

**BEREC's response to the European Commission's questionnaire for the public
consultation on the revision of the Recommendation on Relevant Markets**

March 2013

Executive Summary

- (1) BEREC considers the revision of the Recommendation on Relevant Markets as a first and important step in the process of market analysis by NRA's under the current regulatory framework. The list of markets in the Recommendation is a clear guidance to NRAs on the scope of ex ante regulation, thereby contributing to harmonisation of ex ante regulation between Member States. BEREC supports this process and the necessity of working further in the consistency of regulatory approaches bearing in mind, that, according to current regulatory framework, NRAs are entitled to identify markets not included in the Recommendation, and may as well have to define the concrete boundaries of the included markets.
- (2) To be able to effectively deal with particular circumstances within and between Member States and enhance legal certainty and reduce the burden of proof for NRAs, BEREC considers that the Explanatory Memorandum should include a detailed analysis of the criteria used by the EC to decide which markets have been included in the final list. In addition to the three criteria analysis, the text should also refer to the reasons for opting for a particular solution when competitive situations among Member States differ. In any case, BEREC is of the opinion that the current regulatory situation in Member States should be taken into account when deciding if a market is susceptible of ex ante regulation.
- (3) This transparency should permit NRAs to replicate the EC's analysis and establish if the national market is susceptible to ex ante regulation.
- (4) In the analysis to be undertaken for the purposes of the review of the Recommendation, BEREC considers that developments on the retail markets are of the utmost importance.
- (5) Since the last review of the Recommendation, technological evolution together with competitive pressure have modified the way end consumers access electronic communications services. Bundling has become the standard form of purchasing these services for a majority of end consumers, requiring attention at the wholesale level in case existing wholesale product would not be sufficient to provide the higher number of services expected, including mobile or broadcasting. In addition, convergence has facilitated entry by alternative operators, surpassing traditional bottlenecks related to telephony networks, moving to all IP environment, or even providing electronic communications services based on Internet protocols (over the top). Finally, fixed-to-mobile substitution seems to be significant although with important divergences among Member States.
- (6) BEREC considers that these elements have to be taken into account for the purposes of market definition both at retail and wholesale levels. This significant change of retail conditions may require regulatory action that goes beyond the current revision of the Recommendation, like clarification of the treatment for market review purposes of over the top undertakings and the ability of NRAs to gather data from them.
- (7) The analysis of current market conditions has allowed BEREC to conclude that there is no need for including additional markets in the revised Recommendation,

provided there is enough flexibility granted to NRAs to deal with specific market failures at national level. The BEREC response to the public consultation launched by the EC has identified concrete services where potential competitive problems could arise, like SMS termination or SRS origination, although differences across Member States do not justify including them on the list as a relevant market susceptible of ex ante regulation. However, BEREC considers that mentioning particular market circumstances in the Explanatory Memorandum could facilitate the task of those NRAs facing such problems and increase, as well, legal certainty.

- (8) Regarding the list of relevant markets, BEREC has identified current market 1 as a potential candidate to be excluded from the list if there is a clarification that associated relevant obligations concerning wholesale line rental and carrier selection and carrier pre selection, if necessary, can be imposed at wholesale level. In this sense, BEREC proposes an amendment of current market 2 to include, in addition to call origination, wholesale access, including the ability, when needed, to impose in this market the wholesale line rental remedy in accordance with article 12 of the Access Directive. BEREC nonetheless stresses that, taking into account national circumstances (in particular, in the light of the existing regulatory design), NRAs may take another approach to impose an obligation such as WLR.
- (9) Having established that the current list is adequate, BEREC considers that the challenges posed by NGA roll out need a certain degree of flexibility in the precise definition of fixed wholesale markets. The necessity of access to backhaul services, the location of the unbundling point in the context of NGA, or the appearance of active and passive wholesale services depend on the concrete deployment model chosen in each Member State.
- (10) BEREC is of the opinion that the current differentiation between markets 4, 5 and 6 is adequate to deal with the situations pointed out above, and that no changes are needed. However, if necessary, the remedies of these markets should be imposed in an adequate manner to ensure the openness of all relevant elements through the value chain needed to achieve effective competition.
- (11) Finally, BEREC wishes to point out that the Explanatory Memorandum is an appropriate document to deal with the complexities associated with duopolies in electronic communications markets. As described in this document, BEREC shares the analysis of different economic papers on the potential insufficiency of two competing networks to achieve effective competition. To deal with this situation, the criteria to assess joint SMP also need to be reviewed, in particular via an update of the 2002 SMP Guidelines to cover the latest competition law developments.
- (12) In addition, BEREC considers that the Explanatory Memorandum should question under which conditions having more than one competing infrastructure may not be enough to ensure effective competition.
- (13) Finally BEREC would like to point out that the SMP regime may not be the most efficient framework to deal with permanent bottlenecks. In particular, for termination markets (that most NRAs have considered as not being effectively competitive) the market analysis procedure is resource-consuming. In this regard, the consideration of measures that may simplify the process of market analyses regarding these markets would be a welcome development.

1 Introduction

- (1) On 16th October 2012 the European Commission (the EC) published a questionnaire on the revision of the Recommendation on Relevant Markets. According to the Commission's document, more than four years after the adoption of the current Recommendation, it is appropriate to review the list of relevant markets in order to incorporate market and technological developments.
- (2) BEREC welcomes the opportunity to respond to the Commission's consultation as it shares the Commission's views on the importance of the Recommendation on Relevant Markets on the regulatory activities undertaken by NRAs to achieve the objectives of the current regulatory framework. Although this Recommendation covers only the first step of the market analysis procedure (the market definition process), this step is not an aim by itself but is an instrument for the general objectives of assessing the degree of a firm's market power and achieving effective competition.
- (3) BEREC encourages the Commission to take the opportunity of this revision to give further guidance to NRAs on forthcoming regulatory challenges. In particular, BEREC considers the Explanatory Memorandum accompanying the Recommendation a very useful tool to share the Commission's views on a number of relevant topics that could help NRAs with their assessment.
- (4) In particular, BEREC would like to stress the impact that infrastructure competition is having on the regulatory activities of NRAs. This aspect is not new, as alternative fixed access networks (based generally on cable/coaxial technology) and mobile networks have been present in some areas since the beginning of the liberalization of the electronic communications markets. However, the situation has become more complex due to Next Generation Access Networks (NGA) roll out, which is usually focussed in more dense and populated areas.
- (5) It is generally recognised that duopoly communications markets face a high risk of evolving in a non-competitive manner¹. In a paper addressing this question ("Is two enough?"²) the Dutch regulator OPTA describes relevant economic theory and concludes that "it is unlikely that competition is effective with only two firms in the market". In its Report on Co-investment and SMP in NGA networks³, BEREC indicated that "it is to be expected that a market with high entry barriers with one or two operators in the market raises concerns about dominance and more generally the competitive situation of the market". A more specific conclusion which is based on experimental oligopolies (Cournot) is made for instance by Huck-Normann-Öchssler (2004). They conclude that collusion is found with two firms while it is not

¹ See in particular BEREC's Report on Co-investment and SMP in NGA networks, BoR (12) 41.

² <http://www.opta.nl/en/download/publicatie/?id=2051>

³ BoR(12)41.

found with four or five firms, which is the reason why they state that "two are few and four are many".

- (6) In this context, the current framework and the imposition of *ex ante* obligations, based on competition law principles, rely on the existence of SMP operators, either individually or jointly.
- (7) NRAs have accumulated great experience in the regulation of markets characterised by individual SMP. On the contrary, there is a lack of clear precedent to deal with oligopoly markets in an *ex ante* context. On the one hand, the 2002 Guidelines on market analysis⁴ do not cover the most recent decisions on joint dominance adopted by the courts⁵, which set the relevant parameters for determining the creation or strengthening of a joint dominant position in *ex post* and merger scenarios. On the other hand, Article 7 cases based on joint SMP situations are few and have implied difficult notification processes, even ending up with withdrawals of the measure after the initiation of Phase II procedures⁶.
- (8) Keeping this in mind, BEREC believes that the on-going developments in the electronic communications markets, and the challenges currently faced by NRAs when setting *ex ante* regulation, may be a good justification to have a revision of the 2002 Guidelines.
- (9) In any case, the Explanatory Memorandum should consider the potential problems that could arise in duopoly markets and the likelihood that these markets could become more widespread in the future. In particular, BEREC tends to agree with the economic analysis quoted above on the fact that, in general, it is more difficult to achieve effective competition in markets where only two networks are present. The Recommendation on Relevant Markets and its Explanatory Memorandum should also recognise this fact and, consistently, provide elements to assess when, in such markets, a joint SMP position could be found, leaving it up to NRAs to decide, on the basis of its national circumstances, on the best means to address these situations⁷.
- (10) In the same direction, the geographical scope of relevant markets is also gaining importance given the regional or even local progressive roll out of alternative (NGA) infrastructures in Member States. The importance of this aspect of market definition is also shown in the number of Phase II cases opened by the Commission dealing with this issue. BEREC has also identified the necessity of giving guidance to NRAs on the geographical aspects of market definition and has included in the Working Plan for 2013 the revision of the Common Position on Geographical Aspects of Market Analysis⁸.
- (11) Moving to the market definition process and the list of relevant markets, BEREC is of the opinion that increased transparency is needed on the criteria used to

⁴ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, OJEC C165/6 of 11 July 2002.

