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## **Shared Leadership and Dynamic Capabilities in Regional Development**

### **1 Introduction<sup>1</sup>**

Regional development policy-making is traditionally based on a fairly well-established belief in the European, national and/or regional institutions and in the capabilities of policy makers to find correct strategies for the future by rational programming processes. In Finland, for example, in the era of building the welfare state, the System as a whole “was the capacity” and leadership was in the hands of the few. A strong belief in comprehensive systems included a strong belief in the possibility of planning economic development, of exerting influence over the future and of controlling it. In policy-making attention was paid to the process in which decision makers used consultation, mathematical models, reports and surveys, for example, to select the best possible means for resolving a precisely defined problem. Existing structures and functions were not called into question, and regions and cities did not need to proportion their own activities to global developments. Management of regional development activities and policy-making at the local level in general required good administrative skills, knowledge of various statutes, and the ability to follow instructions correctly and efficiently.

Of course, we still have numerous institutions that frame and direct the local and regional activities from above, and systems are still the basis for many development

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efforts. It seems that the belief in the System is still with us, but now a deeper understanding of development processes is sought, new modes of leadership ought to be enhanced and new modes of perpetual capabilities are needed. Our case studies in the Nordic countries, mainly in Finland, show that the most successful city-regions in their development activities are the ones that have been able to utilize the European and national institutions and resources in the implementation of their own strategies. Thus the development programmes from above can be seen as parts of a resource base of local development activities. (see Bruun 2002a and 2002b; Linnamaa 2002; Sotarauta & Kosonen 2004; Kostiainen & Sotarauta 2003.) This suggests that at all levels we need leaders who are capable of leading people across many boundaries and managing flux rather than stability defining the order of things.

The basic premise in this chapter is that in the knowledge economy, information society, however each of us chooses to label the emerging societal phase and whatever characteristics we choose to highlight, is so complex, blurred, dynamic and penetrating that regions, or people engaged in regional development, are forced to learn new skills and become more skilled not only in administrating resources and formulating development programmes, but also in leading transition and interactive processes. I argue that real leadership is required and more attention should be directed to studying and to the developing of dynamic capabilities needed in promoting regional development and to leading development processes in particular.

In this chapter I first discuss some of the promises and dangers of stronger leadership in regional development. Second, I raise a few points why I see leadership as an important object to study. Third, I aim to frame leadership from the regional development point of view, and fourth, I present a tentative dynamic capabilities framework for regional development and especially for enhancing leadership skills.

## **2 Leadership – A lost quality in regional development studies?**

### **2.1 The promise and the risks of leadership**

It is always easier to find out the elements of success and/or failure in retrospect than to find new development paths for the future and new modes of action in the middle of uncertain and open-ended situations. This brings up a question why leadership has not been among the debated issues in regional development studies. As Samuels states, different individuals can make different choices under similar constraints; thus leadership matters. Samuels also points out that it is possible to gain analytical leverage if we understand better the transformational consequences of choices made and actions taken by powerful individuals, because all choices and activities are subject to many constraints, and leaders stretch these constraints (Samuels 2003). Consequently, for me,

leadership appears as an important but understudied topic. As Judd and Parkinson (1990) state, those city-regions that have been able to generate local leadership have also been able to create and implement more versatile and profound development strategies than those whose leadership have been fragmented and weak. (see also Sotarauta & Bruun 2002; Kostianen & Sotarauta 2003.)

In European regional development studies it has for some reason been almost habitual to neglect the role of individuals. There is a long tradition of studying structures, collaboration, learning and institutions, for example, which are relevant topics indeed. This may actually be derived from the earlier tradition that stressed regional policy-making, urban policy, urban and regional planning among other things as a counterforce to market forces and corporate world in general. In the US tradition, on the other hand, leadership has not been much studied as a force in regional development either. Instead, the studies have elaborated leadership from the coalition point of view, one of the goals being to classify regimes systematically according to the character of local politics and the balance of power among competing coalitions. In his influential work, Molotch (1976) proposed that a coherent coalition of elites often has a vision of the city's future that conforms to their own interests, often neglecting the needs of neighbourhoods, for example, as well as the power to mould city policy in this direction (see also Logan 1999; Logan & Molotch 1987). Under the rubric of regime theory, the research on leadership has been targeted at possible variations in governing coalitions among cities. One of the recognized regimes is the entrepreneurial regime (Elkin 1987), in which activities can be illustrated as follows: "All entrepreneurial cities have in common a relatively unimpeded alliance at work that is able to shape the workings of city political institutions so as to foster economic growth". (Elkin 1987, 61). Their unique character is the degree to which this alliance is directed by the business sector, public officials are subordinated, and electoral politics is irrelevant.

Leadership always raises conflicting views; it is quite easy to underrate its significance by arguing that regional development cannot be led, that it is a result of many forces, or that it is impossible to identify leaders who really make a difference. This is, of course, the nature of regional development, but it does not imply that leadership would not play any role. It is also quite easy to overemphasize the role of leadership by giving some leader(s) all the credit, thus mystifying leadership and reconstructing the old-fashioned notion of a leader as a "talented and visionary (and often white) male" who controls and provides his followers with a visionary direction. This is naturally an overly simplified dichotomy but discussions on the role of leadership in regional development easily drift along these lines, even though reality is much more diverse. At all events many case studies have shown that the capacity for bold and fast decisions in opening opportunities for new paths has been of utmost

importance, which emphasizes the role of leaders. As Kostianen and Sotarauta (2003) point out, brave, visionary individuals and innovative coalitions formed by them are often needed in creating conditions for a new development path. Core coalitions formed by innovative and determined individuals often plant the first seeds of something new in the midst of the different spirit of the times and its institutions and culture; they act against the tide. I argue that in regional development studies we need more empirical investigations into who stretches the constraints, with whom and how, for what and for whose purposes.

