Structure and Strategy for Regional Learning and Innovation—Challenges for Regional Planning

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ABSTRACT Development of codified and tacit knowledge is important for capacity building in regional communities. To do so regions need active cooperation and trust building between public organizations related to research and education, private companies and organizations and the civil society so as to cross sector barriers and to mobilize to meet regional challenges proactively. Such processes must enjoy wide support in the regional community; mobilization for change must take place from below and across a broad front. Actors from outside can stimulate such processes, but they cannot take responsibility for them. The role in building out the community that is held by democratically elected bodies, make it natural to demand or expect that such actors take an initiative towards improvement, which brings challenges that are discussed later in this article.

1. Introduction

It is with good reason that Michael Storper (1997) points to talk and trust as the two most important strategies for breaking out of institutional chains in complex communities and organizations. But dialogue and creating trust require continual and long-term relationships between actors, with for example the development of mutual and balanced dependency (Amdam, J., 2000a, 2000b). The challenges for communicative regional planning are of course: How can one establish far-reaching and essential dialogues between actors and gradually build up trust between them, when to begin when there are no relationships, arenas or processes that make this natural? And if the distrust between actors is strong: How does one arrange for conversations that can clear up these relationships? These are essential questions in all learning systems. If one does not succeed in these efforts, it will not be possible to develop learning economies or learning societies (Amdam, J., 2000a, 2000b). In other contexts, the challenge is more fundamental: What can be done when vital groups of actors with relation to competence do not exist at all in a region?

These questions illustrate some of the challenges for the Norwegian County Commune, a political body between the State and local government. When the County Communes lost responsibility for hospitals in 2001, they were supposed to transfer from a role as mainly producers of public services on a regional level to a role as the dominant and proactive public
developer of their territory, i.e. to change rather rapidly from being a part of national government to being a major force in regional governance (Inst. S. nr. 268, 2001-2002), and with small resources to do this job that must be created by hard work, not by decisions. To present and discuss some of the challenges they do face (as well as corresponding authorities in other countries) and how they can respond to such challenges is the main objective here.

Regional development and planning is not a new role for the County Commune in Norway, but the main means and orientation have been development of 'hard' infrastructure and economic support to firms (Amdam, 1997). According to changes in national policy, the County Commune shall focus a lot more on innovation and knowledge transfer, from top-down programmes to communicative planning and development from below and on development of milieu instead of companies (St.meld. nr. 34, 2000-2001). The County Commune is still responsible for higher secondary education (16–19 year group) and vocational education and training for all year-groups and shall use this responsibility to promote the transfer of knowledge also to industries. For this reason I will concentrate on challenges and strategies regarding regional learning and innovation. This change in policy correspond well with findings in international research, Cooke and Morgan (1997, p. 161) states as an example:

> Of itself, of course, regional government will do little or nothing to enhance economic performance ... But it could make a difference if, using its local knowledge and its enabling power, it helped to foster more robust networks of collaboration between public and private sectors on the one hand and a more customized support infrastructure on the other.

But to find that this is an important characteristic in well functioning regions and to decide politically from the top that Norwegian County Communes shall have an important role in such milieu, is only the first stage in complicated processes from vertical government to horizontal governance.

### 2. Challenges to be met in Regional Communicative Planning—From Government to Governance

The term region can have many meanings. In our context here, it refers to a geographical area between State and municipal level that appears as a homogeneous economic and cultural area in which business and industry as well as the community, are facing more or less the same challenges or have the same cultural processes combined with political and economic ones (Cooke & Morgan, 1997, p. 64). A county can be such a region, but often this political/administrative unit cover an area that are smaller or bigger and this can also be a challenge for the County Commune as a development agent.

A local or a regional community (be it a cultural or administrative region) has a specific context and situation, and challenges from both other parts of the world and from itself (see Figure 1) which varies from community to community. How inhabitants, companies, organizations, etc. react to challenges—how they cooperate and compete and influence the capacity they have to develop efficient responses to challenges (Amdam, J., 2000a, 2000b; Bennett & McCoshan, 1993; Healey et al., 1999; Putnam, 1993; Stöhr, 1990). For practical reasons in Figure 1 I have divided the community into three groups: public activity (both political and administrative), private industries and civil society.

The capability of a region to meet challenges is particularly dependent on how the various actors manage to produce and exploit competitive knowledge (Diez, 2000). At the same time, challenges must be answered with strategies and measures that the whole community involves itself in and which are adapted to suit the situation and meet the challenges in the region in
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Figure 1. Structure and process regarding challenges for regional learning and innovation.

question (Stöhr, 1990). The establishment and development of regional innovation systems requires certain conditions to be met. There needs to be an active business and industry with a high degree of co-location and cooperation, plus an active cooperation between various actors and organizations with competence in the field of developing and dispersing knowledge (Lagendijk & Cornford, 2000; Storper, 1997).

In this article I will use the model in Figure 1 to examine some of the challenges that a region can have trying to influence the production and exploitation of competitive knowledge, especially in business and industry, but also in other parts of the community. What role can communicative regional planning have on processes that create response? What strategies can be used to mobilize knowledge and relations in the region? And especially how can a public and democratic institution like the Norwegian County Commune work proactively to develop and implement adequate response in cooperation with other actors inside and outside the region? For practical reasons I will use some examples from Norway. My ambition is also to point to some of the challenges we have as planners regarding these questions, not to give extensive answers.

Today we see that theories and methods developed to improve participation and collaboration (Friedmann, 1992) in local and regional planning and politics in a modern community (Amdam, 1992, 1995a, 1995b, 1996a, 1996b, 1998, 2000a) also are methods to destabilize modernity and driving ideas on the way from 'top-down' government to participative governance on different levels, but also to 'top-down governance' led by partnerships between State and corporatist organizations. Communicative and collaborative theories and methods have made post-modern governance and planning possible, however these theories and methods are imperative to make governance of a complex and fragmented society possible as Patsy Healey (1997) states. In her book 'Collaborative Planning', Patsy Healey (1997, p. 206) writes:

The systems of governance of a society or community refer to the processes through which collective affairs are managed. Governance involves the articulation of rules of behaviour with respect to the collective affairs of a political community; and of principles for allocating resources among community members.