⁵ See in particular Case T-342/99, *Airtours*; Cases T-464/04 and C-413/06P, *Impala*.

⁶ See e.g. Case MT/2007/0563 (market 5), Case SI/2008/0806 (former market 15).

⁷ This issue naturally arises when considering whether some markets should be on the list, given that some markets only show two networks in particular locations.

⁸ ERG(08)20.

describe and analyse the markets that are ultimately included or excluded in the revised Recommendation. If the definition process is documented transparently, NRAs will be able to replicate the three criteria test in a given Member State and evaluate whether the conditions are also prevailing on the basis of the national circumstances.

- (12) The current Recommendation explains that markets included as being susceptible of *ex ante* regulation are those which fulfil the three criteria test. However, it is not explained whether the analysis takes a “theoretical” market or takes into account the “average” competitive conditions across the EU. BEREC considers that, at least for some of the markets subject to *ex ante* regulation (either on the basis of the list in the Recommendation or due to national circumstances), the competitive conditions between and within Member States are still rather heterogeneous, a factor which could also affect the three criteria test analysis, as it may be fulfilled in some areas and not in others.
- (13) The Commission should therefore explain in the Recommendation how the final decision is taken when diverging results are found in different Member States (as appears to be the case e.g. with regards to retail telephony markets or broadcasting transmission, that remain (partially) regulated in several Member States, or with regard to terminating segments of leased lines, which in some Member States are only partially regulated).
- (14) Finally, BEREC wants to highlight the importance of the Recommendation for harmonizing regulation across Member States. However, the different national circumstances also have to be acknowledged, allowing certain flexibility on the markets considered as being susceptible of *ex ante* regulation and their exact boundaries.
- (15) Having made these general comments, in the following paragraphs BEREC will answer the questions included in the Commission's public consultation.

2 Relevant trends in the electronic communications sector that have an impact on the definition of the relevant markets

- (16) The first block of questions refers to developments in the electronic communications sector at the retail level since the approval of the Recommendation in 2007.
- (17) As it has been highlighted on several occasions by BEREC, the electronic communications sector is characterised by rapid technological change, which allows for new methods of supplying services, consequential changes in the nature of demand, as well as the emergence of new types of operators in the electronic communications markets. Moreover, in many Member States, the evolution towards more effective competition in retail markets since 2007 (underpinned by effective wholesale regulation) has resulted in the commercial launch of innovative offers that better meet consumers' demand.
- (18) As a consequence of these characteristics, retail markets have greatly evolved since 2007 with the increase of fixed broadband penetration, the take-up of mobile broadband both from dongles and mobile handsets, the progressive roll out of NGA, the increase of Internet access capacities, etc. From a more technical point of

view, but equally relevant, IP networks have facilitated widespread convergence of services and equipment, and recent years have witnessed a surge of Internet based applications and services.

- (19) Given the important range of these developments, BEREC will focus on the most relevant elements for the review of the Recommendation, which is the ultimate purpose of the questionnaire.
- (20) On a preliminary note, BEREC considers that, although retail markets are seldom subject to *ex ante* regulation, analysing them when defining and assessing competition within wholesale markets is an important starting point. Indeed, the current Explanatory Memorandum expresses, in relation to broadband markets, the necessity of assessing the competitive dynamics across the value chain of the relevant products and services.
- (21) Due to the close interaction between technological change and the structure and dynamics/intensity of competition at retail level, BEREC will answer Questions 1 and 2 together. In Question 3, BEREC briefly addresses the challenges faced by NRAs, given the identified retail trends.

Q1. What are the technological developments in the electronic communications sector at the EU level as of 2007 that have an influence on how the markets should be defined in the revised Recommendation from an *ex ante* perspective?

Q2. What are the changes in the structure and functioning of the relevant markets (e.g. supply and demand side developments, bundles, convergence, geographic scope), which should be reflected in the revised Recommendation from an *ex ante* perspective?

- (22) As pointed out above, BEREC has identified the following main aspects that could affect the current list of relevant markets, as well as the precise market definitions.

a) NGA roll out

- (23) The importance that the deployment of NGA networks will have for the evolution of the electronic communications markets in the future is undeniable, and in fact has been identified as a priority for action by the European Commission⁹ and several Member States. The deployment of NGA networks may entail substantial changes in the functioning of the competition process, and requires significant involvement and cooperation among different stakeholders, including regulatory bodies.
- (24) Regulatory treatment of next generation access was already covered in the 2007 Explanatory Memorandum, and is gaining more importance as operators (both incumbent and alternative operators, including not only xDSL but also cable and mobile operators) continue upgrading their networks.

⁹ See e.g. Pillar IV (Fast and Ultra-fast Internet access) of the Digital Agenda for Europe.

(25) While the Commission has considered the regulatory treatment of NGA in different documents¹⁰, NGA roll-outs pose significant challenges also from the point of view of market definition and SMP assessment, which could, in BEREC's view, be addressed in the Commission's forthcoming Recommendation and accompanying documents (Explanatory Memorandum to the Recommendation). The revised Recommendation should in any event recognise that, due to the difficulties inherent to NGA regulation, some degree of flexibility should be afforded to NRAs, who are required to take into account the prevailing national circumstances. Examples of the challenges posed by NGA regulation are the following:

- NGA roll-out may lead to varying degrees of competition in different geographic areas within the same Member State, from local monopolies (where at maximum one operator is able to deploy fibre infrastructure) to greater infrastructure competition, where a larger number of operators are able to compete on the basis of their own NGA infrastructure.
- It is in any event clear that, due to the competitive dynamics and costs (mainly economies of scale and scope) associated with fibre deployment, the number of operators that will be able to make their own commercially viable roll-out of NGA infrastructure (including within dense areas) will likely remain limited. In addition to the issues related to duopolistic markets, raised above, in some areas, it can be envisaged that wholesale active services (such as bitstream services, generally covered within the scope of market 5) could gain importance in FTTC and FTTH-based networks compared to legacy copper networks, as the NGA footprint of alternative operators will not become as widespread as LLU in Member States, at least in the first stages of deployment.
- NGA deployment may also have a significant impact in the determination of the geographic scope of the market, with different levels of competition being observed in different geographical areas.
- NGA roll-out may lead, in some situations, to the existence of asymmetric substitution between services (and accesses) supported in the newly deployed networks and the services (and accesses) provided through the legacy networks (e.g. copper and non upgraded cable networks). In these cases, end-users may migrate from services provided in the legacy networks to services provided in the NGA networks, but not the other way around.

Regarding the market analysis process, BEREC considers that services that are asymmetrical substitutes of a focal product¹¹ can be regarded as belonging to the same market. In fact, the integration of asymmetrical substituted services in the same relevant market has already been established in various article 7 market notifications. As pointed out in BEREC's report on the impact of fixed-mobile substitution (FMS) in market definition¹², considering the effects of

¹⁰ See in particular Commission Recommendation of 20 November 2010 on regulated access to Next Generation Access Networks (NGA), and Draft Commission Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment.

¹¹ The focal product is defined as the main product under investigation. The definition of the focal product may depend on specific market conditions and on the issues that NRAs want to address during the market analysis

¹² BoR (12) 52, May 2012

asymmetric substitution on the focal product while performing the market definition is one of the ways of considering asymmetric substitution in market analysis. The effects of asymmetric substitution can alternatively be taken into account (i) when analysing whether the three criteria test for imposing *ex ante* regulation is met; (ii) in the competition assessment or (iii) when defining the appropriate obligations to impose in the market. As pointed out in BEREC's report, the conclusions and final result of the market analysis should not depend on the option chosen by NRAs.

