



DRAFT (v14 26/03/2009)

CHECK-LIST

of

ACTIONS FOR PUBLIC AUTHORITIES

considering

BROADBAND INTERVENTIONS IN UNDER-SERVED TERRITORIES

Important Caveat

We offer the following initial draft check-list of good practices for public authorities contemplating action to overcome the divisive effects of market failure in respect of telecommunications network services within their territory. The intention is to develop this check-list over time utilising the extensive experience of a number of well-informed commentators and members of the broadband portal virtual community. The current version of document was prepared by the [European Broadband Portal \(EBP\)](#) with the contributions from the [ERISA](#) regional network and the [B3Regions](#) and the [Sfera](#) projects.

As such, and at this time, it remains a **work in progress**.

If you have a comment, contribution or suggestion to make, please follow the instructions for submitting these in the portal (www.broadband-europe.eu).

We emphasise that this document in no way reflects the views of the European Commission. In consulting the checklist the reader should bear in mind that the relevance, the application or the order in which each step may be used depends very much on his/her careful assessment of the context of application. The [EBP](#) will not be liable of the misapplication of inappropriate use of the check list.

We stress that 80% of what needs to be done is little more than generalised common sense, even if the remaining 20% is less obvious and typically place- and time-specific.

CHECK LIST

1. First Steps: Mapping & Coordination

- 1.1 Gather information about existing infrastructures in the territory, especially information relating to availability, speeds and costs of existing telecommunications services. [[More ...](#)]
- 1.2 Prepare a map of this information for the territory (using GIS perhaps) to identify gaps in provision and opportunities to exploit other infrastructure (e.g. electricity pylons). [[More ...](#)]
- 1.3 Identify all the key players in the territory, both suppliers and users – actual and potential. [[More ...](#)]
- 1.4 Carry out an awareness-raising campaign, helping to explain the benefits and stimulate demand. [[More ...](#)]
- 1.5 Begin to develop a consensus behind priorities for action and an action plan. [[More ...](#)]
- 1.6 Begin to build a territory-wide partnership of key players and decide who will provide the necessary leadership. [[More ...](#)]
- 1.7 Consider if a demand aggregation strategy is relevant and possible given your objectives, budget, market and operational constraints. [[More...](#)]
- 1.8 Conduct appropriate research, especially finding out what has happened in similar contexts (in other regions) and what lessons from elsewhere can be usefully adopted and/or adapted. [[More ...](#)]
- 1.9 If appropriate, identify the specific data collection and information requirements needed to plan properly for a demand aggregation strategy. [[More...](#)]

2. Develop the Business Case

- 2.1 Develop the action plan and obtain the support of all key players in the territory. [[More ...](#)]
- 2.2 Obtain the formal endorsement of the appropriate regional authority and integrate the plan as part of the overall regional development plan (and, where appropriate, the Structural Funds Regional Operational Programme). [[More ...](#)]
- 2.3 Carry out a feasibility study or similar exercise to identify and quantify the various costs and benefits (including social costs and benefits as well as the increasing risks of Digital Divides). [[More ...](#)]
- 2.4 If planning a demand aggregation strategy, ensure the business case includes sufficient information to justify the investment in, and installation of, infrastructure that will support the aggregated market. Use the information you collected during

the mapping phase to assess what the market wants. Keep this information up to date and relevant throughout the business planning phase. [[More...](#)]

- 2.5 Improve criteria used for economic comparison of alternative technological solutions. [[More ...](#)]

3. Finding the Funding

- 3.1 Identify all available sources of funding – including grants, loans, future revenue streams and even partner in-kind contributions - and create a financial plan. [[More ...](#)]
- 3.2 Direct public funding is not the only available tool to bringing broadband to underserved areas. Demand aggregation policies can create a critical mass of users, exploit economies of scale and facilitate commercial investment. [[More ...](#)]
- 3.3 Get more assistance for institutional capacity building [[More ...](#)]

4. Business Models

- 4.1 At the same time, and even as part of the financial plan, develop an appropriate business model (regarding ownership and operation of the network). [[More ...](#)]
- 4.2 Ensure economic/business sustainability is dependent on commercial success and criteria and not grant funding only. [[More..](#)]
- 4.3 Efficiently partner available technologies. [[More ...](#)]

5. Implementation

- 5.1 If necessary, submit a notice (to the European Commission via the appropriate national ministry/authority) for use of State Aid and secure approval. [[More ...](#)]
- 5.2 Prepare open (competitive) calls for procurement under the “neutral technology approach” for suppliers to build the network and for operators to operate it. [[More ...](#)]
- 5.3 Carry out a training needs analysis and then design and provide the appropriate training (especially for public sector employees who may have little prior experience in this field). [[More ...](#)]
- 5.4 Implement the action plan including carrying out due diligence checks on all partners/suppliers and establish appropriate dispute resolution mechanisms. [[More ...](#)]
- 5.5 Design and establish systems for monitoring and evaluation. [[More ...](#)]

First Steps: Mapping & Coordination

- **Gather information about existing infrastructures in the territory, especially information relating to availability, speeds and costs of existing telecommunications services.**

Begin by finding out about the plans for high bandwidth services of other key actors in the territory, especially other public sector agencies, exploring with them the potential synergies that might be developed.

