



Bridging the Broadband Gap

Benefits of broadband for rural areas and less developed regions

Brussels: 14_15 May 2007

Conference Conclusions

The case for broadband

- The main driver of the development of public policies for the development of the information society is the **fundamental belief in the importance of ICT to the local economic and social development, as well as to improving life quality and redress the balance between urban and rural areas.** Broadband is the enabling infrastructure of the knowledge economy and therefore a target of public policy in support of the diffusion of the information society in under-served areas.
- **The term "under-served areas"** refers both to "white areas", where there is no provision of broadband, and to "grey areas", where broadband is provided in some parts of the territory and/or where the existing services are considered inadequate to local needs.

Benchmarking broadband

- Broadband reached 89% at the end of 2006, with at least 50 million individuals excluded from access (excluding those households and businesses that reside too far away from the switches and represent between 3 and 5% of population). However, only 70% of rural population has currently access to broadband. Although broadband coverage is increasing, **the gap between**

urban and rural areas is widening. Rural areas also tend to face lower speeds and higher costs.

- **Mapping of the infrastructure** is a useful tool for public authorities to identify gaps and should be undertaken in all countries. Operators need to be encouraged to make maps of their networks publicly available.
- Regional authorities could contribute to the mapping by **monitoring regional developments**.
- **Benchmarking** of broadband should be carried out also at regional level distinguishing urban from rural areas. The exercise would also result in the availability of robust statistics on broadband coverage in Europe that take into account regional differences.

Integrated information society strategies

- Information society policies are often implemented at local and regional level. Successful implementation requires adequate **capacity** of these authorities to plan, manage and implement ICT strategies. There is a need for support of local and regional capacity including a greater exchange of best practices
- A **competitive agriculture and forestry sector** needs to have access to and utilize ICT.
- **Diversifying economic activities** in rural areas, with its key aim of creating employment, must make the best use of information technologies, for instance, to tap into creation of telework and supporting the maintenance and creation of business in rural areas
- The EU rural development policy cannot cover every need related to ICT and broadband in rural areas. It has to act in synergy with other EU policies, national and regional policies. **Rural and regional development strategies need to include ICT in a coherent way.**
- It is estimated that in 2007-2013 period, **4,4% of cohesion policy resources** - 14 billion EURO - will be invested in priorities **directly linked to the information society.**

- Overall, about **65 billion euro** of the European Regional Development Fund is estimated to be devoted **to rural areas** in the new programming period

What can policy do for broadband: Supply side

- Delivering broadband in rural areas is generally more expensive than in urban areas. However, technology is evolving and can deliver a mix of solutions adapted to the local topography. There is no optimal technology mix. The best technological solution will depend on local topography and demographics.
- **Broadband** is increasingly shaping **as a service of general economic interest**. There is a question whether it should not be **part of universal service obligations** and whether the current **funding model**, designed for national monopolies, is still appropriate. Next year, the Commission will publish a **Green Paper on universal service** to launch a wide ranging policy debate among all stakeholders.
- **Innovation** is increasing the reach of wireline technologies and the capacity of wireless technologies. While current generations of mobile communications are key solutions in developing countries, satellite and Wi-Max are providing interesting wireless solutions for European rural and scarcely populated areas.
- The main barrier to the deployment of wireless technologies is the difficulty in exploiting economies of scale. One bottleneck hindering increasing returns to scale is **lack of flexibility of spectrum across the EU**.
- There are different options to make spectrum more flexible and overcome segmented spectrum allocations at national level. For example, the 2.6 Giga Hertz band can be liberalised and used for mobile cellular communications as well as for innovative fixed wireless access applications. More radio resources should become available also in higher frequency bands, but participants highlighted the importance of **availability of lower frequencies** (sub 1 GHz band), as lower bands reduce deployment costs. Conference participants stressed the importance of using the **digital dividend** (spectrum that will become available through the digital switchover) for broadband applications.

- **Spectrum usage could be different in rural areas and in urban areas.** In Canada for example, licenses in rural areas can be obtained as long as applicants can prove that wireless implementation does not interfere with other licensed applications.
- A **pan-European approach** would facilitate a rapid uptake to the benefit of rural areas. This is true both for the harmonization of spectrum to be used and for the harmonization of authorization procedures across Europe.
- Market forces are the main drivers of broadband deployment, but the remaining gaps in rural and remote areas may still require public intervention. **Public intervention should increase incentives to invest and lower entry barriers.**
- Public intervention is risky because it may pre-empt the market and/or distort competition. **Pro-active public policy needs to respect state-aid rules.**
- Well-designed **open-access public support schemes**, implemented by means of open tenders, can even jump-start competition in previously unserved areas, being open to all operators to serve citizens and businesses.
- Public-funded projects targeting **passive infrastructure** (such as ducts, fibre or antenna sites) are considered to be the least distorting means from the point of view of competition.
- Civil works for digging ducts represent about 80% of the cost of fibre deployment. **Facilitating access to ducts** is an important way to bring telecommunication infrastructure to under-served areas. This implies that
 - (i) local authorities should grant rights of ways efficiently and on a non-discriminatory basis, **coordinate civil works** (such as trench sharing between operators) and **encourage the sharing of ducts and other facilities** to avoid inefficient duplication of basic infrastructure;
 - (ii) **local authorities could lay ducts** and then rent them to operators on an open and non-discriminatory basis and imposing open access obligations;

- (iii) when planning rail, energy and road infrastructure public authorities should systematically take into account telecommunications needs. **Sharing the effort with other infrastructure work saves digging costs and brings ducts and dark fibre to under-served areas;**
 - (iv) Participants highlighted the importance of **mandating indoor precabbling for new buildings.**
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- The emergence of web 2.0 services and applications calls for higher speeds. Europe is lagging behind international competitors in terms of **speed**. The migration to faster access technologies is a must. This migration is however expected to increase the bandwidth gap between large and small conglomerates.
 - Direct public funding is not the only available tool to bringing broadband to under-served areas. **Demand aggregation** policies can create a critical mass of users, exploit economies of scale and facilitate commercial investment.
 - There is a potential for demand aggregation schemes across regions, in particular where satellite solutions are considered.
 - **National broadband strategies** have proved successful in countries where effectively implemented. Member states are called to develop national broadband strategies with a dedicated budget, taking into account regional needs and developing clear targets.

What can policy do: demand side

- **Balancing supply and demand actions** is critical to ensure the efficient use of resources.
- The internet is an opportunity for European creators to develop regional or local **content** and distribute their products either on a global scale or in niche markets. There are more and more smaller initiatives in the field of content, with strong regional and local connections. Diversity of content generated at

regional level is one of Europe's competitive advantages. Regions should take into account the Importance of allocating public funds to stimulating the development of local content.

- Regions and local authorities are key players for the development of **eGovernment services**, including e-procurement, to develop local community-based services and make the public administration more efficient.
- The provision of on-line broadband public services, such as **eHealth and eLearning** are very effective in ensuring healthcare and education at a distance. This can help improving territorial management by local authorities and ensuring socio-economic sustainable development in cities and rural areas.
- **ICT skills and digital literacy** are critical to the effectiveness of any broadband strategy. Training should constitute an important chapter of all projects in support of the information society.
- Finally, the **exchange of best practice** in the broadband area has proved useful and shall be continued through a purpose-built website, populated for a start by the information provided for this conference and in particular with the exhibitors.