



**Directorate-General for Agriculture  
and Rural Development**



# **Study on Availability of Access to Computer Networks in Rural Areas**

Contract No: 30-CE-0099278/00-78

## **Final Report**

## **Executive Summary**

## **English & French**

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Authors/Contractors:    The National Microelectronics Applications Centre Ltd (Ireland)  
                                  Czech Centrum for Science and Society (Czech Republic)  
                                  CyberMoor Ltd (United Kingdom)  
                                  Institute of Communication and Information Technologies Ltd.(Poland)  
                                  Mainstrat (Spain)  
                                  Power Lake AB (Sweden)



## Executive Summary (English)

The European Strategic Guidelines for Rural Development<sup>1</sup> increase the focus on Information and Communication Technologies (ICT) take-up and use in rural areas in line with EU priorities for the Information Society. In particular, "there is a need to accompany changes in rural areas by helping them to diversify farming activities towards non-agricultural activities and develop non-agricultural sectors, promote employment, improve basic services, including local access to Information and Communication Technologies".

This study aims to provide all actors and stakeholders, from policy makers and investors to local government and community groups, with clear, cross-cutting guidance. The study shows how to maximise the benefits of ICT for growth and jobs, in all rural areas of Europe, using the support of rural development programmes. It synthesises existing literature, policies, research and best practices in a comprehensive analysis of ICT take-up in fields relevant to rural development. It reviews critically the impact of ICT and related practices and experience, in order to better focus and improve the effectiveness of rural development policy and better contribute to the European Union's growth and employment priorities.

The study includes: Part I - a Guide and database of best practice case studies and Part II - a Review of existing policies and literature.

### Guide Methodology

For the first strand of the research, a number of projects were examined involving a selection of typical, local, small, rural-based businesses, organisations and farms across Europe. This determined the impacts of ICT usage and the factors influencing usage. Sixty-seven case-studies were chosen to ensure a representative coverage based on geography, sector and users. This database was achieved in two steps. First, the Research Team identified cases of best practice by consulting their extensive networks of rural broadband contacts. Second, further information on each best practice example was then collected, mainly by desk research and phone interviews with the key people directly involved.<sup>2</sup>

Each case was analysed in order to expose trends and identify lessons that could be learned. The aim was to isolate the factors that made projects successful or, alternatively, the problems that had reduced their effectiveness. The study took a practical approach and steered away from theoretical and policy reference documents.

### Categorisation of Projects

The Guide categorises projects: (i) Access –focused on equipment to access the Internet; (ii) Content – what people use and the services which encourage them to go on line; and (iii)

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<sup>1</sup> Council Decision 2006/144/EC, 20 Feb 2006, Official Journal of the European Union, L55/20.

<sup>2</sup> The Team's past experience in this area has found that such interviews can be extremely effective in exploring issues which may not appear in official reports. They also expose more qualitative and sometimes intangible effects of ICT upon organisations and communities.



Capacity – developing new skills to make the most of ICT. ICT projects which combine all three make the greatest impact.

The most important target areas for access projects were found to be eCommunities, SMEs and eBusiness/eCommerce practices. For content projects the primary and secondary sectors are Agrifood and SMEs, ICT and eBusiness practices, respectively. Tourism is also an important area in this group targeted through website projects. Capacity projects tend to address eLearning and eSkills for populations targeted located in predominantly rural and in remote/isolated areas.

### **Success Factors**

The analysis of the case studies defined the actions or conditions which have allowed the achievement of each project's goals. Six major contributing success factors were discovered: (i) financial support from the EU, (ii) support from national/regional authorities (political, financial and legal), (iii) involvement and co-operation of local businesses and organizations, (iv) understanding and reacting to new business opportunities created by ICT, (v) strong involvement of local communities and (vi) understanding the need to promote the Information Society.

The use of EU funds regardless of the scale of funding can introduce vital support in rural areas. The cost of infrastructure, delivering training and adapting services is higher in rural areas. Many commercial providers focus on densely populated urban areas, where they can maximize take-up and return on their investments. To encourage operators to move into rural areas, funding is required to fill the gap and reduce the risk in the investment.

National/regional support was found to be a key success factor for the development of ICT projects. In some, it played an important role from a financial perspective and often they were the only source of funding. Particularly for SMEs using ICT it was a necessity that regional/national authorities provided support to enable the necessary infrastructure to be built.

The engagement of local companies and organizations can have a dramatic impact on a project if they develop their own interest in deploying the new technology. This success factor comprises any form of involvement of local companies and organizations willing to take part in improving the ICT take-up in the area.

