

**BIRD**

-

**Broadband Access for Innovation and  
Regional Development**



Recommendations to the spatial agenda

based upon the project's findings



## **Introduction:**

In 2006, the NSR IIIB Programme Monitoring Committee accepted and then published 5 special reports and one synthesis report from its spatial agenda working group. These reports examined issues which have become more urgent or important in recent years or which were not thoroughly addressed in NorVision, the spatial vision for the North Sea Region until 2020. The results of this work now complement the NorVision. One of the issues identified and subsequently dealt with in a report was "Facilitating innovation and the transfer of knowledge and technology". The Final Reports of each study provided strategic input into the new programming period 2007-13 while the new NSR programme was developed independently in a separate process.

Dealing with innovation and regional development on the basis of broadband internet technologies the Interreg IIIb project BIRD was asked to contribute to the spatial agenda and thus to the new Programme by giving recommendations based on the project's results and outputs

## **BIRD-project background:**

Internet-access has become a key condition for innovation and regional development. Going further, broadband technologies are contemplated as one of the - if not the - most important infrastructures of a knowledge-based society and economy. Thus the access to these technologies is a key factor for regions to prepare themselves for the requirements and challenges of the information ages.

The situation today is that enterprises, which don't use broadband technologies or don't even own broadband internet access, are facing a massive disadvantage when challenging competitors.

This represents an additional disadvantage for rural areas, endangering jobs and affecting the drift of enterprises and industries in these regions. To forward the development of underserved, often rural, areas it is necessary to build cost-efficient broadband access points which can cover 100% of the area in question. Furthermore it is easy to increase inhabitant's status of life, since the communication possibilities are becoming easier, thus offering



chances for telecommuting and e-learning. That supports educational institutes as well as the local economy.

The EU project BIRD processes the importance of broadband access for innovation and the general development of regions. This indicates that the project deals with a range of situations and activities from rural areas which still have to work for broadband coverage to well served regions where strategies are developed to deal with service overload.

Having a strategic focus, the project aims for a great part at the exchange of knowledge and experience between project partners and their local or regional cooperation partners in order to promote implementations of broadband within the project. For more detailed information about the project please refer to the project website [www.bird-project.eu](http://www.bird-project.eu).

**The recommendations report will be structured as follows:**

There will be a list of citations from the section facilitating innovation and the transfer of knowledge and technology” from the synthesis report “Towards a new spatial agenda...”. These citations will each be followed by findings and recommendations of the BIRD project. The comments and recommendations will always refer to the aspects of broadband access and services.

## 1. Synthesis report:

*“The North Sea Region is a European stronghold overall in relation to other regions when it comes to innovation capacity and performance. Map 2.4 shows that many regions within the NSR have above average innovation capacity compared with other European regions. Within the Region, the more rural and peripheral areas show average innovation capacity.”*

[Synthesis Report “Towards a New Spatial Agenda for the North Sea Region”, 2006, page 13]

### **BIRD comment:**

This advance is partly based on good infrastructure. The North Sea Region is comparatively densely populated and available bandwidth capacities in cities are often already bigger than 100m/bit up and downstream. In combination with critical mass and cluster effects this enables intense cooperation and utilization of telework possibilities and results accordingly in innovative products and services. Companies and users rely and depend on this infrastructure.

Although broadband coverage of peripheral areas is also comparatively good in the NSR (At least 10 % of EU 25 population, or about 50 million individuals, were excluded from broadband access in 2007), there are significant differences between the coverage and provision rates of metropolitan and rural areas. A difference in innovation capacity can also be caused by insufficient access to communication infrastructure, such as broadband –internet connection or insufficient bandwidth rates. Since peripheral/ rural regions lack critical mass it is even more important to provide access as well as sufficient bandwidth rates.

### **BIRD recommends:**

Although the region is in a leading position it must provide equal conditions to all inhabitants. Therefore it must aim at 100% broadband coverage and provide access for all people. Broadband internet connection must become a basic supply.

In particular does the BIRD-Think Tank recommend:

“A new Broadband definition”



There are different wishes in the participating regions as to how broadband standards should be defined in future. Nevertheless, we agreed on the following two steps; the first step should be completed before 2010, the second one before 2015.

Together we recommend defining broadband standards as follows:

1. Broadband internet connection must become a basic supply.
2. The connection has to be a flat rate for time and capacity.
3. Until 2010 a connection speed of 2 Mbps (Megabit per second) up- and downstream has to be available for every end user.
4. The latency period has to be low.
5. Until 2015 a connection speed of at least 100 Mbps up- and downstream has to be available for every inhabitant of the EU.
6. The BIRD project partners and the Think Tank group also recommend the EU to focus, in the coming years, on the development of new products, services and concepts utilising the realised broadband infrastructure effectively.”

