Body of European Regulators for Electronic Communications

BEREC

BoR (11) 05

BEREC Report on "Open Access"

February 2011

Contents

Introduction

The potential impact that access to electronic communications networks can have on competition and the widespread availability of networks and networked services is a fundamental principle underpinning the European Regulatory Framework. In Europe incumbent operators have been mandated to provide access to competing operators in order to lower barriers to entry and to promote the competitive provision of electronic communication services for the benefit of European consumers.

The term “open access” has arisen in recent discussions at national and at European level on facilitating broadband roll-out, particularly in relation to the roll-out of Next Generation Access (NGA) networks in order to provide European consumers with the range of innovative services that NG technology can offer. “Open access” is generally referenced in the context of competitive drivers of NGA roll-out; however, it is also often discussed in relation to the provision of additional current-generation broadband services in under-served areas.

Broadband and NGA roll-out may also be supported by explicit national broadband plans in Member States (MS). These national broadband plans often include public funding which could be considered as being State Aid, which are supervised by the Treaty on the Functioning of the European Union (TFEU)[1]. NGA roll-out can also be influenced by decisions about the terms of access that should apply when investors receive State Aid. These access obligations are outlined in the European Commission (‘Commission’) document *Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks*[2] (‘State Aid Guidelines’) which gives guidance to MS on State Aid applications. The State Aid Guidelines, adopted in September 2009, describe the Commission’s approach to the assessment of State Aid schemes for roll-out of broadband and NGA networks.

At a national level, all MS recognise how important a vibrant telecoms industry, and broadband roll-out in particular, is to economic recovery. Mandated access (see Figure 1) can play a pivotal role in achieving the objectives of strengthening competition and promoting the roll-out of broadband. Mandated access can encourage investment in infrastructure, whilst preventing its unnecessary and inefficient duplication.

Many MS are considering the development of national policies and strategies in order to promote the development of Information and Communications Technology (ICT) and e-commerce services through the roll-out of broadband services. In some instances MS may be applying or developing national legislation in order to foster a competitive environment with incentives to roll-out NG broadband services. Such MS are considering how national legislation may support access by competing providers to bottleneck assets (e.g. passive infrastructure), to greatly enhance the possibility of wider broadband roll-out.

Therefore, across the European Union (EU) MS are using a variety of mechanisms to enhance access to electronic communications networks and services and to accelerate both current and NG broadband roll-out, such as legislation, regulation and rules governing the application of State Aid. This project examines the concept of “open access” in this context.

1 Currently, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:115:0047:0199:EN:PDF.
2 Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks (2009/C 235/04), September 2009 – http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:235:0007:0025:EN:PDF.

1.1 Background

In the recent past promoting the roll-out of NGA networks was (and still is) a major issue on the agenda of the ERG/BEREC and the Commission. Regulated access to these networks is based on the European Regulatory Framework of electronic communication services which was established in 2002. NRA's application of this Framework has proved to be an effective tool in promoting competition. The principles of the Framework were upheld in the 2009 Framework Review, which included specific detail on access to NGA roll-out.[3] ERG/BEREC has also extensively investigated the principles underlying regulated access with regard to NGA roll-out in a number of documents since 2007.

In 2007 the Commission asked ERG to provide an opinion on NGA roll-out, which was also adopted as a Common Position (NGA CP) in October 2007. Its main conclusion was that it is still appropriate to follow the principle of promoting competition at the deepest level in the network where it is likely to be effective and sustainable. Furthermore, the concept of the ladder, though slightly modified, remains in place. NGA investments are likely to reinforce the importance of scale and scope economies, thereby reducing the degree of replicability, potentially leading to a shift of the enduring economic bottleneck. This may result in a change of the access point(s) most suitable for the promotion of competition. However, conditions for NGA roll-out are likely to differ greatly among MS and within different regions of MS leading to a more heterogeneous market structure.

In December 2008 ERG published it's "ERG Statement on the development of NGA Access"[4], requiring open, standardized and interoperable networks as a necessary prerequisite where public finance is involved.

In September 2008 the Commission published its first draft NGA Recommendation, in April 2009 the second draft was published and in April 2010 the third draft was published. ERG/BEREC provided responses in October 2008, July 2009 and May 2010 respectively. In June 2010 the latest draft of the NGA Recommendation, amended partly due to input from BEREC, was submitted to COCOM and approved. On 20 September 2010 the Commission published the "Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA)" (NGA Recommendation).[5]

Furthermore, ERG published the "NGA Report on Economic Analysis and Regulatory Principles" in June 2009 and BEREC provided a report on NGA wholesale products in March 2010. The ERG NGA Report (June 2009) confirmed that the conclusions of the 2007 NGA CP are still valid. The expected result is a more sophisticated ladder, with changes in the relative importance of the rungs and, in general, different dynamics as a consequence of a shift in the economic bottlenecks. In the 2010 BEREC Report the principles were applied to specific NGA regulated wholesale access products. They will be used as reference for regulated access later in this document (reference figure 1 below).

At the European policy level, the Commission published, in May 2010, its "Digital Agenda"[6] referring to the NGA Recommendation, the "Broadband Communication", the "Radio Spectrum Policy Program" and the State Aid Guidelines. It sets out policy goals for the ICT

3 E.g., new Art. 8 (para 5), and new Art 12 FD (para 4).

4 ERG (08) 68, "National Regulatory Authorities" within the limits of their remit, should exercise competencies in contributing to make sure that public investment is utilised to the maximum benefits of citizens and no distortion of competition arises from public intervention. The ERG's view is that Next Generation Networks should be open, standardized and interoperable. Where public money is involved this should be a prerequisite.

5 http://ec.europa.eu/information_society/policy/ecomm/library/recomm_guidelines/index_en.htm. The accompanying Commission Staff Working Document is also available there.

6 The first of seven flagship initiatives of its "Europe 2020" strategy, published in March 2010: http://ec.europa.eu/information_society/digital-agenda/index_en.htm.

sector for 2010-15 and includes 100 separate measures. One of its 4 priorities is to promote broadband coverage and the deployment of NGA networks. It includes the goal that every European citizen should have access to broadband by 2013 (without specifying speed), while by 2020 everyone should have access to at least 30 Mbps and at least 50% of citizens should have access to at least 100 Mbps.

State Aid – public funding – could play an important role to extend basic broadband and NGA coverage to areas where operators are unlikely to invest on commercial terms in the near future and to achieve the above mentioned goals.[7] The Digital Agenda calls upon MS "*to use public financing in line with EU competition and State aid rules*" in order to meet the coverage, speed and take-up targets defined in the "Digital Agenda". This should, however, not be taken to imply, that state aid should necessarily be used in all Member States. Emphasis should primarily be on reaching the targets set in the "Digital Agenda" through a market based approach to broadband roll-out.

1.2 Purpose and approach

In order to gain a better understanding of the term "open access" and how it is used by MS, BEREC prepared a questionnaire (Appendix B) on a wide range of issues relating to "open access" and State Aid particularly in the context of the rollout of broadband services. The response to the questionnaire informed the project team's deliberations on "open access" and the State Aid Guidelines, the results of which are summarized in this report.

This report examines, in particular, the nature of "open access" obligations arising from the State Aid Guidelines, and how those obligations relate to measures derived from the other legislative provisions (regulated access, national legislation, competition law).

Furthermore, the term "open access" is explored in terms of:

- the contexts in which the term arises;
- how it is interpreted across the EU, particularly by NRAs;
- whether different types of regulation interpret it in a consistent manner; and
- the roles of NRAs and other parties in "open access" related issues.

To assess the application of "open access" under the State Aid Guidelines, it is informative to consider the other mechanisms by which access is mandated (see Chapter 2). This report therefore looks at how access to third parties is mandated under different requirements, in support of network roll-out and competition. In this document the Regulatory Framework will be used, at times, as a reference point in order to get a clearer understanding of "open access". However, the purpose of the document is to examine the term "open access" and it is not intended to examine the Regulatory Framework.

This report provides an overview of the issues on "open access". The Commission announced the upcoming revision of the State Aid guidelines published in 2009. BEREC will actively participate in this process taking this report as a starting point.

7 In a recent Press Release (IP/11/54, 20/01/2011) the Commission informed that it has approved the record amount of state aid of over €1,8 billion for the deployment of broadband networks in 2010, which is more than four times the amount allowed in 2009 to keep up with the ambitious goals of the Digital Agenda. See http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/54&format=HTML&aged=0&language=EN&guiLanguage=en

1.3 Structure

This report is organized as follows. Firstly, in order to put “open access” into context, the report sets out the various forms of mandated access. Then, it considers access obligations in the context of each of the following:

- State Aid (Chapter 3).
- National legislation (Chapter 4).
- Competition Law (Chapter 5).

Regulated access is used solely as a reference point for the analysis, although the report does consider the logical consistency between the analysis undertaken when considering regulated access and that undertaken when considering other forms of mandated access. The main body of the report contains some specific country case studies as they offer real world examples of particular key points.

Finally, some consideration is given to vertical separation and “voluntary” access (Chapter 6). Summary and Conclusions are provided in Chapter 7.

The report contains two appendices: Appendix A is a detailed summary of responses to a BEREC survey of its members on how the term “open access” is used and interpreted in MS. Appendix B is the questionnaire which was submitted to BEREC’s members at the planning stage for the project.

2 Forms of mandated access

Access obligations can arise from a variety of legislative provisions, based on both EU and National policy:

- “Open access” – the State Aid Guidelines.
- Regulated Access – the EU Regulatory Framework.
- National legislation.
- Competition Law – the TFEU and the EC Merger Guidelines.

The various forms of mandated access mentioned above are summarized in **Figure 1**. It illustrates the different legislative frameworks and tools which NRAs and MS should consider when assessing the appropriate wholesale access to drive competitive roll-out and provision of broadband/NGA services.

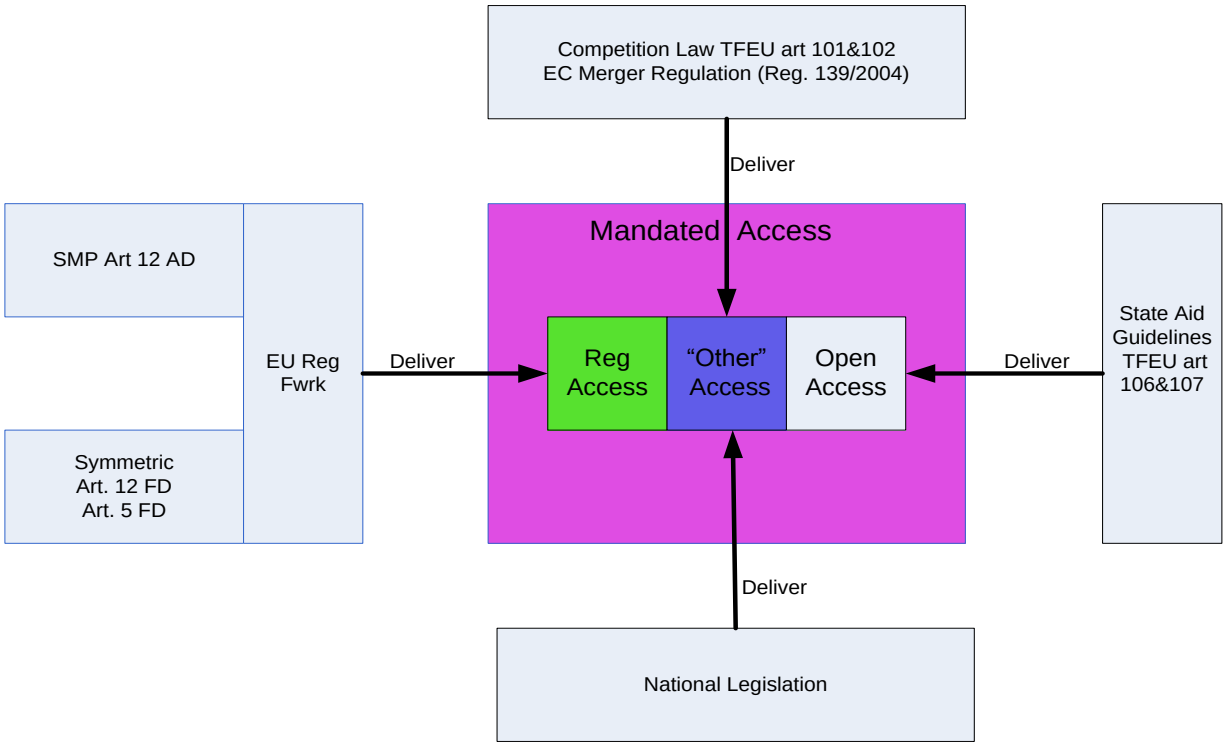


Figure 1: Forms of Mandated Access

Looking at each component of mandated access briefly:

2.1 "Open access"

The term "open access" is neither defined in the Regulatory Framework, nor in any other legal document. Generally, it is understood as referring to a form of wholesale access whereby operators are offered transparent and non-discriminatory wholesale access, thereby enhancing competition at the retail level.

The term "open access" is used in the Commission's State Aid Guidelines.[8,9] It refers to mandated wholesale access whereby operators are offered effective, transparent and non-discriminatory wholesale-access to the subsidized network(s). The expression effective wholesale access and "open access" are used interchangeably. More specifically, for the purpose of this document, such access would tend to cover both passive and active access products.