The relevance of asymmetric substitution is enhanced by the fact that it may also be triggered by trends discussed in this answer, in particular bundling and fixed-mobile substitution (FMS)¹³.

- The development of NGA infrastructure-based competition arising from alternative technologies (e.g. cable, mobile via LTE) is also an important trend, which, in some markets, is already having a significant impact on the structure and way broadband markets evolve.

b) Bundling

- (26) Bundling of broadband retail services has become, in a number of Member States, the standard form of electronic communications services. According to the latest Eurobarometer, in 2011, more than 60% of the households in the EU purchased broadband services as part of a bundle, while this percentage was 48% for fixed telephony. Broadcasting and mobile services are also offered via bundles, although in lower proportions.
- (27) According to this survey, consumers value bundles because of the benefit of only one invoice. In addition, bundles are also preferred because they can be cheaper than the purchase of its components on a stand-alone basis.
- (28) BEREC considers that, prospectively, consumer preferences may reinforce the trend already shown by these data, increasing the penetration of bundles and, at the same time, adding new services to the packages. Indeed, this is already the pattern identified in some Member States, where aggressive quadruple play offers exist (including mobile and audiovisual content).
- (29) As pointed out by BEREC in the "Report on impact of bundled offers in retail and wholesale market definition"¹⁴, bundles can be efficiency enhancing, and their ability to disrupt competition cannot be judged in absolute terms, but should be considered on a case-by-case basis. In addition, BEREC's report highlighted the difficulties associated with defining a retail market characterised by bundled offers, such as the risk of overestimating demand substitution as a result of potential anticompetitive behaviour (e.g. dominant firms reducing bundle prices below an efficient cost level, thus artificially incentivizing substitutability and damaging competition in the longer run).

http://www.berec.europa.eu/eng/document_register/subject_matter/berec/reports/363-berec-report-impact-of-fixed-mobile-substitution-fms-in-market-definition

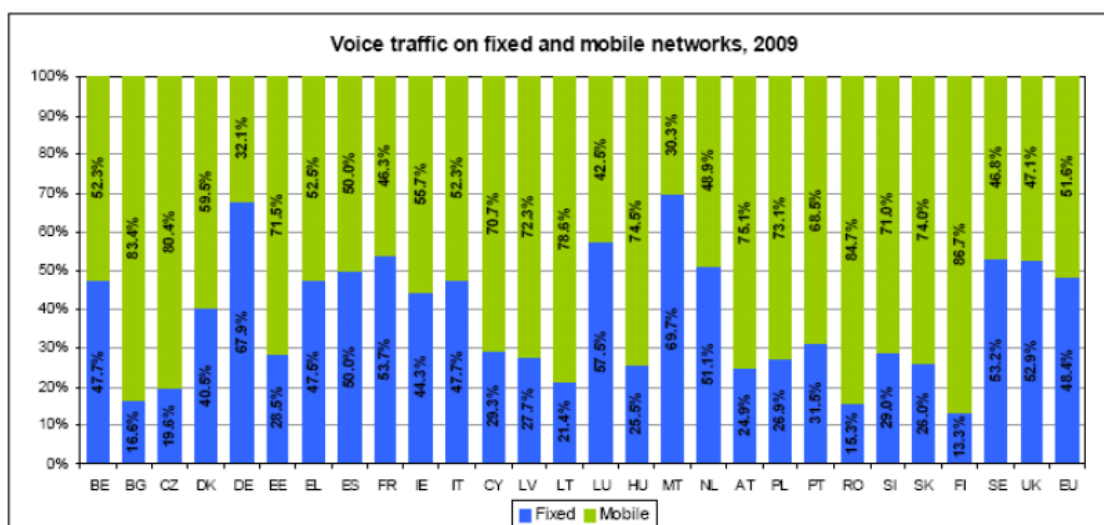
¹³ It is possible that end-users substitute individual services for bundled services but not the other way around. It is also possible that, due to the mobility feature, end-users substitute from fixed services to mobile services but not the other way around.

¹⁴ http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/209-berec-report-on-impact-of-bundled-offers-in-retail-and-wholesale-market-definition

- (30) While acknowledging the importance of the trend of increased prevalence and take-up of bundled offers, BEREC considers that the most important feature of bundling for regulatory purposes is ensuring the correct assessment of the impact of such practices at the wholesale level (and ultimately on retail competition). The regulatory playing field should allow all efficient operators purchasing wholesale services to compete effectively at the retail level, with the competitive process then dictating whether or not they are successful in meeting consumer preferences.
- (31) Currently, given that the retail telecommunications services are generally characterised for market definition purposes as stand-alone products, wholesale services are mainly designed to replicate said stand-alone products. However, this approach will no longer be enough in markets dominated by bundled offers, as alternative operators will need to be able to offer retail bundles based on wholesale products to compete with the incumbent and other vertically integrated operators (e.g. cable).
- (32) In this context, regardless of the final definition of retail markets (and subject to any finding of SMP), wholesale markets should be defined in a manner that allows the technical and economic replicability of all the key elements included in the bundled offers available in the market. Bundles being built on different wholesale products, competition should be possible in most cases if each underlying wholesale product is technically and economically available. Nonetheless, BEREC considers that the Recommendation should be flexible enough to permit NRAs to adjust the wholesale regulated offers to cover new types of bundles that might require different wholesale products (fixed access and mobile access for instance) or require an extended wholesale product, if this were necessary to ensure strong retail competition. This flexibility may for instance be relevant to ensure replicability by alternative operators of convergent offers from the SMP operator that include mobile services, or include the design of wholesale TV services within the services covered by market 5 remedies, if it were concluded that the provision of these services is fundamental for the development of efficient competition.

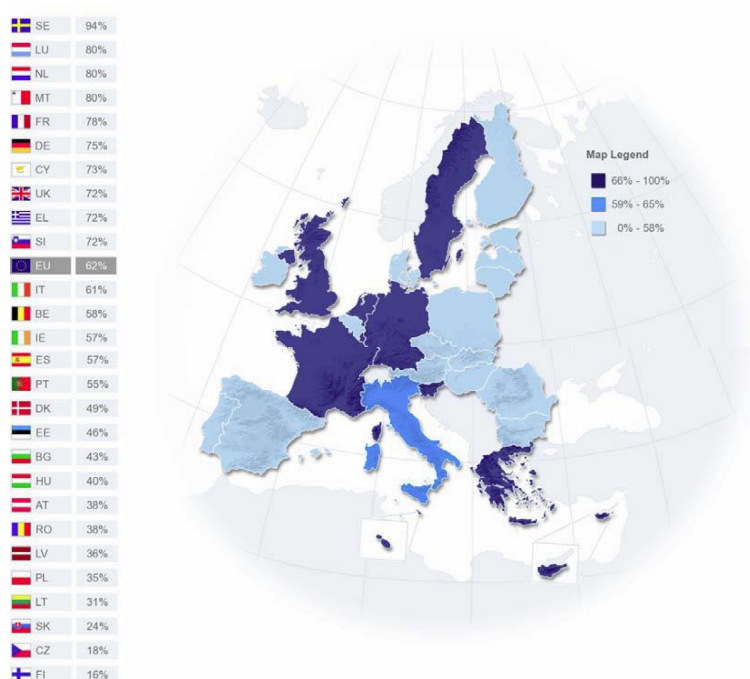
c) Fixed and mobile substitution

- (33) As was set out in BEREC's report on the impact of FMS in market definition, "trends in technology and increasing convergence of fixed and mobile services mean that FMS is likely to become a more relevant consideration in market definition for electronic communications services going forward".
- (34) The trend towards FMS is becoming increasingly relevant, and in some Member States there is even clear FMS. However, it has to be noted that the pace at which substitution takes place varies between Member States. The next graphic illustrates that heterogeneity, reflecting the differences amongst countries on fixed and mobile voice traffic consumption.



Source: European Commission. ELECTRONIC COMMUNICATIONS MARKET INDICATORS - Digital Agenda Scoreboard 2011. Included in BEREC Report impact of fixed-mobile substitution (FMS) in market definition.

