State aid rules and public funding of broadband

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Introduction

The development of the information society and of the ‘e-economy’ is commonly seen as a necessary step for giving new impetus to the modernisation of society and the growth of the economy. It is a crucial aspect of the Lisbon agenda, which sets out the European Union’s policy priorities for the next decade.

A pre-requisite for transition to the e-economy is widespread access to broadband. ‘Broadband’ refers to always-on Internet connection providing high-speed data transmission, allowing the delivery of innovative content and services.

By means of its eEurope strategy, the Commission is actively encouraging national governments to set up national broadband strategies (2). In this context, many public initiatives are taking place at national or local level to advance the development of those services and the establishment of the infrastructure that is necessary to provide them.

Inevitably, public intervention raises the issue of State aid: under what conditions are these projects compatible with the EU rules on competition and, more specifically, on State aid?

In the recent months, the Commission had the opportunity to assess several projects involving public support to broadband development. The considerations developed in this article reflect the Commission’s conclusions in the ensuing decisions and aim at providing guidance on how to design forms of intervention that do not raise competition concerns. A word of caution is, however, necessary. These are the first decisions on State aid relating to broadband projects: the present views might evolve in the light of further experience and in view of the quick pace of economic development and technological evolution in the sector.

I. WHAT IS BROADBAND AND WHY SUPPORT IT

Some introductory elements

Connectivity to the Internet and the possibility to receive and transmit data is an electronic communication service. A basic service of this type is ubiquitously available throughout the Community (3). This is the ‘dial-up’ narrowband connection, which has limited capability. The more advanced broadband services offer ‘always-on’ access allowing transmission of large volumes of data, reducing waiting time and improving efficiency.

Broadband networks are typically made up of a national backbone, a regional and a local backhaul and an access network or local loop. The highest bandwidth can be provided over technologies using optical fibre which is the mainstream medium deployed for national and regional networks. The connection to the final user (last mile) can then be provided by upgraded two-way TV cable networks, wireless solutions, bespoke fibre access solutions or through the existing copper telephone lines by upgrading some parts of the switching and transmission equipment (for instance, xDSL).

Broadband penetration in Europe is still modest (4), but the growth rate of broadband subscriptions has been very large, with the number

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of broadband lines almost doubling in the past two years. Despite this rapid increase in connectivity, a large part of the European territory is underserved. For example, ADSL, the most commonly used platform in the EU, reaches not more than 85% of the population of the EU 15 and even less in the new Member States.

Lack of terrestrial broadband coverage is due among others to some of the typical economic problems associated with networks industries. Broadband networks are generally much more cost effective to roll-out, and hence available at cheaper terms, where potential demand is higher and concentrated, i.e. in densely populated areas. Because of high fixed costs, unit costs escalate dramatically as population densities drop (1). Remoteness also plays a role, requiring to bridge longer distances in the backhaul and in the last mile. 65-70% of the costs associated with the deployment of broadband in the access network is related to civil infrastructure (2). In addition, although equipment costs have fallen as volumes increase, they remain a significant cost and major barrier to roll-out.

In areas where demand is not very developed and coverage of cost is uncertain, private operators might find it difficult to find a source of funding for infrastructure projects, which have a long life and amortisation period.

Today, next to ‘black areas’ — where high demand supports a competitive supply — there can be ‘grey areas’ which can be characterized as a kind of natural monopoly, where the network is controlled by a single operator refusing access to its basic infrastructure. Finally, there are ‘white areas’ with no broadband provision at all.

The fact that an operator refuses access to its infrastructure — such as dark fibre (3) — to other providers, may seriously restrain competition. Ex-ante access regulation of wholesale broadband access (4) addresses some of these issues. It has not so far ensured effective competition in all regions and markets.

Public intervention might accelerate the establishment of the network while ensuring, by means of open access requirements, that competition is preserved in the future.

What kind of public support?

Public intervention in broadband may take various forms with different implications in terms of impact on competition and State aid assessment. Although individual projects differ widely in the details, the projects assessed by the Commission so far can be broadly classified in two main categories: infrastructure projects and projects involving end-to-end services provision.

In a typical infrastructure project, the public authorities may want to support the creation of infrastructure (for instance ducts, masts, collocation sites, dark fibre) which is made available to all operators on non-discriminatory terms. This would generally concern to a varying extent the regional, local and access infrastructure, but not national backbone networks. Typically, the infrastructure is owned by the state but its management is tendered out to an independent company that does not offer the final service, but only access to the infrastructure or wholesale services.