Since access conditions differ in the MS, and changes are currently happening for NGA networks, it would have been impossible to define all the possible types of wholesale access products that could be potentially requested under the State Aid rules. Therefore, there is no general definition for the term "open access" and that is why it is used in inverted commas in this document.

8 The term "open access" is used in Paragraphs 27, 71 and 79 of the State Aid Guidelines.
9 The relationship between State Aid and regulation as based on the Framework is addressed more specifically in Ch. 3.2.3.

2.2 Regulated access

Regulated wholesale access is based on the application of the EU Regulatory Framework.

A number of regulated NGA wholesale products may be imposed on SMP operators, these have been considered in the BEREC Wholesale Access Product Report (March 2010)[10]:

- Resale;
- Bitstream;
- MDF/ODF unbundling (LLU/fibre unbundling);
- Cabinet unbundling (sub-loop unbundling);
- Concentration point unbundling;
- Access to in-house wiring.

Furthermore, the March 2010 report also considered collocation and specifically wholesale products that are used to reach the access point:

- Leased lines (including Ethernet);
- Dark fibre;
- Duct access.

In line with the ladder of investment concept, a distinguishing criterion between those wholesale products is the distance between the access point and the end user, and therefore how much competitors have to invest in their own infrastructure.

General access obligations may also accompany such specific wholesale product obligations. These obligations may include a requirement to provide access upon reasonable request, in addition to obligations of transparency, non-discrimination and price regulation. Functional separation may also be imposed by NRAs (this remedy will be available in all MS once the latest Framework Review is transposed).

Regulated access is not explicitly dealt with in this report, as it is well-understood. However, this report does analyse mandated access obligations imposed under other legal frameworks (State Aid, National Law, Competition Law). Such obligations may be similar but not necessarily identical to those imposed under SMP regulation.

2.3 "Other" Access

A third category – "other" access – encompasses mandated access based on Competition Law and/or National legislation. For these areas (as well as for matters concerning State Aid applications), NRA's sector-specific expertise from applying the EU Regulatory Framework may mean that that they are also relied upon for advice, guidance, recommendations and implementation work. Regulatory and Competition Law competencies and responsibilities will, of course, vary between MS.

National legislation may be enacted in a MS in order to take account of national circumstances and broaden the legal basis for mandating access with regard to NGA roll-out (e.g., symmetric regulation, local authorities, etc.) – see Chapter 4.

10 See: http://www.irg.eu/streaming/BoR%20(10)%2008%20BEREC%20report%20on%20NGA%20wholesale%20products.pdf?contentId=546808&field=ATTACHED_FILE.

Competition Law may be applied in situations where joint ventures or mergers are convened (e.g., ban on cartels). The result of a competition case may be a requirement to provide wholesale access in order to ensure that competition is not distorted – see Chapter 5.

There are clearly touch-points between the activities of NRAs and of National Competition Authorities, and the implementation of legislation. It is important to understand these links so that, within each MS, the emerging competitive markets are managed in a harmonized way.

3 "Open access" in the context of the Commission's State Aid Guidelines

On 17th September 2009, the Commission adopted guidelines on the application of TFEU State Aid rules for the public funding of broadband networks as set out in "*Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks*" ('State Aid Guidelines').

In Paragraph 7 of the State Aid Guidelines, the Commission states that: *"The present guidelines summarise the Commission's policy in applying the State aid rules of the Treaty to measures that support the deployment of traditional broadband networks and also address a number of issues relating to the assessment of measures aiming to encourage and support the rapid roll-out of NGA networks".*

This section of the report explores key areas within the State Aid Guidelines which could potentially affect MS especially in relation to the role of the NRA and the setting of conditions for wholesale access when State Aid is allocated by a MS.

3.1 Review of State Aid Guidelines

3.1.1 Structure of the State Aid Guidelines document

The State Aid Guidelines initially outlines the primary objective of State Aid control in the field of broadband as being *"to ensure that State aid measures will result in a higher level of broadband coverage and penetration, or at a faster rate, than would occur without the aid, and to ensure that the positive effects of aid outweigh its negative effects in terms of distortion of competition".*

The document goes on to consider situations where there is:

a. **The presence of State Aid**: Support for broadband deployment which satisfy the conditions of State Aid within the meaning of the former Article 87(1) of the TFEU – now Article 107. In these situations the compatibility of the support must be assessed solely on the basis of the criteria laid down in Article 107.

and

b. **The absence of State Aid**: Two situations are discussed

- *The application of the Market Economy Investor Principle (MEIP)*[11]. Where the State supports the roll-out of broadband by way of Capital injection or equity participation.

- *Public service compensation* in the form of a Service of a General Economic Interest (SGEI).

In the State Aid Guidelines, "open access" is always required where a subsidy is provided to a broadband/NGA network. However, the characteristics of such "open access" depend on the nature of the subsidy and the type of network involved.

The State Aid Guidelines discuss "open access" in the context of the following three cases:

1. State Aid for Broadband networks (current generation).

2. State Aid for NGA Roll-out.

3. Service of general economic interest (SGEI).

The differences between these cases are considered further in sections 3.1.3 - 3.1.5.

BEREC considers the key aspects of the State Aid Guidelines to be:

1. The requirements in terms of wholesale access including pricing.

   (Note; there are different requirements depending on whether the support is considered as an SGEI[12], and/or State Aid and, if considered State Aid, then whether the subsidy is for NGA[13] or Broadband[14] roll-out).

2. The role of different parties in the State Aid process including NRAs.

3. The relationship between SMP and State Aid ("open access") obligations.[15]

As indicated, the State Aid Guidelines constitute a summary of the Commission's policy in assessing the State Aid measures. This policy is implemented in the Commission's decisions on individual State Aid cases. The decision on whether a State Aid scheme is compatible with the competition and the intra-Community trade is solely for the Commission to make. However, MS and NRAs may be well-placed to help inform such decisions. These issues are considered further below.

3.1.2 Wholesale Access and Pricing: Compatibility assessment under Article 107(3) of the TFEU

As part of the compatibility assessment the State Aid Guidelines describes how the State Aid measure should be designed. Paragraph 51 sets out the conditions that must be met by a State Aid Application for broadband (or NGA), in order to minimise both the amount of State Aid involved and the potential distortions of competition.

11 Note that MEIP will not be examined in this report as it does not raise issues for consideration.
12 See Paragraph 27 of the State Aid Guidelines.
13 See Paragraph 79 of the State Aid guidelines.
14 See Paragraph 51(f) of the State Aid Guidelines.
15 See ibid.

In particular, Paragraph 51(g) states that "*In order to ensure effective wholesale access and to minimise potential distortion of competition, it is crucial to avoid excessive wholesale prices or, by contrast, predatory pricing or price squeezes by the selected bidder. Access wholesale prices should be based on the average published (regulated) wholesale prices that prevail in other comparable, more competitive areas of the country or the Community or, in the absence of such published prices, on prices already set or approved by the NRA for the markets and services concerned. Thus, where ex ante regulation is already in place (i.e., in a grey area) wholesale prices for access to a subsidised infrastructure should not be lower than the access price set by the NRA for the same area*".

3.1.3 State aid for broadband

The characteristics of wholesale access expected from a publicly subsidised broadband network are defined in Paragraph 51(f) of the State Aid Guidelines. This paragraph states that a broadband network that is granted State Aid to fund roll-out of new infrastructure should be mandated to provide an effective wholesale access to third parties for at least seven years. Furthermore, if the subsidized operator is present at the retail level, the wholesale access offered should enable third party retail operators to compete.

The Commission highlights that a finding of SMP on the relevant provider by the NRA, at the end of the period of 7 years, for which effective wholesale access should at least be offered, could extend the (access) obligations accordingly. However, this does not mean that the access remedies imposed by the NRA must necessarily replicate the access obligations introduced under the State Aid requirements. This is because NRAs will need to assess whether the State Aid recipient has SMP, using the required criteria in the Regulatory Framework, and decide which access obligations are appropriate and proportionate to address SMP.

3.1.4 State Aid for NGA roll-out

Referring to the necessary conditions of State Aid schemes supporting NGA networks, the State Aid Guidelines state in Paragraph 79 that *"in setting the conditions for wholesale network access, Member States should consult the relevant NRA. NRAs are expected in the future to continue either to regulate* ex ante *or to monitor very closely the competitive conditions of the overall broadband market and impose where appropriate the necessary remedies provided by the applicable regulatory framework. Thus, by requiring that access conditions should be approved or set by the NRA under the applicable Community rules, Member States will ensure that, if not uniform, at least very similar access conditions will apply throughout all broadband markets identified by the NRA concerned".*

The State Aid Guidelines set out that wholesale access to State-subsidized NGA networks should meet the conditions outlined for broadband (Paragraph 51) plus some additional conditions which are detailed in Paragraph 79.

The additional conditions are that wholesale products should, for at least seven years, provide third party operators with access to both passive and active infrastructure (at least ducts, cabinets, fibre and bitstream), especially to ensure that DSL operators are able to migrate their customers to the NGA network (Paragraph 79). The Guidelines state that the subsidised NGA operator should satisfy all types of network access a third operator may seek. The Commission also notes that multiple fibre architectures are technology neutral as they allow full independence and they support both point-to-point and point-to-multi-point topologies.

These additional conditions, as detailed in Paragraph 79 of the State Aid Guidelines, are to be met in all zones, except those that are "white areas" for both NGA and current generation broadband, and are without prejudice to any similar regulatory obligations. Therefore, NRAs are able to impose SMP obligations during or after the minimum (seven years) period of State Aid obligations. Also, the SMP conditions concerned may be the same as the State Aid-based access obligations or they may be different to them.

3.1.5 Service of General economic Interest (SGEI) "open access"

According to the State Aid Guidelines, in the context of broadband roll-out, there are specific conditions laid down by the Commission in order for a service to be considered an SGEI. Furthermore, there are other criteria ("the Altmark criteria") which, if met, may render the state funding for the provision of a SGEI mission outside the scope of Article 107(1) of the TFEU and therefore not considered State Aid.

3.1.6 Altmark Criteria: state funding for the provision of a SGEI may fall outside the scope of Article 107(1) TFEU (formerly Article 87(1) EC Treaty)

Paragraph 21 of the State Aid Guidelines states "*According to the case-law of the Court, provided that four main conditions (commonly referred to as the Altmark criteria) are met, State funding for the provision of an SGEI may fall outside the scope of Article 87(1) of the Treaty. The four conditions are: (a) the beneficiary of a State funding mechanism for an SGEI must be formally entrusted with the provision and discharge of an SGEI, the obligations of which must be clearly defined; (b) the parameters for calculating the compensation must be established beforehand in an objective and transparent manner, to avoid it conferring an economic advantage which may favour the recipient undertaking over competing undertakings; (c) the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of the SGEI, taking into account the relevant receipts and a reasonable profit for discharging those obligations; and (d) where the beneficiary is not chosen pursuant to a public procurement procedure, the level of compensation granted must be determined on the basis of an analysis of the costs which a typical undertaking, well run, would have incurred in discharging those obligations, taking into account the relevant receipts and a reasonable profit".*

If these 4 criteria are met, then the subsidy is not considered to be State Aid.

3.1.7 Conditions for a mission to be deemed an SGEI

Paragraph 27 of the State Aid Guidelines defines the minimum access conditions that should be provided on a network operated as an SGEI: *"The recognition of an SGEI mission for broadband deployment should be based on the provision of a passive, neutral and open access infrastructure. Such a network should provide access seekers with all possible forms of network access and allow effective competition at the retail level"*.

The subsidised network should be available to all interested operators. Thus, the SGEI operator should be a carrier's carrier providing wholesale products permitting *all possible forms of network access* to allow effective retail competition and affordable services to end-users. According to Paragraph 27 this implies that an SGEI operator should only provide wholesale access services *"without including retail communication services"*. However, if the

undertaking entrusted with the SGEI mission is a vertically integrated operator (i.e. also operating in the retail market), adequate safeguards should be put in place[16].

The State Aid Guidelines also state that the SGEI-operator should not be awarded any exclusive or special rights (Paragraph 28) and that the compensation should only cover the costs of rolling out in unprofitable areas (Paragraph 29).

The State Aid Guidelines give examples of the kind of wholesale products that are expected to be provided by an SGEI operator in the contexts of DSL or NGA networks. Namely, they state that active wholesale products are expected in addition to passive ones; thus the previous *"provision of passive, neutral and open access infrastructure"* requirement should be regarded as a minimum requirement when designing an SGEI network[17].

An SGEI mission should also provide *"universal connectivity"* to all citizens and businesses on the territory of its local authority.

3.1.8 The SGEI "open access" for DSL

In the case of a DSL network, the SGEI operator should provide at least bitstream and full unbundling wholesale products.

Footnote 35 of the State Aid Guidelines states: "*For example, an ADSL network should provide bitstream and full unbundling, whereas a NGA fibre-based network should provide at least access to dark fibre, bitstream, and if a FTTC network is being deployed, access to sub loop unbundling*".

3.1.9 The SGEI "open access" for NGA

In the case of a NGA network, the SGEI operator should provide at least wholesale products consisting of dark fibre, bitstream and, if relevant (such as for FTTC infrastructure), sub-loop unbundling[18].