She then goes on and includes collective defence against attack, economic promotion, welfare provision—the management and development of 'common good' and 'public interest'. This definition includes most of the institutions, values and interests of the welfare state that traditionally have been governed 'from above'. The government structure and process is described like this by Healey (1997, p. 206):

In modern societies, governance has traditionally been equated with what govern-
ments do, with the machinery of the ‘state’. The growth of the modern state is one of the most characteristic features of modernity. Government as a separate sphere of social organisation is recognised in the distinctions often made between ‘the state’ and ‘society’ or the ‘public sector’ and the ‘private sector’.

But the change from government to governance and ‘collaboration’ is not easy. In welfare states like Norway there is a continual struggle between ‘top-down governance’ (functional) and ‘bottom-up governance’ (territorial) (Friedmann & Weaver, 1979). In his book ‘Empowerment’, John Friedmann (1992, p. 27) divides social practice into four domains inscribed within a bounded territory or life space:

- State, state power: executive and juridical branches;
- Civil society, social power: natural persons, households, and civil associations (the domain of culture and social structures);
- Corporate economy, economic power: corporations and financial institutions (i.e. juridical persons);
- Political community, political power: social movements and political organizations.

The four domains of social practice have traditional relationships with each other. Over the past 200 years in the West, power has been accumulating along the vertical axis a–a’, linking state with corporate economy largely at the expense of power along the horizontal axis b–b’, which connects civil society with political community. (Friedmann, 1992, p. 30).

Friedmann goes on to describe this process as a systematic disempowerment of the civil society. The power of the civil society can only increase by forming stronger cooperation and partnerships inside civil society itself and with the political community, an increased power over decision-making as well as systematic empowerment. According to him, stories of civil resistance can be a part of a slow recovery of social and political power by households, civil associations and social movements. State autonomy is challenged by claims of citizen sovereignty and participatory governance is a part of this. This alternative development is centred on people and their environment rather than production and profits.

The changes in the role that the County Communes are supposed to play can be understood as a change from being a part of State government or ‘vertical governance’, to being a part of horizontal governance where political legitimacy and accountability as well as the ability to develop and implement policies built on regional needs is important (Cooke & Morgan, 1997). Some counties are already well integrated in ongoing horizontal governance; in other counties with a strong ‘government’ tradition and culture this change will need time and hard work regarding change of values and attitudes (Amdam, J., 2000a, 2000b). The struggle between territorial and functional governance can also lead to lack of coordination regarding the production and exploitation of competitive knowledge (Cooke & Morgan, 1997; Friedmann & Weaver, 1979). As an example Bennett and McCoshan (1993) have assessed the British society's system of developing business and industry and human resources with special emphasis on local and regional development work. The systems for economic development, education and training (apprenticeships, etc.) are compared with similar systems in other countries. They conclude with discouraging assessments of the British systems in relation to the territorial and functional coordination of such development work and to the social results of these efforts. This is also shown by Cooke and Morgan (1997), where they also point to the lack of regional democratic institutions with legitimacy and accountability as a major problem.

Cooperation, joint development work, the building of networks, interactive learning, etc. seem today to be the main strategies in use to get such systems to function together and to further regional development (Asheim, 1996; Asheim & Isaksen, 1997; Cooke & Morgan,
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1997; Healey et al., 1999; Isaksen, 1999; Koschatzky & Sternberg, 2000). But basic to all this is the fact that it is human beings who develop, communicate, use and are bearers of knowledge and competence. Knowledge gathered in libraries, on the Internet, etc. is passive and does nothing to further regional development unless it is activated and integrated in social processes (Amdam, 2000a), i.e. the development of human resources and competence. Even though it is possible for individuals to develop new knowledge, the recognition, further development, dissemination and use of such knowledge is linked to cooperation and networks between people and organizations—to social processes that require nearness (Törnquist, 1997).

But what are the conditions necessary to enable such cooperation to function, and can it in fact result in regional development? Are there special barriers or challenges associated with cooperation and the building of networks between business and industry, public actors with knowledge (resources) and the civil community? And what form and content can and should such cooperation involve? My focus is regional planning and development: whether it is possible to change structures and institutions and to get systems to produce other and better results for society than has been the case.

If one transfers this perspective to competence and capacity development—to develop ‘learning regions’ (Asheim, 1996) or ‘clusters’ (Porter, 1990)—the challenges to the system can be illustrated as in Figure 1. Instead of four domains (Friedmann, 1992), Figure 1 would have three subsystems which would have to be made to function as well as possible as a collective unit: business and industry itself, public activity aimed at competence and capacity building (and that would include both the State and the political community) and the civil community. Each of these subsystems are linked together with both larger (national and international) and smaller (local suppliers, etc.) systems that form the framework of terms and challenges (Stöhr, 1990) and by processes (Cooke & Morgan, 1997). So let us have a look at some of the challenges for regional communicative planning regarding each of these three subsystems and their relations.

3. Regional Business and Industry

Seen in relation to the furthering of innovation in the economic life of the regions, what challenges can we see? There are tremendous challenges related to the development of interactive learning in the individual companies, in the cooperation between companies and between companies and other actors in society (Cooke & Morgan, 1997; Isaksen, 1997, 1999; Storper, 1997; Sternberg, 2000), both intraregional and interregional (Arndt & Sternberg, 2000). Strategies that the companies themselves choose, seem to a large extent to be dependent of both the economic structure and regional structure. In Arndt and Sternberg’s (2000) study of 10 European regions, the results verify that in spite of numerous network relationships on the national and international level small businesses are most likely to cooperate with others in their vicinity.

