), the three institutional actors needed each other to push for institutional change. All this was very much influenced by the Finnish multi-level regional development system that enabled and required the local and regional development agencies to regularly produce regional development plans and programmes,
and hence raise regional development related issues on the policy agenda. The formal multi-actor strategy design and implementation apparatus was in place but it was not a sufficient condition for a truly collective strategy to be formulated.

The first measures in the journey included analyses of the situation in Europe, Finland and South Ostrobothnia that were extensively discussed in several planning processes, conferences and seminars as well as in a regional development training programme commissioned by the Regional Council and organised by the University of Tampere. Virtually all the leading decision- and policy-makers, several firm representatives and other key actors participated in the seminars and the training programme, and hence were given an opportunity to debate and discuss both the situation in the region and also the latest local/regional development theories not only among themselves but also with Finnish experts and authorities in the field. The first phase of the journey revealed for the emerging policy network how fragile the innovation capacity in South Ostrobothnia actually was, and how distinctively regional and thus introverted the thinking had become.

5.2 Emergence of strategic awareness

Eventually, a collective strategic awareness began to emerge; at first it ranged over a generic notion that something must be done, something that is not related directly to such traditional South Ostrobothnian targets of local/regional development efforts as village activity, agriculture, SMEs, machinery, and metal industry, but something that takes into account, more generally, the ways to strengthen renewal capacity of the region and its firms as a whole. Innovation and academic research started to creep into policy related discussions much more than earlier. This was a dramatic change in a region that traditionally had seen academic research being a sign of hesitation and thus failure.

In the late 1990’s, the main strategy to strengthen the institutional capacity for innovation began to emerge and three interrelated schemes began to dominate the policy discourse. They were (a) establishment of a science park in Seinäjoki, (b) establishment of the Seinäjoki Polytechnic as the only locally owned higher education institute in the region (merger between several colleges), and (c) establishment of a university network to compensate the thin organisational set-up for knowledge production and its utilisation (Sotarauta & Kosonen 2004). In this Chapter, only the processes and leadership that made the university network possible is the focus.

It is fairly difficult to assess by whom, when and how the three main lines of action were attained as they began to creep into deliberations, policy discussions, seminars, newspaper articles, etc. step by step in the course of four or five years, and thus they started to find their way to several planning documents. In spite of the emerging strategic awareness and a collective strategy beginning to take a visible, understandable and debatable shape, the concrete measures regarding how to proceed remained undefined for some time. In the late 1990’s, three incidents were given a significant thrust forward by publicly challenging the region on the hand, and on the other hand, providing concrete models with which to work.

First, the idea to establish a university network received a boost from ‘the Development Programme for Research in South Ostrobothnia 1998’, in which the founding of a university network was officially presented for the first time as a concrete means to strengthen the
quantity and quality of research in South Ostrobothnia, and opening new pipelines to new knowledge created elsewhere. As the region does not have a long academic tradition, a conscious decision to focus on the applied research was made. The programme provided the key actors with a legitimate platform on which to continue the search for the operational model for the network instead of very generic ambitions and wishes that often lacked realism. Second, a group of fairly young academics from the local university filial units and the University Association took a lead in thinking what a university network could actually mean in practice. As Sotarauta and Kosonen (2004) observe, the hidden aim of the group was to thrash out the matter of a university network and if possible, to create an implementable concept for the network. As the university network was not the only solution presented in the policy discourse, the group felt it important to move on and clear the table. The other initiatives focused on structural changes and thus, the discussion tended to freeze as the initiatives would have been expensive to implement and more or less impossible to pull through multiple chains of decision-making.

Third, in 1999, the very same newspaper that later praised the region, Helsingin Sanomat, published an article titled ‘Sun-set region’ (Auringonlaskun... 1999). The article began by reminding readers that, after World War II, the South Ostrobothnian ‘farmers’ believed that education spoils a good worker, and thus they did not establish a university in the region even though they might have been able to do so. A professor from University of Vaasa continued by maintaining that ‘the South Ostrobothnians are overly self-contained and self-sufficient ... they will not co-operate with anybody if they are not forced to. And, the entrepreneurs are so old-fashioned that they are not hiring employees with better education than what they have got themselves, and what’s that: primary school education’. The article irritated the South Ostrobothnians beyond imagination. This article, in conjunction with some other critical publicity sped up the journey.