In particular, carry out a baseline audit, mapping existing high bandwidth provision by operators already within the region (including territorial coverage, speeds, and prices) and check also their plans, if any, for forthcoming investment in new networks or extension of existing networks or upgrading of services.

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- **Prepare a map of this information for the territory (using GIS perhaps) to identify gaps in provision and opportunities to exploit other infrastructure (e.g. electricity pylons).**

The map should show clearly areas in which there is no (broadband) provision, areas in which there is broadband but provided by a single operator (often the incumbent), and areas in which there is genuine competition for the provision of broadband services.

In evaluating the findings of the mapping exercise, public authorities should bear in mind that public intervention and public investment may have the effect of 'crowding out' *future* private investment – that is to say, that private sector operators may be discouraged from entering the market in the future if there is already established (public) provision.

Equally, on the other hand, market failure may be a good reason for the public authorities to intervene to allow the market to catch up and as more mature demand develops.

The problem is one of chicken-and-egg; does supply induce take up and generate its own demand or is it necessary to stimulate demand to the point where return on investment (RoI) by the private sector becomes viable?

It is important for public authorities to note that public investment (in fibre networks by municipalities, for example) can encourage competition for services over the platform if it is provided on an open access basis (i.e. available equally to various operators to provide competing services).

The telecommunications mapping exercise should be integrated with the planned economic development strategy of the region so as to maximise potential synergies and to ensure that the proposed telecommunications plan is consistent with the overall regional development plan. Other infrastructure should also be mapped as part of the exercise – including, for example, rail and other transport networks as well as energy, water and sewage networks. Generally speaking, the existence of other infrastructure, especially that

employing ducts or masts (“holes or poles”) may offer opportunities to “piggy-back” telecommunications services at lower cost.

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□ Identify all the key players in the territory, both suppliers and users – actual and potential.

Identify all the key players, both users and providers and get to know and understand their stated priorities and the scope for cooperation.

While many local authorities may be quite unaware of the importance of such matters, other public agencies such as emergency services on the other hand will understand its importance but, nonetheless, sometimes need to be encouraged to work together (to reduce costs, avoid wasteful duplication and accelerate development by pooling their needs and resources). Other players – such as academia¹ – may also have a role to play and a contribution to make. In any event, care should be taken to include in the mapping all the likely users of higher bandwidth services including schools, hospitals and surgeries, and other public service centres.

Regional, local, municipal and city authorities should combine forces, collaborating to ensure provision of cost-effective and efficient infrastructure focusing on open access networks in cases where public funds are invested. By working together, a region has the possibility to create an effective mix of connected wide area, city and last-mile networks spanning the territory.

Pay special attention to the soft factors since research shows that it is these that make the difference. These soft factors comprise networking, the development of shared narratives and visions, (regional/collective) learning, leadership and the propensity and willingness to follow, and openness to the outside world and wider influences.

‘Regional innovation cultures’ and the ‘soft infrastructure’ of a region play an important role in the effectiveness with which regions exploit ICT to achieve their aims and goals. Each region has to find its own solution to its problems, according to its own values, endowments and other competences. History, geography, culture and other factors matter and so each region needs to carry out a careful analysis of its ‘endowments’ and act accordingly.

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□ Carry out an awareness-raising campaign, helping to explain the benefits and stimulate demand.

Sell the message that economies and communities that are unable to harness fully the benefits of ICT are less likely to remain sustainable or to make a successful transition to the knowledge-based economy/society.

Regional and local planning authorities should be encouraged to anticipate future broadband provision by ensuring that all new building developments

¹ In the UK, for example, higher education has the benefit of access to a high speed backbone network at subsidised costs provided that it is not used for commercial purposes. This might deter universities from playing a part in helping to develop regional telecommunications networks.

meet appropriate standards in respect of wiring/ducting provision. Regional authorities may need to raise awareness amongst (some) local authorities about the importance of high bandwidth infrastructure and the vital role that planning authorities can play in terms of their powers to license and grant permits or way-leaves. The ease (or difficulty) of obtaining these can encourage (or discourage) private sector investment.

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□ Begin to develop a consensus behind priorities for action and an action plan,

Developing a vision plays an important part in building shared objectives or 'common purpose' and the creation of appropriate (social) 'structures' may help increase the willingness of key actors to cooperate and collaborate. For example, creating a regional steering committee may encourage the key players to take part and to cooperate.