Nilsson (1998) points to the paradox that in e.g. ‘Silicon Valley’, with its high degree of creativity and innovation activities of both knowledge and products, there is great openness between companies and between persons involved in such work, probably in order to reduce the risk of mistaken investment. A similar picture emerges from ‘learning regions’ (Asheim, 1996; Isaksen 1997), whilst established and stagnating business and industry and regions are more characterized by closed, internal processes of knowledge within companies and concerns (Storper, 1997). What seems to be typical is that regions with a positive development have high internal powers of change, a high degree of open flow of knowledge between actors and a long tradition of growth (Nilsson, 1998), often such that growth in some industries compensates for decline in others. The growth of new knowledge and competence comes in the form of self-development in existing businesses and environments, the transfer of knowl-
edge between industries and companies, a high rate of establishing new companies based on knowledge and through the recruitment of young, well-qualified people. Regional networking, cooperation and networking between regional companies, suppliers, costumes, competitors, service providers and research institutes in a regional milieu are an important part of this development (Cooke & Morgan, 1997). "The paradox lies in the fact that sustainable competitive advantages in a global economy appear to increasingly develop at the regional level in the form of knowledge, abilities, relationships and motivation, which cannot be achieved by distant competitors" (Arndt & Sternberg, 2000, p. 467). The more knowledge-intensive the innovation activities of a business are, the greater the necessity of spatial proximity and of network ties. Decentralized competencies in innovation, diversified industrial networks, high-value education and research facilities and institutional 'network moderators' are especially important (Koschatzky & Sternberg, 2000).

This is also connected to structures both in industries and in the community. The difference between 'linear' and 'interactive' organization of research, innovation and other activities in and between companies have a high influence on their behaviour and their performance (Cooke & Morgan, 1997, p. 58):

... The common thread running through these innovations is the attempt to create a more collaborative corporate culture, both within the firm and between the firm and its principal suppliers. Collaboration, however, is a means not an end, a means through which firms hope to become more productive, more innovative, and of course more profitable.

Also in Norway we find considerable regional variations in development and the ability for innovation. In particular, the major urban areas have shown themselves to be growth areas for employment, but so have other regions without large cities and towns in western and southern Norway (Hansen & Selstad, 1999; Isaksen & Spilling, 1996). In other regions, such as Alta, Tromsø, Bodø and Lillehammer, public investment can have played a larger role in growth than private business and industry. At the same time, the Norwegian economy and labour market are changing rapidly, a situation that alters the challenges linked to the development of knowledge and competence. While just a few regional industries were internationally integrated 30 years ago, most of today's industry and private business competes internationally or is under influence from abroad. To an increasing degree, both the public and private production of goods and services and their turnover are dependent on international standards and agreements, the buying-up of companies, product dominance, etc., and expectations of products and services that to an increasing extent are influenced by international culture and marketing (Storper, 1997; Mariussen & Virkkala, 1999; Maskell et al., 1998). The traditional primary industries like farming and manufacturing industry are experiencing a decline in the number of jobs—the growth industries are production-oriented service and in particular those activities that develop information (over 70% growth 1980–1990 in Norway) and service aimed at households. Especially production-oriented service represents a great challenge because job creation is so greatly concentrated on the major cities, especially Oslo (Hansen & Selstad, 1999). Virtually half of those with a Master's Degree now live in Oslo and Akershus, the capital region of Norway.

These and other features of development mean that regional communities compete in far more arenas than just providing jobs. Demands are strongly on the increase when it comes to quality in the job sector and in leisure activities and for various groups in society. Regional communities must be at the same time rural with good access to nature and the outdoor life, and urban with well developed private and public services (Amdam, 1998; Healey, 1997; Nilsson, 1998). Regions must at the same time combine the traditional with the latest developments in society.
The rapid growth in employment in individual enterprises in services aimed at manufacturing, would indicate an increase in 'outsourcing' of service production from manufacturing companies. This is a characteristic feature of the development of for example the conventional agricultural sector, where farmers today are specialists in production, while cooperative organizations and private companies specialize in the development, processing and marketing of the products (Strøm, 1999; Morgan & Murdoch, 2000). This means that many farmers and rural areas that are heavily dependent on farming, are almost devoid of marketing competence/knowledge and without insight into the workings of the market system, a fact which is very problematic with a view to rural development and local product development. If there is not a greater decentralization of service industries aimed at production, this situation can easily repeat itself in other traditional industries and regions dominated by manufacturing.

The marked growth of many, small competence-related companies, has also resulted in growth taking place in the larger towns (Hansen & Selstad, 1999). Without stimulating measures, it is typical that new service industries, which are not linked to specially localized resources, grow up in the major cities or in special ‘learning regions’ or ‘clusters’ (Henry & Pinch, 2000). Not until there are distinct advantages in being localized in other smaller places, due to increased competition, will these functions be spread to more periphery areas (Amdam, 1983).

There are many indications that established business and industries, through various forms of vertical integration and ‘outsourcing’, contribute to a centralization of the working processes that depend on knowledge and the development of knowledge. Simultaneously, new enterprises grow up, e.g. closely linked to information and communication technology, in which various forms of knowledge development and dissemination are key factors (Henry & Pinch, 2000). These companies are often flexible businesses dependent on highly qualified staff and localized in central areas. A lack of joint localization between such service industries and research institutes aimed at assisting production and the companies actually involved in the production process, can lead to a weakening of the regional innovation system (Arndt & Sternberg, 2000; Fritsch, 2000).

It would also seem to be typical that businesses with roughly the same type of activity ‘cluster together’ geographically (Porter, 1990). An example in Norway is the group of ship constructors in Ålesund, closely linked to the shipbuilding industry on the north-western coast of south Norway (Asheim & Isaksen, 1997). In many fields, one can see an international development of such ‘clusters’, in which a few environments with a certain geographical localization are completely dominant. Such spontaneous and self-actuating localizations and links would appear to be vital in deciding who wins in the competition between regions (Nilsson, 1998). Whatever the case, this means that in the context of regional industrial development, focus must also be placed on the localization and development of services aimed at assisting the production process, especially the sector associated with developing and disseminating knowledge. This is essential both in order to develop traditional industries, and so that the outlying districts can gain access to new businesses and industries and become attractive places for well-qualified young people to live and work.