The need for stronger leadership also presents a great challenge to democratic decision-making. In the knowledge economy, the actors who have internalized the nature of new forms of influence and power have more space in which to act than the “powerless” actors do. At the same time, they have an opportunity to dictate what is rational in regional development, since in the end it is power that defines what is rational (for an elegant analysis of the relationship of rationality and power, see Flyvbjerg 1998). When comparing networks of knowledge economy to representative democracy, in networks it is normal that ways of acting, power relations and rules of the games are constantly evolving. In networks it is possible to use power flexibly and rapidly to mobilize actors and resources for seizing some opportunity or to fend off threat. In the knowledge economy this is a crucial part of the leadership capacity, but at the same time, there is a real need to reinvent the institutions to balance the relationship between rationality and new forms of power as well as between democracy and power. In the knowledge economy these balances are constantly shifting, and as seems to be obvious, the actors leading ambiguous development processes possess quite powerful tools to do either good or bad.

## **2.2 How does leadership matter?**

Many regions and city-regions have consciously made efforts to free themselves from their past path dependence and to branch out by creating new institutions, by seeking out new human capital to draw on, and by creating a new perception of the region in question, its current state and future prospects. The nastiest question usually is not *what* should be done but *how* to do it; for example, how a fragmented bunch of actors, resources, competences, ideas and visions can be pulled together, how people can be mobilized, how a new perception about the region and its futures can be created. Next I raise some messages for regional development that aim to tentatively answer the previous questions and that for their part stress the importance of leadership in regional development as well. These messages are based particularly on a case study carried out in a Finnish region of South Ostrobothnia (see Sotarauta & Kosonen 2004) but also on earlier case studies of three Finnish city-regions of Turku, Tampere and Jyväskylä, and

of North Denmark. (see Bruun 2002a and 2002b; Kostiainen & Sotarauta 2003; Linnamaa 2002.)

*The spirit of the times* is often the soil in which the seeds of a new development path are rooted. In Finland in the 1990s the rapidly evolved interpretation of “Finland as an innovation country” in a way forced regions to seek and create their own understanding of information society, the knowledge economy and related issues. When the knowledge economy and related issues were discussed everywhere, in the media, conferences, literature, to mention a few, and when the national bodies began to channel resources into it, also the local “inspirers”, the champions of development efforts, were thus able to utilize general societal discourse in their own argumentation and in collective creation of new interpretation. This kind of process usually calls for leaders who do not give orders but who facilitate and co-ordinate the sense-making processes across the institutional and organizational boundaries. (Sotarauta & Kosonen 2004.)

Our case-studies also show that *intensive collaboration* among firms, the public sector and educational institutes made it possible to launch new flagship processes. It should be kept in mind, however, that in Finland in the 1990s a common strategy for all public efforts to promote regional development was to build networks for policy-making and implementation. The cases studied show that the authorities who themselves invest financial and/or temporal resources in the development processes and those whose key individuals are respected and trusted have more success as network builders than those who do not. In contrast, authorities that enter network-building without such investments and/or such individuals face considerable scepticism and will probably have small chances to make the most of the network strategy. Therefore *individuals* and *coalitions* formed by them often play a decisive role in development efforts. The combination of enthusiasm and authority that the key actors embody transmits a positive and regionally anchored view of new prospects to other development actors, firms and the general public.

In mobilizing people and resources these key individuals often use an *ambitious but believable story* as a unifying force. In one of its dimensions regional development is about competing ideas and interpretations; by a believable story it is possible to link fragmented pieces of information together in a world that is full of information, development programmes, projects and other development efforts. In South Ostrobothnia, for example, an *inductive and inducing strategy* was applied wrapped with a constantly emerging story line (see Sotarauta & Kosonen 2004). The development process was based on a collective sense-making of the knowledge economy and its reflections in South Ostrobothnia; thus collective interpretation and conceptualization formed a core in the strategy process. The story about a less favoured region in the global knowledge economy with its own identity and stubborn resistance

to giving up in front of “big changes and big players” and to adapt strategically formed the plot of the development story. It is worth noting here that it was not about a ready-made plot about but a constantly emerging and ongoing discussion that bounced back and forth between vision and practical issues and among many organizations.

*The capacity to bring forth a vision* of a different future for the region is an important element in the emerging story line. However, the mechanical formulation of a vision and strategies is not sufficient. The skills and abilities of key actors to use visions and strategies as tools in creating the story and its implications are more important than a strategic plan with well-formulated and documented visions. To be truly functional in the development work, a vision should be communicable, challenging and appealing. A vision is not an outcome of a planning process but a long process in itself. Therefore in an inductive and inducing strategy process it is important to create a *sense of urgency*, because often the formulation of a vision or development programme and, for example, receiving EU-funding, provide a development network with a false sense of security. (Sotarauta & Lakso 2000.) Development efforts need the sense of drama that in South Ostrobothnia was found in a combination of a crisis, a believable story, credible individuals and a desire to show the rest of the Finland that “our region is not out of the game yet”. In creating a sense of urgency the role of the media as a forum of critical discussion is important in making the discussion public and people aware of the challenges and opportunities. *Institutions* usually provide inducing and inductive processes with a general framework and they have a major directing effect on processes. Institutions frame the stories and actions of individuals and prevent them from getting out of hand. At their best institutions open up new opportunities for individuals and small active groups of people but do not trap them amidst endless bureaucracy and thus lock the whole region in the past.

### **2.3 Framing leadership**

To be able to influence regional development events, leaders have to act in the riptide of several different interests and aims and find a totally new range of different means to be applied in different events. On the other hand, a good leader has always known how to act in a complicated field of activity, mastering several different operational environments, interests, people and issues simultaneously. Leaders have also earlier been able to sense what different people need in different situations; therefore they have been able to act as required by the situation. They have also earlier known how to build networks, to involve new actors in networks, to negotiate funding, and to capitalize on state funding, for example, through skilful tacking. The knowledge economy as an environment, however, requires that more and more people have a more developed strategic in-built sense of the regional development game than earlier.