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□ Begin to build a territory-wide partnership of key players and decide who will provide the necessary leadership.

Seek to develop a partnership involving representatives of all key stakeholders and relevant interest groups. The partnership should build a supporting business case in line with local priorities and policies, and consistent with user needs. The core group of partner should consist of those most committed to carrying through the plan.

In the absence of other acceptable forms of leadership, the regional authority or one of its agencies should be willing to put itself forward to take responsibility for ensuring cooperation between all interested players and for adoption of a coordinated approach.

Try to ensure that the partnerships created remain balanced with no one player or group of players (including, for example, the incumbent) having overall control.

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□ Decide if a demand aggregation strategy is relevant and possible given your objectives, budget, market and operational constraints.

Consider if your market is made up of more than one user type having similar technical needs. This should allow you to decide if a single technical platform, product set, and sales and marketing strategy, will satisfy the needs of this customer base.

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□ Conduct appropriate research, especially finding out what has happened in similar contexts (in other regions) and what lessons from elsewhere can be usefully adopted and/or adapted.

Undertake appropriate research, learning from comparable regions how similar issues have been tackled - either well or badly and, good practice you can

(adapting as necessary to local circumstances). In particular, be sure to know what the national broadband strategy is and how it could help your region. Even in rural areas, it is important to attempt to dovetail local plans with the national programme.

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- **If appropriate, identify the specific data collection and information requirements needed to plan properly for a demand aggregation strategy.**

Arrange a study of current usage of broadband by customer type (e.g. schools, municipalities and all other foreseeable market groups). Ensure that your study covers forecast usage as well as the impact on costs of the forecast usage. This should include possible “blue sky” services for the future. Consult public agencies whose mission is to promote business development in order to have objective/ unbiased estimates of market dynamics.

Research other sources of information (secondary information, desk research etc.). If necessary, commission external research where required but maintain familiarity with the information acquired. Often a detailed specification of the information required is needed.

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Develop the Business Case

- **Develop the action plan and obtain the support of all key players in the territory.**

Begin by setting out the arguments for and against public intervention. Be sure that public investment is indeed likely to be necessary or that some other form of public action is required to bring forward the necessary levels of private investment. It is important to be able to justify public intervention since the use of public funds is otherwise considered to be a State Aid.

If there is a case for public intervention, take time to explain it carefully to all major stakeholders, being sure to convince them of the arguments as much as possible thereby winning the support of the majority. In terms of justifying public intervention to the EC, you will need to be able to demonstrate that all key players have been consulted, especially all telecommunications operators.

Carry out awareness-raising activities, explaining to all stakeholders why having access to adequate bandwidth (at affordable prices and acceptable speeds) is of crucial importance to local economies, to the competitiveness of enterprises and the region, for achieving more cost-effective public services, and to ensure that the region's citizens are not left behind – on the wrong side of the Digital Divide – in the information age.

Networking cannot be treated in a casual *ad hoc* manner. It needs to be strategic, well planned and professionally executed. Successful networking involves bringing together those who have ideas, those with expertise, and those with access to or control of resources.

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- **Obtain the formal endorsement of the appropriate regional authority and integrate the plan as part of the overall regional development plan (and, where appropriate, the Structural Funds Regional Operational Programme).**

It is usually important that the relevant regional authority(ies) is consulted and agrees to endorse and support the emerging regional telecommunications plan. Moreover, it is wise to ensure that the telecommunications plan is broadly consistent with the general Development Plan of the region.

Given the possibility to utilize European (Structural) Funds to co-finance public investment in telecommunications infrastructure (see the [Section on Implementation](#)), it is sensible to try to gain the support of the relevant Monitoring Committee(s) and to ensure that suitable measures are included in the Operational Programme(s) that will ensure that telecommunications investments are eligible for ERDF co-financing.

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- **Carry out a feasibility study or similar exercise to identify and quantify the various costs and benefits (including social costs and benefits as well as the increasing risks of Digital Divides).**

Regions should consider planning and conducting a feasibility study in advance of a major deployment so as to define the market, understand the potential for different technological choices, identify all possible potential suppliers, and assess the impact of any development on the incumbent operator.

In most cases, where a thorough needs analysis and feasibility study is carried out, the benefits to the local and regional economy, and to citizens and their communities, outweighs the costs, risks and barriers. The public authorities typically have a remit for both economic development and for social inclusion and should be willing to play a leading role in encouraging such developments and adopting a strategic view of deployment within a national and European policy context.