In the case of projects involving end-to-end services provision, the selected bidder would normally not only have the task of providing the necessary infrastructure open to third party providers, but would also have the obligation to offer itself the retail service to end users. It is left to the selected bidder to choose between leasing or building the infrastructure necessary for the delivery of the required services. The assets would typically be owned by the selected bidder.

The next two sections summarise the elements that appeared particularly important for the Commission’s assessment of both types of projects. It is worthwhile mentioning that all projects were in underserved areas, either because scarcely populated or because characterised by difficult topography.

(1) The costs per user of a satellite solution is largely unaffected by site density, however, at current overall subscriber volumes this technology remains expensive when compared to DSL or cable, mainly due to high set-up and installation costs.

(2) Broadband Stakeholders Group ‘Broadband in Rural Areas’, 2003. In the case of xDSL solutions, the infrastructure in the access networks already exists although sometimes investments in backhaul infrastructure are needed.

(3) A plain fibre-optic cable with no optical transmission equipment. Operators may add their own equipment and build their own network, retaining complete control over the fibre.

II. PUBLIC INTERVENTION NOT INVOLVING STATE AID

Investment on market terms

When public authorities intervene on the market on the same terms as private investors, there is no granting of State aid. This case, however, is quite rare, since public authorities generally take action precisely because the market fails to deliver the desired supply.

Nevertheless, it might still be the case that a public investment project in a broadband project is capable of securing revenues that are sufficient to repay its costs within a reasonable time-horizon and provide a rate of return in line with the market remuneration for projects of similar risk.

For pure infrastructure projects the appropriate repayment period might be longer, and the return on investment might be lower than those required by the market on integrated telecom projects. The Commission accepts the principle that the business model of a 'utility' company involved in pure infrastructure provision would be different from that of a telecom operator investing in a network and providing electronic communications services to end-users (1). However, conformity with the Market Economy Investor Principle (MEIP) would have to be supported by a sound business plan, foresee a pricing policy that is justified on commercial rather than on policy grounds and possibly envisage a relevant participation of private partners to the venture on equal terms with public investors.

General infrastructure not distorting competition

It is sometimes suggested that certain projects do not fall within the scope of Article 87(1) EC, but should rather be seen as a typical task of the public authority of providing general infrastructure.

It could be argued that this is the case of a project that serves the interest of the general public, provides a facility that the market is not capable of supplying and is planned in a way that avoids granting of selective advantages.

These conditions, however, should be interpreted strictly. As the Commission argued in ATLAS (2), infrastructures that do not serve the general public, but are rather dedicated to specific economic operators cannot be seen as a typical task of the public authority outside of the scope of Article 87(1) EC. Similarly, projects that duplicate market initiatives or provide services already available are deemed to potentially distort competition. The infrastructure argument appears therefore tenable only if limited to basic civil works and passive elements such as ducts and dark fibre in unserved areas. So far, no such case was the object of a Commission decision.

Funding of a Service of General Economic Interest

Use of public resources might not constitute State aid also in relation to the funding of a Service of General Economic Interest (SGEI). The Court of Justice has indicated that compensation for costs that result from public service obligations are not within the scope of Article 87(1) of the Treaty, providing certain conditions are fulfilled. These conditions are described in the Altmark judgement of 24 July 2003 (3).

In its decision on Pyrénées-Atlantiques the Commission assessed whether those conditions were fulfilled for a broadband project.

A preliminary question: true public service?

Before proceeding to the four Altmark criteria a preliminary question has to be answered: could the service in question be actually considered a Service of General Economic Interest? (4)

The Commission acknowledged that Member States have a large power of appreciation concerning the identification of a service as SGEI, but — on the basis of the case-law of the EU courts — indicated that some general principles should nevertheless be respected:

— the definition of SGEI must not be in conflict with Community legislation in the given field (5);
— the service in question must carry a general interest that goes beyond the generic interest associated to each economic activity (1);
— the public intervention must be justified by the nature and needs of the public service (2).