- (35) In particular, regarding the voice markets, the conditions of competition may be different with regard to the calls and the retail access markets. While substitution between fixed and mobile calls is becoming quite prominent in some Member States (due e.g. to the increase over recent years of attractive mobile tariff plans, including provision of (almost) unlimited calls at a pre-determined price (flat rates). However, with regard to the retail access markets in the majority of Member States, as exemplified in the figure below, fixed and mobile access still appear to be largely complementary.



Households combining a fixed and mobile access. Source: E-Communications household survey (June 2012).

(36) FMS substitution is thus an issue that continuously needs close monitoring by both the European Commission and NRAs, not only with regard to voice services but also with regard to other services such as broadband. In fact, the emergence of new mobile broadband technologies, such as LTE, with its potential for increased upload/download speeds and enhanced quality, may impact on the degree of substitution between fixed broadband services (provided either on the basis of traditional technologies or NGA access) and mobile broadband services.

(37) In any event, the quite heterogeneous conditions existing in each Member State require a flexible approach to allow Member States to deal with their specific market circumstances, as the Austrian market 5 case¹⁵ or the Finnish market 1 case¹⁶ show.

d) Broadband penetration

(38) One of the most significant developments since the last Recommendation is the broadband penetration figures. Broadband is now an essential service for a majority of consumers across the EU, and the gateway for many services that are based on this connection. To some extent, this fact has led to the “transference” of the competitive conditions of broadband markets to the services provided over broadband access, such as fixed voice telephony.

(39) Moreover, as stated above, a large proportion of consumers purchase broadband products as part of a bundle that, among other services, includes a flat rate tariff for

¹⁵ Case AT/2009/0970.

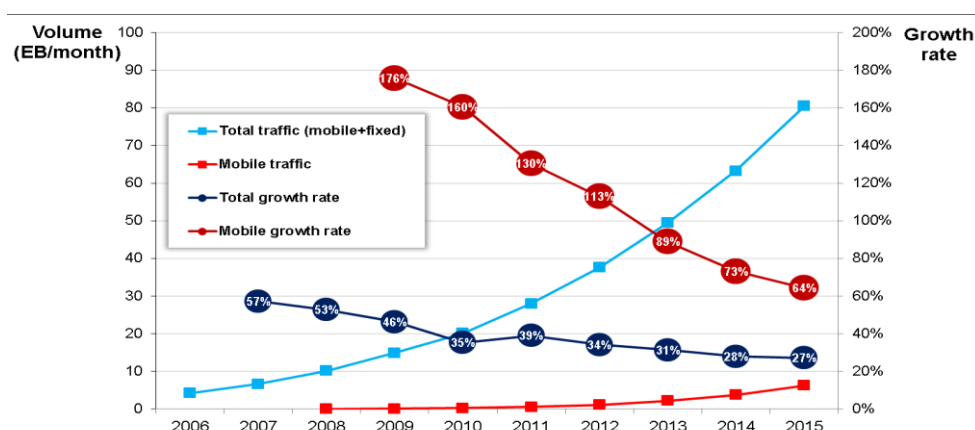
¹⁶ Cases FI/2010/1131-1132.

fixed telephony. In these circumstances the potential demand for narrowband voice services is declining. In parallel, the penetration of carrier pre-selection services is, in some Member States, also declining with a subsequent impact on the wholesale market for fixed call origination. In addition, in many cases alternative operators now make use of IP techniques available to supply fixed voice services, which can be perceived as a substitute to narrowband analogue-based voice services.

- (40) Having noted these developments, triggered by increased broadband penetration, BEREC however signals that in some Member States there is still substantial demand stemming from voice-only customers, which is and could still be served over narrowband services, provided either by the incumbent or by alternative operators using the wholesale services available.

e) Internet based applications and services

- (41) Over recent years, the electronic communications markets have experienced significant growth of content and applications providers, which allow for the provision of advanced services via the Internet connection of the customer.
- (42) As noted in BEREC's Report on differentiation practices and related competition issues in the scope of net neutrality¹⁷, the IP traffic conveyed on networks has continuously increased, and is expected to do so in the future.



Source: Cisco, 2012 (Visual Networking Index). Included in BEREC Report on differentiation practices and related competition issues in the scope of net neutrality.

- (43) Over the top (OTT) service providers have contributed to the increased dynamism of the telecommunications markets, making significant inroads in segments that until recently had been supplied by traditional electronic communications operators (such as voice, text messages or broadcasting), and placing competitive pressure on the retail services provided by these operators. The upgrade of broadband accesses is likely to encourage this trend, as services provided over the top could be enriched with higher bandwidths.

¹⁷ BEREC(12)132, November 2012.

- (44) BEREC welcomes this process as it improves consumers' choice of and access to electronic communications services. On the other hand, it has also to be acknowledged that some key bottlenecks will remain despite more competitive pressure stemming from the applications markets level. As OTT undertakings are offering their retail services over fixed and mobile broadband connections, they will not likely significantly impact the competitive conditions prevailing at this level of the value chain.
- (45) In order to effectively assess the competitive situation in each market, BEREC considers that the impact of OTT undertakings in the development of the competitive process should be considered (that means, analyzing whether consumers consider the service they provide an effective substitute to traditionally-provided services). The process of convergence and integration of services is a reality, which requires careful examination by the Commission and NRAs of these new types of players. In this context, BEREC considers that both the way OTT service providers could potentially impact the *ex ante* market analysis, and the means that are available to NRAs under the current regulatory framework to gather data from such undertakings, are relevant topics that could be covered by the forthcoming Recommendation and/or Explanatory Memorandum. BEREC nonetheless points out that, even if OTT increasingly modify the competitive situation in retail markets (for instance: voice over Internet OTT services may influence the market for fixed voice services), they still rely on accesses and thus shouldn't significantly modify the competitive situation on the main wholesale regulated access markets.

Q3. Can you identify any market bottlenecks which in your view cannot be addressed by *ex ante* regulation via a revision of the Recommendation alone? How in your view can such market bottlenecks be addressed?

- (46) The evolution of the electronic communications markets raises new challenges that need to be addressed by NRAs.
- (47) In the first place, the current framework and the imposition of *ex ante* obligations, based on competition law principles, rely on the existence of SMP operators, either individually or jointly.
- (48) NRAs have accumulated great experience in the regulation of markets that are characterised by individual SMP. On the contrary, and as highlighted above, there is a lack of clear precedent to deal with oligopoly markets. On the one hand, the Guidelines on market analysis do not cover the most recent decisions on joint SMP adopted by the courts, or provide real clarification on the issues raised by joint SMP. On the other hand, Article 7 cases based on joint SMP situations are few and have implied difficult notification processes, even ending up with withdrawals of the measure and/or Phase II procedures.
- (49) Given the above, alternative infrastructure roll-out, in particular in the context of NGA networks, poses serious challenges. In particular, NGA deployments will lead to different conditions of competition prevailing in different geographic areas. The competitive scenario may thus develop from the traditional single firm SMP situation towards a duopolistic situation, where only two operators are competing in a given area (e.g. fibre networks and upgraded cable networks). In this context, the revised Recommendation and accompanying documents should recognise that

competition between two platforms still requires a careful analysis by NRAs, leaving it up to NRAs to decide, on the basis of its national circumstances, on the best means to address these situations under the guidance provided by the European Commission.

- (50) As noted in Questions 1 and 2 above, other issues remain outstanding, and may also be worth exploring in the revised Recommendation. Trends such as the ever-increasing relevance of access to content (in particular, in the context of bundling of different services), or the competitive pressure exerted by OTT service providers, are in particular highly significant in some Member States.
- (51) On another note, termination markets (fixed and mobile) are generally characterised as separate markets where each provider is a *de facto* monopolist. In most Member States there is no tendency towards effective competition, as end-users are structurally unable to set up their own call termination, thus satisfying the second criterion of the three criteria test¹⁸. Consequently, the characteristics of the regulation that is applied to termination markets may significantly differ from the regulation applied to access markets: regulation may especially be more stable and more “symmetrical” for termination markets than for access markets. The particular nature of call markets, as interconnection markets, could thus deserve specific attention in the next revision of the framework.
- (52) Taking this into account, in case some NRAs may consider termination as a “permanent bottleneck”, they should have the possibility of crafting regulatory measures that may simplify the process of market analyses in these markets. This aim towards streamlining and simplifying the *ex ante* review process is in addition an objective that, in BEREC's view, should inspire the revision of the Recommendation and its accompanying documents.

