WNRI-note. 03/2009

Euromontana

The challenges of innovation and research in mountain regions

By Ingjerd Skogseid

WNRI Note

Title	**Note No.** 3/2009
Euromontana	**Date** 26.6.2009
The challenges of innovation and research in mountain regions	**Restrictions** Open
Project title	**Pages** 13
Euromontana – preparing workshop on innovation and research	**Project No.** 6166
Researcher(s)	**Project leader**
Ingjerd Skogseid and Ivar Petter Grøtte	Ingjerd Skogseid
Contractors	**Keywords**
Hedmark Fylkeskommune	Innovation, Research, Regional
Sogn og Fjordane Fylkeskommune	Development, Infrastructure, SMEs

Summary

This paper is prepared for a workshop on innovation and research in mountain regions, and it will be distributed to the participants of the workshop before the meeting on July 2nd 2009 in Brussels. The aim of the workshop is to identify expectations for an initiative on innovation and research. What do the participants want to achieve through the working on innovation and research issues. Identifying issues for an action plan to further develop this area. It is important to keep in mind that this is not an exhaustive list of issues but are a sample selection.

Content

1. Introduction

The two Norwegian county councils Hedmark and Sogn and Fjordane have taken on a responsibility for issues relating to innovation and research in Euromontana. Along with a number of other member regions they want to strengthen the mountain region by focusing on relevant innovation and research initiatives. Vestlandsforsking has been commissioned to prepare challenge paper addressing some innovation and research issues that can be of interest in the mountain territories of Europe.

This paper will be distributed to the participants in a short workshop to be held on July 2nd 2009 in Brussels. The aim of the workshop is to identify expectations for an initiative on innovation and research. What do the participants want to achieve through the working on innovation and research issues. Identifying issues for an action plan to further develop this area.
It is important to keep in mind that this is not an exhaustive list of issues but are a sample selection. Our starting point in selecting these has been:

1. Euromontana's mission is "to promote living mountains, integrated and sustainable development and quality of life in mountain areas" (Euromontana, 2009).
2. The aim to achieve a balanced and sustainable development integrating the economic, social and ecological dimensions. This is in accordance with the aim of the ESDP[1] and with the definition in the United Nations Brundtland Report[2]; sustainable development covers not only environmentally sound economic development which preserves present resources for use by future generations but also includes a balanced spatial development. In the ESDP document defines three fundamental goals, the three goals are:
   - economic and social cohesion
   - conservation of natural resources and cultural heritage; and
   - more balanced competitiveness of the European territory.

   To achieve this spatially balanced development all goals must be pursued at the same time and are of equal importance. A second aim is to even out the imbalance between regions whereby ensuring all regions have an opportunity to develop in an appropriate way. Mountain regions with few current development opportunities should have similar development level as the more prosperous regions, ensuring that the divide between them does not develop further. A focus on innovation and research in mountain areas must address how local communities can respond to global challenges and change processes.

First the paper addresses some of the general challenges in working with innovation and research in mountain regions. Then it will point to some specific areas of innovation and research identified, the paper concludes with a section with preparatory questions for the workshop and points to some activities that can be used to develop this further.

---

[1] ESPD (1999)

[2] World Commission on Environment and Development: Our Common Future. New York: 1987

2. Innovation and research challenges in Mountain regions

2.1 Building capacity for innovation - Rural innovation systems

Innovation underpins a competitive economy and is fundamental for economic development. In rural areas absence of innovation, can lead to a vicious circle; uncompetitive businesses, lack of employment for young educated persons and a net out migration. The term innovation often refer to changes in thinking, products, processes, or organizations, and it can be incremental, radical, and revolutionary changes and typically innovation is used to address a positive change.