The diffusion of broadband in more developed regions and Member States, has stimulated the migration to the 'participative web', or Web 2.0, encouraging users to become content producers and the rise of more open innovation systems. It has also offered new opportunities for professional and personal activities and encouraged creative, as well as more intensive, uses of the Internet. But, as more developed regions and Member States move towards "future stages" through their continuous innovation efforts, under-served areas in less developed Member States, are falling further behind their neighbours resulting in what is called the "*Digital Divide Squared*" [DD²]

Moreover, the deployment of very high-speed next generation networks (NGNs) induces an increased risk of "geographical digital divides". In the face of such developments, the goal of encouraging an inclusive digital economy must remain a priority.

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- **If planning a demand aggregation strategy, ensure the business case includes sufficient information to justify the investment in, and installation of, infrastructure that will support the aggregated market. Use the information you collected during the mapping phase to assess what the market wants. Keep this information up to date and relevant throughout the business planning phase.**

The potential total (or final) demand for network services should be estimated to ensure that all infrastructure costs are understood and predicted. This will require development of a model product portfolio which will meet the needs of the majority of users.

Once the infrastructure costs have been modeled the cost of each product offering can be estimated and, based on these, prices can be determined which will deliver an acceptable operating margin. This should not only the operating costs of the technical platform but also equally importantly, the costs of sale (i.e. sales & marketing costs, order processing, technical support etc.)

Initiate a formal consultation with all potential suppliers and existing operators in your territory. Present and position your potential products and the regulatory environment so to ensure that duplication of existing products is avoided – a key element for State Aids regulations (see section on [State Aid](#)).

Where you intend to aggregate different markets onto one platform, model the financial impact of differing levels of success in each market. The key aim is to

have a low-risk model that is acceptable and, where possible, one that identifies the minimum customer activity needed to create a sustainable operation. This sustainable minimum is least risky if an anchor tenant can be found that is prepared to cover the minimum revenue requirement thus enabling the operation to concentrate on start-up issues.

The business plan will show how economies of scale brought about by a demand aggregation strategy provide increased bargaining power in terms of market procurement. This, in turn, will generate positive opportunities for expansion into indirect markets to meet secondary objectives.

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□ **Improve criteria for economic comparison of alternative technological solutions.**

The evaluation of different technology options for broadband deployment by Member States, regions and communities does require neutral information and a “technology neutral approach” regarding the capabilities and cost-benefit relationship among alternative technologies.

Depending on the technology used for broadband deployment, some investments/projects might be very “fast-movers” and their investment costs no higher than other technologies’ costs. On the other hand, their operational costs might turn out to be much higher (compared to the operational cost of other technologies). Structural Funds are not given for this part of the implementation – the users should pay it!. Thus, a “technology neutral approach” must also include “neutral funding considerations”.

Funding should be used for technologies that provide a solution over the long term. Thus, comparing the economics of alternative technological solutions has to be made based on a common life-cycle - factoring in the need for fast deployment to prevent cost-of-opportunity losses. The concept of “smart investment” targets rectifies this issue.

It is vital to identify what networks currently exist so as to be able to fully understand the nature of the gaps in ICT deployment and broadband coverage - and thus ensure that the proposed investment is properly targeted, both from a financial and economic standpoint as well as from a technological viewpoint.

Accordingly, it is recommended that comparisons should be made based on the Total Cost of Ownership (TCO) over the considered period and that funding should be approved on this basis. Decision makers are called on to include this important criterion in any call for tender covering broadband deployment and other ICT-related infrastructure.

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Finding the Funding

- **Identify all available sources of funding – including grants, loans, future revenue streams and even partner in-kind contributions - and create a financial plan.**

Assess all possible sources of funding which includes public funds (local, regional, national and European) as well as private sources including, for example, future revenue streams generated through sales of services to users. Bear in mind too that loans could be useful especially those that allow long payback and typically carry low interest charges (e.g. the Innovation 2010 Initiative (i2i) of the European Investment Bank²).

It is worth bearing in mind that 70% or more of the costs of building communications networks are for civil engineering work (digging trenches, installing masts etc.) and this is something that the public authorities generally have significant experience of project managing. Indeed, it is something the public authorities tend to be accustomed to doing while, conversely, it is something that the telecoms operators would prefer not to have to do. Indeed, it is the high civil engineering costs of network deployment that results in too low a return on private investment in less populated areas.

Furthermore, the public sector's experience of project-management of utilities means that they generally tend to have better access to long-term loans and lower rates of interest than the private sector. Thus, the public sector is better able to amortize the high civil engineering costs associated with network deployment over a longer period (typically 20 – 30 years) in a way that is not open to the private operators. The latter by contrast need to show a return on investment within a relatively shorter time scale, often 3 to 5 years only. Usually, this can only be achieved in areas of much higher population density where take-up can be expected to be correspondingly higher.