I begin to frame leadership in regional development by using Webster's dictionary. It defines *to lead* as a) to go before or to show the way; b) to influence or to induce; c) to go at the head of or in advance of; d) to have the advantage over; e) to act as leader of; f) to go through or pass; and g) to act as a guide. But what is to lead a complex, ambiguous and muddled process of regional development? How to go before or to induce or to act as a guide if one does not have formal power to do it? How to go at the head, if one has a formal position but no respect? How to create such a vision that gives direction to whole communities, how to get people excited, how to mobilize people?

Drawing on the literature on leadership, mainly on leadership in the corporate world, we find our first generic attributes of leadership. It is obvious that leaders cannot be leaders if they do not have anybody to lead. As Drucker (1998) states, a leader is someone who has followers. He also states that effective leadership is not about making speeches or being liked; leadership is defined by results and not by attributes. Heifetz (2003) reminds us that even though leadership is often seen either as a position of authority in a social structure or as a personal set of characteristics, that is not enough. Leadership is more useful when defined as activity; therefore we might also say that leadership does not accomplish the mission. It is rather the force that causes the mission to be accomplished. Leaders are therefore actors who have a greater range of assets than others in the community for stretching the constraints (Samuels 2003). Bennis (1999) provides us with a clue of what is important in becoming a leader by stating that leadership is actually a function of knowing oneself, having a vision that is well communicated, building trust, and taking effective action to realize one's own leadership potential (Bennis 1999). Senge (1990) adds that leaders are responsible for building organizations in which people continually expand their capability to understand complexity, clarify vision and improve shared mental models. Thus leaders are responsible for learning (Senge 1990) and particularly for choreographing and directing learning processes in the region.

We may so far conclude that leaders are individuals who have followers and who are capable of influencing their followers to produce results; thus they transform the region and/or enhance its adaptation to the changes in environment. To be able to carry through all this, leaders should be trusted, they should have vision, and they ought to build an organization so that their followers would be able to clarify the vision communicated by the leader. As Heifetz (2003, 225) states, a major challenge of leadership is to draw attention and then deflect it to the questions and issues that need to be faced. To do this, one has to provide context for the action and a story line that gives meaning to action. The followers need to comprehend the purpose of adaptive or transformative measures so that it focuses less on the person and more on the meaning of the new action, and thus they need to be actively involved in the sense-making process.

Everything said above seems to be sound enough to be worked on also in the context of regional development, but still many questions remain open and new ones emerge. In regional development processes only a small fraction of the actors influencing development has been assigned the task of promoting regional development in one way or another. Some of the actors participate in various development efforts through their own interests, simultaneously having an indirect effect on the development of the region; some do not participate at all in collective action, still influencing the course of events. Now we might also ask whether all those people who with their followers influence the course of events in some region are leaders, whether only those people whose mission is to transform the region can be defined as leaders in our context and whether they are leaders only if they produce results. What if somebody has a formal position and an official mission in the promotion of regional development but does not produce any results; is he or she a leader or not? What if somebody has no official role whatsoever, but he or she still influences the development? In addition to elaborating intentionality and formality of leadership, we also need to revisit such basic issues as leaders and followers as well as the role of vision; they may have quite different manifestations in regional development from corporate practices.

Leading regional development requires that leaders are capable to lead not only within the boundaries of the organizations and communities that authorize them, but they consciously aim to reach organizations and communities across the boundaries to reach such spheres in which their actions and words may have influence despite having no authorization. In regional development leadership is not a straightforward question of leaders and followers. To be a leader, an actor should be able to influence the actions of other organizations, and thus also the actions and decisions of other leaders. Leaders lead some issues but are often followers in others, and some of the followers may in some other occasion be leaders. In this kind of context leadership may be seen as the effect of actors on one another; it may be that in the promotion of regional development there are several leaders having different qualities. At all events, leadership in regional development is more or less an interdependent process, no one can lead the development process, or even some fragments of it, alone (if at all). Consequently leadership is here seen as shared and/or dispersed. It consists of individuals, coalitions and their capabilities exercised in interaction to achieve joint and/or separate aims, consciously or unconsciously.

Such issues as shared vision and common strategy are not in the context of regional development as straightforward as they seem at first sight. Even the question “what is development?” may prove hard to answer. Moreover, such questions as “what are we aiming at?”, “how are we acting together?”, “how are resources to be channelled?” may be very difficult to answer as all the various organizations and their leaders contemplate

development from their own perspective. Afterwards leaders willingly tell us how rationally they led the process and found answers to the above questions, but in practice the process may have been muddled, full of inertia and confusion. In the middle of this kind of process it is not an easy task to find answers and to mobilize people in an interactive and interdependent process. Thus from the leadership point of view, it is relevant to ask how the answers were actually found, or how the processes were led.

These are challenging questions, because in the promotion of regional development there is generally no single strategic management to set goals single-handedly and formulate the strategies. Even though city governments, various regional development agencies and national agencies play an important role in regional development, they are in no position to direct or control the strategies of enterprises, organizations, families, for example. The management of the regions cannot be described as “top-down” or “direct and control” models, nor is strategic management able to easily define and implement “objectives to serve the common good”. Strategy preferences must be formed and reformed by balancing different interests and seeking third solutions. Often they emerge from dynamic processes and are thus also dependent on the logic of the situation and political judgment as to what is feasible and what is not. (see Healey et al 1995.) Therefore also the assumption of one vision guiding many organizations may not be as easily achieved as often suggested in literature. The basic idea of having a grand vision guiding the activities of many organizations is very tempting. It would make the transformation process more manageable. It is only natural, however, that different organizations would nevertheless first seek to realize their own strategies. Thus I suggest that if leaders forge partnership within a shared vision, they do it the hard way. If we accept that organizations and individuals are selfish and always approach regional transformation from their own points of view, we could make an assumption that leaders operate between visions. Perhaps in retrospect it appears as if there had been a shared vision from the day one. Vision is therein not directly guiding different actors but is in itself an arena for discussions, battles and quarrels; hence, it is not seen as an outcome of a superb thinking of a leader or a creative planning process but as a process. In spite of literature claiming otherwise, it is not necessary for a leader to have vision to lead. A leader may lead by engaging followers to an open-ended visioning process and hence empower them to search for the futures; a leader may also identify the vision implicitly existing in the community, interpret it, and then communicate it convincingly in the community and so mobilize people.