Innovation is often a result of how an actor is handling external challenges and change forces. The actor here can be a region, a municipality, a business and an individual person. This ability to handle external change forces are often termed the institutional capacity. In the regional innovation literature we often find that institutional capacity takes a long historical perspective and have an "evolutionary trajectory" with some degree of path dependency[3]. Healey examines how institutional capacity can be developed to enable regions to let local initiatives meet the external forces caused by the globalisation of economies. The regional infrastructure is important in this modelling process, as is the ability to utilise the knowledge and relational resources and the mobilisation capabilities. If the regional infrastructure is going to have a function in the development of a region, then these three components are vital in relation to the knowledge and organisational components of the infrastructure.

Innovation in rural communities differ from urban communities in many aspects, below is a list of some of the challenges the difference pose[4]:

- Few persons– knowledge resources are scarcer in rural communities,
- Many communities are based on one type of industry as main employer, in these communities the enterprise often take action on behalf of the community without consulting others. This may lead to a more marginalised community more dependent on the one resource represented by the enterprise rather than achieving a balanced development. A more balanced development would involve more actors in the community in a more democratic process.
- Multitasking: In rural communities many inhabitants have more than one employer; they are getting their livelihood from working part time for more than one company, either based on season or on a more regular basis[5].
- Consists of many small companies who do not manage to contribute to collective innovation in addition to operate own business.
- The importance of public sector organisations for the community. The municipal administration is often a large employer compared to number of inhabitants in a small municipality[6]. In addition it is also often one of the few employers who require higher education level.
- A business structure dominated by branch offices – In many rural communities the business structure has become dominated by branch offices partly corporations, partly through friendly or unfriendly takeovers and partly through ownership[7].
- The rural community they do not have ready access to the triple helix consisting of public sector, businesses and research and education institutions. In lack of the complete triple helix rural actors must seek to build networks with the type of institutions that is missing or geographic proximity.

The rural innovation system must pay attention to what happen in the surrounding communities and also globally. The aim must be to identify how these trends can influence the local community and to develop strategies to face

---

[3] Putnam (1993), Healey, Magalhaes and Madanipour (1999)

[4] Skogseid (2007)

[5] Høyer (2004, pp. 27-32)

[6] Ibid (pp. 22-26)

[7] Ibid (pp. 20-21)

these challenges. The rural innovation system must take into account the local factors influencing the development. The external change forces must be modelled according to the tradition and structure in the region at the same time as it must allow a break or a change from the traditional development path. The regional infrastructure is important in this modelling process, as is the ability to utilise the knowledge and relational resources and the mobilisation capabilities available.

2.2 Building capacity for research

What is research? There are many ways to categorise research one such is basic and applied research. The primary aim of basic research[8] is the advancement of knowledge and the theoretical understanding the relation among variables. It is often conducted without any practical applications in mind. Often considered an activity preceding applied research. Applied research[9] is about the discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe.
In this document we will focus on applied research, addressing issues of particular interest for policy and business development and quality of life in mountain regions.

Another distinction is between "ABOUT", "FOR" and "IN". "About" research are often studies of something, from a distance, and those studied have little influence on the issues at hand in the project. "For" research are classical commissioned research, the researcher are doing the task based on a commission, a contract. The organisation commissioning the research influences the task done. For instance a study of the effect that something has in a given situation. "In" research is typically action research, the researchers in different ways are participating in the process influencing the result. In one project there can also be combination of these.

In mountain regions all three can be of interest, but our thinking is that the learning for Euromontana as a network will be greatest using "for" and "in" research.

3. Innovation and research topics in a mountain perspective

Here we will point to some specific areas identified and some issues that might be addressed. This is not an exhaustive list of issues but is a sample selection, and in the workshop we would like you to suggest more topics of interest.

3.1 Spatial balanced development - Rural innovation system

As described above there are many issues to deal with when addressing rural innovation systems, how to make them functional and operate them. These are issues of scale, still there is research going addressing regional innovation systems, while the rural subsystems are less addressed in research. In the different member regions there will be a number of different experiences and practices.

A research projects in combination with study visits and exchanges addressing these issues can be one avenue to get a better understanding of the rural as opposed to the regional system, at the same time as there is learning and change taking place locally.