**Community legislation in the given field**

In the electronic communications sector, Community legislation harmonises the principles applicable to the universal service obligation (3), which concerns the supply of a minimum set of basic services to all end-users at affordable prices. As already indicated, the scope of universal service includes a narrowband connection capable of supporting voice and data communications at a speed sufficient to access the Internet; typically at or equal to 56kbit/s. Member States may decide to make additional services publicly available in their territory, in addition to those included in the scope of universal service. It is considered important that the characterisation of a broadband service as SGEI does not modify the scope of universal service, and as such does not imply any obligation to offer or finance broadband services imposed on telecom operators. (4) This could represent a heavy burden, especially for small operators and new entrants in the market.

In Pyrénées-Atlantiques, the qualification of the provision of broadband access as SGEI did not alter the scope of the universal service while being in line with Community priorities and not raising competition concerns. This allowed the conclusion that the qualification as SGEI in the areas concerned was not in contrast with Community legislation.

**General interest**

The Commission also acknowledged that broadband services can be considered to carry a general interest that goes beyond that of generic economic activities. Broadband services are becoming a widespread support not only for the development of business initiatives, but also for responding to numerous citizens' needs and for the supply of government services. The possibility to offer, thanks to broadband, e-Health, e-Government, e-Education and tele-working render this type of initiatives more relevant to the general interest than projects for pure economic development, which would generally be assessed under the existing State aid rules, for example on regional aid. Naturally, SGEI projects must be related to the provision of a service to the general public and not be exclusively targeted at businesses.

**Public intervention justified by the nature of the service**

The Commission also found that the already mentioned economic peculiarities of this network industry justified public intervention in certain geographic areas. What is worthwhile emphasising is that the same conclusion would not necessarily hold for projects that, contrary to Pyrénées-Atlantiques, concerned areas where offers by competing operators are already present (‘black areas’).

It was also considered that only the investment in the network justified public support. Indeed, the market might not be able to undertake the high fixed-cost investment in the infrastructure, but once an open infrastructure is available, market operators would normally not need additional funding for the supply of the downstream services.

Finally, only if the infrastructure is fully open on transparent and non-discriminatory terms, it can provide a service of truly general interest. The funding of a network belonging to one operator that may restrict access to competitors, would risk foreclosing the market from new entrants in the medium term. On the contrary, public intervention should not create monopoly positions and should ensure open and non-discriminatory access to the financed network.

The open access requirement should concern the basic element of the infrastructure — e.g. access to dark fibre in case of an optical fibre infrastructure. If this is the case, competition can take place in the segments of the market with the highest value-added and lead to the greatest advantage for the end users.

**The Altmark criteria**

The assessment of the fulfilment of the Altmark criteria is based on considerations which are not necessarily specific to broadband projects, but

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apply to SGEI in general. Some of the crucial elements are worth recalling:

**Clearly defined obligations**

Public support is not considered aid if it is possible to establish a clear correspondence between the extra costs of public service obligations and their compensation. This requires a precise identification of the services demanded. In general, the attribution of a public service mandate through an open procedure implies a detailed specification of the required services and fulfils this criterion.

**Parameters of compensation established beforehand**

If the mechanism for compensation left some margin of discretion or the possibility to grant ex-post additional funding, the risk of overcompensation could not be excluded. Again, the criterion is normally satisfied when the service is attributed through open procedure, since the overall amount of aid, or the parameters for compensation, would be determined before the start of the contract.

**No overcompensation**

Whatever the mechanism for the choice of the operator and the determination of compensation, the compensation must *not exceed what is necessary to cover all or part of the costs incurred in discharging the public service obligations, taking into account the relevant receipts and a reasonable profit for discharging those obligations.*

Indeed, there could be circumstances in which the attribution through an open procedure on the basis of the best available offer on the market would not be sufficient to exclude overcompensation. This might be the case if the number of potential competitors is limited — notably because of the atypical character or the complexity of the service — or if an operator has privileged access to an infrastructure necessary to provide the service.

To avoid this problem, in the case of *Pyrénées-Atlantiques* the authorities required the selected operator to set up a legally independent company whose accounts would be regularly audited. A reverse payment clause in case of revenues exceeding a certain threshold was also foreseen.

**Choice of provider**

To ensure that the cost of public service is effectively minimised it is necessary not only to avoid overcompensation, but also to entrust the service to the most efficient operator. For this reason the fourth *Altmark* criterion is a necessary complement to the third one.

In the case of broadband there are many variables that qualify a project: quality of service, aid amount, aid intensity, geographical coverage, chosen technical means, price to users, etc.