It is possible also to consider in-kind contributions from some of the partners. In rural regions of Finland, for example, citizens have themselves helped to haul fibre with help from local farmers and their equipment. In these cases, demand aggregation develops in a bottom-up fashion led by the local citizenry.

In some circumstances, the resources of the private sector might be made more widely available. For example, it has been known for 802.11 networks to develop in which local hotels or gas stations have been accepted as hubs and provided the main resources. However, if this happened with their knowledge and consent (which is not always the case) then, technically, they become operators and are required to apply for a license – which most would be disinclined to do.

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- **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.

² <http://www.eib.org/projects/topics/innovation/index.htm>

There is a potential for demand aggregation schemes across regions, in particular where satellite solutions are considered. Finally, balancing supply and demand actions is critical to ensure the efficient use of resources.

Market forces are the main drivers of broadband deployment, but the remaining gaps in rural and remote areas may still require public intervention. It is at this stage that public authorities may pro-actively intervene to foster hybrid network solutions to speed-up deployment, reduce costs by aggregating demand to improve the attractiveness and RoI of projects. Public interventions should increase incentives to invest and lower entry barriers. A forum where regions and Member States can share demand aggregation issues (ideas, needs, solutions) needs to be developed

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- **Get more assistance for institutional capacity building** - although the MS should invest their own money to improving the efficiency and effectiveness of their public administrations, there are some existing resources in:

- **JASPERS** Joint Assistance to Support Projects in European Regions
Technical assistance for the preparation of major SF projects (>€50 million) in "new" Member States:

- advice on conceptual development and project structuring and finance issues (grants, loans, PPPs, eligibility, revenue generating projects ...)
- advice on project preparation e.g. cost-benefit analysis, financial analysis, environmental impact assessment, procurement planning
- review of documentation: feasibility studies, technical design, tender documents
- advice on compliance with EU law (environmental, state aid rules etc.) and conformity with EU policies

Example: Broadband telecom concept development for Eastern Poland
See: http://ec.europa.eu/regional_policy/funds/2007/jii/jaspers_en.htm or
<http://www.jaspers.europa.eu/>

- The **INTERACT** Programme promotes and supports good governance of European Territorial Cooperation Programmes.

- Targets the institutions and bodies responsible for the management and delivery of European Territorial Cooperation Programmes
- Provides assistance to programmes throughout their programme life-cycle.
- Focuses on management techniques, issues related to strategic orientation, and to institutional and thematic networks
- Creates and strengthens a cycle of exchange - learning from each other and together to strengthen territorial cooperation

See: <http://www.interact-eu.net/>

- the "**experimentation**" with new forms of OP implementation. This type of learning cycle and testing of pilot projects can be part of the mainstream OP, if

the region/MS wanted (some 175 OP contain such a provision). See page 18:
http://ec.europa.eu/regional_policy/sources/docoffic/working/doc/SEC-2007-1547.pdf

The **European Social Fund** can only be used to train public officials if they this serves the "*modernisation and strengthening of labour market institutions*" which is not the case in broadband / Internet access activities. What can be funded under the ESF is outlined in the Regulation, Article 3:

[http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/pdf/2007/fs_e/ce_1081\(2006\)_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/pdf/2007/fs_e/ce_1081(2006)_en.pdf)

And these are the priorities in the different MS:

http://ec.europa.eu/employment_social/esf/index_en.htm

Below are some examples from previous funding periods:

- SME start-ups and innovation from ES:
http://ec.europa.eu/employment_social/esf/docs/es_2006_2_en.pdf
- Innovation management in AT:
http://ec.europa.eu/employment_social/esf/docs/a-3-de.pdf
- Training scientists in particular with regard to setting up contacts with industry in DE: http://ec.europa.eu/employment_social/esf/docs/d-2-en.pdf
- Training for creativity in virtual imaging in PT:
http://ec.europa.eu/employment_social/esf/docs/pt2_en.pdf
- Process / organisational innovation in a furniture company in SME:
http://ec.europa.eu/employment_social/esf/docs/s-3-en.pdf

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Business Models

- **At the same time, and even as part of the financial plan, develop an appropriate business model (regarding ownership and operation of the network).**

As a next step, identify and quantify the needs of the users – from the public sector (including health and education), from industry and the private sector, and from households and the communities in which they reside – aggregating these over the territory. Try to anticipate (forecast) future demand as well so as to ensure that the infrastructure will be, as much as possible, ‘future-proof’. Bear in mind that some demand is likely to be latent (i.e. remain ‘hidden’ to begin with and, possibly, for some while). It is important to relate investment in infrastructure to real current and future needs. Examples may be needed to illustrate the potential benefits to some ‘users’. The public authorities can help identify and assess strategic drivers, especially those relating to public services and, for example, those that relate to the search for more sustainable ways of life.