5.3 Collective strategy and co-ordination of activities - a novel network of universities established

Gradually, toward the end of the 1990’s, the analysis and policy discussions in several workshops, revolving around the university network idea, resulted in the realisation that the low quantity and quality of research is not in and of itself a problem. The conclusion was that the true issue in the region is that there were not enough competent individuals who could compete for national and international research funding, and who might be respected and credible actors in national and international circles (Sotarauta et al 1999). Consequently, the question, regarding what might attract competent people to the region, was raised, and the answer that emerged was professorships. In Finland, there is more or less, a fixed number of professorships, and hence there usually is a fierce competition over those positions. The assumption was that there are plenty of hungry academics preparing themselves for the competition of tenured professorships in their fields, and thus an opportunity to have a fixed term professorship in Seinäjoki, in ‘periphery of Finnish academe’, for five years might later turn out to be a crucial factor in their career. The aim was set at founding 12 new research professorships with five universities, and professors themselves were supposed to attract funds for their own research groups (Sotarauta et al
The network became known ‘Epanet’, and according to Riukulehto et al (2009) the network and its acronym were not designed but born naturally from the social demand in the region, and the soil for which it was prepared in several training programmes and planning processes that involved hundreds of people. External to the region, the general feeling was disbelief: It was not believed that South Ostrobothnians would be able to raise funding for 12 professors, and second, that enough qualified researchers would apply for the positions (Sotarauta & Kosonen 2004).

As the Epanet network began to take shape and an endless series of negotiations began, it became obvious that the network could not continue as a free-flowing collaboration but it needed to be co-ordinated and managed. After further negotiations and new rounds of discussions the University Association of South Ostrobothnia was given the co-ordination of the Epanet network by universities and the three key institutional actors. The University Association, being a small independent association employing only few people without big ambitions to develop Epanet to benefit itself, was seen as a neutral and objective organisation that everybody could trust (Rintala 2006). Universities were willing to work together but did not trust each other enough to let another university co-ordinate the network.

In the first phase of implementation (2001-2008), a network of six universities and 15 university professorships was accumulated. The Epanet network raised unprecedented enthusiasm in the region; funding was raised for professorship by professorships. In 2009, in addition to the professors, there were 44 researchers and 41 doctoral students in the region on top of what was there previously. The research areas that were chosen represented disciplines that were believed to be important for the future of the region. There was no basic funding from the government or any other single source, rather, the funding was a complex set of individual projects: (a) each professorship is a fixed-term 5-year project that is funded individually by those sponsors who see the field in question as important; (b) the research and development projects the professors are leading are individually funded from international, national and regional funding sources (that all are competitive); and (c) the co-ordination of the Epanet network is a project mainly funded by the Regional Council of South Ostrobothnia and Town of Seinäjoki.

In 2001-2008, €9.4 million was raised to support the professors and their groups; altogether 96 private firms, 21 municipalities and 24 other public organisations funded them. For the region, and its emerging innovation system, it was important that the professors, with their groups, were able to also attract international and national funding for their projects much better that what was the case in the region earlier. The combined revenue of all the research and development projects carried out by the professors and their groups, in the period 2001-2008, accumulated a total of €20.4 million. Out of that, 52% came from national funding sources and 10% from international sources. The share of funding from regional firms was 17% and the combined share from municipalities was 19%. The network was able to meet the demand set for it; to become a nationally credible player and get firms more involved in the development efforts.

In the early years of the Epanet network, a conscious aim was set to construct a model that simultaneously serves the needs of the national innovation system, local firms, regional
development, universities and the individuals themselves. Serving a multitude of interests required a careful analysis of the interests of the network members themselves as well as all the stakeholders. Stakeholder analysis was also one of the ways to lead the co-ordination process. What had proven to be especially important later was the decision to focus on nationally new, interdisciplinary, and applied research subjects. The decision to specify the professorships so that they were nationally new in the areas that were strong both in Finland and in South Ostrobothnia, was a way to avoid direct competition with more established research concentrations. It was also a way to show that the question was not only about local/regional development but also about strengthening the innovation capacity of the entire country. Even though from a national perspective, the numbers are low in South Ostrobothnia this kind of combination of national, regional and organisational rationales proved to be important in a situation where a few fairly powerful critics argued that the network was wasted research money in the interest of regional policy.

6 The policy network and knowledge leadership in South Ostrobothnia

The South of Ostrobothnian case reminds us about the importance of the development system, and the policy mix, available for local and regional actors to exploit in their own collective strategy. However, the institutional arrangement is only a platform to seek new collective strategies; it does not produce results without the actors having the capabilities to work together and pull the collective strategy through to implementation.