So what can the County Commune do regarding challenges like these? An important role is of course the traditional, to facilitate infrastructure like communications, education, land, etc. and to influence the economic and cultural context for companies. But to do so both political and administrative bodies and actors must recognize that in:

...the new formulation the region is a process or, more accurately, a nexus of processes rather than a thing, especially a thing to which other things (usually bad, sometimes good) are done. (Cooke & Morgan, 1997, p. 63)

Instead of a ‘thingness’ perspective of the region that can be seen from the outside, a process
perspective means that most actors that have influence on what is happening is also active participants. To have influence, the County Commune must participate in all important processes in and outside the county that influence development in their region. To participate, to get practical access to networks and processes, it must be an interesting partner for other participants, maybe because of good access to national and international political processes that is important for business, capacity for analysis and development of strategies, access to knowledge and knowledge transfer systems (education, etc.), capital etc. What is important is a capability, in collaboration with partners, to increase capacity and to develop adequate response to challenges for regional business and industry. The County Commune must participate in processes that systematically create better linkages by reducing barriers and blockages to or capacities for change. Regarding knowledge and innovation the County Commune can at least have some influence on public financed education and research since they are responsible for some of these activities in Norway.

4. Public Competence Activity

In modern regional policy, a great deal is expected of research, education and competence building as measures (Lagendijk & Cornford, 2000). Can public competence and capacity-building activity actually function as a ‘development aid’ in regional policy to further innovation, and if so, under what sort of conditions? Or is it more important to invest in ‘research-free’ learning based on experience? Let us look more closely at some of the challenges and ‘hypotheses’ in this policy field and where the political and administrative authorities on a regional level should be able to influence.

4.1 Do University and Research Environments Result in the Establishment of Companies and the Development of Business and Industry?

Examples that are often used to illustrate successful cooperation between research activities, the establishing of companies and regional development are to be found in the Boston region in the US. Nilsson (1998) has studied in some detail the relationships in this region and some European metropolitan regions, and has discovered that the cooperation does not work anything like as well in the latter region as in the Boston region. R&D activity is, of course, in itself not enough to further regional economic development.

In the case of Boston, Nilsson points to the fact that one university’s policy (MIT with 10,000 students) seems to be far more decisive than the activities of a whole series of universities in the area (there are 36 universities and 255,000 students). Right from the start in 1861, MIT placed great emphasis on basing its activities on the area’s industrial tradition and stimulated the staff to cooperate with local business and industry as advisors and in a research capacity. Special emphasis was given to establishing a research cooperation with large concerns and to making it easy for staff to establish their own businesses. The result was many new companies that have later become big concerns. The region has been among the foremost in developing and producing new technology and all the time in new fields. In fact, the region has long and positive experience in a close cooperation between research environments and business and industry, with spins-offs like unlimited access to risk capital, plenty of young people moving to the area, etc.

One of the other metropolitan areas studied by Nilsson (1998) was Copenhagen. This region boasts almost two-thirds of all research activities in Denmark, 71% of the civil engineers that work in industry and it is indisputably the centre of research-based industrial production. In spite of all this, the region has shown weak development of production in industry, which would seem to indicate that Danish industry has not had the ability to exploit
the technological developments of recent years. Instead, there has been a formidable growth in the private service sector, which has compensated for a strong decline in traditional industries in the region.

In his studies of the importance of public research institutes in innovative networks in Barcelona, Stockholm and Vienna, Diez (2000, p. 461) found that:

... The results of the survey clearly showed that vertical co-operation partners, such as buyers and suppliers, and also service providers close to businesses, hold a higher status in the support of business innovation processes than research institutes do. ... Small businesses are not reached by the research institutes.

As Rolv Petter Amdam shows (R.P. Amdam, 2000), the courses in economics and administration at the regional university colleges in Norway have only played a marginal role in recruiting leaders for regional companies. Regional research institutes have also had difficulty in establishing active cooperation with regional economic environments. The establishment of State educational and research institutions in a region does not in itself seem to lead to a more innovative business and industry, but variations exist, dependent on which teaching and research programmes they offer (Sæther et al., 2000). When well-educated young people move to the area, this can, however, lead to the growth of new industries and more jobs, especially in the service sector. There seem to be barriers associated with the way established industries employ well-educated young people and the academic environments’ (in)ability to make contact with existing business and industry, to create offshoots and to stimulate the establishing of new enterprises. As Cooke and Morgan (1997) shows this is certainly dependent of national and regional traditions and formal institutions.

This illustrates how complex such connections really are (Diez, 2000; Sternberg, 2000). It may well be that a research environment is unusually innovative and is the source of many new ideas and products, but the environment itself and the regional community does not have the ability to translate this into economic activity and jobs. However, there may be other communities that enjoy this capability, even though they lack such research enterprises. In their discussion of learning societies and innovation systems, Asheim and Isaksen (1997) point out that the north-western corner of south Norway lacks heavy industrial research and educational environments that are linked to the local industrial enterprises. But is this necessary, if industry itself has the flexibility and competence to 'steal' ideas from each other, from other environments and regions and translate these into good products (Diez, 2000; Isaksen, 1997)?

The question is whether such an area could actually do this even better and more effectively if there was in the region a well-equipped R&D environment that could assist the companies and (like MIT) transfer the entrepreneur culture to students and employees, and how can regional political and administrative actors assist in establishing such institutions. Cooke and Morgan (1997, p. 152) shows that differences in networking between R&D institutions and firms can have high influence on regional performance and that regional government can influence such networks by development of ‘soft’ infrastructure like business support services, technology transfer, and skills development. Such ‘learning or dialogue processes’ must as their starting-point have the actual situation and needs of business and industry. The challenge is to get the actors in business and industry and in the R&D and consultant environment to speak to each other in such a way that it is possible to develop mutual understanding and trust and mutual knowledge aimed at concrete action (Storper, 1997), which need proximity (Arndt & Sternberg, 2000) and no cultural and institutional barriers (Koschatzky, 2000). It is not sufficient to activate random individuals in companies when both management and staff need to change their understanding and practice. Proximity is not enough, if the R&D environment does not have the finances, ability, will and
competence to enter into meaningful dialogue and cooperation processes with business and industry. Business leaders must also experience the contact as valuable—and not such that researchers have to be taught by business and industry and that they 'steal' ideas and solutions, in the way several of the executives in large concerns in the north-western corner of southern Norway claim has been their experience (Amdam, 1998).