When current and anticipated demands have been estimated, consult all the main stakeholders about the business case. “Selling” the business case requires identifying the priority given to broadband in local/regional policy or strategy documents. In consulting with stakeholders, and in seeking to develop consensus and support, the regional authority should (if needed, be willing to) exercise leadership. However, it should equally adopt a light touch by adopting a governance model that encourages participation and stakeholder involvement in decision making. The public authorities are recommended to advise, support and consider rather than tell and instruct.

Decide who will own and operate the passive infrastructure. Generally speaking, it is considered that an open access model is the most appropriate for public authorities to adopt. In this, the public authority(ies) can own the passive infrastructure but allow competing service providers to offer their services over it. Sometimes, the public authority(ies) both own and operate the passive infrastructure whilst in other circumstances, the public authority(ies) will own the network but lease the operation of the passive infrastructure to a private operator for a fixed term following an open call for tender³ and on condition of open access for service providers.

Next, choose a business model that is consistent with national and European State Aid rules (see [Section on State Aid](#)). These models can include (for example)

- public-private partnerships in which risks as well as rewards are shared between the partners;
- demand aggregation in which users demands are pooled to justify the investment;
- the offer of incentives (e.g. subsidies) to a telecoms provider sufficient to turn a non-viable investment into a viable one;

³ See the IANIS Guide to Regional Broadband Development, Revised Edition, published by eris@ and available to download as a PDF file from the Competence Centre at www.ianis.net, select category IANIS Guides to Good Practice.

- create the network as a public utility (publicly owned, publicly operated, and for the public good); in this case, open access for operators should be ensured;
- Provide subsidies to end users (e.g. SMEs) so as to make access affordable for them and, in so doing, boost real demand to the point where there is an adequate RoI for one or more private operators to enter the market.

Remember that ICT investment alone is insufficient to achieve transformational outcomes – it needs to be accompanied by other changes in structures, processes, practices and attitudes, as well creation of an enabling environment. The former include, *inter alia*, organisational change, willingness to experiment, development of appropriate skills, innovation and effective change management.

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Ensure economic/business sustainability is dependent on commercial success and criteria and not grant funding only.

For demand aggregation to work, the aggregated market must provide sustainable income which will ensure the operation will be able to support services for the longer term. If the infrastructure can only be bought because of grants, then long term success is at risk and potential customers may be put-off migrating to the network.

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Efficiently partner available technologies.

Handing out service contracts and co-financing projects need to “efficiently partner” available technologies. Well-designed, open-access public support schemes, implemented by means of open tenders, can even jump-start competition in previously underserved areas, provided they are open-minded. Openness includes both the “technology neutral approach” as well as the “Shared Operator Shared Infrastructure (SOSI) principle”, to better serve citizens and businesses by efficiently using available resources of all kinds.

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Implementation

- **If necessary, submit a notice (to the European Commission via the appropriate national ministry/authority) for use of [State Aid](#) and secure approval.**

Be aware that, depending on the nature and scale of the intervention, it may be necessary to make a notification to the European Commission (DG Competition Policy). This will normally be relayed through an appropriate authority (ministry or department of the national government) responsible for such matters (see section on [State Aid](#)).

Be aware that any significant investment of *any* public funds (not only EU funds) will need to be notified to the European Commission (DG Competition Policy) for their explicit approval as a "State Aid". Notifications should be supported by the relevant ministry or agency in your national government, and forwarded to DG Competition Policy on your behalf. Generally speaking, it takes between 4-6 months for the review process to be carried out and you will be notified by the Commission of their decision via your national government. Any aid which is granted by public authorities without Commission approval is automatically classified by the Commission as "unlawful" and they could require the funds to be repaid.

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- **Prepare open (competitive) calls for procurement under the “neutral technology approach” for suppliers to build the network and for operators to operate it.**

Finally, validate the business model by using open tenders for procurement, specifying requirements but not the technology; try as much as possible to adopt a future-proof business model, one that will therefore be sustainable. This is best achieved over the longer term by adopting a service driven broadband strategy and by ensuring that lasting local sources of funding are identified and allocated.

Choose the technology that is most appropriate for your region by defining what are the minimum acceptable standards in terms of proven (tried and tested) and robust solutions. Ensure use of mainstream products – don't be the guinea-pig.

The application of the “technology neutral approach” is a *sine qua non* (essential action). When a single technology can provide a satisfactory solution, short term needs should prevail and efforts should be made to avoid unnecessary delays in the launching of the network deployment.

Whilst Fibre To The Building/Curb/Home (FTTx) appears to offer the greatest chance for future-proofing, it is likely to be too expensive to deploy except in larger towns and cities. It is, therefore, unlikely to provide a region-wide technology solution.