Innovation issues:
- Learning between regions, can be both policy, R&D and business level
- Personnel exchanges and study-visits
- Networks between regions

---

[8] Wikipedia (2009)

[9] Ibid ()

Research issues:

- A better understanding of rural innovation system issues

Funding types and programmes that can be explored:
- ESPON – Applied research project, targeted analysis,
- URBACT II
- 7th framework programme
- Interreg

3.2 Research-based brokering

Building a bridge between businesses in mountain areas and R&D institutions can reduce the innovation gap. In Norway we have a service called competence brokering, it is a service offered to businesses. The aim in Norway is twofold[10]:

- To promote greater focus on R&D activity in companies with little or no R&D experience in order to increase their internal innovative capacity, thereby enhancing value creation and competitiveness (stimulation of R&D demand).
- To strengthen the role of the research institutes as partners in collaboration with industry (stimulation of R&D supply). Through organisation in regional coalitions, competence mediators should contribute to a heightened awareness of the possibilities and potential offered regional development by research.

This Norwegian experience is for all small and medium sized enterprises (SME) and on a wide variety of areas. Other systems can be found in other regions. An exchange of experience or a common project could refine the method and test it out at a European scale in the Euromontana region.

Innovation issues:
- Increasing awareness of research in rural SMEs
- Increasing awareness of SME issues in the research community
- Increasing R&D uptake in mountain regions

Research issues:
- Evaluation of the experience from using the method in different national and rural settings
- Evaluation of the increased R&D uptake

Funding types and programmes that can be explored:
- Research for SME associations
- Personnel exchanges and study-visits – Leonardo programme
- INTERREG

3.3 Sustainable development and business development

Sustainable development is about an understanding of the environment as both a resource for businesses and the environmental impacts of these businesses. An additional perspective is the influence of sustainable development on policy development. Here we have chosen to industry areas, tourism and renewable energy, this can be

3.3.1 Sustainable tourism:

That is research on the type of tourism categories such as: rural tourism, national park tourism and ecotourism. Local and organic food as input factors is one such area. Energy consumption and environmental challenges in

---

[10] http://www.forskningsradet.no/kompetansemegling

connection with the journey itself, and environmental management and other approaches to reducing the environmental problems connected to established activities (overnight stays, service, and experiences).

Innovation issues:
- Development of new and improved ways to deliver sustainable tourism services
- New businesses based on new type of services
- Networks between regions

Research issues:
- A better understanding of rural sustainable tourism,
- Effect of climate change
- New knowledge about sustainable destination development

Funding types and programmes that can be explored:
- Research for SMEs and SME associations
- INTERREG for policy issues
- Personnel exchanges and study-visits – Leonardo programme

3.3.2 Renewable energy
Renewable energy can be focused on both technology, and social impacts and general terms.
- Technology: the basic technology will in most cases be developed as part of basic research while implementation and testing in different settings can be applicable
- Social impacts and general conditions: How can businesses and public sector in rural areas contribute to increased production and use of renewable energy?

This area has a proposed strategy called "Energy in Mountain Areas"

3.4 Innovation and research in public sector
The public sector can play an important role in stimulating the innovation and research through supportive actions in a number of areas and through own practice and policy development. One of the challenges in rural areas is the distance to public services. Use of IT in the public sector as well as organisation, administration and governance are mostly concerned with how different public bodies can best enable and encourage users to carry out self-service in their requests for public services. The hunt for ever better governance models has led to many reorganisations in municipalities and county municipalities over recent years. Reforms at the governmental level have changed both political governance and the administrative organisation in many of the bigger government agencies. Independent of the political colour of the government, there has always been plans for renewal and reform of the public sector.

Successful change after introduction of new organisational methods requires carefully considerate strategies, good planning, involvement, and well entrenched processes It also demands great patience and focused follow-up. Flexibility in changes and adjustments during the process and afterwards is also important.