Projects which have a wider appreciation of the benefits of ICT and can relate this to a positive set of values (access to information, social inclusion etc.) can create greater buy-in from the community. This leads to better take-up of services and can differentiate projects from purely commercial offerings.

Ownership of publicly funded assets can be transferred to co-operatives and social enterprises when the project is up and running. Broadband networks, websites and training can all be passed into the local community so they benefit from the future success. This generates greater take-up than schemes which are delivered in partnership with the private sector.



## **Drivers and Enablers of ICT take-up in rural areas**

A project must inspire the desire to take-up ICT. Community enterprises are built upon a communal vision or desire, whereas top-down initiatives may not be.

The research found that several prerequisites affect decision-making and projects' implementation. Among these are legal requirements, business plan development, understanding the target group and project management skills.

Projects driven by the public sector for economic development purposes or connecting public buildings tend to use more expensive equipment, sometimes laying fibre and providing a more resilient service. They have sometimes been hampered by state aid regulations.

eProcurement or the fast-tracking of rural ICT infrastructure projects could facilitate the roll-out of broadband. Web-based systematic guidance would bring consistency and clarification to complicated information. Targeting groups who want to achieve a particular outcome can inspire ICT take-up. Conversely, simply telling them to take up ICT is unlikely to work.

There are three key ways that the private sector can be involved in a project: (i) as initiators (coordinators)/partners in projects; (ii) as suppliers (subcontractors) to projects; and (iii) as beneficiaries of a project. As suppliers of services to rural ICT projects, the private companies can deliver training, technology, websites according to the brief set out. As beneficiaries, SMEs generally receive support to access a service such as broadband when they would not normally be able to afford it.

The entrepreneurial spirit is a very determined 'driver' behind the take-up and development of ICT in rural areas. Technology champions are important, but wide representation in the community is essential to make the project sustainable.

## **Benefits and Impact**

Benefits that ICT projects can create are not always directly linked to ICT. Project impacts include increased awareness; increased information and implementation of ICT; promotions of sustainable farming, better access to training opportunities (for farm activity and enterprise diversification) which brings greater representation, return to work and business start-ups by women; development of employment guidance by eLearning; effective delivery of public services, etc.

While some projects demonstrate the ability for knowledge based businesses to provide employment by relocating to rural areas which have broadband access, most of the case-studies did not show a big contribution to job creation. However there is still a significant impact on companies' performance and growth, population skills and social inclusion, as well as indirect impacts on the creation and maintenance of jobs. Based on the evidence from the cases, it is reasonable to suggest that targeting funding on improving the quality of life will trigger greater ICT take-up.



## **Problems and Barriers**

Active inclusion of local organisations and people can make project development and management much more difficult. More views need to be taken into account and objections can slow down a project's implementation. However, this generates greater ownership and take-up within a community.

Problems could occur when public funding for broadband projects conflicts with the State Aid rules. Key issues that need to be bourn in mind are the transparency of the procurement process, the current level of competition, the justification and the focus of the project's objectives on social and economic cohesion, and the positive impact on welfare and competition.

Barriers to projects transferability exist. Tiers of government and their respective responsibilities vary enormously from State to State. Where the public sector works closely in partnership with the private sector, intellectual property rights can prevent the sharing of best practice through confidentiality agreements.

Common consistent reasons for projects to fail were not found. However, several factors could lead to failure, including overestimation of demand, underestimation of the required revenue funding, over selling of the service and lack of focus on the end user.

## **Review Methodology**

The Part I Guide is complemented and enhanced by the Part II Review analysis of existing institutional policy and research in conjunctions with lessons from the database of case studies. This second strand of the study work focused on 'contextualising' the existing situation. It recognised that a variety of other conditions and factors existed, which could not be captured by statistical data alone.

ICT take-up is affected by a variety of different policy decisions at local, national and European levels. There are a number of sources and material relevant to this study. However, the diverse nature of the bodies and their objectives means that neither the level of information nor the cross-comparability of data was always available or reconcilable. The objective, in the review of existing data, literature, research and illustrations on ICT take-up, was to (a) draw a comprehensive picture of the situation regarding ICT take-up in rural areas of Europe based on available sources, and (b) isolate gaps in the data and literature available.

## **Recommendations**

The Review's conclusions are based on the Research Team's preparedness to step outside conventional thinking about the roll-out of broadband technology and its take-up beyond the Digital Divide. Its recommendations acknowledge the contribution of Rural development programmes to ICT deployment, and the complementary roles of LEADER and the national rural development planning process in promoting 'bottom-up' approaches to development. But they also break new ground by identifying factors which reliably extend the benefits of ICT to those rural populations that current interventions have not reached.