Since, in general, no single technology can achieve all goals and targets on its own, a diverse technology scenario is likely to be necessary to ensure all objectives can be achieved. In many cases, hybrid and/or shared architecture

networks are likely to be present in any future solution, without precluding deployment solutions based only on wireless or satellite technologies.

The available and emerging technologies allow infrastructures with much higher performance (both time and cost-wise) than those already deployed (mainly fibre-optics) - especially in the New Member States where there is a great potential for improvement in order to provide the ground for economic growth.

Ensure backwards compatibility with existing infrastructure.

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- **Carry out a training needs analysis and then design and provide the appropriate training (especially for public sector employees who may have little prior experience in this field).**

Telecommunications development and related operations management are likely to represent new ground for many public sector managers and it may be necessary to provide appropriate skills development and training for them. In some circumstances, it is possible that such training of public servants might be eligible for ESF co-financing support.

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- **Implement the action plan including carrying out due diligence checks on all partners/suppliers and establish appropriate dispute resolution mechanisms.**

Ensure that proper “due diligence” has been carried out and that all partners are able (financially and otherwise) to fulfill the roles expected of them and are committed to the success of the programme.

Before implementation begins, design and implement an agreed disputes resolution mechanism. Obtain the agreement of all partners to use this mechanism in the event that any disputes arise.

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- **Design and establish systems for monitoring and evaluation.**

Even after the implementation is started, the partnership should continuously review progress and mechanisms should be in place to achieve this, even while programme is being rolled out. In addition, regular ex-post monitoring is also highly recommended (to check, for example, if prices are in line with national levels).

Monitoring and evaluation can play an important part in building regional capacity – especially the capacity for regional/collective learning. In turn, collective and lifelong learning are important for underpinning a region’s capacity to develop transformative uses of ICT. If knowledge is the most fundamental *resource* in the contemporary knowledge-intensive economy, then learning is its most important *process*.

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State Aids

In this section, we cover briefly some of the basics that you should be aware of regarding State Aids. The topics include:

- [What is State Aid?](#)
- [When is State Aid allowed?](#)
- [What steps should you take?](#)
- [The Obligation to notify State Aid measures](#)
- [What information do you need to submit?](#)
- [Service of General Economic Interest](#) (SGEI)
- [Market Economy Investor Principle](#) (MEIP)

What is State Aid?

In general terms, under legislation governing the Single Market, any form of public financial support for private enterprises is considered to be a State Aid and is deemed unlawful if

- there has been an intervention by the State or through State resources which can take a variety of forms (e.g. grants, interest and tax reliefs, guarantees, government holdings of all or part of a company, or the provision of goods and services on preferential terms, etc.);
- the intervention confers an advantage to the recipient on a selective basis, for example to specific companies or sectors of the industry, or to companies located in specific regions;
- competition has been or may be distorted;
- the intervention is likely to affect trade between Member States.

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When is State Aid allowed?

The use of public funds for such projects does not constitute State Aid if:

- The public contribution is limited to the compensation of the provision of a [service of general economic interest](#) (SGEI) if the conditions laid down in the [Altmark judgment](#) are fulfilled.

OR

- The public authority invests in the same conditions that will be applied to a private investor ([Market Economy Investor Principle](#))

Article 87.3 states that Aids that may be considered compatible with the Common Market if the Aid:

- promotes the economic development of areas where the standard of living is abnormally low or where there is serious underemployment (the regional cohesion objective);
- promotes the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State;
- facilitates the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest;
- promotes culture and heritage conservation where such aid does not affect trading conditions and competition in the Community to an extent that is contrary to the common interest;
- is specified as such by decision of the Council acting by a qualified majority on a proposal from the Commission.

The first and third of these are considered especially relevant for public interventions regarding telecommunications networks.

The EU has declared investment in broadband networks and services as one of its policy priorities. However, many broadband projects may entail State Aid. Therefore, before implementing any project, it is necessary to check if the project's financing involves State Aid.

Even if State Aid is deemed to occur, it may still be declared compatible with the EC Treaty, but a few conditions must be fulfilled: mainly the [need for and proportionality of the aid](#). Proposed use of State Aid must be notified to the EC prior to its implementation. Otherwise, if the EC knows about the project and the conditions for compatibility are not met, the Commission may require the Member State to recover the aid up to 10 years after the aid was granted (this can mean from the **end** of the project).

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What steps should you take?

You can submit a Pre-Notification to the Commission (DG Competition). At present, this is a voluntary and informal action. However, during 2009, it will become a requirement. In any event, it is a wise step to take since the majority of Pre-Notifications result in an 'approval'.

As part of your preparation, to feel you have explored all that you needed to, it is a good idea to prepare the formal Notification Form early on – well before the notification process (and even before Pre-Notification). This way, you can anticipate important questions, deficiencies of your project, etc.