I suggest that in regional development...

- there are people who significantly influence the thinking and behaviour of others, thus acting as leaders;
- transformational leaders are inventors and pioneers. They are people who venture into unexplored territory, who guide the other people to new and often unfamiliar

destinations, and thus they are going before and showing the way, and I also suggest that there are many ways to do all this;

- leaders have a greater range of assets than others to stretch the constraints, which differentiates leaders from managers. Leaders stretch constraints and constantly reach beyond them, and managers operate within existing constraints; and
- leaders are concerned with building the organization, institutions, structure and mental models for the future, that is, securing new resources and developing new capabilities, and by those means positioning the region and its organizations to take advantage of emerging opportunities, and adapting to change.

### **3 A tentative model of dynamic capabilities for regional development**

All organizations and all regions have resources of some kind, but by no means are all of them capable of using these efficiently. Mere resources are frequently not enough to generate competitiveness, let alone to create a sustainable competitive advantage or to generate “local buzz” and pipelines to global knowledge. (Bathelt et al. 2002.) At a general level the basic policy response in the knowledge economy seems to be to create a high-level knowledge pool with strong internal links and pipelines to global knowledge, the aim being to cultivate some specific differentiated and locally rooted knowledge and to foster linkages with other relevant knowledge sources in the world. In addition, intensifying knowledge links within the region and helping firms and other organizations to link with global knowledge sources is often stressed. All this raises the question of what kinds of capabilities are needed to get all this done.

Creating a competitive advantage generally requires the ability to make good use of resources, that is, many kinds of *capabilities*. I argue that even though policy makers nowadays increasingly promote expertise and a learning-based knowledge economy, they have not been able to improve their own capabilities to meet the new demands. That is why there is an urgent need to analyze and develop dynamic capabilities also in the promotion of urban development, since the dynamic capabilities are both implicitly and explicitly embedded in many development processes and directed toward enabling or disabling economic change and evolution. These capabilities enable the region as a whole to reconfigure its resource base, to adapt to the changing environment and to develop as an attractive hub *vis-à-vis* the chosen flows. I suggest, as Teece et al. (1997) have done for the firms, that in connection with leadership, the dynamic capabilities approach is promising both in terms of future research potential and as an aid to the development network endeavouring to gain competitive advantage in the increasingly demanding environment.

First and foremost *capacity* is here seen as a measure of the quantity and quality of work that a region can perform to promote economic development, it is considered a general ability “to do something”. Capacity is seen to be composed of a set of more specific capabilities linked to actors. Capability is defined as the ability to handle a

given matter and as the ability to utilize the available resources and to create new ones (Javidan 1998). Teece et al. (1997) define capabilities as the firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments. Therefore they see dynamic capabilities as reflecting an organization's ability to achieve new and innovative forms of competitive advantage. Dynamic capabilities emphasize management capabilities and inimitable combinations of resources that cut across all functions (Lawson & Samson 2001, 379), and in regional development they include, for example, building infrastructure, facilitating R&D, founding new development agencies, creating and brokering networks, and developing human resources. The main argument here is that successful regional development policies as a whole call for a set of capabilities; regions ought to enhance these capabilities and foster leadership to be able to utilize the available resources and create new ones

Behind the identification and development of dynamic capabilities there lies also the assumption that these capabilities change more slowly than products and markets. Thus the competitiveness of a region should not depend on products and markets, but on something more lasting, something that lies at the very core of the region's success. I argue that by focusing more on conscious development of dynamic capabilities in the context of regional development it might be possible to better identify and utilize resources, and in addition, to create new resources and hence to improve competitiveness. Next I elaborate on the dynamic capabilities needed in regional development in more detail on the basis of the model presented in Figure 1.

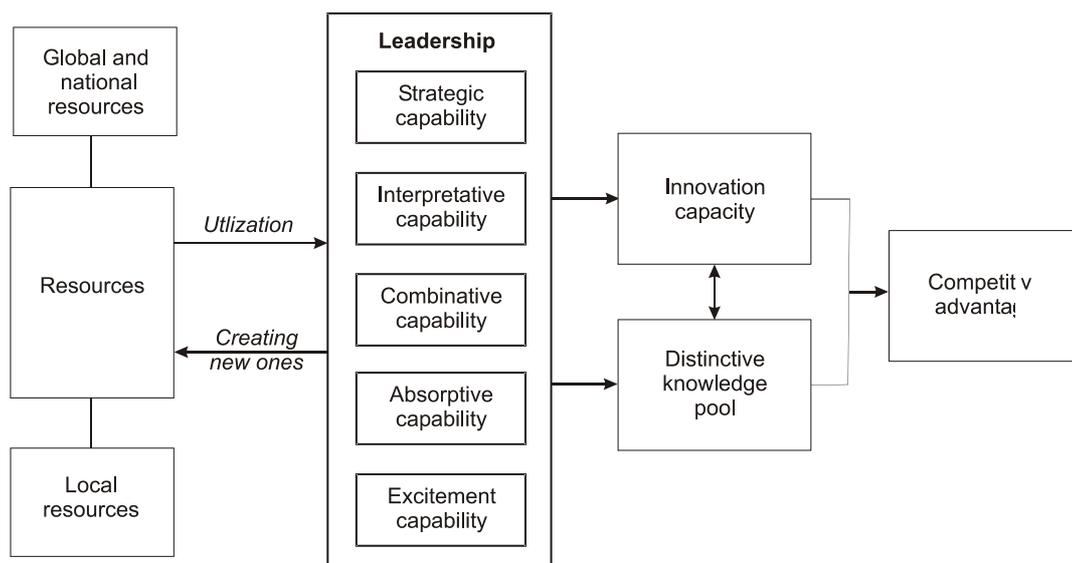


FIGURE 1. The capability model for regions

## *Resources*

According to Javidan (1998), *resources* are inputs directed at the enterprise's value chain. Barney divides the resources into three: physical resources (e.g. plants, equipment, locations and property), human resources (e.g. labour, management, educational level and experience) and organizational resources (e.g. organizational culture and reputation). Javidan perceives resources as the building blocks of competence (1998, 62). In this context, resources are seen as inputs directed at regional development.