4.2 Is Education and Research Activity Important for Regional Social and Industrial Development?

Even if it is not possible to point to so many direct innovations in business and industry as a result of regional State R&D institutions, they can still be important indirectly. From the point of view of regional economy, such activities must be compared with other export activities. The establishing and running of such institutions is to a great extent financed by way of the national budget, i.e. that the activity earns 'export revenue' for the region. Another 'quantitative' argument is tied to the fact that vocational education ought to take place regionally because this helps to keep the younger generation in the region. But the regionalization of education also creates other challenges. An important link in the development of regional knowledge and industry would seem to be that young people move away to other communities and receive impulses that they bring back with them. Much of the 'French' growth pole industrial (self)development in western Norway would appear to have just such a background (Wicken, 1997), often by established industries and companies being further developed through impulses from others. Nilsson (1998) also points to the vital role of people who move to, and back to, the area in creating social and industrial change, since they are often not tied by the traditions, norms, etc. that form a barrier to change.

Private business and industry that competes on an international market is open to outside impulses. In fact, it is a prerequisite for survival, while the educational system, both because of its economy and traditions, seems to be far more closed. A close cooperation is actually necessary in order that business and industry can stimulate the public system for the spreading of knowledge! Education and training programmes that is developed together with firms and their organizations is an important part of network building as well as two-way knowledge transfer between the private sector and the education system as well as County Commune as major provider and coordinator. The County Commune can be both an innovative and a stabilizing factor in the national education system if they have freedom to adapt national policy and programmes to local and regional needs (Cooke & Morgan, 1997).

Regional identity and self-esteem are important for regional development. A typical feature of modern society is that, if members of that society wish to live in a certain local community or region, the opportunities for doing so exist for those who are well qualified. Modern communication systems make it possible to distinguish between dormitory communities and job networks in a completely different way than previously (Törnquist, 1997). This means that if an area is attractive initially as a place to live, so that the 'migrants' move there, this will in itself create new jobs (household services), but also in that well-qualified people move in and bring their work with them or establish their own companies (Nilsson, 1998). In this perspective, it is the migrants who are the bearers of innovative capabilities in society and business and industry. Ought the strategy be to develop strong local and regional identities in young people, so strong that they want to return after having gained valuable impulses and knowledge in other regions?

4.3 Is Investment in Special Programmes the Solution for Building Innovative Competence in Business and Industry?

National public organizations like the Norwegian Research Council have, among other things,
responsibility for producing and spreading knowledge to enterprises and business environments. And as Isaksen (1997) points out, such activity involves great challenges, both in the actual dissemination process and the learning process that follows. The normal dissemination model is often instrumental and linear. There is great faith in printed matter and lectures, whilst the needs of both business and industry and society as a whole very often require more interactive and dynamic learning. But this demands that those who are to disseminate have both knowledge of their subject and competence in communicating—that they from a human point of view are capable of and have the resources to participate in ongoing mutual processes that are designed to spread knowledge and develop competence and knowledge (Amdam, J., 2000a; Lagendijk & Cornford, 2000). This requires the establishment of local and regional networks based on voluntary personal and balanced communication and mutual learning between ‘communicator’ and ‘participant’. It also takes time to develop personal networks and build mutual trust between the actors, and to focus on the real challenges and needs.

One of the most common approaches nowadays is the organization of national development work as separate programmes on a limited time-scale. In principle this means that separate organizations and separate networks are established for each individual programme (Glosvik & Amdam, 1997), and they are often driven more by ‘supply interests’ of national research institutions than local and regional needs. Which actors are involved is often characterized by competition (e.g. between research environments and researchers) and which enterprises are mobilized as partners. If it is not possible to build upon previously established networks and cooperation, this means that new patterns of cooperation have to be established all the time and that those that are established easily break up when the programme or project is over. As has been pointed out, among others by leaders of industry in the north-western region of southern Norway, this also leads to a situation in which their requirements as to knowledge often have to be adapted to suit the planned programme from above instead of such investments taking note of actual needs (Amdam, 1998).

Typical of many regional innovation systems that work well is long-term cooperation between personal actors who trust each other. Personal contact with and confidence in clients, suppliers, banks, consultants, etc. are, among other things, emphasized by leaders in business and industry as being particularly vital in the initial stages (Amdam, J., 2000a). For example, Danish furniture manufacturers have cooperated on average for 13 years with their main suppliers and customers (Nilsson, 1998, p. 96). This applies in particular to small firms that have a lesser capability and capacity and less time than the larger concerns to establish and maintain new relationships.

Can it be the case that investment in programmes favours the large companies, who are often also represented on the organizing committee for the programme etc.? Is it at all possible to reach the many small businesses through investment in centralized development programmes? Is it not completely necessary to establish local and regional networks and cooperation in order to reach the many small businesses, and that such structures need to be reasonably permanent over a period of time? As Arndt and Sternberg (2000) have shown, research institutes cooperate more with big companies than small and medium sized enterprises (SMEs).

4.4 Is the Sector Organization of Education and Training an Obstacle to Regional Innovation?

One of the great challenges facing regional development, is the conflict between functional and territorial development and control in our society (Friedmann & Weaver, 1979; Bennett & McCoash, 1995). As a result of the widespread public sector organization, activities such as e.g. research, education and the dissemination of knowledge considered to be the responsibility of a particular sector, in Norway from the Ministry of the Church, Education
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and Research (KUF) at the top and down to State, county and municipal institutions as the executive bodies.

In the same way as in for example regional policy, we can refer to a narrow and a broad field of policy. The broad educational policy views education as a tool for the development of society, making it coincide with and an integral part of the whole of social policy and the broad regional policy. The perspectives discussed in the previous section belong to a large extent in this field of policy. The narrow educational policy, however, is concerned with an optimum production of education, of the relationship between fully qualified examination candidates and costs, etc. Instead of complex and wide-reaching aims and expectations to the institutions involved, designed to maximize the development of society, the sectorial aims of education are clear and simple—as are the systems that reward performance and achievement.

Pushed to extremes, this means that KUF expects other sectors to organize, be responsible for and finance the broad educational and competence policy. All public enterprise has enormous regional consequences, in some fields greater than in others. Even so, it is typical that the sectors attempt to ignore this fact. Sector policy is set up against regional policy, and regional policy is in itself ‘sectorized’ as the responsibility of a sub-department in the Ministry of Local Government and the Regions.