It is highly recommended to allow the Commission to study the case before the deadline starts running. The Pre-Notification involves submitting the Notification Form (and the legal basis of your Member State upon which the public intervention is justified) and to send it to the Commission.

The Pre-Notification Form should be sent by e-mail from your regional/local authority to stateaidgreffe@ec.europa.eu. It should be addressed to the competent DG. Nevertheless, it is good practice to inform also your national authorities and your Member State's Permanent Representation to the Commission.

If the Pre-notification is translated into English, it may receive a swifter treatment (but it is not compulsory). 93% of notified state aid cases are approved at the end of the preliminary investigation (it indicates the importance of pre-notification stage). 7% of notified state aid cases go to the "formal" investigation.

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The Obligation to notify State Aid measures (Article 88.3)

Art. 88.1 of the Treaty states that

"The Commission shall, in cooperation with Member States, keep under constant review all systems of aid existing in those States. It shall propose to the latter any appropriate measures required by the progressive development or by the functioning of the common market."

And Art. 88.3 states that

"The Commission shall be informed, in sufficient time to enable it to submit its comments, of any plans to grant or alter aid. If it considers that any such plan is not compatible with the common market having regard to Article 87, it shall without delay initiate the procedure provided for in paragraph 2. The Member State concerned shall not put its proposed measures into effect until this procedure has resulted in a final decision."

If the measure considered as a State Aid has not been notified, the Commission can still check its compatibility. If the aid is deemed incompatible, the Commission may request recovery of the aid. This right lasts 10 years.

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What information do you need to submit?

You need to be able to demonstrate that you have done your homework thoroughly and have consulted all relevant stakeholders. In particular, you need to demonstrate clearly that your broadband proposal satisfies these conditions:

- There is need for the aid (i.e. there is a market failure) under, for example, the regional cohesion objective.

- The aid responds to a well-defined EU objective such as the Lisbon Agenda, i2010 and the Broadband for All policy.
- The aid is proportionality: for this there can be different criteria, inter alia:
 - It is the minimum necessary (i.e. there is no overcompensation).
 - An open and competitive tender process has been followed.
 - Technology neutrality has been observed.

It makes good sense to dedicate time and resources to analyse the black, grey and white areas involved in your project. You will need an official report describing the infrastructures and services involved. You should talk with operators and prepare minutes of such meetings to prove you have communicated to the market your intentions and that the market players have declared their intentions / future plans.

If you are planning a wireless project take into account satellite services; if you are not planning less than 10MB service it can easily be considered intervention on grey area (Piedmont Case) because satellite can reach that service level.

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Service of General Economic Interest (SGEI)

Economic activities that public authorities identify as being of particular importance to citizens and that would not be supplied (or would be supplied under different conditions) if there were no public intervention” (State Aid Group of EAGCP⁴).

Article 86.2 of the Treaty states

“Undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly shall be subject to the rules contained in this Treaty, in particular to the rules on competition, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Community.”

In the ECJ C-280/00 Altmark judgement, it is analysed whether or not a compensation to a company by the state for the development of a SGEI may entail State Aid. The ECJ established that compensation for public services does not constitute Aid if some conditions are satisfied.

- The recipient undertaking must actually have Public Service Obligations (PSOs) to discharge, and the obligations must be clearly defined.
- The parameters for calculating the compensation must be established beforehand in an objective and transparent manner, to avoid it conferring an

⁴ Economic Advisory Group for Competition Policy

economic advantage which may favour the recipient undertaking over competing undertakings.

- The compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of PSOs, taking into account the relevant receipts and a reasonable profit for discharging those obligations
- Where the undertaking which is to discharge PSOs is not chosen pursuant to a public procurement procedure which would allow for the selection of the tenderer capable of providing those services at the least cost to the community, the level of compensation needed must be determined on the basis of an analysis of the costs which a typical undertaking, well run and adequately provided with means of transport so as to be able to meet the necessary public service requirements, would have incurred in discharging those obligations, taking into account the relevant receipts and a reasonable profit for discharging the obligations.

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Market Economy Investor Principle (MEIP)

- Under Art. 87.1 the EC prohibits State Aid when, inter alia, the beneficiary of the alleged aid obtains an economic advantage that it will not have obtained under market conditions.
- However, when Public Authorities intervene in the economy acting as a private operator under market economy conditions, they do not grant any “economic advantage”. Consequently, the four cumulative conditions laid down in Art. 87.1 are not met (absence of advantage) and, therefore, State Aid does not exist.
- In broadband projects, the MEIP is applied to black areas, where several competitors are present in the market with more than one available network. In practice, the entity / beneficiary in charge of building and/or managing the network in a black area, must operate under market economic conditions; in other words, the investment must consider prospects of profitability. The analysis whether or not the measure meets the MEIP must be carried out at the moment of the initial investment (verification ex ante, not ex post).

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