Innovation issues
- Creation of new digital services

Research issues
- how different public bodies can best enable and encourage users to carry out self-service in their requests for public services
- impact of use of ICT to deliver e-health services in remote areas
- digital divides; do use of digital self service create a digital divide those who have and those who do not have access to, or the ability to use, necessary technology

Funding types and programmes that can be explored:

- 7th framework programme - ICT
- INTERREG for policy issues

3.5 Access to, adoption and use of ICT applications and infrastructures

Rural SMEs often fall behind with regard to ICT take-up at the same time the use and adoption of ICT is acknowledged as crucial to productivity growth, both in rural and urban areas. Take-up of ICT provision depends upon awareness of the opportunities available, the benefits that this might bring and confidence in the technology available as well the availability of the technology and the skills to use it. The public sector can play an important role in stimulating the adoption of ICT in business through supportive actions in all these areas. Equally, it can act as a 'leader' through the deployment of e-government applications.

Innovation issues
- actions designed to stimulate e-business activities by SMEs, strengthen the e-commerce sector
- the use of ICT in production and distribution processes;
- Stimulate the use of e-services and e-commerce in the business community
- encourage innovations in e-working, can give access to highly qualified employees
- facilitate the roll-out of high capacity internet provision;

Research issues
- impact of the use of ICTs to promote economic and social inclusion

Funding types and programmes that can be explored:
- 7th framework programme - ICT
- INTERREG for policy issues
- Personnel exchanges and study-visits – Leonardo programme
- The competitiveness and innovation framework programme – Information communication technologies policy support programme (ICT PSP)

3.6 Matrix of topics, projects and programmes

With more input from the different region on issues of importance it can be possible to develop a matrix of policy, innovation and research issues and type of initiatives needed. In the matrix identified programmes can be listed. This is an example of what such a matrix can contain, but the list of topics should as the area develops be more specific.

Type of initiative / Topic	Policy	Innovation	Research	Research Project - large project	Research projects SME project	Interregional	Study visits	...	Exchange
Spatial balanced development	X	X	X			INTERREG IV	Leonardo		
Research-based brokering	X	X			Research for SME association		Leonardo		
Sustainable tourism	X	X	X	X	X		Leonardo		
Renewable energy	X	X	X	X			Leonardo		
...									
ICT applications and infrastructures				7th FWP CIP			Leonardo		

4. Preparing discussion in workshop

A number of methods can be chosen to uncover relevant innovation and research issues in mountain regions. In the workshop we want you to contribute information about issues you see as important for your region. Below are some questions we want you to consider in preparation for the workshop.

A. What innovation and research issues are important in your region? Please prioritise if possible

1. ……………………………………………………………
2. ……………………………………………………………
3. ……………………………………………………………
4. ……………………………………………………………
5. ……………………………………………………………

B. In which areas do you have best practices and expertise locally? And which are important for the further development of your region?

1. …………………………………………………   1. …………………………………………………
2. …………………………………………………   2. …………………………………………………
3. …………………………………………………   3. …………………………………………………
4. …………………………………………………   4. …………………………………………………
5. …………………………………………………   5. …………………………………………………

B. What expectations/ambitions do you have for an initiative on innovation and research in the mountain regions?

This question is asked to get a feeling for the scale of effort. An overall innovation and research strategy takes more effort to develop then a research project on a specific topic. And a research project on a specific topic may take more effort than to develop than an INTERREG project. And at the lower end with regard to effort are study visits and exchanges. There are good reasons to start at the lower end of effort, as this involves less risk and allow the regions to learn more about each other and each others challenges, which again make a better foundation for a common project at a later time.

……
……
……
……
……

C. What actions do you want to see in the action plan for innovation and research?

1. ……………………………………………………………
2. ……………………………………………………………
3. ……………………………………………………………
4. ……………………………………………………………
5. ……………………………………………………………

5. Next step – Proposal for action

Innovation and research in mountain regions can have as wide a variety of topics as in the rest of society, but some issues are more related to the mountain specificity. In this document we have mentioned some areas and some experience from Norway but no doubt there exist a lot of projects and initiatives which are relevant for mountain regions. Below is a proposal for action as a next step in the process of defining a strategy for innovation and research for the mountain regions.