Among the most important key questions in regional development efforts are a) what kind of resources there are in the region; b) whether the region, in other words its policy-makers and development agencies and firms, is capable of identifying regional resources, of creating new resources and of networking to external resources; and c) what the overall capability of a development network<sup>2</sup> to utilize resources is. The spirit of the times usually shapes the development views that concomitantly influence actors to see some things as resources and some not. In an industrialized society, among the most important resources in the development of regions were raw materials, sources of energy and logistical location. In the knowledge economy, a highly skilled labour force, universities and other institutions creating new knowledge, and expertise in general, are usually seen as the most important resources. At a general level resources can be grouped as follows.

- *Information and knowledge* – e.g. universities, other research institutes, firms, and the new knowledge produced in their interaction
- *Physical resources* – e.g. infrastructure, location and logistical connections
- *Firms* – e.g. their expertise, resources and contacts
- *Human resources* – e.g. highly skilled people in the firms and other organizations, research and educational institutes
- *Living-environment-based resources* – e.g. natural environment, built environment, private and public services
- *Financial and material resources* – funds for regional development work, venture capital
- *Connections* – e.g. good external networks and high-level social capital

In addition to utilizing local resources, the ability to locate and utilize external resources is of utmost importance. Hence through skilful lobbying of external financiers and decision makers and creative utilization of external funding (venture capital, national, EU), it is possible to increase the resources to build on. In the economically successful

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<sup>2</sup> By regional development network Linnamaa (1998) refers to those key actors who by their own actions and mutual co-operation have an effect on the development of the region. Municipalities, key enterprises, business lobbies, educational and research institutions, financial institutions, the state's regional administration, non-governmental organizations, etc., may be members of such a network. There may be considerable regional variation in the tightness and network-like characteristics of the regional development networks.

cases of Denmark and Finland, for example, the ability of key actors to perform fast and take proactive collective action has been of great importance in guaranteeing external (national and EU) funding and raising interest in the region and mobilizing both people and resources. (see Linnamaa 2002; Bruun 2002b.)

Managing resources requires at least the following capabilities in the development agencies: a) the ability to utilize existing resources and to find new ones; b) the ability to direct resources according to regional development strategies and in that way influence the strategies and operations of various organizations; c) the ability to skilfully lobby to external financiers and decision makers and to creatively utilize of external funding, and d) the ability to see different things as resources in regional development and to utilize them.

In the knowledge economy it is increasingly recognized that knowledge and capabilities are distributed across a set of heterogeneous actors, and much has recently been written about collective learning and its role in regional development. In regions, the quite a common policy response of the 1990s and 2000s is to try to combine strategies of many actors to attract additional resources and expertise in knowledge-intensive activities, with learning strategies targeted at a variety of groups within the region. One of the main tasks of the leaders engaged in the promotion of regional development is to create functioning development networks and to mobilize resources and expertise both internal and external to the region in question. Therefore in utilizing resources and creating new ones **combinative capabilities** are needed. I distinguish three types of combinative capability: institutional capability, networking capability and socialization capability.

The Nordic case studies of the urban development networks and processes of Tampere, Jyväskylä, Turku, Trondheim and North Denmark have in one way or another raised (see Sotarauta & Bruun 2002; Kostianen & Sotarauta 2003) the significance of institutions in framing and directing development processes. This general-level observation supports the conclusions of many studies focusing on the regional economy, stressing the importance of institutions in economic success (see North 1992; Maskell 1996; Morgan 1997). Based on these observations, *institutional capability* in terms of direction, policies, procedures and other explicit guidance is often used to integrate different organizations and their explicit knowledge. As Healey et al. (1999) state, the notion of institutional capability building is not a new concept. It has been used to highlight the need to build up individual capabilities (e.g. labour force skills or entrepreneurial capability) and those of public development agencies. In the former case, the focus is on the institutions which help to develop such capabilities. In the latter case, the emphasis has been on the capability of particular organizations. The new thinking on institutional capability, however, focuses on the webs of relations involved

in development policies, which interlink public development agencies, firms, and educational and research institutes in collective action; thus institutional capability is here seen to be part of combinative capability. (Healey et al 1999.)

Institutions frame the development policies and processes and give various networks and development activities their context but they may have either a positive or a negative influence. On the one hand, they may represent continuity in a rapidly changing world and also provide actors with a clear and supportive playground. On the other hand, institutions may lock regions in past development paths politically, functionally and/or cognitively (see Schienstock 1999; North 1992; Hukkinen 1999). Therefore removing the institutional obstacles that block processes and networks to make the change-over to a new development path possible is often crucial in institutional capability. However, in a blurred and rapidly changing knowledge economy, uncertainty is not to be increased by unconsidered institutional transformations; institutions should reduce uncertainty, not increase it. Based on the above considerations, institutional capability refers to abilities to create such an institutional set-up that supports promoting the competitiveness of a region and to abilities to remove the institutional obstacles and bureaucratic rigidities that block processes and networks. It also includes the ability to create and maintain flexible but at the same time persistent institutional set-up that supports networking and fluidity of development processes; that is, the ability to create institutions that provide organizations with as good and supportive national, regional and local development and innovation environment as possible.