¹⁸ Such a market definition - call termination on individual networks – does not automatically mean that every network operator has significant market power: this may depend on the degree of countervailing buyer power and on other factors potentially limiting market power.

3 Three criteria test

Q4. In your opinion, is the three criteria test, as defined in the Recommendation, an appropriate instrument in defining the relevant markets susceptible to *ex ante* regulation or would alternative means to identify relevant markets be more suitable?

Q5. Should, in your view, criteria be added or removed from the list or should the criteria be formulated in a different manner? Should additional guidance be given to the existing criteria?

(53) Because questions 4 and 5 are closely related, BEREC answers them together.

(54) A distinction can be made between two different uses of the three criteria test:

- It is used by the European Commission in compiling the list of markets that are generally susceptible to *ex ante* regulation across the EU that are included in the Recommendation; and
- It is used by NRAs when considering whether *ex ante* regulation may be appropriate for a particular market given the specific circumstances in its Member State.

(55) For both of these uses, BEREC considers that the three criteria test is an appropriate instrument.

(56) When the three criteria test is used by the EC for revising the list of markets included in the Recommendation, EC should include in the Explanatory Memorandum how the differences in the competitive situations have been taken into account in the final decision to maintain or withdraw a market from the list. In any case, BEREC considers that the current pattern of SMP findings in Member States (and likely future developments in that pattern) should be taken into account and should be expressly considered by the European Commission. That is, if NRAs have generally found SMP in a particular market and have as a consequence imposed *ex ante* remedies, then that suggests that the market is susceptible to *ex ante* regulation and should be part of the new list. Conversely, if NRAs have generally not found SMP in a given market, then that might tend to suggest that the market should not be included in the revised Recommendation.

(57) BEREC does not consider that NRAs should undertake this benchmarking exercise (of reviewing whether other NRAs have generally found SMP in a particular market) when they use the three criteria test in a particular market review at the national level, because it is the specific circumstances in the Member State that drive their analysis.

(58) On the other hand, the requirement to separately assess the first two criteria of the three criteria test when a full SMP assessment is also undertaken can cause confusion and seems redundant. That point was already raised in the ERG's 2008

Report on Guidance on the application of the three criteria test¹⁹, which found that: "In general, experiences with the three criteria tend to confirm that in cases where both the three criteria test and SMP analysis is undertaken, it is difficult to dissociate the first criterion (barriers to entry) and the second criterion (tendency towards effective competition) from the elements that are considered in an SMP analysis." BEREC therefore considers that NRAs should have the choice about whether or not they separately consider the first two criteria of the three criteria test if they are undertaking a full SMP assessment. This is particularly the case given that in some Member States it is not possible legally to remove *ex ante* regulation with the three criteria test alone, and a full SMP assessment is required.

- (59) If NRAs are not given this choice, BEREC would welcome a comprehensive explanation in the revised Recommendation or the Explanatory Memorandum, as to which are, according to the Commission, the key distinguishing factors between the first and second criteria, on the one hand, and the SMP analysis, on the other hand, in particular in cases where NRAs intend to regulate a market that is not included in the list of markets susceptible to *ex ante* regulation.

Q6. How, in your view, can legal certainty be best ensured in identifying the markets susceptible to *ex ante* regulation?

- (60) BEREC considers the European Commission should give greater legal certainty by providing more detail on how it has applied the three criteria test to set the list of markets in the revised Recommendation. BEREC believes that this could be done in the accompanying Explanatory Memorandum. This is particularly important in the case of markets that are regulated differently in different Member States, depending on national circumstances, and where BEREC would welcome an analysis of the factors that have been taken into account by the European Commission to include or exclude a market, taking into account the differing conditions and competitive outcomes prevailing in the different Member States.
- (61) This would allow NRAs and industry to see why an individual market was included or excluded from the revised Recommendation, giving more clarity on the circumstances in which an individual market included or excluded from the revised Recommendation could meet the three criteria test in the specific circumstances of a Member State. When the European Commission's assessment is documented transparently, NRAs are able to replicate the three criteria test in the specific circumstances of their Member State. This would in turn help to ensure symmetry in the application of the framework by the European Commission and NRAs.
- (62) BEREC considers that the Explanatory Memorandum could also be used to draw together and consolidate the approach the European Commission has taken in some of its comments letters on NRAs' market reviews and their use of the three criteria test. This could help drive harmonisation and give greater certainty.
- (63) BEREC also considers that the EC could increase the legal certainty in the application of the third criterion of the three criteria test (insufficiency of competition law). BEREC notes that when NRAs analyse the third criterion, the analysis is

¹⁹ ERG (08) 21.

generally based not on quantitative data but on a more qualitative assessment. This means that NRAs have more effective indicators to assess if the two first criteria are fulfilled than when applying the third one. In this context, a more detailed analysis in the forthcoming Explanatory Memorandum as to the parameters that, on the basis of the European Commission's experience, might be taken into account by NRAs for the purposes of determining whether the third criterion is met, would be welcome.

4 Scope of the markets listed in the Recommendation

Q7. In your opinion, should the scope of any relevant market(s) identified in the Recommendation be changed? If yes, please explain why, referring to the relevant market(s) concerned.

Q8. If the answer to the previous question is yes, please specify the qualitative and quantitative impact of such changed scope on consumers (users), competition, and development of the internal market. Please provide separate reasoning for each market subject to a new scope.

Wholesale Access Markets

- (64) The wholesale markets 4, 5 and 6 as currently defined are based on the traditional and more easily distinguished copper based access products (physical local loop unbundling versus bitstream access versus traditional leased lines access). Due to developments on NGN and NGA the boundaries between the relevant wholesale access markets in the 2007 Recommendation might become less clear. BEREC nonetheless does not see a need to revisit the current boundaries between markets 4, 5 and 6 to be able to deal with the NGN/NGA developments.
- (65) NRAs have dealt with issues relating to the boundaries between these markets in the context of NGA using the current Recommendation. Their practice has shown that the current definition of the markets has proven to be flexible enough to deal with NGA/NGN developments. For example, NRAs have found that the 2007 Recommendation provides the possibility to impose an effective combination of market 4 and 5 remedies, taking into account the specificities of the NGA-roll-out in different (geographical) areas and the various economic and competitive conditions in Member States (see section a and b below). As another example NRAs have dealt with the issue on whether there is a separate wholesale market for high-end users (see section d below).
- (66) However, BEREC suggests below how the EC could further clarify the delineation between markets 4, 5 and 6 in the context of NGN/NGA developments (e.g. the migration from LLU towards SLU/fibre unbundling, the migration from traditional leased lines towards Ethernet).
- (67) In order to ensure legal certainty and to guarantee regulatory predictability, BEREC considers it thereby important that the EC in the revised Recommendation takes into account the impact of a modification of market boundaries in the current regulatory practices of Member States.

(68) In the next section BEREC discusses the following topics:

- Boundaries between markets 4 and 5, the case of VULA products;
- Scope and remedies of market 4;
- Ducts/Passive infrastructures;
- Boundaries between markets 5 and 6 as new Ethernet-based offers develop;
- Consideration of TV cable infrastructure in markets 4 and 5.

a) Boundaries between markets 4 and 5, the case of VULA products

(69) BEREC does not see a need to revisit the boundaries between market 4 and 5. BEREC thinks that the current delineation between market 4 (passive products) and market 5 (active products) is still justified with regard to the telecommunication markets of most European countries. A large number of providers still rely on passive products rather than on active products and, in most countries, those active products are not regarded as sufficient substitutes in terms of technological independence, capability to innovate, provision of quality differentiation and coverage.

(70) Nevertheless, BEREC signals that the current wording of market 4 ("wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location") works well for copper access and for fibre access networks as long as a point to point (P2P) infrastructure is rolled out (in most of the countries where fibre access networks are rolled out as P2P infrastructure, fibre unbundling is a remedy of market 4), but may raise questions in the case of the roll-out of FTTC or FTTH-PON infrastructure.

(71) Where FTTH-PON infrastructure is rolled out, and as long as no alternative technology for unbundling at the MPoP is available, the last splitter is the unique access point for physical unbundled access. Therefore, unless any alternative technologies allowing physical unbundling at the point of presence (MPoP) become available (like WDM-PON) and effective physical access is not viable.