BEREC notes that, particularly regarding SGEI missions in white areas, there may be concerns regarding the appropriateness of imposing *"all possible forms of network access"* (Paragraph 27). A similar reasoning applies to State Aid as an NGA network architecture should satisfy "*all different types of network access*" (Paragraph 79). The concern primarily relates to the potential impact of imposing such a comprehensive obligation on the business case for network roll-out in areas where there is evidence of a long-term lack of competitive provision.

3.2 NRA Roles anticipated by the State Aid Guidelines

The State Aid granting Authorities (SAGAs) have a primary role in the State Aid application process:

- The MS have the responsibility that access provided under State Aid meets the requirements of the Commission. In most MS, the SAGAs are the bodies which decide on the access obligations that should apply in each case. They also monitor

16 See footnote 37 of the State Aid Guidelines. In another section of the document, footnote 57 refers to the benefits to competition if the subsidised operator only operates at a wholesale level.

17 See Paragraph 27 of the State Aid Guidelines.

18 See footnote 35 of the State Aid Guidelines.

compliance with contractual conditions and take enforcement action as necessary. Accordingly, they manage the risks related to the compliance with State Aid rules.

- The NRA should be consulted by the SAGA in relation to State Aid applications.

The State Aid Guidelines set out a number of roles that NRAs are expected to perform in contributing to Commission decisions on State Aid applications. The relevant provisions are that:

1. MS should consult the relevant NRA when setting access conditions for NGA networks, to ensure that the access conditions are very comparable throughout the broadband markets identified by the NRA[19]. The State Aid Guidelines describe access conditions in this case as being *"approved or set by the NRA"*.

2. Pricing for access in subsidized networks may be based on regulated prices that are (or were) set by NRAs (or they could be based on published commercial prices – see Paragraph 51(g) of the State Aid Guidelines).

3. Access obligations imposed on the beneficiary of the aid for a minimum of 7 years can be (re-)imposed by the NRAs under the applicable Regulatory Framework.

As indicated also in its decision-making practice, the Commission values the involvement of the NRA during the design of the measure prior to notification such as the NRA's approval of the wholesale access conditions and the benchmarking price exercise specifically mentioned in its decisions[20]. There are, of course, important issues that need to be considered on this matter.

By virtue of its position and role as a regulatory body, the NRA will have knowledge and experience of a range of aspects of the electronic communications market. This broad sector specific experience is likely to inform the interaction between the SAGA and the NRA to the benefit of the overall process.

3.2.1 Limitations to the role of the NRA

When considering the requirement for NRAs to approve or set access conditions for subsidised NGA networks, there are a number of potentially significant barriers to this role. While some NRAs actively participate in the design of State Aid measures prior to their notification to the Commission,[21] it is important to recognise that in many MS NRAs lack the legal basis to provide such a formal view or decision on these access conditions. Therefore, NRAs across the EU do not have a consistent approach to this, partly due to differences in national legislation.

Aside from the question of legal powers, certain practical challenges might limit NRAs' ability to contribute to State Aid decisions:

- In case of basic broadband NRAs may not be made aware of, and may not have the capacity to monitor, all the regional and local deployments involving State Aid or public bodies. It is the obligation of the SAGA to inform the NRA of such developments.

19 Paragraph 79, 2nd bullet.

20 As examples Paragraph (17) of Commission Decision N172/2009 Broadband development in Slovenia or Paragraph (44)(l) of Commission Decision N388/2009 High-speed broadband pilot projects in Finland.

21 Some NRAs have legal powers, others have provided opinions in State aid cases to the Commission.

- NRAs may not have the resources to contribute to the assessment of access conditions, especially if a case-by-case assessment of access remedies is involved.

Where NRAs do have the relevant powers to approve or set access conditions, this could be done in two ways:

1. The NRA could approve or produce a general document that sets out which access conditions should apply to State-Aided NGA networks. This document could define the access requirements that SAGAs must impose in different circumstances. NRAs could also emphasise the need to maintain the access remedies imposed on an SMP provider;

or

2. The NRA could approve or set the access conditions linked to State Aid by assessing each application on a case-by-case basis.

Where NRAs do not have the powers, information and/or resources to approve or set access conditions in State Aid cases, they have less scope to comment formally on individual cases. However, it may be reasonable for such NRAs to:

- Set out, in general terms, what kind of access conditions would be logically consistent with the analysis that they would carry out when considering SMP remedies. NRAs may have information on the proportionality and viability of different access remedies, as well as on practical issues with their implementation, based on considering those remedies in its market reviews.

- Share other relevant information that they have on domestic and foreign NGA deployments, such as the potential viability of and demand for different access obligations, especially where similar access technologies are used.

- Set out key information on the State Aid process, to increase clarity for potential State Aid applicants.

The following points can also be made:

The Commission makes clear that there is independent and (if the case) parallel application of SMP regulation and State Aid related access obligations[22]. The granting of a State Aid with associated “open access”' obligations does not reduce the power of a NRA to impose SMP access obligations under the Regulatory Framework, i.e. subsidised networks remain subject to SMP regulation.

In addition, were the access conditions (imposed as a counterpart of the State Aid) found not to be met during a dispute before the NRA or a market analysis, the NRA could be turned into a *de facto* judge of the proper implementation of the State Aid rules. It remains uncertain whether the NRA has the legal basis to do so and how the NRA’s comments are taken into account by the SAGA in the application process.

The State Aid Guidelines state that the SAGA should consult with the NRA. However, the extent to which the SAGA takes the views of the NRA into account when formulating a State Aid Contract is not clear.

22 See Paragraph 51f of the State Aid Guidelines.

3.2.2 Pricing

Looking specifically at wholesale pricing, the NRA may, in practice, be the party that sets the wholesale access prices that apply in State Aid areas. However, the State Aid Guidelines do not suggest that NRAs should do a new analysis to set prices specifically for the covered area. Rather, the Guidelines state that prices should be benchmarked against the ones that have *already* been set or approved by the NRA "*in other comparable, more competitive areas*"[23]. It should be noted, however, that especially for NGA networks, there might not yet be any published or regulated prices available to benchmark against. Prices in other MS for similar schemes could be a suitable alternative benchmark in that scenario. The State Aid Guidelines note in Paragraph 51g that "*wholesale prices for access to subsidized infrastructure should not be lower than the access price set by the NRA for the same area*."

However, in situations where the regulatory prices are changed after the State Aid contract has been awarded, BEREC has a concern that a consistency problem may arise between (national) regulated prices based on SMP-regulation and prices which factor(ed) in the State Aid subsidy.

3.2.3 Relationship between State Aid and regulatory processes

SMP-based access obligations and State Aid-based access obligations can be imposed in parallel because they follow separate processes and are underpinned by different rationales, although both are intended to deliver benefits to end users. Whereas State aid access obligations are imposed in exchange of receiving public funds for rolling-out network infrastructures, SMP obligations are imposed to achieve a level-playing field and enhance competition.

Here we consider three distinct stages that may be distinguished regarding the relationship between both types of obligations:

1. <u>During the State Aid application phase</u>

During the application, prior to the subsidy being granted, the NRA could advise on the appropriate access prices that are needed in order to replicate, as appropriate, the market or regulatory conditions in the area considered. However, in the absence of a proper market analysis, regulated prices or a survey of market prices, and especially in the early stage of NGA roll-outs, the NRA might not be in a position to set or approve prices as clearly as the State Aid Guidelines assume.

2. <u>During the term of the State Aid contract</u>

During the period of mandated access for the subsidised network (which must be a minimum of seven years), the NRA will complete a market analysis which could result in a finding of SMP for the operator of the subsidised network. In that process, SMP designation and regulatory obligations may be imposed on the operator. If the operator in receipt of State Aid was already designated as having SMP, its existing regulatory obligations may be changed. However, these SMP obligations would co-exist with, and be independent from, the obligations derived through the State Aid contract. It should be noted that the co-existence of these schemes (regulatory obligations resp. obligations derived from the State Aid Contract) affect the *relative* prices of wholesale products. There may be a risk of inconsistencies e.g. resulting in a margin squeeze. This may result where the regulatory obligations are based on a national market analysis whereas State Aid has a regional focus.

23 Paragraph 51g of the State Aid Guidelines.

3. After the termination of the State Aid Contract

The State Aid Guidelines states that, when the State Aid contract terminates, the NRA should *"extend the access conditions accordingly"*[24]. However, it should be clear that the NRA can only impose access conditions/obligations after carrying out a market analysis and after a finding of SMP (or under article 12 FD and article 5 AD of the framework) and where the imposition of obligations was deemed to be appropriate, reasonable and proportionate. In practice, there is potential for the State Aid requirements to end, and new, separate, obligations to begin under the SMP framework. This may or may not occur at the same time as the State Aid requirements come to an end and the regulatory obligations may or may not be the same as the State Aid ones.

3.3 Country Cases: roles of the NRA in the State Aid application process

In some MS, the NRA is already part of the team designing State Aid schemes and in some cases the NRA continues to monitor the subsidized networks. However, in other MS the NRAs don't have any formal involvement in State Aid broadband schemes, focusing only on their core activity of SMP regulation.

This section provides examples of how some MS have established a formal role for the NRA in the State Aid application process.

3.3.1 France

3.3.1.1 ARCEP registers local authorities' projects

In France, the article L. 1425-1 (CGCT) requires local authorities to "*publish their project in a journal of legal notices and to send it to ARCEP*" two months before establishing or exploiting electronic communications networks and infrastructures.

Following the national law, ARCEP has published on its website a form offered to local authorities to fulfil their obligation of information. This form synthesises the main information relating to a project. Local authorities are also invited to send to ARCEP a map of the network, the catalogue file of their services and the contract, and if a retail operator is set up, a statement of insufficient private supply (*via* an unsuccessful invitation to tender).

3.3.1.2 ARCEP defines the "open access" conditions for networks to be eligible to state aid grants from a special public fund

On December 17th, 2009, the French parliament passed a law to fight the digital divide[25]. This law, on the one hand, encourages local authorities to coordinate and to prepare digital territorial master plans and, on the other hand, creates the fund for the digital planning of the territories (*fonds d'aménagement numérique des territoires*).

This special fund is to finance, upon request, works associated with infrastructure or networks' as foreseen by local authorities. Projects have to prove they only concern places where the market forces, even in case of co-investment, are not sufficient enough to provide

24 See Article 51(f) of the State Aid Guidelines document.

25 Loi n° 2009-1572 du 17 décembre 2009 relative à la lutte contre la fracture numérique, http://legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000021490974

very high speed electronic communications services to the whole population of a given territory.

In addition, subsidies can only be granted to infrastructures or networks which have to meet the conditions of accessibility and openness defined by ARCEP.

On December 14th 2010, ARCEP published a decision[26] which defines these conditions. According to this decision, an infrastructure or a network is regarded as "accessible" when it offers to multiple electronic communication operators an effective end to end access to end users. Similarly, an infrastructure or a network is regarded as "open" when it provides a non-discriminatory and transparent wholesale access both ensuring its shared use and respecting the principles of equality and free competition in the electronic communications market.

The decision then details the meaning of being open and accessible for both networks and infrastructures. An infrastructure is "accessible" and "open" if it is sufficiently sized to allow the rolling out of at least one very high speed network designed to serve the whole population of the subsidised area. When the infrastructure only allows for a single very high speed wired network to be rolled out, this network has to be "open" and "accessible". A network is "accessible" if it provides to tierce operators a wholesale product to connect their upstream network, a wholesale product to house both of their passive and active elements to serve the end-users with very high speed broadband, and in the case of a wired access networks, the later network should provide an effective passive wholesale access to end users at very high speed. A network is "open" if it provides an effective passive wholesale access.

3.3.2 Spain

3.3.2.1 CMT imposes special conditions on Public Administrations

In line with the view of the Commission and in order to promote the engagement of the NRA with the public authority granting the subsidy, CMT reinforced its involvement in the design of the schemes in order to assist in improving the State Aid measures and thereby limiting the effects on the liberalized market to the overall benefit of competition.

Based on the Spanish National Legislation that enables the NRA to impose special conditions on Public Administrations, when they act as operators, to ensure undistorted free competition, CMT approved, on 15 June 2010, a document establishing, inter alia, the procedure that any Public Administration planning to grant State Aid must follow before notification to the Commission. In particular, every Public Administration must inform CMT of any planned measure and provide supporting documentation in order to allow CMT to prepare a report on the proposed measure. CMT will then report within two to three months depending on the case, outlining its view on the appropriateness of the proposed measures.

The following information must be sent to CMT:

- Technical characteristics of the network or service.
- Mapping and coverage analysis.
- Forecasted income and funding sources.

26 ARCEP (December 14th, 2010). Décision n° 2010-1314 de l'Autorité de régulation des communications électroniques et des postes en date du 14 décembre 2010 précisant les conditions d'accessibilité et d'ouverture des infrastructures et des réseaux éligibles à une aide du fonds d'aménagement numérique des territoires, http://www.arcep.fr/uploads/tx_gsavis/10-1314.pdf.

- A report analyzing the impact on competition.
- Results of public consultation (consulting with the stakeholders affected by the measure who may have present or future investment plans in the area).