As with other developments in society, regional development is linked to the development of certain geographical areas such as a State, a job market or a commune. In many contexts, the State is too big and divided into too many sectors, and the communes are too small to be in a position to function effectively as political partners in cooperation with other actors in society. If we ignore the present boundaries etc., the County Commune could be a political organization on a level where modern regional development of society might be its main responsibility. If so, this task would require that the County Commune was able to function as a territorial ‘power balance’ to sector policy thinking, for example by allowing them to have at their disposal measures that could be used on the basis of regional considerations. These could be coordinated with national sector measures so that this resulted in a broad educational and competence policy, industrial policy, transport policy, etc. (Amdam, 1998, 2000a, 2000b), and a comprehensive regional development policy.

In the free county experiment in Aust-Agder and Nordland (Norway), the main idea was to achieve a better cooperation between various public agencies at the county level, and especially to direct the functional measures more effectively to various areas. The result was a success (Amdam, 1994, 1996a, 1996b). In the county planning process, by way of regional development programmes (Amdam, 1998), the aim is to achieve a better coordination in a given area of both the functional and area-specific policies and use of measures. But there is a long way to go, as long as the mental image held by our governing system is functional and not territorial.

5. The Civil Society and Regional Development

International research shows that the most distinct differences between communities and regions that do well in international competition and those that do not, is that the latter have poorly developed social institutions and organizations (Bennett & McCoshan, 1993; Stöhr, 1990; Nilsson, 1998). The successful regions have a rich organizational life, the inhabitants take responsibility, there is good and open communication between key social actors, the political organizations and institutions enjoy popular support and they work for their region locally, regionally, nationally and internationally and in relation to sectors and organizations (Putnam, 1993; Törnquist 1997).

Regions that function poorly are characterized by ‘hierarchy’ and ‘power centralization’,
i.e. elites and routines have been established that are more concerned with controlling and restricting initiatives, especially if they have been taken by others than the ‘chosen few’. The ‘third sector’ (the civil society) is poorly developed and there is poor communication and cooperation between political bodies, market institutions and the ‘third sector’ (Stöhr, 1990). Such features can be reinforced if the society has a ‘wage earner culture’ with class conflicts rather than a more egalitarian ‘independence culture’ (Wicken, 1997).

A prerequisite for, among other things, innovative activity in business and industry is to succeed in involving the whole community in innovative development processes. This requires social structures that support and pass on creative thinking and innovation, flexible institutional structures and a high degree of local interaction and cooperation—a local community spirit with which to meet common challenges. In addition to industrial entrepreneurs, ‘social entrepreneurs’ are also necessary, i.e. internal and/or external development agents who can be participants and stimulate others in such mobilization processes (Amdam, J., 2000a).

Stöhr et al. (1990) believe that the fundamental prerequisites for development, initiative and entrepreneurial capability, are to be found latent in all populated areas, in urban as well as outlying districts. Through studies of more than 50 examples from the whole of Europe, they found these common features as regards what stimulates and prevents a regionally initiated development:

5.1 Entrepreneurs

In virtually all the examples of industrial development, as well as of social changes, certain key individuals, entrepreneurs, took the initiative. Very often it was not those one would have expected to have played such a key role, that is local administrators and politicians or leaders of industry, but ‘unconventional’ initiators such as a local vet, a doctor, a retired officer or other ‘social activists’, i.e. many ‘informal’ entrepreneurs. This finding corresponds with Norwegian surveys; see e.g. Arbo and Bukve (1990). And such entrepreneurs can work in support of both collective and private activities. For example, the establishment of cooperative business organizations and educational and advisory institutions from 1860 onwards, was extremely important for the industrial development in many local communities and regions in Norway (Teigen, 1999).

5.2 Networks and Arenas

The existence of entrepreneurs was an important but not sufficient prerequisite. To be effective, the entrepreneur (especially an external one) had to have access (or gain access) to existing local information and knowledge through social and institutional networks. They had to work through local networks, or if necessary adapt/change or establish such networks. It was particularly important to establish new relationships and networks, if there locally had been different fractions that were isolated from or hostile towards each other. Like local development agents the entrepreneur had to build up new arenas and networks in order to link together various local actors and institutions, and to motivate them to cooperate.

Very often external threats were necessary to make the actors motivated for such cooperation, or to let new actors become involved. Furthermore, it is important to have high local mobility of relevant knowledge and information along formal channels such as e.g. a local newspaper, the professional press or as intensive social interactions. Ringholm et al. (1994) have shown that the planning processes linked to communal and county communal strategic industrial planning in the main have functioned in this way when this work was initiated in accordance with the new guidelines from the Ministry of Local Government and Regional Development (KRD).
5.3 Local Identity

The key actors must be able to identify with the local community and take an active part in it, but do not need to live locally or to have moved back there. In fact, people who have moved back to the area often find it easier to take the initiative and to gain space for action (Nilsson, 1998). An externally recruited leader of a local factory in an international concern can also lead internal and external innovations. The prerequisite seems to be that the actor in question can expect greater advantages from local rather than external cooperation or interaction. An example is the pizza production in the remote community Stranda in a branch plant of Orkla, the biggest Norwegian food company. Threatened with closure and with knowledge of the concern's line of thinking the workers increased productivity by 40% in an active cooperation with the local chief executive (who was an outside man) and the commune, while workers at other branch plants in other regions went on strike. The result was that the total production of pizza was transferred to Stranda (Amdam et al., 1995). As Cooke and Morgan (1997) have shown the lead economy as well as local initiatives and innovations can give branch plants an important role both in regional development as well as in company innovations.

6. Dialogue, Trust and Partnership—Strategies for the Development of Regional Competence

Cooperative processes between private business and industry, public sector activity and the civil society are closely linked to the development of the regional community's capability and institutional capital (see Figure 1). Healey et al. (1999) divide institutional capital into knowledge resources, relational resources and the capability to mobilize.

The regional community's reservoir of knowledge resources depends on supply and use of a broad wealth of knowledge and competence, the continual reflection on and development of range and frames of reference for this knowledge, the broad involvement of actors and the continual introduction and invention of new ideas and a renewal of those already established.

Relational resources are linked to partnerships, networks and cooperation and power relations and structure between actors, and can, among other things, be developed through a strengthening of relationships and channels between actors, the development of clear nodes to which as many actors as possible have access and support, the linking of networks by establishing common arenas and joint processes, etc.