(72) However, BEREC considers that a number of NRAs and the EC have dealt successfully in practice with this issue under the current Recommendation by deciding on the proportionate remedies. Depending on national circumstances, NRAs could, under the current definition of markets 4 and 5, consider in the case of roll-out of FTTH-PON infrastructure imposing an active remedy (such as VULA) on market 4, replicating as much as possible physical unbundling. Thereby, NRAs could take into consideration characteristics such as dedicated capacity in the access network, flexibility on the services offered, flexibility on quality of services etc. (for further details on the product see Common Position on wholesale broadband access remedies)²⁰. Therefore BEREC considers that it is not necessary to revisit the boundaries between market 4 and 5 as current market definition, based on traditional characteristics of the network (passive/active services) has allowed NRAs to impose adequate remedies.

(73) The same holds where FTTC infrastructure is rolled out. Although physical unbundling by alternative operators is possible in the case of FTTC roll-out, this

²⁰ See BoR (12) 127 Common Position on WLA: BP6b on FTTH P2MP (e.g. GPON).

business case is not viable on a significant scale in all Member States (e.g due to economies of scale or in the case of vectoring).

- (74) Therefore BEREC considers that, in national circumstances, where there is no viable passive access product available, in order to ensure the effective competition at retail level, NRAs may consider imposing an active remedy (such as VULA) providing access at the MPoP replicating as much as possible physical unbundling²¹.
- (75) When imposing an active access remedy on FTTH-PON and FTTC infrastructure, some NRAs have taken into account the network access level that is appropriate, when deciding whether such a product can be seen as a remedy on market 4 or market 5.
- (76) In any case, as pointed out by the current Explanatory Memorandum, regardless of the concrete market boundaries, NRAs have to ensure the openness of the whole value chain in order to ensure the effective competition at retail level. Accordingly, BEREC considers that current separation between markets 4 and 5 allows NRAs to cope in an efficient manner with differences at national level caused by heterogeneity of competitive conditions and divergent network topologies and NGA roll out models.

b) Scope and remedies of market 4; the location of the unbundled node under market 4

- (77) BEREC considers that in a dynamic market environment characterised by a multitude of business models, regulation must aim for a level playing field for all market players and avoid distortion of competition, *i.e.* it must try to avoid "picking winners", and instead be open to the outcome of the competitive process and market forces.
- (78) On the one hand, on market 4, the closer the access node is situated to the end customer, the smaller are the economies of scale and scope, affecting the viability of the corresponding business models for alternative operators. Also, because NRAs may want to focus their efforts on promoting appropriate wholesale products at the most likely level where effective competition will develop, it maybe disproportionate to develop all possible wholesale products.
- (79) On the other hand, experience in Member States shown that it is not easy to predict by regulators which access products will be successful (in which geographical areas) and passive access products have been used by alternative operators in areas where it probably would not have been expected according to economic criteria. This may also depend on the presence of local access providers²². For example, in relation to fibre unbundling, providers may be interested in unbundling splitters. To support a wide diversity of business case solutions, this choice should not be restricted by regulation, but be open to the outcome of the competitive process and market forces.

²¹ See Bor (12) 127 Common Position on WLA; BP 7c on FTTC

²² BEREC Report on the Implementation of the NGA-Recommendation, BOR 11/43.

- (80) To conclude, BEREC considers that regarding NGA-access it is important that the definition of market 4 is wide enough to include, physical unbundling of all possible nodes. In that case there is no need to change the scope of market 4.

c) Ducts/Passive Infrastructures

- (81) In many Member States, the operator that has been identified as SMP in market 4 has to offer duct access and/or access to dark fibre between the sub loop unbundling point (street cabinet or another location where the DSLAM may be to provide NGA-products) and the MDF²³. Such a service is considered in most Member States as an “ancillary service” to sub loop unbundling. In these countries, ducts access/access to dark fibre thus supports the access obligation in market 4 creating more business options for alternative operators, and in some Member States this option has provided commercially viable. As discussed in section 7 below, in other Member States, SMP operator on market 4 has to offer duct access and/or access to dark fibre also between the sub loop unbundling point and the base of the building where the CPE is located, in order to support alternative operators to deploy FTTH networks.
- (82) Considering that also the EC in the NGA recommendation of 2010 has already identified duct access as a remedy that should be imposed on market 4 (even if the product is not explicitly included in the market definition), BEREC sees no need to change this current practice and no necessity to mandate a new separate relevant market for access to ducts on the list of the revised Recommendation (See answer to question 13).

d) Boundaries between market 5 and market 6 (terminating segments of leased lines)

- (83) BEREC points out that, due especially to the development of Ethernet based offers, the boundaries between market 5 and 6 tend also to become less clear. New Ethernet based bitstream offers (copper or fibre access loops) may now provide transparent capacity that may be a partial substitute for leased lines and WBA-products.
- (84) However, BEREC still considers that from a demand and supply side perspective it is likely that there are still important differences between the needs for consumers and small businesses, on the one hand and large businesses, on the other hand. The key elements in the demand by large businesses are still the guaranty of service quality concerning dedicated and transparent connectivity. Overall, in most cases, there is still a relevant price difference between these very high quality products and products with more standard levels of quality of service, which are typically used by consumers and small business. This still justifies two different markets on the list of the Recommendation (currently markets 5 and 6).
- (85) In this respect, BEREC also wants to refer to its report on business services²⁴ which has set out the issue of relevant market definition for business services and

²³ See Common Position M4, BP9: “The closer the access point is to the end-user the more essential the access product to reach the access point becomes. NRAs should impose an obligation for an access product to reach the access point from the MPoP such as duct access, dark fibre, leased lines including Ethernet access taking into account the economics of specific NGA scenarios.”

²⁴ BEREC report on the public consultation on relevant market definition for business services,

in particular the question of high end business services. In this report BEREC recalls the Commission's principles for market definition and sets criteria to determine the extent to which high end business services may or may not be held to constitute a separate product and geographic market at both the retail and wholesale levels.

- (86) BEREC considers that based on current experiences in Member States it will still be justified to have two different wholesale markets on the list of the revised Recommendation on Relevant Markets, although the EC could give some guidance to NRAs on how to deal with new types of products (mainly Ethernet access products), e.g. by giving criteria which could be taken into account by NRAs to determine to which markets these products belong.

e) Inclusion of cable infrastructure in markets 4 and 5

- (87) The practice of NRAs and EC regarding the inclusion of cable operators in relevant wholesale markets, mainly market 5, has greatly differed as proven by the comments included by EC in its comment letters and even the Phase II cases. Currently no NRA has concluded in its market analysis so that, based on direct constraints, cable access products are part of market 4. Many NRAs have, based on direct and/or indirect constraints, however concluded that cable access products are part of market 5.
- (88) BEREC signals that the on-going NGA migration increases the importance of cable access infrastructure and thus the importance of infrastructure competition (cf. answer to questions 1-2-3). Cable infrastructure is able to offer NGA-products that provide retail substitutes to traditional fixed network telecommunication solutions and new network deployed based on optical fibre. In many Member States, NGA-products based on TV-cable infrastructure currently show higher network coverage than VDSL or FTTH services, or any other specific technology or type of network.
- (89) The definition of market 4 and 5 should be technologically neutral, such that NRAs can analyse whether based on direct and/or indirect constraints cable access products will be part of the same relevant market. BEREC refers to its response to the draft Recommendation on Relevant Market of 2007²⁵ where IRG states that it does not see, as is stated in the current Explanatory Memorandum of the 2007 Recommendation,²⁶ why indirect pricing constraint may be taken into account only when assessing whether an incumbent has SMP on the wholesale market.
- (90) In accordance with economic theory, IRG/BEREC is of the opinion that the purpose of defining a relevant market is to analyse the different competitive constraints in relation to a particular product. This assessment should take into account all the relevant constraints (including indirect constraints)²⁷. This approach is consistent with the SSNIP-test.²⁸

February 2011

²⁵ IRG/Response to draft recommendation on relevant markets, 19 October 2007

²⁶ Explanatory Memorandum – p 31: “While upgraded cable systems have become more widely developed and deployed in some parts of the Community, such systems overall still have a limited coverage. Moreover, the unbundling of cable networks at this stage does not appear technologically possible, or economically viable, so that an equivalent service to local loop unbundling cannot be provided over cable networks.”