3.3.2.2 State Aid example: Optical Fibre Catalonia

An example of the application of the State Aid Guidelines and the role of NRA, is the European Commission decision on a Spanish measure called *"Optical fibre Catalonia (Xarxa Oberta*[27]*)*, referring to a public backhaul network. In this decision, the European Commission not only establishes that the access obligations[28] imposed by the Spanish Administration are in line with the open access terms outlined in the Broadband Guidelines but also agrees that the role assigned to the NRA in the scheme is according to the referred State Aid Guidelines. The decision explains that the scheme provides *"in the phases of implementation of the Xarxa Oberta project, CMT will have the competence to supervise compliance with the agreed access conditions and will approve access tariffs whenever necessary"*.

4 National legislation

Many EU Governments consider the electronic communications sector as a strategic pillar for growth and competitiveness of their country's economy. In this context, it is considered essential by those Governments to promote efficient investment in next generation networks, ensuring a strong industry which provides consumers with more advanced and innovative services, and which generates positive externalities, fights information-exclusion and increases economic and social benefits.

Aware of the economic and other benefits which can accrue from the roll-out of next generation services, and their potential role in economic recovery, MS are giving consideration to the criteria and principles which may underpin the establishment of a favourable framework for investment in the roll-out of NGA in their countries. In this regard MS have considered National Legislation in order to promote competition at the infrastructure level and as a possible enabler for creating the conditions which may result in greater network coverage in the national context thereby ensuring that operators will be more efficient in their network roll-out.

In particular MS have considered the use of legislation in an attempt to dissolve the physical bottlenecks which tend to impede and delay network roll-out. Access to passive infrastructure, in particular access to the terminating segment, has been a particular focus for MS and these legislative provisions tend to complement the activities of NRA's in the area of access.

In general the approach taken to a National policy framework while not adopted by all MS, includes the adoption of legislative acts to ensure access by all operators, on non-discriminatory terms, to existing and new (passive) infrastructure, both at the horizontal and vertical levels. The intent is for all operators in the market to be able to develop their own investment strategies with autonomy, thereby removing or diminishing the so-called horizontal and vertical barriers to investment on next generation networks.

27 State aid case N 407/2009.

28 Effective access to both passive (such as ducts, dark fibre) and active infrastructure on non-discriminatory terms, including provision of transport capacity to connect other operator last mile infrastructure, etc.

In cases where MS have passed National Legislation, a number of different approaches have been adopted. These approaches can be loosely divided into three “Categories” which will now be examined.

4.1 National legislation which results in symmetrical obligations

There is a growing awareness that exclusive access to infrastructure, which can foreclose competition and inhibits competitive roll-out of broadband, is particularly relevant to NG roll-out. In Spain, Portugal, France and Lithuania, specific National Legislation was implemented, resulting in symmetrical regulation by way of mandated access to passive civil infrastructure regardless of whether the operator is designated with SMP or not.

Legislation invoked to allow access by all operators to passive (civil) infrastructure is recognised as key considering that the costs of, and the time required for, the installation of ducts and associated passive infrastructure are fundamental to the efficient roll-out of NGA. Some of these provisions have preceded and pre-empted the development of the new Regulatory framework which also recognises and provides for a mechanism for dealing with similar issues.

At least two MS (Portugal and Lithuania) have adopted legislative measures in order to ensure that all operators have open and effective access to the duct network, and associated relevant facilities of all entities with this type of infrastructure, for the installation of next generation infrastructure.

NRAs in France, Spain and Portugal (see specific “Case Studies” below) evaluated solutions aimed at eliminating or reducing vertical barriers to the roll-out of fibre optics, as well as solutions for sharing/lending infrastructure on buildings (and surroundings), in order to prevent the first operator who has installed the infrastructure from monopolizing access. The respective Governments prepared specific National Legislation aimed at effectively reducing barriers to the roll-out of next generation related optical solutions within and to buildings, including the introduction of new or appropriate changes to the existing technical building regulations.

4.2 Local authorities operating in the communications market

National Legislation in France and Sweden enabled direct and active intervention from Local Authorities in the respective markets, by allowing “public local operators” to roll-out (NGAs) and offer retail services in their local areas. These interventions have been on the basis of the Market Economic Investor Principle (MEIP) or on the basis of the provision of an SGEI. The Commission recognises the specificities of the broadband sector and lays down strict criteria for an activity to be considered as an SGEI including the need for the entity engaged in the provision of an SGEI to be set up by an “*act of public authority”*.

Furthermore, the State Aid Guidelines state that a publicly funded network set up in the context of an SGEI mission for broadband deployment “*should be based on the provision of a passive, neutral and open access infrastructure. Such a network should provide access seekers with all possible forms of network access and allow effective competition at the retail level, ensuring the provision of competitive and affordable services to end-users.”*

4.3 Other forms of National legislation

There are other forms of National legislation aiming to promote the development of networks and/or services, but not specifically created to promote next generation networks or services,

e.g. the “Planning laws” in UK and the Communications regulation Act 2002 (as amended) in Ireland which allows an operator to negotiate access to physical infrastructure with an infrastructure provider. In Spain, the Telecommunications Act allows for the installation of ducts and ensures access to these ducts is provided on a non-discriminatory basis, when building, during major infrastructure projects such as railroads, etc.

4.4 Country Cases

This section provides detailed examples of how some MS have implemented National legislation in order to encourage the competitive roll-out of broadband while ensuring the intervention of local authorities does not result in distortion of competition.

4.4.1 France: local authorities, FTTH regulation

4.4.1.1 *Local authorities as wholesale operators promoting competition and broadband provisions in white areas*

In 2004, local authorities were given an optional competence to intervene in the electronic communications market.

This competence was created by the *Loi pour la confiance en l’économie numérique* (Act for trusting the digital economy or “LCEN”) and was codified at article L. 1425-1 of the *Code général des collectivités territoriales* (General Code for Local Authorities).

In respect of equality and of free competition principles on electronic communications markets, Local Authorities can on their territories:

- roll-out passive infrastructures;
- roll-out unlit networks;
- roll-out and operate electronic communications networks, so-called “public initiative networks”.

Local Authorities can only intervene on wholesale markets and have to provide wholesale products to all interested operators. As an exception, they can intervene on retail markets and provide directly end-users with their services, only after having stated, following to an unsuccessful invitation to tender, the inadequate private supply to meet end-users’ needs and having kept ARCEP informed.

The act defines four principles that local governments have to obey when they intend to intervene in the electronic communication market:

1. Coherence with other public initiative networks (PIN).
2. Guarantees of infrastructures sharing.
3. Compliance with free competition and equality principles.
4. Act in a transparent, objective, non-discriminatory and proportionate manner.

The act also distinguishes two levels of unbundling obligations for the Local Authorities to impose in the electronic communications market depending on the intensity of intervention:

1. Accounting separation for the sole rolling out of infrastructures or of passive networks. Local Authorities have to isolate and identify the financial flows related to building electronic communications' infrastructures or passive networks within their accounts.
2. A legal separation when the network is operated by a public person since the act forbids a single public person to grant rights of way for electronic communications networks and to be an electronic communications operator at the same time. A Local Authority, competent for granting rights of way, would have to create another public person to operate (as the Art. 2 (c) AD operator) the public initiative network it would roll-out (in case of *délégation de service public* or concession, the separated legal person is necessarily created).

Finally, in cases of unprofitable operations, Local Authorities can provide access to their infrastructures or networks below the production costs in a transparent and non-discriminatory manner, or compensate the public services obligations through an open tendering procedure (*délégation de service public* or public procurement).

This article came from a parliamentary amendment to the Government's Bill and superseded a former article of the same Code (L. 1511-6) that allowed Local Authorities only to build infrastructure dedicated to electronic communications operators. As the amendment originated from the Parliament, ARCEP did not express its own opinion on the design of the measure. However, ARCEP was consulted during the debate over the Bill.

It is worth noting that the act clearly does recall that the public initiative nature of a network does not alter the dispute resolution competence of ARCEP, which, thus, remains fully competent for resolving disputes in accordance with Art. 20 FD.

4.4.1.2 *Use of Symmetric and Asymmetric Regulations for FTTH roll-out*

The regulation of very high speed broadband in France relies on two complementary tools:

- asymmetric remedies under the market analysis decision of July 25th, 2008 (markets 4 and 5) mandating access to ducts;
- symmetric obligations based on the December 22th, 2009[29] decision mandating passive access to the the last part of the fibre optic lines.

Under the market analysis decision of July 25th, 2008 (markets 4 and 5), France Télécom has been designated SMP for both the physical infrastructures used for broadband (copper lines) and very high speed broadband (ducts). Duct access, copper local loop unbundling and bitstream access based on copper lines have therefore been mandated as remedies. Access to its civil works infrastructures (which are inherited from its former monopoly) is granted on a transparent, non-discriminatory and cost-oriented basis. So far, the market analysis decision has not imposed any remedy on France Télécom's fibre optic lines (FTTH), neither active nor passive.

However, passive access has been mandated through symmetric measures, for all operators rolling out in-building wiring.

29 ARCEP (December 22nd, 2009). Décision n° 2009-1106 de l'Autorité de régulation des communications électroniques et des postes en date du 22 décembre 2009 précisant, en application des articles L. 34-8 et L. 34-8-3 du code des postes et des communications électroniques, les modalités de l'accès aux lignes de communications électroniques à très haut débit en fibre optique et les cas dans lesquels le point de mutualisation peut se situer dans les limites de la propriété privée, http://www.arcep.fr/uploads/tx_gsavis/09-1106.pdf.

The Law on modernising the economy (LME) dated August 4th, 2008) introduces a system of rights and obligations for operators deploying very high speed broadband solutions. It sets out specific rules for very high speed broadband in order to:

- facilitate the deployment of fibre in private premises (registration on the agenda of meetings of buildings' co-owners, recommendation for the agreements between buildings' co-owners and operators, individual's "right to fibre", etc.);
- reduce the risk of a local monopoly in the building, through the sharing of the terminal part, the implementation of which is ensured by ARCEP;
- equip new buildings with optical fibres.

In particular, the process of installing fibre in buildings is facilitated for operators and imposed on property developers in greenfield housing. Moreover, the party that installs the fibre in the building (i.e. the building operator) is responsible to the property owner for all operations performed on the network on the private property, and must satisfy an obligation to share its infrastructure, allowing other operators to provide ultra-fast broadband services to the residents of the building under fair and non-discriminatory conditions. Furthermore, article L. 34-8-3, created by the LME stipulates that the concentration point must be located outside of private property, *"except in instances defined by [ARCEP]"*.

Article L. 34-8-3 of the *Code des postes et des communications électroniques* (CPCE, the French electronic communications Code) resulting from the relevant specifications in the LME pursuant to Article 12 FD, foresees a right for undertakings providing electronic communications services to have access to fibre lines installed inside a building to connect end-users.

In order to implement such a symmetrical access regulation, ARCEP has adopted complementary obligations on the basis of the CPCE article L. 34-8, transposing the article 5 AD. Therefore, ARCEP notified its measure on the basis of Article 5 AD, as a necessary complement to the co-location and facility sharing arrangements imposed pursuant Article 12 FD.

The current regulatory framework implemented in very-high density is based on the December 22nd, 2009 decision, which specifies general technical and pricing principles regarding access and the disclosure of prior information and cases in which the concentration point may be located within the private property. This decision also details specific obligations set out in very high-density areas, regarding the conditions for the rollout of the terminal part of FTTH networks, in particular in terms of number of fibres per unit installed and available space for specific equipments to comply with the principle of technological neutrality.

A recommendation was also adopted on the same day and provides operational details specifying the way to implement the decision.

The decision already provides obligations applicable throughout the territory. It mandates passive access at the concentration point, publication of an access offer, the transmission of prior information and tariff obligations. Access tariffs must be reasonable and comply with the principles of non-discrimination, objectivity, relevance and effectiveness and may they take into account a rate of return on capital that reflects the risk and gives a bonus to the building operator.

The decision defines very high-density areas as areas where it is economically viable for several operators to rollout their own fibre networks close to the buildings. In those areas (148 municipalities defined by ARCEP on density, population and type of habitat grounds), specific obligations have been defined:

- the concentration point may be located within private property if the building has more than 12 housings or if it is connected to a visitable sewage network through a supply tunnel which is also visitable, irrespectively of the number of dwelling units;
- if third-party operators request the rolling out of a dedicated fibre beforehand, the in-building operator has to roll it out (the investment is therefore fairly shared among operators);
- the operator installing the in-building wiring to grant a passive access to other operators at the concentration point, unless all four fibres installed are already in use. In this case, access may be granted higher in the network on a passive or activated basis.

Regarding the rolling out of FTTH networks outside very high-density areas, ARCEP adopted, on December 14th, 2010, a decision[30] specifying the terms and conditions governing access:

- the building operator provides passive access at the concentration point under reasonable technical and economic conditions. A greater part of the network is shared;
- requests to benefit from access to a dedicated optical fibre are not reasonable;
- housing of active equipment at the concentration point is mandatory in order to allow optimization of all technologies (technology neutrality).

The decision also specifies the obligations of coordination among stakeholders for deployments both competitive and consistent:

- the building operator will define a concentration point area of 1 000 lines or more, notwithstanding the building operator offers a dark fibre line rental between the concentration point and the MPoPs, the concentration point size may decrease down to 300 lines;
- coordination of deployments, particularly with local authorities, is necessary to ensure consistency between deployments of different concentration point areas.

Consequently, the French FTTH framework requires the building operator to roll out a point-to-point network from the concentration point to the terminal point with at least a single fibre per household and business. This topology and the requirements regarding the location and the technical characteristics of the concentration point ensure that the infrastructure is technology agnostic and, thus, allows both P2P and GPON FTTH operators to use the fibre access network.