**Networking capability** refers to the capabilities to forge trust, mutual dependency, loyalty, solidarity, and horizontal co-operation based on trust and reciprocal support among organizations and individuals. Hence it refers to the abilities to combine a versatile and many-sided set of actors and their competences and resources to be able to design and implement effective strategies and projects to promote regional competitiveness and to create a distinctive knowledge pool to form a core of competitiveness. It also refers to the abilities to maintain and deepen the sense of mutual benefit that exists within the network by enhancing network connectivity, integration (mutual adaptation) and transparency. In networking capability it is also important to appreciate openness to extra-regional collaboration and resources to solidify the long-term resource base of economic development; hence also the ability to combine internal and external resources and competences is stressed.

Networking capability includes a) the ability to involve people and empower them to act as a network, b) the ability to make people work to reach joint and separate goals and renew them in an ongoing process, c) the ability to promote interactive processes serving as an intermediary in interaction between actors and steering activities towards

seeking for goals and enabling co-operation, and d) the ability to connect various actors to the knowledge pool from their own starting points.

**Socialization capability** refers to the abilities to produce shared and often tacit knowledge that lead to social integration of actors which goes far beyond the institutions and networking, and thus the ability to network competently and efficiently to utilize informal relations is significant. Therefore the ability to share feelings, emotions, experiences and mental models becomes important. (see Nonaka & Konno 1998.)

Based on their study of the transformation processes of the machinery industry in Tampere, Martinez-Vela and Viljamaa (2003) state that **absorptive capability** has been the key in the selection processes of the firms in their endeavour to detect and assimilate new knowledge, to prioritize development efforts and to make sense of emerging technological opportunities, and thus to reinvent a whole industry and affect greatly the development of a whole region. Drawing on Cohen and Levinthal (1990, 569-570) and applying their definition to regional development, absorptive capability refers to the development networks' ability to identify, assimilate and exploit knowledge from the environment. Cohen and Levinthal have also argued that the ability to evaluate and use outside knowledge is largely a function of the level of prior related knowledge. Absorptive capability can be divided into potential and realized absorptive capability. Potential capability comprises knowledge acquisition and assimilation capabilities, and realized capability centres on knowledge transformation and exploitation (Zahra & George 2002, 185). Thus realized capability refers to the capabilities to get things done and actually implement formulated strategies.

Absorptive capability is essential in strategic adaptation in which both adaptation to changing environment and strategic choices of an actor play a significant role. It includes, for example, the ability to value, assimilate and apply new knowledge and to transfer vision and strategies into action; in this kind of processes also **interpretative capabilities** are of utmost importance (see Lester & Piore 2004). The mental model, cognitive map, development view, whatever we call it, is an important factor in regional development, since in a certain sense we live in a world of mental models made up of thoughts, ethics, ideas, concepts, images, memories, plans, and knowledge among other things. Actors do not react directly to reality but to internally constructed perceptions of reality.

Actors generally have different perceptions of problems, other actors, dependency relations and the benefits and drawbacks of working together. Such perceptions are difficult to change, but in joint activity they may gradually reform and be reconstructed. Actors are not even always willing or able to modify their perceptions. In such situations there is a risk that the development process will become a "dialogue of the

deaf”, with the same arguments reiterated ritualistically with nobody willing to have his or her view put in an unfavourable light. By interpretative capability one seeks to prevent such deadlocks or to resolve them by maintaining or creating conditions for open debate. In such discussions, an effort should be made to accept that there is no “best” perception as such and that for successful co-operation the existence of differing perceptions is of more use than the elimination of differences in interpretations (Termeer & Koppenjan 1997.)

In the 1990s in Tampere, Jyväskylä, Turku and North Denmark the development view of many of the key actors became increasingly parallel and had a significant effect on the development activities. It became more effective and focused, and development networks became more integrated, connected and dense (Bruun 2002a; Bruun 2002b; Linnamaa 2002; Kostiainen & Sotarauta 2003). Thus it can be stated that the conscious construction of collective strategic consciousness is one of the key elements in ensuring strategic focus (see Sotarauta 1999) and in creating and maintaining the density and integration of development networks. The assumption then is that as strategic consciousness grows so does the absorptive capability.

Strategic consciousness may make development work more effective, but it may also lead to a phenomenon called *groupthink* (Janis 1982). Groupthink may hinder learning and thus prevent key actors from being able to reshape their development view. In this case, the dominant coalition does not listen to any critical arguments and does not see how changes in the environment are changing the base of the strategies. Consequently, the dominant coalition focuses on defending selected strategies and it may cognitively lock in the past path. In the case regions referred briefly above, the development views and strategic consciousness of the key actors has been becoming more parallel than before, which has made development work more effective. On the other hand, however, it has led to a situation in which it has been difficult for policy makers to see and think differently.

There is a risk that coherence and homogeneity are prioritized at the cost of sound criticism. This might turn out to be highly problematic if the development activities are evaluated with criteria that emphasize the moral as well as the long-term economic value of critical discourse. Such discourse, on the one hand, relates selected strategies to the respective region and its many other activities as a whole and, on the other hand, uncovers possible weaknesses of selected strategies; thus critical discourse is also a source of continuous renewal. Openness and transparency are essential elements in the interpretative capability, and dynamic, network-based and process-oriented regional development policy should be grounded in the explicit maintenance of the moral and long-term economic value of social discourse critically utilizing, reflecting and

weighing the spirit of the time that has ensured the emergence of such a policy in the first place. (Sotarauta et al. 2002.)

**Strategic capability** refers to the ability to make decisions about what to focus on in regional development in the long run, and thus to set the strategic direction for many development efforts. Slightly more specifically it can be summarized that it includes, among other capabilities, a) the ability to define strategies and visions for regional development in a collaborative process, b) the ability to bring to the fore visions of different futures and the ability to transform these visions into focused strategies and action, c) the ability to transform crisis situations into something constructive, d) the ability to launch processes right as well as to manage and lead them persistently in different phases, e) the ability to find correct timing for development work and seize the competitive advantage by being a pioneer, and f) the ability to bring forth big objectives so that they seem credible and attractive for the other actors.

Also the capacity for bold and fast strategic decisions in the community is important in opening opportunities for a new path. If successful, this capability may be institutionalized in the community and become a local pride and an essential part of the local culture and form the core of development and decision-making capability of a whole region. Previous successes or failures either strengthen or weaken the capability to make bold decisions.