[[www.bird-project.eu](http://www.bird-project.eu); A new Broadband definition; 2008]

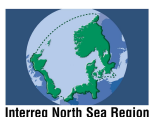
## 2. Synthesis report:

*“The focus of policy makers and business strategists has shifted from how to gain knowledge to how to use it, i.e. how to turn that knowledge into commercial success.*

*This can be assisted by some key actions:*

- *Increasing the competence and capacity to innovate: For individuals and companies this depends on motivation but also the ability to harness external sources and competencies. Key linkages include users and producers, between business and the research community at national and regional levels.*
- *Providing a support framework: The role of the public sector has changed from acting as a referee in competition between companies to innovate to becoming the coach and providing the necessary frameworks and opportunities for companies and individuals to make the links identified above.”*

[Synthesis Report “Towards a New Spatial Agenda for the North Sea Region”, 2006, pages 12-13]



## **BIRD recommends:**

These statements are confirmed and similarly recommended by BIRD. A wide range of (regional) solutions, descriptions, expertise reports, analyses, provider lists, etc exist. Therefore one overall challenge is to centralize and organize this data and to provide it intelligently as well as transparently to users and stakeholders.

Focuses should be put on knowledge databases and human resource development. One promising example for the first is the 2008-platform <http://www.broadband-europe.eu/>. However, the platform is still developing and has yet to prove its final usefulness. Another useful database for e-applications and services is provided under <http://www.epractice.eu/>.

An example for the provision of support framework as well as the use of knowledge is the idea of 'European Media and Broadband Centre' which was introduced within BIRD.

"The EMBC is meant to be a physical and virtual meeting place for talented students, young entrepreneurs, renowned business developers and innovative and leading companies. It aims to boost innovation by providing an enabling, inspiring, and business-driven high-tech environment for these talented, ambitious and creative persons in the realm of new internet and broadband applications, high performance networks, service grids as well as of media business and gaming." ...

"Establish a centre for structural and sustainable transnational cooperation, business development and innovations in the field of broadband applications, services and interactive entertainment across the North Sea Region. Support business innovation and entrepreneurship, set up a "Silicon Valley" kind of working sphere where students, companies and educational institutes can benefit from. Overcome the brain drain problems of the region by attracting young entrepreneurs and encourage companies to make use of the talents and facilities within the region. ..."

Regional implementations of this idea should be integrated into a ring of 6 to 10 EMBC locations in the North Sea Region.

[For more information see "NPC-recommendations for Broadband strategies" on

[www.bird-project.eu](http://www.bird-project.eu)]



Again, support frameworks can often - especially in rural areas - comprise the provision of the infrastructure Broadband itself.

For a start it carries great potential for communal life and individual quality of life and assists in slowing or even reversing the desertion of rural areas. As rural areas are often marginalized and of low or no interest to commercial providers (stating an example of market failure) actions on public-private partnership level are needed. Following the infrastructure comes the education of yet uninvolved groups and the development and implementation of communal e-services.

### 3. Synthesis report:

*“Key Spatial Challenges for the NSR are to:*

*i) Utilize the potentials of closer collaboration between the NSR’s strong competence sectors to help strengthen and widen the application of R&D. Five business sectors have been identified as being particularly strong in the NSR:*

- *Driving technology: e.g. ICT, Life Sciences, new materials*
- *Related to Natural Resources: e.g. wood, food, water*
- *Providing excellence in engineering: e.g. automotive and aviation*
- *Advanced Services, creative industries and tourism*
- *Energy: the petrochemical industry and renewable energy”...*

[Synthesis Report “Towards a New Spatial Agenda for the North Sea Region”, 2006, page13]

### **BIRD comment:**

Not only driving Technologies such as ICT but all modern businesses depend on broadband as means of collaboration and cooperation especially with geographically separated working partners.

It has been mentioned before, that in general there already exist a number of services and activities which aim at the facilitation of business (sectors) or at increasing the effectiveness with the help of broadband services. Again, these solutions are often isolated and need to be collected and made public in order to unfold its potentials and boost innovation in the NSR.



## **BIRD recommends:**

Launching projects and/or superordinate working groups in order to make existing solutions transparent and accessible and to determine new overall needs for development. (in accordance with the spatial agenda)

(see “updating Norvision- facilitating innovation”, page 11: “the meaning of transnational foresight processes in terms of programme organization”)

For instance: A working group on national level which works on the technical improvement of transitions of broadband infrastructure between (North Sea Region) countries. Connections between Germany and The Netherlands; Denmark and Norway and the United Kingdom are technically disadvantageous to end consumers. Finding a common quality standard would involve technical and judicial aspects.