4.4.2 Portugal

4.4.2.1 *Governments Strategic Guidelines for NGA*

In Portugal, a Resolution of the Council of Ministers of July 2008 determined that investment in NGA networks should be deemed as one of the strategic priorities for the country as far as the electronic communications sector is concerned. The Government's strategic guidelines for the development and investment on next generation networks aim to:

- induce a confident attitude regarding investment and national development[31];

30 ARCEP (December 14th, 2010). Décision n° 2010-1312 de l'Autorité de régulation des communications électroniques et des postes en date du 14 décembre 2010 précisant les modalités de l'accès aux lignes de communications électroniques à très haut débit en fibre optique sur l'ensemble du territoire à l'exception des zones très denses, http://www.arcep.fr/uploads/tx_gsavis/10-1312.pdf.

31 Thereby promoting a model based on competition of infrastructure rather than of services, which, according to the Portuguese Government, does not offer the same benefits to the economy and to consumers. Within this scope, clear and transparent regulatory principles needed to be defined, for operators to make informed investment decisions, while not hindering efficient and timely investment in next generation networks.

- promote a competitive electronic communications market and to ensure the removal of barriers to market access by the operators;
- ensure access to technologically advanced products and services[32]

The Government takes the responsibility for evaluating the measures that can be adopted in order to foster the development of next generation networks, namely in geographical areas with low broadband penetration, as well as to modernize current network infrastructure. In this context, access by all operators to underground infrastructure is deemed important, considering that the costs for building ducts are a considerable part of investment in fibre based networks. A central concern is also to promote the elimination of vertical barriers that hinder the roll-out in buildings of optical fibre solutions associated with the NGA networks.

This Resolution includes the Government's specific guidelines for NGAs, such as the implementation of an effective and non-discriminatory access to ducts and other infrastructures, regardless of the respective owner[33], and the adoption of solutions aimed at eliminating or reducing vertical barriers to the roll-out of fibre optics, so as to prevent the first operator from monopolizing the access to buildings.

4.4.2.2 Symmetric regulation by National Law

Civil Infrastructure

Following the above mentioned resolution, the Government published new National Legislation (Decree-Law nr. 123/2009, of 21 May 2009[34]) with the definition of the framework that applies to the development of NGAs.

This Legislation sets out the general principles, namely the principles of competition, open access, non-discrimination, effectiveness and transparency, concerning the promotion of the construction, set up and access to infrastructures suitable for the accommodation of electronic communications networks – in a technological neutral and symmetric approach – in property owned by any operator[35], private entities and public bodies[36], even though may be operating in sectors other than the telecommunications sector.[37]

Provision is thus made for an open and non-discriminatory access to passive civil infrastructure, including ducts, masts and other facilities, owned by either private or public bodies. Therefore access to infrastructures must be ensured under conditions of equality,

32 Intending to promote the mass adoption of high speed Internet offerings and the development of advanced solutions enabling the connection to next generation networks, namely of all secondary education schools, hospitals and health centres in the Country.

33 Including the provision for technical standards on infrastructures for telecommunications in housing developments, urban settlements and concentrations of buildings (ITUR), the civil infrastructure (e.g. ducts) connected to the building.

34 See http://www.anacom.pt/render.jsp?contentId=952960&languageId=1.

35 In this context, the historical operator, the concessionary of the telecommunications public service, remains subject to the stricter rules flowing from the Electronic Communications Law, approved by Law nr. 5/2004 of 10 February, and from measures adopted by ICP-ANACOM in the context of article 26 thereof. The concessionary must comply, however, with provisions concerning the provision of information and records of own infrastructure.

36 Comprising the State, local authorities, public companies, concessionaries and other bodies holding infrastructures that integrate the public domain.

37 The same legislation also establishes, for the first time, the legal regime that applies to (access to) civil infrastructures in housing developments, urban settlements and concentrations of buildings (ITUR). As regards access, developers, municipal councils and bodies appointed by them (public ITUR), as well as owners and management bodies of concentrations of buildings (private ITUR) are required to ensure that electronic communications companies are provided with an open, non-discriminatory and transparent access to those infrastructures, for the purpose of the set up, preservation, repair and alteration of infrastructures.

transparency and non-discrimination, and be subject to cost-orientated remuneration conditions[38].

This regime also aims for the removal or reduction of barriers to the construction of new infrastructures suitable for the accommodation of electronic communications networks, laying down rules directed towards easier and effective coordination of underground works by requiring entities to communicate the commencement of any underground works which may also enable the installation or construction of infrastructures suitable to the accommodation of electronic communications networks. The regime also ensures that parties commencing such work engage fully, appropriately and in a timely manner with telecommunications companies who request intervention in such civil works.

In – House Wiring

The same legislation establishes the regime that applies to infrastructures for telecommunications in buildings (ITED) and the compulsory set-up of fibre infrastructure in this scope has been laid down, in addition to that of copper and coaxial cable, which has been compulsory so far[39].

New rules have been laid down not only to promote the installation of fibre optic cable in new buildings but also to avoid monopolization, by the first operator, of vertical communications infrastructures in "old"/existing buildings by the time the new regime went into force. In this case, the first "building operator" to reach an "old" building has to install at least two fibres per home (apartment) and associated infrastructure to be shared by other operators (e.g. vertical infrastructure and ODF). For new buildings, the same rule applies, but the responsibility for the installation of the infrastructure and cabling remains with the owner/builder.

In any case, the conclusion of exclusive access agreements (e.g. between operators and/or infrastructure owner) is forbidden and any agreement that fails to comply with the regime laid down is deemed to be null and void.

Other measures

In Portugal, a centralised information system (CIS) is established, containing data on records of infrastructures held by the above-mentioned public bodies and by electronic communications operators[40]. The CIS is based on the principles of information sharing and reciprocity, and it may be accessed by all bodies that ensure fulfilment of related information obligations.

The effective exercise of the right of access is based on the implementation of the CIS, which contains information deemed to be relevant to ensure rights of way[41] but also the right to access ducts and other suitable infrastructures. The CIS is considered to be of fundamental importance for an open and effective access, to civil infrastructures, by all electronic

38 In the context of this legislation, "access" shall mean making available physical infrastructures including buildings, ducts, masts, inspection chambers, manholes, cabinets and facilities intended for the accommodation, setting up and removal of electronic communications transmission systems, equipment and resources, as well as for the performance of corrective and unblocking interventions.

39 An evolution as regards the framework already defined by previous Decree-Law nr. 59/2000, of 19 April 2000.

40 Through the CIS it is possible to access information on procedures and conditions for the allocation of rights of way, information on advertisements of construction of new ducts and other suitable infrastructures, comprehensive and geo-referenced information on all infrastructures, and information on procedures and conditions that apply to the access to and use of each of the referred infrastructures.

41 For the purposes of implanting, crossing or passing over as deemed necessary to allow the setting up of systems, equipment and other resources.

communications companies[42], its usefulness goes beyond the electronic communications sector, as it may be a great help in the planning of other networks and in the scope of territorial planning.

The use of harmonised procedures is another relevant aspect, particularly as regards the relationship between operators and local authorities, an issue of indisputable importance to avoid uncertainties and obstacles in the set up of infrastructures suitable for the accommodation of electronic communications networks[43]. Thus, this legislation constitutes an attempt to rationalise the intervention in public spaces, reducing situations involving street works and enabling a reduction of expenses with the construction of suitable infrastructures, without placing an undue burden on bodies promoting the construction.

In conclusion, the regime provided for in this new national legislation is underpinned by the principles of competition, open access, equality, non-discrimination, effectiveness, transparency, technological neutrality and absence of cross-subsidisation between sectors. This Legislation thus aims to define a framework that is supportive of the development of and investment in next generation networks by investors or electronic communications operators thereby creating the conditions which will enable the development of a more competitive market.

4.4.3 Spain: Symmetric legislation for fibre deployments in buildings

Symme*trical measures were imposed February 2009 by CMT, aided* to promote and facilitate sharing of fibre deployments within and near buildings, valid for buildings without Common Telecommunications Infrastructures (those built before 1998). The legal basis is the existing national legislation (General Telecommunications Act), which, in its Article 13.2, establishes that in exceptional and properly justified circumstances, CMT can impose access or interconnection obligations to operators not declared as having SMP.

These measures establish that operators that deploy in-building fibre cabling shall meet all reasonable access requests, and are obliged to agree with third parties procedures, technical constraints, prices and timings with regards to the provision of access to the fibre facilities installed. Such wholesale agreements must foresee the establishment of technical implementations so that other operators can share fibre resources under reasonable conditions in terms or costs and prices. In addition, to avoid situations where operators encounter entry barriers such as being refused access to property or lack of space for additional fibre deployments, the first operator, in deploying fibre within buildings, must play the role of manager of the network resources installed. Thus, the first operator is obliged to carry out the tasks required to effectively complete the facilities sharing, such as cabling and installation of the referred facilities for third operators.

Furthermore, the obligation to facilitate access to the facilities installed in buildings under reasonable costs is imposed, thus guaranteeing that costs do not constitute an barrier to entry for third parties.

Finally, as transparency obligations are essential in order to permit that operators are in a position to efficiently arrange and generate access requirements, CMT has estimated that a number of information fields in an information system are indispensable for that purpose, such as passed buildings, details about the variety of deployment performed and technical data with regards to distribution boxes and fibre.

42 Pending the actual implementation of the CIS, the NRA shall adapt the arrangements for provision of information on access to ducts, masts, other facilities and locations by the SMP operator (also the concessionary of the “telecommunications public service”), so as to achieve coordination with the CIS.

43 It is thus laid down that the construction of infrastructures is subject to a procedure of prior communication to the municipal council, as provided for in the urban building and development legal regime.

1. Scope of the obligations

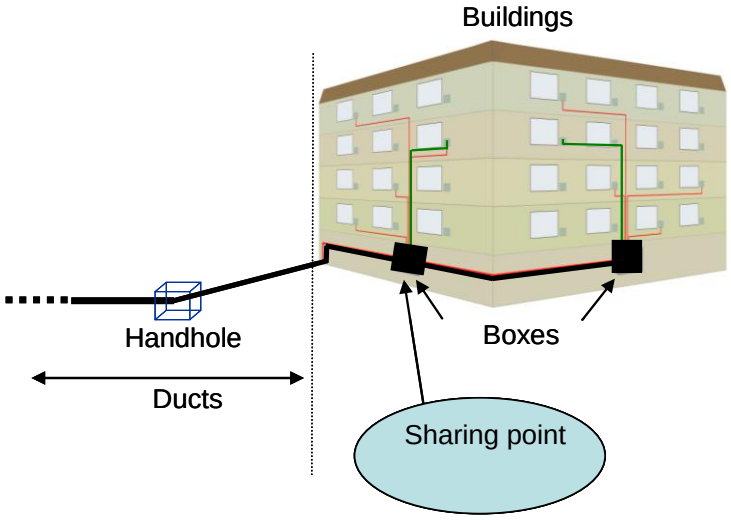
The obligations are directed exclusively to operators who deploy or have deployed networks based on fibre optics and other related facilities within buildings. Not included are other operators whose deployment strategies involve the location in the buildings of network resources other than opticalThe measure is only applicable to buildings not equipped with Common Telecommunications Infrastructures. Also excluded from the application of the obligation of sharing are buildings devoted entirely to conducting business activities.

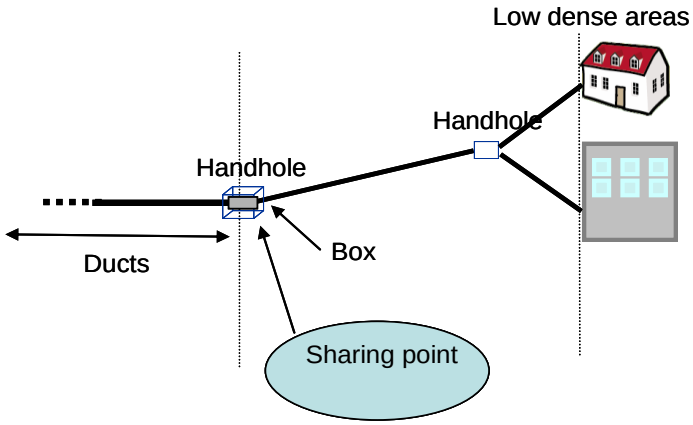
Sharing point

The point of sharing corresponds to the location of the optical termination boxes of the first operator to deploy optical fibre.

The resources to be shared are those deployed between that point and end-user home.

The optical termination box may be placed in the building itself or in the public domain, as decided by the first operator.





2. Remedies imposed

A particular technical solution for the sharing of elements is not imposed, as there is not a single optimum scenario, technological neutrality must be preserved and the mentioned elements are subject to rapid technology developments.

The first operator to deploy optical fibre in a building must agree procedures, technical conditions, prices and timing with other operators. They have four months to reach an agreement. The adopted technical solutions must be deployable in reasonable conditions (i.e. in terms of timing and prices). The responsibility for handling all tasks related to the sharing of the resources (like laying new cables) rests with the "building operator", which is defined as the first operator that has deployed fibre in that building.

The offered prices cannot be excessive and cannot represent a barrier to entry. They must allow the first operator to recover the incremental costs associated with the sharing.