5.1 Experience from the Maritime regions

Conference of Peripheral Maritime Regions of Europe (CPMR) who will attend the workshop have started a process addressing the European research policies. They propose to four areas of work, these are areas of consideration and action for the maritime regions in relation to the European policy for research. The four areas of work are as follows[11]:

- Analysis of participation in the FP from a regional and territorial perspective;
- Involvement of Regional Authorities in the FP and other collaborative programmes (CIP, Territorial Cooperation…);
- Governance and synergies between strategies of the Regions, the FP or other collaborative programmes (CIP, Territorial Cooperation…) and EU regional policy;
- Research strand of European policies in which the CPMR is active.

This work gives them an overview of stakeholders and initiatives within their regions who are involved in projects funded through the FP (area 1). Based on the experience in the regions analyse and identify added value from participating (area 2). Also they put focus on the need to create synergies between the strategies for research and development at regional and European level (area 3) The last area is designed to enable CPMR to influence the development of research strategies so that they in the future are concrete enough and address issues of relevance for the maritime regions.

A similar process can be designed for innovation and research in the mountain regions, and collaboration with the maritime regions can be considered.

5.2 Strategy for innovation and research in the mountain regions

The Workshop June 2nd 2009 aim to identify expectations for an initiative on innovation and research.   What do the participants want to achieve through the working on innovation and research issues.   Identifying issues for an action plan to further develop this area. The workshop will identify a number of innovation and research challenges in mountain regions.

We propose to start off with four areas of work
1. Based on input from workshop identify areas of expertise and needs as a basis for study visits or exchanges. For the preparatory work each region carry own costs. Funded through Leonardo or similar programmes.
2. Based on input from workshop identify a set of common themes for projects which can be developed further and matched with funding. Organise project development workshops on specific topics. For the preparatory work each region carry own costs. Funded of project will be dependent of the topic.
3. In collaboration CPMR or on your own carry out an analysis of participation in the FP from a regional and territorial perspective and an analysis of the Involvement of Regional Authorities in the FP and other

---

[11] Technical Paper FROM THE CPMR General Secretariat (April 2009) Areas of work for the CPMR in relation to the European policy for research

collaborative programmes (CIP, Territorial Cooperation…). Could best be carried out with external funding but if Euromontana can find grounds for collaboration with CPMR then there is little need to develop an own methodology. Each region can than carry a local survey of participation in FP and involvement in other collaborative programmes. A comparison between regions would require additional funding.

4. Based on input from workshop initiate a strategy process to define a common strategy for innovation and research for Euromontana. This would require an own planning process and funding.

References

Euromontana (2009). Mission Retrieved June 8th, 2009, from http://www.euromontana.org/Web Page

ESPD (1999). ESDP European Spatial Development Perspective. Towards Balances and Sustainable Development of the Territory of the European Union, from http://europa.eu.int/comm/regional_policy/sources/docoffic/official/reports/som_en.htm (accessed November 2002)Web Page

R. D. Putnam (1993). *Making Democracy Work: Civil traditions in modern Italy*: University of Princeton Press, New Jersey, (as referenced by Healey at al 1999).

P. Healey, C. d. Magalhaes and A. Madanipour (1999). Institutional capacity-building, Urban Planning and urban regeneration projects, *FUTURA (Journal of the Finnish Society for Futures Studies)* (pp. 117-137).

I. Skogseid (2007). Information Infrastructure and Rural Innovation Systems. A study of the dynamics of local adaptation of ICT, *Faculty of Mathematics and Natural Science* (Vol. Doctor Scientarium). Oslo: University of Oslo, Norway.

K. G. Høyer (2004). Distriktspolitikk og Utvikling i Sogn og Fjordane (Regional politics and development in Sogn og Fjordane). Sogndal: Vestlandsforsking.

Wikipedia (2009). Research Retrieved 8.6, 2009, from http://en.wikipedia.org/wiki/ResearchWeb Page