²⁷ E.g. see also Case ES/2008/0805 – Wholesale broadband access.....: “The Expert Group does not share the Commission's view that indirect constraints should be taken into account in the assessment of SMP rather than in the definition of the relevant market. However, the Expert Group considers it important that whichever approach is

- (91) BEREC also refers to its report on self-supply²⁹. The analysis of the questionnaire in this report shows that NRAs find it relevant to deal with self-supply when carrying out the market definition and the SMP analysis. Most NRAs have therefore assessed whether or not to include self-supply. NRAs have analysed self-supply on the basis of both direct and indirect constraints, sometimes excluding the latter on the basis of indirect constraints not being strong enough.
- (92) BEREC considers that the way NRAs could take such competitive pressure into account in their wholesale market analyses should be subject of greater consideration in the Explanatory Memorandum of the revised Recommendation. BEREC invites the EC to adopt BEREC's position on direct and indirect constraints.
- (93) In any event, including cable in market 4 and market 5 and/or concluding in the SMP analysis that there are sufficient constraints from cable raises several questions for NRAs relating to how to deal with a situation of only two operators in the market. For example if a NRA has to define sub-national markets, because of constraints by cable offers, this may result in deregulation in areas where both cable and copper infrastructure is available. If this leads to a situation in which there is no (regulated) wholesale offer available anymore, it is questionable whether there will be nonetheless effective retail competition.
- (94) Therefore, and in line with previous considerations, BEREC finds it important that the EC takes into consideration in the Explanatory Memorandum whether a non-regulated duopoly would be an efficient market structure creating sustainable competition. BEREC shares the analysis of different economic papers on the potential insufficiency of two competing networks to achieve effective competition view. Where there is not effective competition, BEREC thinks that the EC could present more concrete solutions on how to consider duopolies in cases where the burden of proof to find joint dominance falls on NRAs. Therefore BEREC asks the EC to work with BEREC to further develop tools available for NRAs to deal with this issue.

Interconnection termination markets

- (95) BEREC is of the opinion that there is no need to modify the current scope of markets 3 (call termination on fixed individual networks) and 7 (voice call termination on mobile individual networks).
- (96) Termination interconnection markets are intrinsically different from wholesale network access markets described above. In those termination markets, each network provider offering access services to end-users constitutes a separate market for termination where each provider is a *de facto* monopolist.
- (97) The definition and the regulation rationale of interconnection termination markets being similar, it might in theory be envisaged to merge under one single item in the annex of the revised Recommendation all the termination markets, whether they

adopted by the NRA that the analytical model is correctly specified. To the extent that this is the case the ultimate outcome of the analysis should be the same".

²⁸ IRG/Response to draft recommendation on relevant markets, 19 October 2007

²⁹ BoR (10) 09, BEREC Report on self-supply, March 2010.

are provided on fixed networks (market 3 under the 2007 Recommendation) or on mobile networks (market 7 under the 2007 Recommendation)³⁰.

(98) However, BEREC is of the opinion that there is no need to modify the current scope of markets 3 and 7. In the first and second Recommendations, a general distinction was made between services provided at fixed locations and those provided to non-fixed locations. Despite some migration towards hybrid or converged offerings (Homezone products, stationary based LTE), this distinction is still considered to be valid, because there is still insufficient evidence that the pricing of mobile services (to non-fixed locations) systematically constrains the pricing of services to fixed locations, or vice versa. Moreover, termination is closely related with numbering resources, which, so far, are differentiated for fixed and mobile networks.

(99) In addition, BEREC points out that the particular nature of interconnection markets (and termination markets in particular) could be given more emphasis in the revised Recommendation, for instance in its Explanatory Memorandum. As BEREC points it out in its answer to question 3 of this public consultation, it would be worth analysing whether the legal background offers possible instruments to simplify the process of market analyses in the specific situation of interconnection termination markets.

5 Relevant markets listed in the Recommendation

Q9. On the basis of the three criteria test carried out at EU level, should any of the markets listed in the Recommendation be removed from the list in the revised Recommendation? If yes, please provide comprehensive reasoning thereof.

Q10. If the answer to the previous question is yes, please specify the qualitative and quantitative impact of such removal of markets on consumers (users), competition, and development of the internal market. Please provide separate reasoning for each market you propose to delete from the list

(100) As already mentioned above, BEREC considers that the EC should take into account as much as possible the market situation prevailing in a large number of Member States before deciding whether to include or exclude a market from the list of candidate markets. The purpose is to avoid excluding markets from the list that in the end have been deemed to be uncompetitive – or at least, subject to partial regulation – by a large number of Member States.

³⁰ Under such an assumption, each operator, whether it operates a fixed or a mobile network, would remain dominant on the call termination on its networks. Strictly speaking, fixed termination and mobile termination, which are already multiple markets, would thus not be merged.

- (101) On the other hand, BEREC considers that the market for access to the public telephone network at a fixed location for residential and non-residential customers (*i.e.* market 1 defined in the 2007 Recommendation on Relevant Markets), which is still subject to *ex ante* regulation in a majority of Member States, may be removed from the list.
- (102) Despite the existing regulation in almost all Member State, over recent years the following competitive trends have been observed in different Member States and to a varying extend:
- decrease in the incumbent's market share;
 - take up of wholesale access services even in combination with the development of other infrastructures such as cable or FTTx solutions;
 - migration from traditional telephone service to voice over broadband (VoB)³¹;
 - increased importance of bundled offers, integrating access services, voice and other services/products;
 - mobile cellular networks seems likely to be used commercially to provide local access and the provision of services including the public telephone service.
- (103) Hence, in the coming years, providing wholesale services - such as Carrier Selection (CS), Carrier Pre-Selection (CPS) and Wholesale Line Rental (WLR) –, and alternative technologies and infrastructures are available, the regulation of, market 1 as a retail market may not keep being necessary.
- (104) In BEREC's view, in the event that market 1 were removed from the list of markets susceptible to *ex ante* regulation, effective competition and a level playing field should be explicitly ensured by wholesale regulation. To achieve this, NRAs should put in place obligations preventing SMP operators from:
- denying wholesale access to specified network elements and/or facilities, potentially including, inter alia, Carrier Selection (CS), Carrier Pre-Selection (CPS) and Wholesale Line Rental (WLR)³²;
 - delaying the provision and degrading the quality of relevant wholesale products;
 - engaging in margin squeeze³³.
- (105) In case market 1 would be considered as a candidate to reduce the list of relevant markets, the current market 2 definition could be amended to make sure it potentially allows both WLR and CS/CPS remedies. BEREC suggests market 2 could then become "wholesale fixed telephony access and call origination". Nonetheless, depending on national circumstances and, in particular, on the existing regulatory context, an NRA may take another approach to impose WLR.

³¹ Access to an electronic communications network (*i.e.* broadband access) is sufficient to make and receive voice and other calls (*i.e.* via IP-based connections) without exploiting the public telephone network.

³² Access Directive, Article 12.

³³ BoR(12)126; BoR(12)127; BoR(12)128.

- (106) Notwithstanding the above, BEREC observes that there could be cases where the imposition of wholesale regulation alone would fail to achieve the objective of ensuring effective competition; therefore, in these instances, retail markets should remain susceptible to *ex ante* regulation³⁴.
- (107) Hence, NRAs may decide, on the basis of national circumstances, to address the observed competition problem with the proper retail remedies.

6 Further markets regulated at national level

Q 11. On the basis of the three criteria test carried out at EU level, should any of the markets regulated by NRAs on the basis of national circumstances (such as SMS termination or broadcasting transmission services) be added to the list in the revised Recommendation from an *ex ante* perspective? If yes, please provide comprehensive reasoning thereof.

Q12. If the answer to the previous question is yes, please specify the qualitative and quantitative impact of adding those market(s) on consumers (users), competition, and development of the internal market. Please provide separate reasoning on the impacts for each market you propose to add to the list.

- (108) BEREC is of the opinion that currently no new markets should be added to the list in the revised Recommendation. However some national circumstances may justify regulation of particular markets due to competitive or other relevant problems identified by an NRA. In that case, the revised Recommendation and the accompanying Explanatory Memorandum should not create any barriers to *ex ante* regulation by NRAs, provided the three criteria test is met and SMP is found.
- (109) Some NRAs reach the conclusion that, within their national context, SMS termination market meets the three criteria test. Indeed current Explanatory Memorandum includes a reference to the potential market failures that, depending on national circumstances, these services could face. BEREC considers that these considerations are still valid. SMS services are still a popular messaging channel, even if increase of OTT messaging is forecast. For this reason, BEREC considers that the reference currently included in the Explanatory Memorandum for SMS termination should be maintained in the review of the Recommendation, allowing every NRA to apply SMP regulation to the SMS termination whenever it finds it necessary and beneficial for competition and users.