The first operator to deploy fibre in a building must provide third parties with information needed to plan their access requests, such as the locations of buildings where optical cabling has been laid, type of deployment, characteristics of the optical termination boxes and of the vertical cabling, available space in vertical ducts for additional fibres, etc.

4.4.4 Sweden

On January 1st 2010 new National Legislation, the Swedish Competition Act, was enacted which prohibits anti-competitive sales by public entities. Conduct by the State, a municipality or a county council may be prohibited by the Swedish NCA through an injunction if such conduct:

- distorts, by object or effect, the conditions for effective competition in the market,

or

- impedes, by object or effect, the occurrence or the development of such competition.

The existence of these rules may deter Local Authorities from e.g. rolling out broadband networks and offering electronic communications services. However, the applicability of the Legislation depends on the degree of competition in the area and may therefore differ between different parts of the country.

The Swedish NCA is currently investigating cases where local publicly owned operators may have acted in conflict with the Swedish Competition Act by acting on a high level in the value chain and offering broadband services to end consumers.

5 The Role of Competition Law

This section considers relevant provisions of European Competition Law that National Competition Authorities (NCA) or the Commission could consider when analysing cooperative projects[44] and provides an example from the Netherlands where Competition Law was used in order to ensure an appropriate level of wholesale access was maintained.

Any examination of collaborative and cooperative arrangements is in the realm of NCAs, the Commission or the Courts where appropriate. However, there are touch points between the

44 The assessment criteria mentioned here however are not meant to be comprehensive. The examples provided are for illustrative purposes only. Any such cases would have to be examined on an individual, case-by-case basis.

competencies of NRAs and NCAs, particularly when SMP operators are involved. In practice, there are different approaches taken by MS regarding how such collaborations are dealt with. In some MS the analysis is carried out exclusively by the NCA or in consultation with the NRA.[45]

In any case, the provisions of sector-specific law based on SMP generally remain unaffected from the applicability of Competition Law which is applicable in regulated sectors. However, the effect of access regulation would constitute a key assessment criterion since it fundamentally affects the competitive conditions. Since the provisions of the Regulatory Framework are based on the principles of the European Competition Law, there is generally no difference between the criteria for finding SMP by the NRA and the finding of a dominant position by the NCA. However, a finding of SMP in a regulated market cannot prejudge either the definition of the relevant market in an *ex post* assessement nor a finding of dominance by the NCA.

Considering the significant costs of NGA roll-out, cooperative agreements between different parties may be applied to create synergy effects thereby easing the financial burden of such a roll-out.[46] Operators involved in cooperative agreements may also benefit from risk reductions and, closely related, a better utilization of their networks. These effects can contribute to a faster, more efficient roll-out of NGA infrastructures on a broad scale. Cooperative agreements may be particularly relevant in rural or underserved areas where the market may not allow for a profitable NGA roll-out by a single company.

Despite the potential benefits which can arise from such arrangements it has to be ensured that cooperative agreements do not also cause undesirable effects such as distorting or restricting competition.[47] They can also negatively impact on third parties abilities to compete if an agreement entails prices or conditions for wholesale products to the exclusive benefit of the parties to the agreement. This is where Competition Law becomes relevant.

Article 101 of the TFEU starts from the general assumption that agreements between undertakings, decisions of associations of undertakings and concerted practices which may affect trade between MS and which have as their object or effect the prevention, restriction or distortion of competition are prohibited. Article 101(3) of the TFEU provides an exemption to the prohibition set out in Article 101(1). Depending *inter alia* on the resulting effects on competition of an agreement such as cooperation projects, such projects may benefit from this exemption. However, with the exception of certain types of agreements set out in Article 101(1) of the TFEU which are automatically void[48], the provision of “open access” may, for example, ameliorate any harmful effects on competition in such a way that the prohibition in Article 101 is inapplicable.

Generally, the existence of regulation would have to be taken into account when assessing cooperative agreements under Art. 101 TFEU as mandated access, e.g. at regulated prices, affect fundamentally the conditions of competition.

The focus of the following paras is on the provisions of Art. 101 TFEU. However, it should be considered that Art. 102 TFEU could also be a source of access obligations for operators holding single or joint dominance. It might turn out to be relevant in cases where NGA

45 See summary of answers by NRAs to BEREC questionnaire , in partular Q12, for details.
46 See ERG (09) 17, Ch. D.3.3 “Co-investment and risk-sharing arrangements”.
47 See ERG (09) 17, Ch. D.4 “Regulatory/competition law treatment of joint projects”.
48 Article 101(1)(a) to (e) of the TFEU: (a) directly or indirectly fix purchase or selling prices or any other trading conditions; (b) limit or control production, markets, technical development, or investment; (c) share markets or sources of supply; (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

regulation is not yet in place and refusal to grant access to the infrastructure of the dominant operator might be considered a violation of Art. 102.

5.1 Prohibition of agreements and concerted practices: Article 101 para 1 TFEU

The permissibility of cooperation projects on joint build and shared use of broadband infrastructures fall to be assessed under Article 101 TFEU, which prohibits agreements between undertakings, decisions of associations of undertakings and concerted practices which may affect trade between MS and which have as their object or effect the prevention, restriction or distortion of competition.[49]

More specifically cooperative arrangements for NGA roll-out between operators may restrict the level of competition which may affect both Market 4 and Market 5 of the "Recommendation on relevant markets which are susceptible to ex-ante regulation". Whether and to what extent competition is affected the following are amongst the criteria to be considered:

- The type of actors involved: e.g. operators with and/or without SMP, local authorities.
- The degree of using shared/own infrastructure: complementary / parallel roll-out.
- The type of area: white/grey/black[50].
- The form of organisation: operators remaining independent / merging.

5.2 Joint roll-out of infrastructure with mutual provision of access

A collusive division of the market territory with respect to customers, where cooperating partners agree to roll-out infrastructure in different areas to exclude competition between them at the retail level, is prohibited as a hard-core restriction on competition. The situation may merit reassessment, however, if competition at the retail level is ensured by the commitment of the involved operators to mutually grant access to each other's infrastructure (e.g. bitstream access)[51]. However, merely providing mutual access to the co-investors may not in all cases alleviate competition concerns under Art. 101, as such forms of access could nevertheless result in a restriction of competition e.g. if access for third parties is excluded. Thus, access provision therefore is a necessary (but possibly not sufficient) condition for the division of roll-out areas not to constitute a hardcore restriction of competition and may be mandated by the NCA in such a case.

5.3 Impact on infrastructure competition in relation to infrastructure

Whether and to what extent infrastructure competition is affected generally depends on the concrete terms of a cooperative agreement (see bullets above).

49 Note: any criteria mentioned hereinafter to assess provisions of Competition Law are not meant to be exhaustive.

50 The Commission defines (Paragraph 40) white areas as areas where no broadband infrastructure exists or is unlikely to be developed in the near term, in grey areas only one broadband network operator is present and in black areas at least two or more broadband network providers are present.

51 In Germany there is a case where two operators intend to deploy infrastructure in different areas of a city and where they mutually provide access. There is no formal decision or assessment of this case by the German NCA.

It seems plausible to assume that there is no negative effect on (infrastructure) competition if the collaboration aims at deployments in “white areas” which cannot be profitably deployed by only one operator[52]. Thus, it is conceivable that the efficiencies and synergies from such a cooperation can lead to cost savings which make network roll-out profitable.

Granting bitstream access only, instead of mutual access to the local loop, reduces the degree of infrastructure competition in the sense that bitstream is on a lower rung of the ladder of investment[53]. Similarly, competition between the parties involved in the cooperation would be restricted if, without this cooperation, operators had rolled out parallel networks on the basis of ULL. Such a claim may not be easily substantiated by NCAs. The NCA may also consider the impact of the cooperation agreement on the speed of MDF dismantling[54].

Compared to a “complementary” network with mutual bitstream access roll-out, a “parallel” roll-out on the basis of ULL implies a higher degree of duplicated infrastructure and a lower degree of shared infrastructure usage. Two operators may each roll-out their own fibre infrastructure to the street cabinet, while not duplicating the final copper loop.

It can be assumed *cet. par.* that, in this case of parallel roll-out, there is probably more infrastructure competition. As in the previous case, access opportunities for third parties might get restricted if (e.g.) current MDFs are phased out and an equivalent wholesale product is not available.[55]

5.4 Exemptions of prohibition of agreements and concerted practices Article 101 para 3 TFEU

Art. 101 para 3 TFEU then provides an exemption to the prohibition on anti-competitive agreements set out in Article 101. It is important to note that collaborative arrangements may be subject to EC merger regulation and merger guidelines when joint ventures or mergers are established.[56]

Collaborations may be exempted from the prohibition of anti-competitive agreements under Article 101 (3), even if they restrict competition. The collaborating parties have to prove that the agreement fulfils the cumulative requirements for an exemption.

Therefore, the agreement must[57]:

a) Contribute to improving the production or distribution of goods and promote technical or economic progress.

   Without prejudice to any position, this criterion might be deemed fulfilled, e.g. if the

52 See 2.3.2.1 of the State Aid Guidelines.

53 However, this does not imply that the number of competitors at the retail level which influences the intensity of competition is necessarily lower when bitstream is the only wholesale product available instead of ULL.

54 Assuming a complementary network roll-out where one party is the SMP operator could limit access opportunities for third parties and - ultimately - competition for retail broadband access. This could result if the SMP operator phases out its MDFs thereby forcing its competitors either to further invest in own infrastructure or to step back on the ladder of investment and use a bitstream product. Whether a negative effect on competition actually occurs depends on the availability of and wholesale access by competitors to an equivalent wholesale product.

55 Exclusionary effects of MDF phasing out might be alleviated where an SMP operator is bound by regulation. E.g. an SMP operator would normally have to ensure a competitive transition to NGAs including the decommissioning of MDFs.

56 See http://ec.europa.eu/competition/mergers/legislation/legislation.html for an overview of merger legislation.

57 See Communication from the Commission — Notice — Guidelines on the application of Article 81(3) of the Treaty, 2004/C 101/08, http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2004:101:SOM:EN:HTML.

cooperation allows more customers to have DSL access of a higher quality. Cost savings resulting from improved economies of scale or scope may also be relevant.

b) Allow consumers a fair share of the resulting benefit.

As with criterion a) and without prejudice to any position, providing more customers with broadband access of a higher speed might satisfy this criterion.

c) Be indispensable to the attainment of these objectives at a) and b) above.

This criterion implies to prove that the objectives could not have been achieved without this cooperation.

d) Does not eliminate competition in respect of a substantial part of the products in question.

In this case, the overall competitive situation with the collaborative agreement is compared as against existing competition. Where an SMP operator is involved, who is subject to regulation, the elimination of competition in respect of a substantial part of the products in question might be more likely compared to a collaboration between non-SMP operators. Also the size of the region where the collaboration exists is relevant.

Mutual access between cooperation partners as well as provision of third party access can contribute to strengthen competition on the retail market and therefore is likely to play an important role in assessing compatibility with Competition Law and the exemption in Article 101(3).

5.5 Merger control provisions

If the collaborating parties establish a joint venture or merge, then the provision of merger control regulation becomes relevant[58]. The merger or joint venture has to be notified to the NCA and may be notifiable to the Commission. The assessment of the criteria set out in Art. 101 are considered by the Commission[59]. The Commission or NCA essentially assess whether or not the merger or joint venture will “substantially lessen competition”. At the conclusion of the assessment, the Commission or NCA will issue a determination either: (i) permitting the merger or joint venture; (ii) permitting the merger or joint venture subject to certain conditions (e.g., access conditions); or (iii) prohibiting the merger or joint venture.

Example: The case of Reggefiber

In the Netherlands, Reggefiber (Group B.V.), a joint venture of KPN and Reggefiber, is rolling out FttH. The joint venture provides a practical case of merger control and cooperation between the NCA and the NRA.

In December 2008 the Dutch NCA approved the setting up of the joint venture. Because of the possible SMP position of the joint venture on the markets for access fibre and copper networks,[60] the NCA made its approval contingent on certain conditions:

58 Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation); http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004R0139:en:HTML

59 Where the thresholds set out in Article 1 of the European Merger Regulation are met.

60 In the market analysis (December 2008) the unbundled fibre service (ODF access) was defined in the same market as unbundled local loop services (MDF and SDF access), see BoR (10) 08, Ch. A.4.2 outlining the case of fibre unbundling in the Netherlands.

- The joint venture shall operate at arm's length from its parents, and shall not offer favourable treatment to KPN when it comes to providing unbundled access to other operators.
- In order to prevent KPN from being offered advantageous prices by the joint venture for access to the fibre network - possibly leading to price squeeze situations - a price ceiling was applied.
- Furthermore, the joint venture shall provide unbundled access to the fibre local loop to for third parties.[61]

At the time the joint venture was investigated by the NCA, the NRA was performing a market analysis on the Market 4.

When setting out these conditions, the NCA worked in conjunction with the NRA aligning the remedies imposed by the NCA and the obligations imposed by the NRA. This approach allowed to stimulate investment (by speeding up the roll-out of fibre networks) while at the same time remaining a competitive environment (by requiring fibre access and constraining the pricing behaviour of the SMP operator).