The case law on public service contracts indicates that when the chosen procedure is not based only on the lowest price, but on multiple awarding criteria (*‘the most economically advantageous tender’*) those criteria must be: *‘linked to the subject-matter of the contract, do not confer an unrestricted freedom of choice on the authority, ... expressly mentioned in the contract documents or the tender notice, and comply with all the fundamental principles of Community law, in particular the principle of non-discrimination’* (1).

It has been suggested, however, that the *Altmark* case-law should be interpreted in a more stringent way. If aid is to be excluded, the procedure must offer sufficient guarantees that the choice reflects the *‘best value for money’* for the tendering public authority.

In *Pyrénées-Atlantiques*, the Commission accepted that the fourth *Altmark* criterion was satisfied because the selection was not mainly based on qualitative criteria, but was made on quantifiable elements and the choice between the two final offers reflected the lowest amount and intensity of aid.

**III. COMPATIBLE AID**

A project that does not fall within the categories described above would generally involve State aid and would need to be notified and assessed for compatibility.

This would be the case of infrastructure projects dedicated to businesses — as the Commission has indicated in *ATLAS* — or in areas where there is already competitive supply and the SGEI qualification would not be justified. It might also be the case of funding of SGEIs that does not comply with the *Altmark* criteria.

Another frequent case is that of *‘service projects’*, involving the funding of an end-to-end service provision.

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Service projects

Projects involving end-to-end service provision have several pros and cons when compared to pure infrastructure projects. On the one hand:

— an end-to-end service typically involves a lower detail of specification as to the type of infrastructure and technical means required by the authorities. This has the advantage of allowing better exploitation of existing installations and greater technological neutrality;

— an end-to-end service might also be preferable in cases where there is less need for building and managing new infrastructure and focus is on the rapid availability of the service to end users. By tendering the final service, the authorities have greater certainty on the scope and timing of the final service;

— a project that includes the provision of the final services allows greater commercial opportunities to the selected bidder and is likely to attract a greater proportion of private funding. This might entail lesser use of public resources and lower aid intensities.

On the other hand:

— this type of project can be seen as more distortive than one merely consisting of provision of infrastructure, since it will intervene in a greater number of markets, including those downstream markets in which public intervention appears less needed. In most cases public support for third party infrastructure (especially civil infrastructure), sold on a non-discriminatory wholesale basis to service providers, should be sufficient to reduce overall investment costs and lower barriers to service provision for numerous providers;

— it should also be noted that in certain infrastructure projects the State retains ownership of the infrastructure and attributes its management through a concession of limited duration to an independent party that cannot act as service provider. This solution preserves the neutrality of the infrastructure manager, as opposed to a situation in which a service provider also controls the infrastructure;

— finally, an end-to-end service requirement may put at an advantage the service operations of the selected provider, who is likely to be in a position to roll-out end-user services prior to the entry of third party providers benefiting from the open access. Under certain circumstances, this might lead to market foreclosure effects.

Presence of State aid

The funding of service projects, being a selective measure, distorts competition and constitutes State aid. The selectivity is both sectoral and geographical. Public funding supports the telecom sector and allows businesses in the concerned regions to profit from broadband services at better conditions in terms of coverage, quality and prices.

The measure might also selectively favour the chosen service provider, which will be capable of establishing its business and developing its customer base, enjoying a first mover advantage over prospective competitors. It should be considered that the broadband market is rapidly evolving and that, while public authorities generally decide to intervene in view of the lack of private initiatives in the concerned areas, it cannot be excluded that those could become viable in the medium term.

The Commission has noted in several cases that the existing frameworks and guidelines cannot be applied to assess aid measures that specifically aim at widespread availability and use of high-speed broadband services in rural and remote areas. It therefore assessed the compatibility of the measure with the common market directly on the basis of Article 87(3)(c) of the EC Treaty. This involved establishing the necessity and proportionality of the measure.