What is essential, however, is that in order to register, develop and exploit such resources, the regional community must have the ability to mobilize in relation to challenges. To do this, the community needs agents of change (entrepreneurs), arenas, access to methods of mobilization and not least a common understanding of and acceptance of visions, possibilities and the room for action.

Key factors are trust, cooperation and relationships between people (Amdam, J., 2000a; Cooke & Morgan, 1997). Törnquist (1997) points to the different development in human beings' technical range and reach. Technical range is linked to the possibilities for moving material, people and information geographically. Especially the technological revolution has meant that the technical range has 'exploded' in the last 100 years. In the context of technical range, the whole world is rapidly becoming a 'global village'. However, human reach is associated with biological and mental capacity, to the ability to understand and include the world around us in a mental sphere or field of interest. This reach is changed through one's own experiences and through impulses and information from outside. At any given time, something is either within or beyond a person's reach.

This field of tension is particularly noticeable when it comes to competence development.
On the one hand, there has never before been so much knowledge so easily accessible as there is today, especially via the Internet and other modern aids. On the other hand, this knowledge is not of any use until it comes within human reach, it must be understood and learnt and it has to be recognized as important for one’s own business, personal development, in fact for the development of society. It may well be the case that the ever-increasing amount of knowledge mixed together with empty information and disinformation make such learning more difficult than earlier. The interference is simply too loud or great. If this is correct, it means that there is no point in focusing on the production of general information and the external passing on of this in connection with regional development work, but rather on:

- **Production of knowledge** that is related to the region itself, to the business and industrial situation in the area, specially strong and weak aspects, challenges, capabilities, etc. in business and industry and in society at large. What is it that is special and characteristic? What sort of production does the area enjoy special advantages for, on the basis of locally based knowledge and tradition which can be further developed to form new products and open new markets through development and a fresh supply of knowledge? The goal is to increase the competence resources in the region.

- **The capture and sieving of external knowledge** that can help to increase the capability to meet new challenges and to implement changes. The focus has to be on the reception of knowledge, passing it on internally and learning in business and industry as well in the community; on processes that function from the inside and outwards and which contribute to expanding human reach. How can we stimulate people to go out and grasp the knowledge they need? The aim is to increase the relationship capital in the community.

- **The linking of internal knowledge production** and the grasping of knowledge externally into joint learning processes which further the development of the region as a special area—and of business and industry as part of this whole. This will require processes and arenas in which key actors meet each other and develop genuine and deep-rooted dialogue that can lead to the sharing of ideas, the generation of ideas, innovations and the building up of trust (Amdam, J., 2000a), i.e. to mobilization.

Those of us, who are on the outside, cannot grasp what exists in certain persons’ or region’s reach and what they need of new knowledge. Only they alone can do this themselves through their own processes of development and recognition. What we on the outside can do, is to remove institutional frameworks and obstacles to such processes, e.g. by altering rules, changing the working methods of public activity, by arranging for private activity, incitement, the creation of arenas and other contact work. One must also change attitudes, counteract destructive ‘precedence’ and tradition, and otherwise stimulate people and areas to themselves work actively to develop the reach between each other. This requires networks between persons, but first and foremost binding cooperation based on trust. Networks are the most essential means of linking a group of actors to others whom they influence or are dependent on in some way or other. Networks are also a mechanism for the exchange of information and service in support of economic development. But to achieve an active regional development, the actors also have to undertake to cooperate. In the opinion of Bennett and McCoshan (1993, p. 212), this requires of regional public and private actors:

- Acceptance of long-term development structures and strategies, and binding cooperation to achieve change and improve quality;
- Acceptance of an active involvement that aims to change the working methods of each individual actor, and the working methods of cooperating actors, in order to establish a total system that functions better.

The earlier demands may result in the development of partnerships throughout the system
Partnership can range from consent between actors to work together towards common goals (e.g. the free county experiment) to formal agreements that regulate work sharing and responsibilities (Glosvik & Amdam, 1997). In the span of possibilities, the actors can cooperate as relatively equal partners. Even so, it is important to recognize that the parties are not equal. The cooperation will be more important for some actors than for others, and actions can be 'forced on or dictated to' some actors out of consideration of others, e.g. because of economic strength or the actual possibilities of implementation, on the basis of the needs of all involved. Such circumstance must be recognized by the cooperating partners and if necessary, by way of compensation for disadvantages in the short or long term. Trust and partnership must be based on the fact that all actors are responsible for ensuring that no one loses out as a result of the cooperation. Partnership is a means of stimulating long-term cooperation between actors that will extend their reach.

If partnership that builds competence and extends reach is to be developed, it demands great changes of the actors themselves, which will take time. One cannot expect that for example public sector agencies suddenly and spontaneously will accept new roles and the increased influence of private actors. It takes time to develop formal and un-formal institutions that regulate cooperation so as to escape corruption and misuse of public recourses. It requires cooperative learning processes that make sure that the actors understand that partnership and horizontal cooperation is a more effective way of working than alternative, domain limited and national standardized strategies (Cooke & Morgan, 1997). This requires work processes and changes step-by-step, from a reactive to a proactive approach based on regional challenges. The goal must be to develop proactive public agencies as well as private enterprises and organizations. By way of an active and long-term partnership, these will be able to create a self-supporting local and regional development. Proactive organizations and working methods mean that the actors themselves take the initiative to cooperate with other actors instead of waiting for them (Amdam, 1998). Especially in public activity that is responsible for business support services, it is normal for the applicants to get in touch, whilst ‘active contact work’ is easily felt to be a situation in which not all the parties involved are treated as equals.

7. Conclusions

In this article I have discussed the challenges facing horizontal governance and planning in Norway especially on county level and regarding learning and knowledge transfer. From being an important part of national government regarding production of health services, the County Commune is supposed to take up a more proactive role as regional developer but with small means to do so—a change from government to governance. I have shown examples of challenges and strategies that counties can build on in their further development, but I have also shown that to be successful at least these conditions have to be fulfilled.