6 Voluntary claims of "open access"

The concept of 'voluntary access' is sometimes used by stakeholders, often in relation to the idea that it could be an alternative to using regulations to establish appropriate access requirements. In the following we will argue that voluntary access commitments can under no circumstances substitute any regulatory remedy in case of competition problems (SMP).

6.1 Forms of voluntary access

Voluntary access commitments may come in two different forms:

1. One is a pure "access only commitment" where an operator commits to offering commercial access to some or all operators for some or all access products.

2. The second form is one where the operator commits to give such access on transparent and non-discriminatory terms to all operators. The latter is often strengthened by a commitment to vertical separation.[62]

There are different scenarios in which voluntary access might exist, which have varying levels of relevance to different forms of regulations. These scenarios include:

- Whether or not the access provider in question has SMP.
- Whether or not the access provider is vertically separated – and whether that is operational separation or full structural separation.
- Whether there is an existing SMP access network in the same geographic area.
- How far multiple operators have common ownership of parts of the access network.
- Whether or not symmetric access is being provided by multiple access providers.
- The nature of the demand for access products in the specific location concerned.

61 Next to providing an "open access" based on unbundled fibre (ODF access), it also provides collocation and backhaul services.

62 Depending on the case, on "layer 2", e.g. standard case in Switzerland, or "layer 1", e.g. standard case in Sweden.

6.2 Incentives for granting voluntary access

Where voluntary commitments are made, it needs to be taken into account whether they are incentive-compatible – i.e. that is in the interests of the operator to honour those commitments. In any other case it must be expected that the commitment will not be, or will only be partly, respected in the long term.

There are various reasons why an operator may wish to grant access on a voluntary basis:

- It may want to get traffic on to its network to generate wholesale revenue, to offset/justify the investment cost involved. This factor is likely to be especially strong where the operator with the access network is vertically separated. Operators will, however, find it profitable to limit access to active products in order to control a maximum of the value chain, or to offer only mutual symmetric access for this purpose, for example where their geographic footprint is not identical (consequently excluding access for other providers).
- It might grant access in anticipation of formal (regulatory) requirements being introduced in the future, through one or more formal means. For the same reason, an operator might also provide access in a form that is consistent with common regulatory practice. Should the formal requirement not materialise later, the commitment would no longer be incentive-compatible.
- It might be seeking to avoid formal regulatory requirements – what is termed a 'regulatory holiday' – at least on a temporary basis, in the early years after deployment.[63]

Figure 2 illustrates the incentive structure to provide access in different settings:

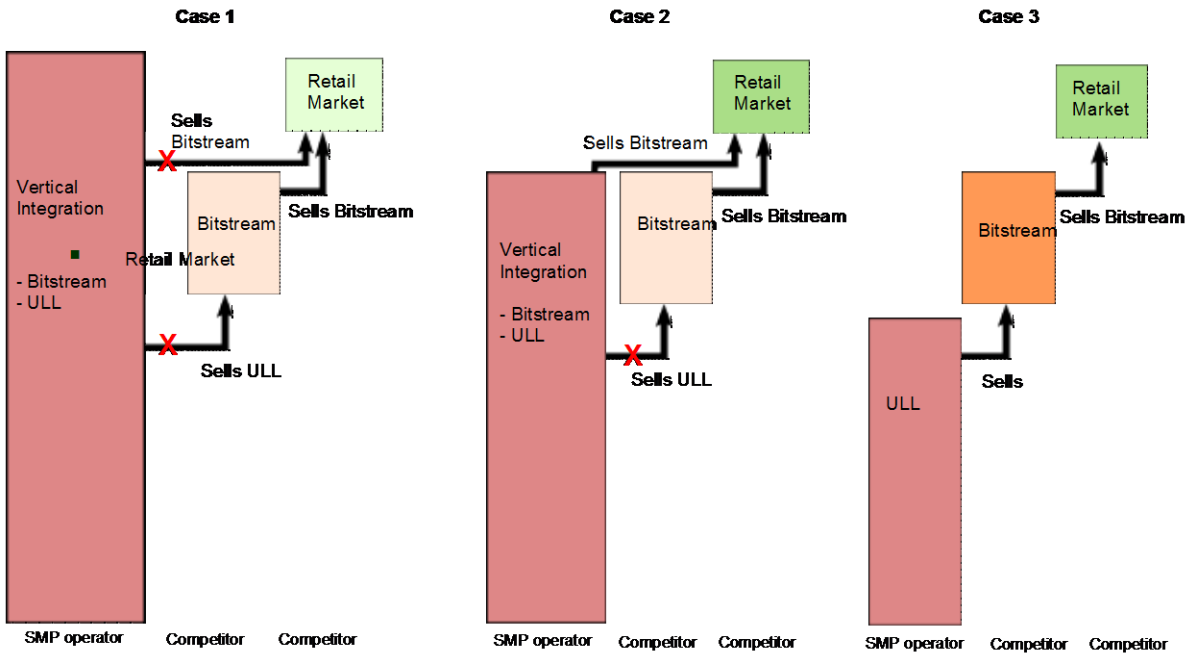


Figure 2: "Incentive structure" to provide access.

63 Thus, voluntary access commitments do not supersede regulatory obligations – e.g. access obligations – in case of operators having SMP.

Case 1:

This is the situation where a fully vertically integrated SMP operator has no incentive to provide ULL or bitstream access to a competitor.

Case 2:

The SMP operator runs a network without providing own retail services. As it will have an incentive to control a maximum of the value chain it will have an incentive to provide bitstream access – but not ULL – to alternative operators enabling them to provide retail services.

Case 3:

In this case the SMP operator *a priori* has no incentive to deny independent alternative operators access to ULL or to discriminate access conditions.[64] An alternative operator who is active on the retail market will typically have no incentive to provide bitstream access to a third operator. However, if this alternative operator is not active on the retail market, it may have an incentive to provide bitstream access to other operators.

A closer look may be warranted specifically regarding the scenario of vertical separation: Sometimes the concept of "open access" is used to refer to the access and services provided by operators whose business model is based only on the provision of wholesale services to third operators without providing any retail services to end users. Obviously due to its business model, the operator is interested in maximising the usage of the network resources by third operators and so may facilitate the access to any operator willing to provide retail services without any discrimination. In this environment, the term "open access" refers to characteristics about voluntary instead of mandated or imposed (vertical) separation (e.g. as under State Aid the case of SGEI, National Law in France applying to Local authorities).

6.3 How voluntary access relates to the SMP framework

Due to the potential for unwarranted limitations on access, and the associated negative consequences for consumers, the relevant authorities for each type of formal regulation – including NRAs in the case of SMP assessments – should be expected to assess the case for imposing regulation using the same criteria as they would normally apply regardless of the voluntary claim of "open access".

Essentially, providing access on a voluntary basis should not exempt providers from being assessed in the same way regarding the need for, and the form of, any formal access requirements. Notably, where NGA services and current generation access services are in the same product market, an operator already having SMP in current generation access services should typically expect to have SMP access requirements placed on it for NGA services.

It is important for new entrants, and existing non-SMP providers, to be aware that they may be subject to SMP regulation for NGA services when the NRA next reviews the market. This could apply to new build providers, and also to those providers who offer downstream services based on any wholesale (physical) access provided by existing SMP operators. Some of the issues that NRAs may wish to consider are the proportionality of regulating very small, sub-national markets, how recently the market entry took place, and whether the new entrant had met reasonable demands for access to its network.

64 This might be different in case where the SMP operator is engaged in construction, investment or access partnerships, other form of multimarket contacts.

An NRA would be more likely to undertake an early market review and impose appropriate formal SMP obligations on a new entrant if that provider was found to have SMP and did not provide access on a fair, reasonable and non-discriminatory basis through fit-for-purpose wholesale products. This could be based on physical and/or non-physical access, with the specific forms of access depending on the technical and economic feasibility of different access options. It is difficult to prejudge in advance the type of access conditions that may be imposed on currently unregulated operators. However, such operators should, as an indication, review the access conditions applied to current SMP providers that have a similar scale, and consider potential changes in technology that would support new forms of access.

7 Summary and Conclusions

Concept/context of "open access"

- The term "open access" is neither defined in the EU Regulatory Framework, nor in any other legal document.

- The term "open access" is generally understood to refer to a form of wholesale access whereby operators are offered transparent and non-discriminatory wholesale access, thereby enhancing competition at the retail level.

- The term "open access" is used in the Commission's State Aid Guidelines. It refers to mandated wholesale access whereby operators are offered effective, transparent and non-discriminatory wholesale access.to the subsidised network(s). In the State Aid Guidelines the term "open access" and the expression effective wholesale access are used interchangeably.

- Many NRAs rely on the term only in the context of the State Aid Guidelines while in other MS, operators and other entities also have used the term in the context of enabling broadband roll-out and NG rollout in particular.

- In order to assist broadband roll-out, many MS have adopted National policies which complement the activities of NRAs in the area of access.

State Aid Granting Authority

- In most MS, the SAGAs are the bodies to decide on the access obligations that should apply in each case. They also monitor compliance with contractual conditions and take enforcement action as necessary. Accordingly, they manage the risks related to the compliance with State Aid rules.

Role of NRAs

- The State Aid Guidelines states that MS should consult with the NRA in relation to State Aid applications. However, in many countries the NRA lacks the legal basis to provide a formal view or decision on access conditions.

- While some NRAs may actively participate in the design of State Aid measures prior to their notification to the Commission, NRAs across the EU do not have a consistent approach to this, partly due to differences in National legislation.

- There are also practical challenges which might limit the role of the NRA in State Aid applications: the NRA may not be made aware of (in case of basic broadband), and may not have the capacity to monitor, all the regional and local deployments involving State Aid or to contribute to the assessment of access remedies.

- The extent to which the SAGA takes the views of the NRA into account when formulating State Aid contract is not clear.

Relation between State Aid and SMP regulation

- During the duration of the State Aid contract the obligations which the subsidized operator is subject to, as a result of the State Aid process, coexist independently from any regulatory obligations which have been applied through the regulatory process.

- The State Aid Guidelines state that access obligations introduced through contract as conditions of State Aid, "*should be extended accordingly*" by NRA once the initial contract period has ended. However, this does not mean that the access remedies imposed by the NRA must necessarily replicate the "open access" obligations introduced under the State Aid requirements. This is because, when acting under the SMP framework, NRAs will need to assess whether the State Aid recipient involved has SMP, using the required criteria in the Regulatory Framework, and which access obligations are appropriate and proportionate to address SMP. The relationship between access obligations imposed under State Aid rules and SMP access obligations following a market analysis (or imposed under article 12 FD and article 5 AD of the framework) will likely be focused more in the upcoming revision of the State Aid Guidelines. This would include clarification of pricing issues.

SGEI

- An SGEI mission for broadband deployment should be based on the provision of a passive neutral and "open access" infrastructure.

- In the case of DSL and NGA networks, an SGEI operator should provide at least wholesale products consisting of dark fibre, bitstream as appropriate, and if relevant (such as for FTTC infrastructure), sub-loop unbundling.

State Aid

- To safeguard against distortion of competition, the Commission will request that the notified measures for basic broadband rollout meet a number of conditions (Paragraph 51).

- When State Aid for NGA Network deployment is being assessed, in addition to these safeguards (for basic broadband), additional conditions need to be met (Paragraph 79).

- The NGA deployments benefiting from State Aid should support effective and full unbundling and satisfy all different types of network access that third operators may seek (e.g. access to ducts, dark fibre, SLU, bitstream access).

- The State Aid Guidelines emphasises the importance of an "open access" condition in order to allow migrations between current generation (broadband) services and NGA.

White zones

- BEREC notes that, particularly regarding SGEI missions in white areas, there may be concerns regarding the appropriateness of imposing "*all possible forms of network access*" (Paragraph 27). A similar reasoning applies to State Aid as a NGA network architecture should satisfy "*all different types of network access*" (Paragraph 79).

Competition Law

- Any examination of collaborative and cooperative arrangements is in the realm of NCAs, the Commission or Courts where appropriate. However, there are touch points between the competencies of NRAs and NCAs, particularly when SMP operators are involved. In practice, there are different approaches taken by MS regarding how such collaborations are dealt with. In some MS the analysis is carried out exclusively by the NCA or in consultation with the NRA.

- In any case, the provisions of sector-specific law based on SMP generally remain unaffected from the applicability of Competition Law (which is fully applicable in regulated sectors).

- From a competition law perspective cooperation projects will always need to be examined on an individual, case-by-case basis.

- Collaborative arrangements may be subject to the Commission's Merger Regulation and Merger Guidelines when joint ventures or mergers are established.

Voluntary access

- Claims of voluntary wholesale "open access" by operators will not influence the NRAs' approach to regulatory oversight or the market analysis process.

Appendix A: Summary of responses to questionnaire

(1) Background to and key aspects of the questionnaire

The term “open access” is not an accepted, defined term within the regulatory framework and appears to have emerged relatively recently and in the context of NG roll-out in particular. While it is used in the Commission’s document “*Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks”,* it is not clearly defined. It was decided, therefore, to commence the analysis of the term by posing a number of questions, regarding its use, to the Member States (MS).

As part of the BEREC’s “open access” project, a questionnaire was prepared by the project team and circulated to all MS which posed questions in the following areas: .