The Review is concerned that:

- EU funding programmes are overly complex and those seeking support may be deterred and even abandon an idea;
- The national rural development planning process tends to marginalise ICT – the process may be further impeded by the non-participation of those with appropriate ICT expertise;
- Acceptance that funds are being spent in the best way may have become an institutional convenience – as the unchallenged marginalisation of ICT would suggest;
- Vigorous engagement with successful projects, as well as with failures, may have become an operational inconvenience – as the omission of failed projects from analyses linking ICT with rural development would suggest;
- An ingrained deference to the LEADER brand and to the hierarchical authority of the rural development planning process, may have blunted the impact of current public interventions.

The Review concludes that rural ICT policies need to balance top-down and bottom-up approaches. This entails the European Commission engaging with national and regional governments in articulating bottom-up recommendations coherently and centrally in strategy plans and development programmes – and individual Directorate Generals (DGs) making their own grant mechanisms more accessible to ‘home-spun’ initiatives that have local potential for solving local access and take-up. *Concerted* action is necessary, then, within and between the Commission and Member States.

Specifically, the Review and Guide recommend:

- A coherent eRural strategy as an integral part of sustainable rural development policy, focusing on building capacity, even though this often produces “softer” outputs;
- Improvement within the eRural strategy of control and monitoring of ICT indicators, policies and initiatives including the collection of coherent statistical data;
- Measures which stimulate business and technical competition at different levels of scope and sophistication within the rural broadband market;
- Developing sustainable connected rural eCommunities to stimulate demand and ICT take-up – particularly by enhancing Regional Leadership and Local Champions to ensure that ‘bottom up’ projects flourish, and by supporting Awareness (“know what”) and Training (“know how”);
- Providing services and content that rural users feel are pertinent to them, especially Entertainment and local content, as well as policy priorities such as eBusiness, eLearning, eHealth and eGovernment services;
- Encouraging initiatives which promote the theme of eCommunity, particularly by way of a common eRural agenda;
- Adopting a rubric of best practice at the interface between LEADER and those seeking access to funding, comprising measures which offer:
  - Self-evaluation by communities against an identified envelope of best practice;
  - A route map incorporating an initial action plan;



- Published criteria for key stages of the initial action plan;
  - Unconditional release of stage funding provided published criteria are met;
  - A prioritising of content and originality over form and consistency when deciding whether criteria are met;
  - Training and practical advice and support for local attempts to reach the next stage;
  - Decision points concerning options delegated to community projects and the authority retained over the use of public money – specifically, ‘choice’ or ‘control’, ‘public’ or ‘private’;
  - Assisted decision-making to community-led projects (to cover technical, financial and contractual options);
  - Ethical assessments of the consequences of decisions;
  - Structured ‘third partnership’ where public private partnerships (PPPs) are implemented – specifically, the inclusion of target communities as ‘third partners’ with their own contributions to make within the governance of PPPs; and
  - Protected dialogue where interventions may be controversial – that is, impact assessments which are sensitive to the needs and expectations of affected communities and which include them appropriately in the options available.
- Extending investment in broadband infrastructure to all local public sector agencies and schools in order to provide:
    - Channels by which eGovernment, eHealth and eLearning can be presented and extended;
    - Physical ‘building blocks’ for local imagination and knowledge to adapt and develop.
  - Investing and developing the content of local networks;
  - Raising the digital e-skills of local businesses and citizens.
  - Introduction of an eProcurement process with appropriate safeguards and innovative proactive online support, to fast-track ICT projects in rural areas.
  - Explicitly encourage the role of local authorities in laying ducts and then renting them to operators on an open and non-discriminatory basis, and promoting indoor pre-cabling for all new buildings in their regions.

Finally, the Review adds new factors to those identified in previous research, which influence the choice among rural populations to use ICT and experience the benefits of the Information Society. These are:

- A shared sense of lagging behind, which can be stimulated constructively by a local ‘champion’;
- Being spurred on as a consequence of a successful local enterprise;
- Being encouraged by the experience or ICT familiarity of others;
- Following a targeted intervention which demonstrably has improved the local quality of life;
- Emotional responses for local, personal reasons;
- Local resistance to an imposed agenda;



- Defence or protection of local values or traditions;
- Being offered control or ownership of a project which will enhance local life;
- Being part of a meaningful partnership arrangement, rather than one which pays only lip service to ‘stakeholders’.

This study believes that it is through interventions which trigger such responses, even where responses might initially appear negative or inconsistent with policy or programmes that the benefits of the Information Society will reach more rural communities. The route to wider ICT take-up and use, and to competition in its supply, lies through *any* small initiative *provided* mixed, untidy and even unorthodox means of accessing broadband can simultaneously be supported.