In the early days of the South Ostrobothnian innovation journey, institutional leaders from the three core agencies had adequate institutional position and resources to bring actors together as the individual leaders of the local/regional development agencies had a good understanding of how the policy world functions in Finland, and thus they possessed the policy knowledge to launch the journey and mobilise actors across the organisational boundaries. However, they were not able to translate the generic worry and anxiety into concrete strategies. Their substance knowledge was not developed to a level that might have enabled them to more effectively lead the entire policy network; the network remained disintegrated and its discussions at an abstract level. They did not possess substance knowledge of innovation systems or the emerging regional development doctrine that was needed to construct a novel collective strategy and implementable solution. Indeed, in the first years of the journey, reports and plans piled up but the three leading agencies lacked the vision and concrete solutions that might have been accepted by a multitude of actors.

The early phase proved to be important for two reasons. First, as there was no actor capable of rising above the others with its superior resources, power and/or knowledge, a sense of interdependency started to increase; this was a clear deviation from the earlier sector and independency oriented thinking. Thus, a policy network began to be formed. Second, extensive discussions and deliberations gradually generated a shared strategic awareness that was deeply rooted in the conviction that ‘we need to find a place in the knowledge/innovation economy – whatever it might be’. At the outset, there clearly was a lack of knowledge of what ‘knowledge economy’ or ‘innovation system’ might mean, especially in a region like South Ostrobothnia.
What proved to be crucial in framing the emerging strategic awareness was a willingness of the institutional core of the policy network to open the fairly traditional planning processes of the very traditional region for fairly young academics who channelled new insights and possibilities as well as novel substance knowledge into the region. New ideas, step by step, provided a community in collective worry with new insights to discuss and concrete ideas to work on. The academics were able to tell research-based, and thus convincing enough, stories from other regions of Finland and other countries. They were especially able to integrate otherwise separate theories and development models for South Ostrobothnian needs, and thus were instrumental in helping the policy network tap into global networks for both explicit and tacit knowledge. Most importantly, they also were able to transfer and translate global knowledge into local language, thinking and action, and make interpretations about what all the innovation fuss might mean to the region. Additionally, at this stage, the policy network unlocked socially and historically embedded knowledge, and started to see more clearly than earlier, the kind of beliefs on which the earlier era of regional development was actually based.

However, even those actors who were intensively involved in the debates did not always fully grasp all the practical implications of the emerging strategy. Thus, for concretising the debates, the search for individual solutions for individual needs continued in the context of a collective strategy. One of the elements of success in the South Ostrobothnian regional innovation journey was that collective and individual objectives were balanced, and while taking measures for the region, the actors were able to strengthen their own position. This reminds us that policy networks and the leadership in them are not interest-free zones but that a collective strategy orbits around individual interests.

In the early phases, it was the public actors and academics that lead the process, the firm representatives, even though they were being actively engaged, did not take the lead. Later, after the Epanet model was constructed, and individual professor projects started taking shape, the firms showed willingness to take the lead in specific themes and projects that were designed under a shared strategy.
TABLE 4. The three forms of knowledge and leadership by the main phases of the regional innovation journey

<table>
<thead>
<tr>
<th>Policy knowledge</th>
<th>Mobilisation</th>
<th>Strategic awareness</th>
<th>Framing and co-ordination</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• General anxiety is discussed and debated in the formal planning processes and training programmes • General level national policy messages are transferred into the region but not translated into local belief systems</td>
<td>• International and national policy models are discussed and debated and their significance for South Ostrobothnia sought</td>
<td>• A multitude of funding sources were combined to serve the innovation journey • Science, innovation, local economic development, regional and health policy knowledge are integrated to serve the collective strategy</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Process knowledge</th>
<th>Mobilisation</th>
<th>Strategic awareness</th>
<th>Framing and co-ordination</th>
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<tbody>
<tr>
<td></td>
<td>• No clear view on how the process ought to be organised beyond the formal planning process</td>
<td>• Some of the prevailing convictions on how and by whom regional development is lead are unlocked, and new actors have a better seat and stronger voice in the processes</td>
<td>• A complex myriad of actors as well as contracts and relationships of trust are co-ordinated • A new way of organising the relationship between substance knowledge production and its utilisation is constructed</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Substance knowledge</th>
<th>Mobilisation</th>
<th>Strategic awareness</th>
<th>Framing and co-ordination</th>
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<tbody>
<tr>
<td></td>
<td>• Local/regional development organisations tap into external knowledge on theories of network-based local/regional development and innovation systems</td>
<td>• International and national experiences from the successful innovation systems are discussed and debated • Novel insights are translated to fit the local social fabric as well as the economic structure of the region</td>
<td>• Professors and their groups tap into partners earlier unreachable for local actors. They transfer fresh knowledge to their partners and translate it to fit into the local situations</td>
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<table>
<thead>
<tr>
<th>Leadership</th>
<th>Mobilisation</th>
<th>Strategic awareness</th>
<th>Framing and co-ordination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Distributed leadership • Local/regional development organisations in the lead each independently • Firms and local academics participate</td>
<td>• Local/regional development organisations lead the formal process • Academic community leads the thinking, firm representatives participate</td>
<td>• Local/regional development organisations enable the network • University association co-ordinates and manages the network • Private firms and universities lead the individual professorship projects</td>
</tr>
</tbody>
</table>