Necessity of the measure

Broadband connectivity is a type of service that by its nature is capable of positively affecting the productivity and growth of a large number of sectors and activities. Regional economic development benefits resulting from greater broadband deployment can include job creation and retention, more industrial growth, improved education and health systems and even reduced traffic congestion. (1) The social and economic case for broadband takes on added significance for rural and remote communities, where improved communications can address a variety of challenges posed by distance. (2)

The Commission supports the principle that the deployment of broadband infrastructure needs to be encouraged where broadband connectivity is


not provided by the market at affordable prices. The scope for public intervention in underserved areas was emphasised in eEurope 2005. (1) The Action Plan set ‘widespread availability and use’ as its broadband objective, and highlighted the role Structural Funds can play in bringing broadband to disadvantaged regions. Structural Funds can be used to increase broadband coverage in underserved areas where geographical isolation and low density of population can make the cost of building new infrastructure or upgrading the existing one unsustainable (2).

The necessity of the measure should, however, be well documented. A survey of the existing services and infrastructure should constitute the basis on which to evaluate the need for public intervention. In principle, such intervention should take place only in areas where there is no provision of service (‘white’ areas). However, because of the physical characteristics of a network, some duplication of existing infrastructure is always likely to take place and represents a sort of ‘unavoidable’ distortion. Duplication should, nevertheless, be minimised: a pure replica, in terms of geographical coverage, of existing services would not meet the requirements for necessity of aid.

Proportionality

In order for the aid measure to be compatible with Article 87(3)(c) of the EC Treaty, it must be proportionate to the objective and must not distort competition to an extent contrary to the common interest. The trade-off between the advantages — in terms of local economic development and support to information society — and the disadvantages — in terms of distortion of competition and possible disincentives to private investment — has to be assessed. The extent of the measure in terms of service definition, as well as project design features, should also be evaluated to ensure that the least distorting model, which would nevertheless produce the required results, is adopted.

In its decisions, the Commission has positively assessed the following elements:

— Open tender: The selection of the service provider through open procedure in accordance with EC rules and principles on public procurement minimises the advantages to the direct beneficiary of aid.

— Technology neutrality: A project which aims at achieving a certain final service leaving to the provider the choice of technological means has the advantage of not favouring a priori any given technology.

— Open access: The obligation for the provider to lease capacity to resale operators and service providers on a transparent and non-discriminatory basis is seen as a more pro-competitive solution.

— Use of existing infrastructure: The freedom for the service provider to choose the most efficient way of procuring the necessary infrastructure, either by building, buying or leasing it from third parties minimises duplication and enhances economic efficiency. Since leasing facilities is expected to be more cost effective than building new infrastructure, existing operators have the possibility to contribute their infrastructure to the project, which limits the economic impact of the project for operators that already have infrastructure in place.

— Short duration, small aid amount and intensity: Other things equal, the smaller the amount and intensity of aid and the shorter the duration of the funding, the smaller the distortion of competition.

— Reverse payment mechanism. The existence of a reverse payment mechanism, under which the public funding is expected to diminish as demand for services picks up, ensures that only the minimum necessary public funds are used.

— Cost allocation transparency and monitoring: Clear specification of the cost eligible for public funding, separation of accounts where other activities are present and regular monitoring of the financial results ensure a high degree of transparency.

— Minimisation of price distortion: The appropriate pricing of the services is important to ensure that business end-users benefiting from the aid are not put in a position more favourable than their competitors located in regions where the same advanced broadband services are available on market terms. The risk of sending the wrong price signals to the market as a result of tariffs charged for a State funded service should also be considered. Finally, disproportionately low prices may necessitate more aid than the minimum necessary to address the undersupply of the service in certain areas. Benchmarking with tariffs offered by service

(1) COM(2002) 263.
providers in areas which do not benefit from aid is a desirable proviso.

IV. CONCLUDING REMARKS

This article does not have the ambition to clarify all the issues that can be raised in connection with public funding of broadband projects. There are, however, certain elements that appear to have rather general relevance in the assessment.

In particular, projects that are attributed through open procedure, that impose open access to the basic infrastructure and take place in areas where there is no competitive supply (a mix of ‘white’ and ‘grey’ areas), are more likely to qualify for compatibility.

In general, although they involve higher budgets and a long time horizon, projects focussing on the deployment of open infrastructures tend to minimise competition distortions. State support for the high fixed-cost elements of networks lowers the entry barriers for all operators providing downstream services, who may access the network on equal terms.

In contrast, measures supporting the provision of end-to-end services are generally aimed at supporting the quick deployment of broadband services in regions without coverage. Of shorter duration than infrastructure projects, empirical evidence shows that subsidies for the provision of end-to-end services tend to favour the dominant operators.