7.1 Political Legitimacy

If politics is to create and develop the good society and the good life for inhabitants, then regional development and planning is one of the most important tasks that politicians and political organizations can do. But no political institution has ‘full power’ and specially not on local and regional level in the modern welfare state. Public accountability and political legitimacy both for political bodies and their agencies are very important in regional development strategies (Cooke & Morgan, 1997, p. 143). Well functioning and open democratic processes where all participants and outsiders easily can get knowledge of what is going on and can influence such processes, is fundamental. If strong actors in the corporate domain,
State bureaucracy, the civil society or national politicians recognize a commune or county council as being of 'no interest', "a kindergarten for training of politicians", "a decision-maker with small power", etc. this political institution and its administration can not function as an interesting partner. To change this situation these political organs have to change their own work style from government to governance, from 'empty' decision-making to leadership in processes that create territorial empowerment and change. Instead of focus on 'efficient' production on 'contract' from central government, they must focus on how the community function and help and support all actors in the community so that challenges are met as efficient as possible by having a capacity to design and deliver relevant policies. But new work style, change of politicians etc. is not enough if national politicians and other important actors do not accept their new role and still set up boundaries and barriers for policy and strategies that are attuned to the needs of the regional economy.

7.2 Knowledge

The County Commune has to take a central role in knowledge production and distribution in the community. Not so that the county itself shall have 'all' and 'produce new' knowledge, instead this political organization with its administration must enable and empower other actors to get what knowledge they need as efficient as possible. To do so the County Commune has to develop active dialogue and cooperation with the regional corporate domain including SMB's, communes and their regional partnerships, other public organizations and the social organizations of the civil society. Education and research must be an integrated part of regional governance. Since the County Commune still is responsible for secondary education and vocational training these schools must change from mostly producing national standardized education and training to include programmes that satisfies regional and local needs for knowledge—that these institutions together with university colleges and research institutions forms an integrated part of horizontal governance and development (Lagendijk & Cornford, 2000; Nilsson, 1998).

But the need for knowledge reaches further than this. To be the major and legitimate representative for its own territory, the County Commune must educate and inform its own representatives and inhabitants and also actors in other communities, on State level and internationally, on what is the situation and challenges in its territory—equal or unequal to other territories, what strategies and response that can work related to these and how all must work together to respond adequately (Amdam et al., 1998).

7.3 Capacity

A fundamental demand to proactive actors is that they have capacity to participate in all important networks, vision- and strategy developing processes and in implementation of strategies. For the County Commune this means political capacity and leadership but also administrative capacity to participate in and produce analysis, plans and proposals, decision-making, implementation and evaluation as well as in dialogues with other important actors in the other domain, specially the civil society. The County Commune must also have capacity to lead strategic planning processes that produce common visions and strategies for the future of the region and to organize regional programmes and partnerships. Participative processes that are part of the ongoing county planning process can be developed into important arenas for horizontal governance (Amdam & Amdam, 2000). One of the bottlenecks of the County Commune can actually be a lack of capacity since production of services have been given priority over these important activities. This can also be a reason for the weak position of the
County Commune since lack of capacity means that the County Commune often is a 'free rider' or a 'sleeping partner' regarding initiatives and implementations.

### 7.4 Capital

An important part of partnerships is that all partners give something to the alliance. The County Commune can be an interesting partner if it has important knowledge, competence, relations and capacity, but they also need capital to (part) finance regional development programmes, partnerships, investments and activity. This is also an important part of the 'power-balance' between vertical sector-government and horizontal governance. As shown in the free county experiment they could influence the other partners to a great extend by having some economic resources that could be 'put on the top' of sector bases activity, creating a win–win situation (Amdam, J., 1996a). If the County Communes do not have a better economic freedom then today, they will be of little interests as partners for communes and social organizations, as well as local and regional business.

### 7.5 Trust and Self-confidence

A person or an organization that is not functioning well usually has low self-confidence and also a bad basic for trust from others (Amdam, J., 2000a). The County Commune in Norway have been in such a situation the last years, threatened by closure, the loss of responsibilities and often being a 'prygelknabe' for national politicians and bureaucrats. To function in the role as a major regional development organization the County Commune need to rebuild their self-confidence and to build trust among potential partners, specially businesses, communes and social organizations. To do so they need to create room for their own policy related to the State, based on collaboration with other regional and local organizations. If necessary the County Commune must resist and mobilize against State policy that are against the common interests of the county. Ideally the county council must be the front-runner based on their political legitimacy as elected representatives of the civil society. Fewer production responsibilities can paradoxically give the County Commune a stronger influence on national policy and strategies in these areas, since they no longer are responsible for implementation of State policy.

### 7.6 Planning for the Region

It is often unclear if local and regional political organizations are carrying out planning activities 'because the State demand so' or because they need the activity to get better knowledge about structures and interests and to develop common understanding, visions, strategies or at least to clarify the content of conflicts. Symbolic and ritual planning destroys relations instead of building them (Ringholm, 1994; Amdam & Amdam, 2000). Planning processes must be meaningful and clarifying for participants, organizing knowledge about important questions, but also clarify if conflicts is based on lack of knowledge, material interests, different values, different understanding of lows and regulations or mistrust between individuals (Amdam & Veggeland, 1998). If possible processes must build trust among participants (Amdam, 2000a).

### 7.7 Talk and Cooperation

The final test will be if the County Commune can build strong relations, cooperation and partnerships with local government (communes) and their regional partnerships, as well as
firms and non-governmental organizations (NGOs). There is a strong feeling that County Communes shall not be a political organization that can overrule local political decisions. This thinking is based on functional and hierarchic government where bureaucrats on higher level can overrule political decisions on lower level. The ideal must be that the County Commune can have power over local decisions not by commando, but by talk and negotiations where different interests are clarified and one reaches compromises. Such conflicts are a lot less threatening on both local and regional level if the different interest groups have been involved in and agreed on common values, visions and strategies for development of the local community and the region, because if this is the situation most of the conflicts will be technical (lack of knowledge) or negotiable (lack of compensation).

To develop trust and regional self-confidence the County Commune must be a very proactive actor involving all other active organizations and persons in the county. Open transfer of knowledge, strong and open relations among participants and high capacity in mobilizing both for and against policy, etc. that influence development in the region, is extremely important (Cooke & Morgan, 1997; Healey, 1997). Understanding the situation, trust, talk and relation building is maybe the most fundamental methods in regional development and planning (Storper, 1997).

References