## **4. Synthesis report:**

*“Key Spatial Challenges for the NSR are to [...]*

*ii) Use the knowledge created in urban centres to boost development in less densely populated areas. Innovation tends to take place where the market meets new ideas, where a particular need meets the supply, where ideas meet capital, where research meets business. So the densely populated areas of the North Sea region have a potentially great advantage over rural areas. Actions to assist rural areas include:*

- Strengthen national-regional-local partnerships and stakeholder involvement in them.*
- Encourage local research on innovative responses to overcoming the constraints facing rural areas.*
- Carry out human resource surveys on a community and regional basis to identify existing skills available for designing, developing and delivering innovative programmes and activities.*
- Secure and develop the infrastructure (physical, social, financial, economic and telecommunications).”*

[Synthesis Report “Towards a New Spatial Agenda for the North Sea Region”, 2006, page 14]



### **BIRD recommends:**

It is agreed that knowledge created in urban areas should be used to boost development in less densely populated areas. However, services which were created in and for high speed environments are not necessarily transferable to rural conditions. It has been mentioned before that sufficient bandwidth can be a problem. Furthermore services created for urban businesses do not necessarily apply to the needs of rural areas.

On the other hand do e-services have the potential to save manpower and unlock human resources for more important matters. In national-regional-local partnerships does the national/regional level have to provide (internationally coordinated) supporting framework such as international standards, funding programmes and expertise through data bases or experts. The local/regional level has to sincerely act as implementing party and give feedback and input to services, programmes and activities.

It is fully agreed and strongly recommended to secure and especially to develop infrastructure (telecommunications).

(see also "recommendations on local/ regional level", May 2008, BIRD project)

### **5. Synthesis report:**

*"A big step towards facilitating innovation in Europe would be to tear down the barriers between companies, academic research and public sector organisations. There is a strong interest in assisting innovation within the NSR generally but there are significant regional differences."*

[Synthesis Report "Towards a New Spatial Agenda for the North Sea Region", 2006, page 14]

### **BIRD recommends:**

In cooperation with other Interreg projects BIRD has learned that there are clear differences between national definitions, standards and approaches of broadband implementation. Overcoming these differences or closing the gaps is an essential part of the European Union process. The regional level has two main fields of action:



1. “Harmonizing with the European level – here a common definition of broadband and respective implementation goals must be adopted. (The regional level is defined in this context as national regions such as federal states participating in the NSR programme.) At the same time favourable frame conditions for both effective and efficient local implementations must be set. There are a number of actions and technical possibilities to meet individual situations. It’s most important to perceive broadband as a basic commodity and thus provide broadband infrastructure to all citizens / to achieve 100% coverage. ...”

[From “recommendations on regional level”, May 2008, BIRD project]

Bird recommends using its definition of broadband as a common denominator including the suggested time frame. See Nr. 1. of this report or [www.bird-project.eu](http://www.bird-project.eu); A new Broadband definition, 2008.

## 6. Synthesis report:

### ***“Innovation based on business sectors***

*Geographical proximity can be beneficial when more concrete activities that require intense co-operation need to be carried out. Many joint actions could be built on strong competence sectors within the Region such as those already identified. This will help to build up critical mass.”*

[Synthesis Report “Towards a New Spatial Agenda for the North Sea Region”, 2006, page 14]



### **BIRD recommends:**

Broadband is a communication infrastructure which can (help to) overcome geographical distances. The easiest example given is called triple play: information and communication – internet, phone and video. The base condition is a big enough bandwidth capacity.

Thus, by enabling more personalized communication and cooperation broadband incorporates the potential to build up critical mass between business sectors, especially for rural regions and societies.

Again, the preconditions are broadband coverage of rural areas with sufficient bandwidth (see BIRD “a new definition of broadband”) and users which are accustomed or even trained to use those broadband dependant services.

### **7. Synthesis report:**

*“Key challenges compared to NorVision; Innovation and the Transfer of Knowledge:*

*Realize the potential of cross country collaboration between business clusters in the NSR’s strong sectors.*

*Use knowledge created in urban centres to boost development in less densely populated areas.”*

[Synthesis Report “Towards a New Spatial Agenda for the North Sea Region”, 2006, page 22]

### **BIRD recommends:**

The potential of cross country collaboration exists - in the field of broadband multimedia services it is the topic of a BIRD spin off project “E-Clic”- and unlocking these potentials also depends on equal conditions and standards. The harmonization of national/ regional differences is therefore an important precondition.

We recommend the adoption of “BIRD – a new Broadband definition” as a common Broadband standard.

A knowledge transfer from urban centres to less densely populated areas also depends on conditions equal enough to use the same services. Securing and developing the telecommunication infrastructure in rural areas



is therefore an important precondition, which might need new forms of public-private-partnerships.

For the future contribution of broadband access and broadband services to innovation and knowledge transfer in the North Sea Region it is recommended to deploy strategic projects or working groups. These working groups/ strategic projects should focus on

- the provision of a transparent basis of knowledge and expertise, such as data bases
- the harmonization of standards and (technical and legal) basic conditions
- the implementation of services into everyday life

for instance according to the five main business sectors identified in the spatial agenda.