It is not suggested here that knowledge leadership would have been consciously exercised in South Ostrobothnia but that in retrospect, it is possible to see that the policy network was lead more through knowledge than anything else, and thus it is possible to suggest that
knowledge leadership influenced emergence of strategic awareness, mobilisation and co-ordination of the key actors. Therefore, the case, for its part, provides tentative support for the conclusions of a series of international case studies (Sotarauta et al 2012) that a policy network of independent actors may be lead towards collective strategy and its implementation through the following knowledge processes:

- **Unlocking** socially and historically embedded local/regional knowledge – what do we know about our region that we do not know that we know.
- **Translating** local knowledge into national/global policy language and feeding it into global knowledge processes, and translating knowledge external to the region into local language, thinking and action – how to make our knowledge their knowledge, and their knowledge ours.
- **Tapping into** global networks for tacit knowledge to learn what is in the pipeline for becoming formalised – what should we take seriously and what not.
- **Discussing** local plans and decisions as well as plans of individual actors to generate collective understanding of the many objectives involved in the process – what do we want to achieve collectively as well as independently.
- **Debating, interpreting and combining** different sources of knowledge into local understanding and awareness – how would we understand various sources of knowledge and act on fresh knowledge, if we did not discuss and debate it.

(Sotarauta, Horlings and Liddle 2012)

### 7 Conclusions

This study adds to the literature on knowledge-based territorial development by specifically focusing on agency through policy networks and leadership. Conversely, it adds to the leadership and policy network literature by exploring the important but understudied link between leadership and territorial development. In tandem, the concepts of policy network and leadership add to our understanding of the ways social networks evolve in time; and how actors organise their action, strategise for the long-term and mobilise tangible and intangible resources for economic development as well as how they aim to influence each other. This Chapter joins earlier studies that call for more attention on policy actors and economic organisations, and especially their actions and interaction, as the core of a theoretical framework of regional development studies, instead of sole focus on space and spatial categories (Bathelt & Glückler 2003; Rutten & Boekema 2012). A more nuanced understanding of territorial development is possible by showing how actors themselves change conditions for innovation, and how actors and forms of leadership evolve with policy networks to which they are embedded. Most importantly, this study links purposive agency and policy networks into the literature on regional innovation systems that has been criticised for seeing policy-makers and practitioners in a simplistic manner (Uyarra 2010).

This study shows how long a process the emergence of a truly collective regional development strategy actually is, and how it evolves at the crossroads of formal planning processes and informal influence. Collective development strategy is the result of (a) several intentions being aligned in time, (b) using regional development plans as platforms through which to accomplish it, and (c) continuous adjustment to new knowledge that frames the development efforts. As such, it is difficult to keep a policy network in motion so that it does not disintegrate or turn into a bureaucratic endeavour without real regional commitment.
The case study presented here suggests that a policy network is a social process, a phase-by-phase journey, an evolving search for next steps and visions, that exploits formal regional policy systems but whose results are more based on qualities of knowledge leadership providing it with directions than the formal structure of the leadership. In a way, the process is a contemporary version of ‘muddling through policies’ (Lindblom 1959), in which vision, strategy and policy network evolve with situations. As is suggested in this Chapter, knowledge leadership is a way to enable a policy network to maintain strategic direction and pull individual decisions and actions together to support a collective strategy. This study also confirms Parkinson et al. (2012) observation that this kind of leadership is a systemic but not a personal quality, and as such the question is more about a process and a relationship, than individuals.

References
Asenne ratkaisee, todistaa Seinäjoki (It is the attitude that counts proves Seinäjoki) (2010), Talouselämä, 6.9.2010.


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*The case is introduced also in Sotarauta and Kosonen (2004) and Sotarauta et al (2011)*