1. The understanding of the term “open access”, and the legal basis for its use, within MS.
2. The provision of wholesale access products to third parties.
3. The extent to which State Aid has been applied as an enabler of Broadband roll-out, within MS.
4. “Open access” in a State Aid context, with reference to the document *“Community Guidelines for the application of State Aid rules in relation to the rapid deployment of Broadband networks”.*
5. The role of the NRA in State Aid applications.
6. The scenarios, including market conditions, which determine the nature of wholesale access. including:
    a. How National Legislation can be used within member states in order to influence the degree of Access to network infrastructure.
    b. Cooperative agreements between Operators and other entities within member states which impact the level of Access available to the parties to the agreement and third parties.

The answers to these questions are analysed within this annex and where possible conclusions are made.

Understanding of the term “open access”

The term “open access” is used within MS, altough from an analysis of the responses to the questionnaire it was evident that no single definition exists. However, many countries have a similar understanding of the term in that it relates to transparent, non-discriminatory wholesale access to network infrastructure thereby enhancing competition. There also was a strong view that the term should be used and understood in the context of the State Aid application process, some MS suggested that it should be used exclusively in this context.

“Open access” in the context of State Aid applications:

There was a view that the term “open access” is only applicable in specific scenarios for example there appeared to be general agreement that the term had particular relevance in the context of State Aid applications and two responses stated that “open access” is only applicable or relevant in the context of State Aid scenarios. Many MS understand that a key requirement for the granting of State Aid is the offer, by the applicant, of wholesale services in an open manner as outlined in the State Aid Guidelines. However, the document also refers to the need for such wholesale access to be “effective” and a number of MS emphasised that to be “effective”, the forms of wholesale access, in addition to being open, also need to be appropriate and proportionate to the economic and practical/technical circumstances which prevail.

“Open access” in the context of NG roll-out

Many other countries consider that “open access” has relevance in a NGN/NGA context e.g. Slovakia, Turkey, Lithuania.

In the Netherlands, for example, the term “open access” is used in many different ways by a variety of entities (operators, NRA, NCA, local authorities) and in at least five ways in the context of NGA:

1. as an SMP obligation to KPN (and joint venture Reggefiber) imposed by OPTA;
2. as a remedy (in the KPN-Reggefiber joint venture) accepted by the Dutch NCA;
3. as a commercial offer by operators (open access business model);
4. as a condition for state aid;
5. as a condition set by local authorities for (market economy investor principle) participation;

Legal concerns re “open access”

In Spain there is no legal definition of the term “open access”. However, CMT have established a similar term, "neutral operator“, with similar characteristics to what could be understood as “open access”.

Telecommunications operators views of “open access”

In Ireland some operators consider that, for the development of NGA, “open access” could allow for greater transparency regarding their compliance with their obligations and increase confidence among operators, potentially leading to greater levels of collaboration and inter-operator engagement.

In Switzerland “open access” generally refers to self-regulatory commitments by utilities, including access and non-discrimination.

In summary, the analysis of the term “open access” within the questionnaire has demonstrated that while there are common themes the term lacks a clear definition. However, there is broad agreement that the term has a meaning in the context of state Aid cases.

“Open access” and State Aid

Out of the 22 answers received, 10 countries (reference tabulated summary) stated that they have rolled out NGN/NGA networks with the assistance of State Aid. For example, in July 2009, the Portuguese Government launched the first of a series of Public Tenders as part of a State Aid initiative. It was stated in the tender documentation that an electronic communications network is considered an open access network if there is a provision of adequate wholesale access to all operators and providers of ECS to end users and is subject at all times to the principles of transparency and non-discrimination, ensuring full compliance with competition rules.

At the time the Portuguese government asked the NRA to comment on the tender documents requesting advisement on the fulfilment of conditions set forth in Paragraph 79 (within the document *Community Guidelines for the application of State Aid rules in relation to the rapid deployment of Broadband networks)*.

In general, there is no established formal mechanism for engagement between the State Aid granting authority and the regulator; however, a number of NRAs have been asked to advise on conditions for State Aid as part of the application process.

To date no NRA has formally set conditions for State Aid apart from France who is currently working on defining such conditions. In Finland, the NRA is the State Aid granting Authority so it could be assumed that the Finnish NRA would set conditions of State Aid.

Voluntary and Mandated Access

Question 3 (i) and (ii) of the questionnaire considered the types of wholesale access that is being offered in MS by undertakings. The question was asked if a situation had arisen in MS where broadband access/NGA networks are built and operated by undertakings that do not offer retail services but offer non-discriminatory wholesale access to third parties on a Voluntary basis.

The following countries answered NO the question, the UK, Romania, Greece, Slovakia, Malta, Denmark, Turkey and Lithuania. The following answered YES, Portugal, Sweden, Czech Republic, The Netherlands, Spain, Austria, Latvia, Norway and Switzerland. This response points to a changing landscape from an NGA roll-out perspective. Entities offering just wholesale access without a retail offering is not uncommon in MS.

Question 3 (ii) asked, if wholesale (broadband/NGA) access has been provided, in MS, on a voluntary basis by vertically integrated operators? The majority of countries answered yes (France, UK, Portugal, Czech Republic, Denmark, The Netherlands, Latvia, Norway and Switzerland).

National Legislation

The use of national legislation within MS to impose access/sharing obligations on passive infrastructure was also explored. While some MS replied that they were considering National Legislation, many MS answered yes to the question of whether National Legislation is in place that optimises infrastructure investment. The legislation passed generally enables various aspects of network installation or promotes ensures efficiency regarding the use of infrastructure, for example:

1. Legislation which makes it easier for operators to carry out street works (UK).

2. Legislation providing operators with the ability to negotiate access to passive infrastructure already deployed (Ireland).

3. Legislation giving powers to the NRA to impose sharing obligations on passive infrastructure (Norway).

4. Wholesale access to ducts and dark fibre to be allowed by the owner of such infrastructure (Austria).

5. Projects relating to the building of new roads or railways must make provision for the installation of ducts that allow the deployment of electronic infrastructure to all operators under equal conditions (Spain).

6. “Open access” to passive infrastructure at a horizontal or Vertical level and symmetrical regulation for in-house wiring (Portugal).

7. Legislation obliging facility sharing (Turkey).

8. Legislation regarding rules applicable to passive infrastructure owners regarding sharing of such infrastructure.(Lithuania).

Other MS are planning to use national laws to impose obligations.

The following answered no (France, Greece, Sweden, Czech Republic, Slovakia, Malta Spain, Latvia, Ireland and Lithuania) to the question.

Cooperative Arrangements

The responses referred to different types of cooperative agreements coming into being in order to more easily and efficiently manage the burden of network roll-out. There were a considerable number of responses which reflected arrangements between Municipalities/Local Authorities and operators in an attempt to provide impetus to the roll-out of broadband services. There was also evidence of mutual access being offered between operators who were rolling out fibre infrastructure in a cooperative manner. In general, such arrangements were subject to scrutiny by NCAs in MS with some involvement by the NRA on an *ex-post* basis. However there were seven negative responses to the question regarding evidence of co-operation between operators in the roll-out of network infrastructure.

Co-operative agreements between the incumbent operator and competing network operators

For example, in Germany, co-operation has been based on the rollout of networks in particular areas on a complementary basis, where the intent is to provide mutual access either based on LLU or Bitstream and the provision of Bitstream services to third parties.

In Netherlands a joint venture between KPN and Reggefibre offering access to the fibre loop on a non-discriminatory, transparent and cost oriented basis was accepted by the NCA.

Co-operative agreements between the incumbent operator and Municipalities

In Germany DTAG states that it has sealed 720 cooperation projects with municipalities in 2009 for the provision of high speed internet for approx 300,000 households.

Dutch municipalities are considering participation in NGN investment on a commerecial basis (Market Economy Investor Principle, MEIP).

In Romania, after a public consultation process, the Local Authorities entered into collaborative arrangements with operators for the roll-out of fibre infrastructure.

Co-operative agreements between competing network operators

In Germany competitors have signed cooperative agreements which allow one operator to access the fibre infrastructure of another. In all cases the Cartel Office investigates the planned cooperation projects to assess the cooperation plans under competitive law. BNetzA may only be involved *ex-post*, on request and may not impose conditions *ex-ante*.

In Denmark, operators are rolling out fibre in different areas and providing mutual access to eachother.

Co-operative agreements between utilities

In Denmark 15 Power companies have agreed to enter into a cooperative agreement to roll-out fibre.

Appendix B : Questionnaire sent to Member States

BEREC Project: Regulatory Aspects of Open Access

(Questions for Project team)

Definition of the term and legal basis:

1. What is your understanding/definition of the term Open Access and in what context is it used?

2. Does the term relate to the following?
   a. Access as defined in the Framework Regulations
   b. Access to Wholesale products (can be provided commercially or through regulation or by way of legislation)
   c. Non discrimination (both against the retail arm and against other operators);
   d. Transparency;

If so, in each case, please provide detail of your understanding of how they relate to the term. Please expand the list if necessary.

3. Are operators / entities providing wholesale access, i.e providing wholesale products to third parties in your MS on the basis of the following:

a) Voluntary Basis (No regulation)

Operators or entities which do not offer a Retail service:

I. Has a situation arisen in your member state where broadband access/NGA networks are built and operated by undertakings that do not offer retail services but offer non-discriminatory wholesale access to third parties for this purpose?

II. Has discriminatory practice occurred?

Vertically Integrated

Has wholesale (broadband/NGA) access been provided, in your MS, on a voluntary basis by vertically integrated operators?

I. If so, have there subsequently been any complaints about discriminatory behaviour in this case?

b) On the basis of National Legislation?

I. If so, explain briefly the scope of this national legislation (e.g.: imposition of access/sharing obligations on passive infrastructure on operators rolling out/owning in-house wiring)

c) By fulfilling obligation under State Aid Decisions

d) By obligation imposed by competition law (merger and/or cartel provisions)?

e) Through symmetric regulation according to Art. 5 AD and/or Art. 12 FD?

f) Through regulation according to Art. 12 AD?

Note: In each case please state whether the extent to which the access being offered could be considered as Open Access.

State Aid:

4. Have networks using state aid been rolled-out in your country?

5. Please clarify the mechanism in cases where the state aid granting authority (i.e. national government, regional government, local authority etc.) engages with the NRA in order to determine the wholesale network access condition(s) to be imposed on the subsidized entity involved in the roll-out of current generation broadband.

   In your answer to question 5 on current generation broadband, please address in particular (where applicable):
   - Who determines the access conditions (the state aid granting authority or the NRA)?
   - Is there also an involvement of competition/cartel authorities?
   - What is the legal basis for determining the wholesale network access conditions?
   - According to Paragraph 51 (g) State Aid Guidelines "access wholesale prices should be based on the average published (regulated) wholesale prices that prevail in other comparable, more competitive areas of the country or the Community, or, in the absence of such published prices, on prices already set or approved by the NRA for the markets and services concerned." What happens if there are neither published prices nor prices set or approved by the NRA?

6. Paragraph 79 (2nd bullet) foresees that "in setting the conditions for wholesale network access, Member States should consult the relevant NRA". In your MS, has the NRA been consulted by the State/Public authorities on such questions? (Note: Paragraph 79 relates to *NGA* roll-out)

7. Please clarify the mechanism by which the state aid granting authority (i.e. national government, regional government, local authority etc.) engages with NRA in order to either:

   a. Obtain the NRA's approval of the wholesale network access condition(s) proposed by the state aid granting authority in relation to subsidised NGA roll-out.

      Or

   b. For the NRA to set the wholesale network access condition(s) to be applied by the state aid granting authority in relation to subsidised NGA roll-out.

   Please specify the legal basis for determining the wholesale network access conditions for both cases: a) approval, b) setting of conditions by the NRA).

Note: Either the NRA approves or sets the access conditions as outlined in the "Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks" (2009/C 235/04) section 3.45.

In your answers to question 7 on NGA, please address in particular (where applicable):

- Who determines the access conditions (the state aid granting authority or the NRA)?
- Is there also an involvement of competition/cartel authorities?
- What is the legal basis for determining the wholesale network access conditions for both cases: a) approval, b) setting of conditions by the NRA)?

8. What level and nature of wholesale access constitutes Open Access in a state aid context? Does the level of wholesale access have to be one of the following:

    a. The same as the operator is offering its retail arm, i.e. strict non discrimination?
    b. The same level of access as the operator is obliged to offer in the regulated market?
    c. A level of access which allows another operator the ability to access wholesale inputs which the wholesale operator is not using itself?

Cooperations

9. Have cooperations taken place in your country to facilitate the roll-out of next generation infrastructure e.g. mergers between commercials entities, or involving Local Authorities or any other administrative units?

10. Which commercial entities are involved (telcos/non-telcos, SMP operators/competitor, national/regional operators, vertically/functionally separated operators)?

    If so, please give details of the collaborations (e.g. joint roll-out in a certain areas; each operator rolling out in a different area and operators mutually granting access to each other).

11. Please give details of the approach taken to ensure that competition was not unduly distorted.

12. Which authorities are involved in case of such collaborations: NRAs and/or Competition / Cartel authorities? Describe how these authorities are involved and also the legal basis for any actions taken by them.

13. To what extent have regulatory decisions in force in particular markets imposed by the NRA influenced the decisions taken by the Competition / Cartel authority, for example in abuse of dominance or antitrust cases.

National Laws

14. Has your country implemented national laws imposing access/sharing obligations on passive infrastructure, for example on parties which roll out/own in-house wiring.