It has often been stated that in regional development the most important issue is mobilizing resources and actors, and many of the above referred capabilities aim at doing exactly that. In addition, however, a separate set of capabilities that aims at giving birth to creative tension is identified here (for creative tension in regional development, see Sotarauta & Lakso 2000), since creative tension can make people genuinely inspired to create new products, processes, knowledge and concepts, and thereby to create a competitive advantage for the region. Creative tension is an essential state for regional development and it can be characterized by excitement and uncertainty about the consequences of future events and measures; the dominating thought and/or action patterns are questioned simultaneously by forces which are in mutual opposition or sufficiently different from one another. Creative tension may result in unprecedented, original products or in processes, thoughts, and action models. It may come into being spontaneously or as a result of leadership.

Leaders need to be able to generate creative tension that makes people interested and motivated in development work and thus to create a sense of urgency. As already mentioned above, often the formulation of a vision or a development programme and, for example, receiving EU-funding provide a development network and a whole region with a false sense of security. To avoid this pitfall, development efforts require the sense of drama that can be found in a crisis, possible crisis, great opportunities,

charismatic individuals, etc. What is essential here is the ability to arouse people's interest and motivation. It helps if key actors in the regional development work are regionally well-known and respected individuals, because the combination of enthusiasm and authority that they embody is likely to transmit a positive and regionally anchored view of the project to the general public. Visionary leadership and concentration of representative authority in the regional development network should be balanced with openness, transparency and goal consistency to guarantee the credibility and educational self-renewal of the network as sources of creative tension, i.e. exciting and inspiring processes that attract highly skilled individuals, new knowledge and ideas. Therefore **excitement capability** refers to the ability to capitalize on creative tension between the inspirations of key individuals and the dominant thought patterns, and to the ability to excite the actors to "development rebellion"; all this requires a good sense of drama.

Excitement capability includes a) the ability to create and utilize creative tension in development work, b) to create the sense of drama (presenting issues so that people become enthusiastic and excited), c) the ability to get short-term success to sustain motivation in the network, and d) to motivate people to participate in various development efforts.

#### **4 Conclusions**

The knowledge economy needs its institutions and structures; nevertheless, it also seems to need brave and visionary individuals and innovative networks formed by them to get things done. The basic message of this paper is that a more explicit focus on leadership, individuals, dynamics of the networks and the dynamic capabilities is needed in the often quite muddled and complex fields of regional development.

All this means that the capabilities of the leaders and policy makers should be continuously developed so that they would be able to see different things as "stakes" in regional development and to utilize them in co-operation with other actors. It is also important to note that focusing on capabilities does not refer to a functionalist view on development or on investigating which organization should have which capabilities. Rather the question is what capabilities already exist in the region, what is their quality, what are missing, which individuals or what organizations possess what capabilities, how is it possible to develop new ones and to maintain and strengthen them, and how to channel capabilities to enhance development.

Our earlier studies of urban and regional development hints that the capabilities briefly elaborated above are in many ways connected to each other. For example, institutional capability is often seen as an important factor in development, but I argue that inflexible institutions and rigid mental models actually lock regions in the past path

by preventing fresh insights and ideas from entering the discourse dominating the contemporary development efforts. Well-developed excitement and absorptive and interpretative capabilities are important in opening up opportunities for a new development path and in reinterpreting and reconfiguring institutions. The new development paths begin to unfold when individuals and small groups detect new opportunities and weak signals of changing society and plant the first seeds of the change (often unconsciously). In the planting of seeds interpretative, absorptive, excitement and strategic capabilities play significant roles, since they open the thinking of individuals and small groups for new horizons and enable actors to take the first steps. I also argue that the new development path is more often than not born outside the official strategies and the dominant discourse, which is why strategic capability seems to be important in widening the already emerging new development path and thus rooting it in the region, but not so important in creating a new one.

Too much excitement capability may, however, turn out to be harmful in some phases of development. A new path beginning to be rooted in the activities of many actors, too strong an excitement capability may break new paths into overly incoherent and disconnected processes and may even hinder development efforts, if actors are not able to channel their excitement to implementing existing strategies. If too fragmented, excitement capability may prevent new ideas and innovations from being institutionalized and absorbed to organizations and to society and the economy as a whole. Absorptive and strategic capabilities are particularly important in getting things done, in actually doing what is supposed to be done and agreed on. Consequently the role and significance of combinative, institutional and absorptive capabilities emerge as important issues in stabilizing the new path and in creating more coherence in the development.

## References

- Bathelt, H. & Malmberg, A. & Maskell, P. (2002), *Clusters and Knowledge: Local Buzz, Global Pipelines, and the Process of Knowledge Creation*. DRUID Working Paper No. 02-12.
- Bennis, W. (1999), The Leadership Advantage. *Leader to Leader*. No. 12, Spring, 18-23.
- Bramanti, A. & Ratti, R. (1997), The Multi-Faced Dimension of Local Development. In Ratti, R. & Bramanti, A. & Gordon, R. (eds.) *The Dynamics of Innovative Regions*. Aldershot: Ashgate Publishing.
- Bruun, H. (2002a), The emergence of regional innovation network: A process analysis of the local bio-grouping in Turku. In Sotarauta & Bruun (eds) *Nordic Perspectives on Process-Based Regional Development Policy*. Nordregio report 2002:3. 79-124. Stockholm.
- Bruun, H. (2002b), Mobilising a Regional Lighthouse: A Study of the Digital North Denmark Programme. In Sotarauta & Bruun (eds) *Nordic Perspectives on Process-Based Regional Development Policy*. Nordregio report 2002:3. 125-156. Stockholm.
- Bruun, H. (2002c), Building Policy Networks: A Comparative Study of Public Attempts to Create, Coordinate and Stimulate High Technology in Turku, Finland, and in Trondheim,

- Norway. In Sotarauta & Bruun (eds) *Nordic Perspectives on Process-Based Regional Development Policy*. Nordregio report 2002:3. 157-184. Stockholm.
- Cohen, W. M. & Levinthal, D. A. (1990), Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, Vol. 35, 569–596.
- Drucker, P. (1998), *Managing in a Time of Great Change*. Truman Talley Books/Plume.
- Flyvbjerg, B. (1998), *Rationality and power: Democracy in practice*. The University of Chicago Press.
- Healey, P & Cameron, S. & Davoudi, S. & Graham, S & Madani-Pour, A. (1995), Introduction: The City – Crisis, Change and Invention. In Healey, P & Cameron, S. & Davoudi, S. & Graham, S. & Madani-Pour, A. (eds) *Managing Cities*. Bath: John Wiley & Sons, 1–20.
- Healey, P. & Madanapour, A. & Magalhaes, C. (1999), Institutional capacity-building, urban planning and urban regeneration projects. In Sotarauta, M. (ed.) *Urban Futures: A Loss of Shadows in the Flowing Places? Futura*. Vol. 18, No. 3. 117-137.
- Heifetz, R. A. (2003), *Leadership Without Easy Answers*. 13th edition. Cambridge, MA.: The Belknap Press of Harvard University Press.
- Hukkinen, J. (1999), *Institutions in Environmental Management: Constructing Mental Models and Sustainability*. London: Routledge.
- Janis, I. L. (1982), *Groupthink: Psychological Studies of Policy Decisions and Fiascoes*. XXX: Houghton Mifflin.
- Javidan, M. (1998), Core Competence: What Does it Mean in Practice. *Long Range Planning*, Vol. 31, No 1. 60–71.
- Judd, D. & Parkinson, M. (eds.) (1990), *Urban Leadership and Regeneration*. Urban Affairs Annual Reviews, Vol. 37. Sage.
- Klijin, E-H. & Teisman, G. R. (1997), Strategies and Games in Networks. In Kickert, W. & Klijin, E-H. & Koppenjan, J. (eds) *Managing Complex Networks. Strategies for the Public Sector*. London: Sage, 98–118.
- Kostiainen, J. & Sotarauta, M. (2003), Great Leap or Long March to Knowledge Economy: Institutions, Actors and Resources in the Development of Tampere, Finland. *European Planning Studies*. Vol. 10, No. 5.
- Lawson, B. & Samson, D. (2001), Developing innovation capability in organisations: A dynamic capabilities approach. *International Journal of Innovation Management*, Vol. 5, No. 3, 377–400.
- Linnamaa, R. (2002), Development Process of the ICT Cluster in the Jyväskylä Urban Region. In Sotarauta, M. & Bruun, H. (eds) *Nordic Perspectives on Process-Based Regional Development Policy*. Nordregio report 2002:3. 29-78. Stockholm.
- Lester, R. & Piore, M. (2004), *Innovation – The Missing Dimension*. Harvard University Press.
- Logan, J & Molotch, H. 1987. *Urban Fortunes*. University of California Press.
- Molotch, H. (1976), The city as a growth machine: Toward a political economy of place. *American Journal of Sociology* 82: 309–30.
- Nonaka, I. & Konno, N. (1998), The Concept of “Ba”: Building a Foundation for Knowledge Creation. *California Management Review*, Vol. 40, No.3, SPRING 1998, 40–54.
- North, D.C. 1992. *Institutions, Institutional Change and Economic Performance*. Cambridge, MA.: Cambridge University Press.
- Pralahad, C. K. & Hamel, G. (1990), The Core Competence of the Corporation: *Harvard Business Review*, May/June, 79–91.
- Samuels, R. (2003), *Machiavelli’s Children: Leaders & Their Legacy in Italy & Japan*. Ithaca, USA: Cornell University Press.
- Schienstock, G. (1999), From Direct Technology Policy Towards Conditions-Enabling Innovation Policy. In Schienstock, G. & Kuusi, O. (eds): *Transformation Towards a Learning Economy. Challenges for the Finnish Innovation System*. Helsinki: Sitra.

- Senge, P. M. (1990), *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York: Doubleday.
- Simmie, J. (2001b), Innovation and agglomeration theory. In Simmie, J. (ed.) *Innovative Cities*. 11-52. Spon Press, Taylor & Francis Group.
- Sotarauta, M. (1999), In Search of Strategic Consciousness and Using Plans as Mirrors: The Case of Raisio Town. *Sociedade e Território*. No. 29, 16–35.
- Sotarauta, M. & Lakso, T. (2000), *Muutoksen johtaminen ja luova jännite: Tutkimus Kainuun kehittämistoiminnasta*. [Change management and creative tension: A study of promotion of development in Kainuu region] Acta-sarja 132. Helsinki: Suomen Kuntaliitto.
- Sotarauta, M. & Bruun, H. (eds) (2002), *Nordic Perspectives on Process-Based Regional Development Policy*. Nordregio report 2002:3. Stockholm.
- Sotarauta, M. & Kosonen, K. (2004), Strategic adaptation to the knowledge economy in less favoured regions: A South-Ostrobothnian university network as a case in point. In P. Cooke & A. Piccaluga (eds) *Regional Economies as Knowledge Laboratories*, Cheltenham, UK: Edward Elgar.
- Stewart, M. (1997), Partnership, Leadership and Competition in Urban Policy. In Oatley, N. (eds) *Cities, Economic Competition and Urban Policy*. 77–90. Paul Chapman.
- Teece, D. J. & Pisano, G. & Shuen, A. (1997), Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, Vol. 18, No. 7, 509–533.
- Termeer, C.J.A.M. & Koppenjan, J.F.M. (1997), Managing Perceptions in Networks. In Kickert, W.J.M. & Klijn, E-H. & Koppenjan, J.F.M. (eds) *Managing Complex Networks: Strategies for Public Sector*. 79–97. Sage.
- Zahra, S. A. & George, G. (2002), Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*. Vol. 27, No. 2, 185–203.