³⁴ Universal Service Directive, Recital 26.

- (110) However, in the case of SMS termination, this heterogeneous regulatory framework, justified by heterogeneous national circumstances, has some side effects as it may result in undue asymmetric international settlements settlements (i.e. between operators established in different countries within EU or even outside EU), to the advantage of unregulated firms and to the detriment of firms active in a regulated national market. In this non harmonised context where only a few NRA regulate, BEREC draws the Commission's attention on these side effects arising when constraining unilateral SMS termination regulation across the EU, and more specifically the handling of foreign-originated SMS termination. BEREC considers that dealing with this issue doesn't necessarily require imposing any harmonised approach at the European level, for instance from a market analysis and relevant markets point of view. It considers that NRAs that regulate SMS termination at the national level can define appropriate ways to deal with this issue at their national level, provided they are not prevented to do so. The Commission should thus help such NRAs to apply measures which would not impose on regulated operators to unilaterally charge low tariffs when they are submitted to high asymmetric charges from non-regulated international operators³⁵. Therefore, the Commission is invited to reconsider its view on previous cases in which NRAs tried to deal with the issue of unilateral regulation and help apply the best solution to that issue at national level (e.g. through some form of mechanisms which would not forbid regulated operators to apply symmetric charges for incoming SMS traffic coming from unregulated foreign operators which apply higher charges and refuse symmetric tariffs at regulated level). BEREC will further assess the possible solutions in order to reach a common understanding of the relevant approach.
- (111) Nevertheless BEREC doesn't find justification for adding any market already regulated on a national basis to the list in the revised Recommendation.

³⁵ In the member states where SMS termination is regulated (Denmark, France and Poland), the rate charged by domestic operators to both other domestic and international operators was 1,161 c€, 1,00c€ and 1,17€ in July 2012; at the same time, those operators were charged a rate worth 5,95 c€ in average, which appears to be the "standard" international SMS termination rate.

7 Markets to be added to the revised Recommendation

Q13. On the basis of the three criteria test carried out at EU level, can any other markets be identified that should be added to the list in the revised Recommendation, from an *ex ante* perspective? If yes, please provide comprehensive reasoning thereof.

Q14. If the answer to the previous question is yes, please specify the qualitative and quantitative impact of the relevant markets(s) you propose to add on consumers (users), competition, and development of the internal market. Please provide separate reasoning on the impacts for each market you propose to add to the list.

(112) BEREC considers that, on the basis of the three criteria test carried out at EU level, no market should be added to the list in the revised Recommendation. There have been some discussions whether markets might exist beyond the current market list, possibly meeting the three criteria test.

- Internet Connectivity
- Backhaul services to reach mobile base stations
- SRS services

(113) However, on the basis of three criteria test, BEREC cannot identify any of these markets to be added to the list in the revised Recommendation.

IP interconnection Markets

(114) IP interconnection markets were not part of the market list of the Recommendation on relevant markets as it is deemed to function well without regulation.

(115) BEREC considers this reasoning is still valid. As BEREC pointed it out recently in its report “an assessment of IP interconnection in the context of Net Neutrality”³⁶ and in its comments on the ETNO proposal for the ITU/WCIT³⁷, the internet has developed well without regulatory intervention. Any regulatory measure should thus be carefully considered.

(116) Markets related with IP interconnection have developed well without regulation for the following reasons:

- Global connectivity can be arranged in a number of ways:
 - i. It can be purchased from a network that is in a position by its own arrangements to guarantee such connectivity (Transit services);

³⁶ BoR (12)130 – 6 December 2012

³⁷ BoR (12)120 – 14 November 2012

- ii. It can be obtained by interconnecting and exchanging traffic with a sufficiently large number of networks so that all possible destinations are covered (Peering).
- Entry barriers for a stakeholder that wants to get global internet connectivity through IP interconnection are low.
 - Connectivity with one specific stakeholder (ISP for instance) is generally characterised by competitive pressure adequately restricting market power as long as counterparts can choose between direct peering and transit providers to reach this stakeholder. The price decline, both for peering and transit, can be interpreted as reflecting the close relation between these two options.
 - The Internet ecosystem has managed to adapt IP interconnection arrangements to reflect (inter alia) changes in technology, changes in (relative) market power of players, demand patterns and business models. This happened without a need for regulation.
- (117) Transit services, that offer global internet connectivity, have shown a significant degree of competitiveness. This is corroborated by the fact that over the last few years transit prices decreased significantly because of cost decreases in components used and competition between transit providers. Transit prices have fallen approx. 36 % annually since 1998³⁸.
- (118) The extent to which market power derived from the physical access bottleneck by broadband access providers might be abused for terminating traffic depends also on the charging mechanism in place and the direction of payment flows.
- (119) As stated in the BEREC comments on the ETNO proposal for the ITU/WCIT, interconnection on the Internet has operated on the basis of transit/peering arrangements at the higher level, and a “bill & keep” approach where the terminating access network operator does not receive payments at the wholesale level for terminating the traffic, but recovers its costs at the retail level from the end-user. Under such a situation, the risk of market power abuses by broadband access providers for terminating traffic appears very low. Nonetheless, if other charging practices became widespread which enabled Internet Access Providers connecting end-users to set abusive charges for interconnection out of a monopoly position, this situation would need to be addressed. For instance, if “bill&keep” were to be replaced by SPNP (Sending Party Network Pays) then the ISP providing access could exploit the physical bottleneck for traffic exchange and derive monopoly profits, requiring regulatory intervention.
- (120) So the EC's statement in the Explanatory Memorandum relating to the current market list with regard to the lack of a need to regulate those markets is still valid. For the above mentioned reasons together with the existence of alternatives, BEREC considers that it is not justified to include any IP interconnection market in the list of relevant markets in the annex of the revised Recommendation.

Passive access to backhaul infrastructure

³⁸ See BoR (12) 130 p.38 FN 127: <http://drpeering.net/white-papers/Internet-Transit-Pricing-Historical-And-Projected.php>

- (121) BEREC's view is that, this is not necessary to include a new market for passive access to backhaul infrastructures in the list of markets. Through the market analysis they conduct, NRAs include part of these services under market 4 as ancillary services (e.g. passive access to backhaul infrastructure to reach the MDF or roll out NGA networks). Some other requirements of alternative network providers for backhaul services are furthermore likely to be met by the provision of wholesale leased line services that some NRAs address under market 6.
- (122) Nevertheless, one NRA still might identify competitive problems on the basis of national circumstances and might come to the assumption that it would be necessary to define a new market for passive access to backhaul infrastructure.
- (123) The situation observed in Member States shows that backhaul networks tend to become multi-functional: they are used to connect either other network nodes (MDF or splitter in case of PON networks) or mobile networks base stations. Some of the NRAs see a need to be able to grant access to other backhaul segments in case of competitive problems (e.g. to reach the MDF). Consequently, a backhaul market such as the one envisaged in the previous paragraph could potentially be used by operators to provide different retail products (fixed or mobile broadband services for instance).
- (124) If it is necessary, this would imply defining backhaul services and infrastructure more precisely. In any case, BEREC considers that NRAs should keep the possibility to regard backhaul products, according to individual national situations: firstly, only as ancillary services to make accessible wholesale products for the provision of end-user broadband access services (in market 4) or secondly as independent products in an existing market (for instance in market 6).
- (125) In any case, market definition should be flexible enough to ensure that irreplaceable advantages from the incumbent in backhaul infrastructures, in terms of coverage, times of roll out and costs are passed on to alternative operators.
- (126) Based on the regulatory questions related to backhaul infrastructure, BEREC seeks clarification on the relationship between retail markets and (potentially regulated) wholesale markets. In the 2007 Explanatory Memorandum, the European Commission clearly stated that the definition of retail markets is the starting point for the identification of markets susceptible to *ex ante* regulation³⁹. In the example of specific national circumstances requiring the regulation of wholesale passive access to backhaul infrastructure for the purpose of multiple functions (provision of different retail products such as fixed and mobile broadband services), should a specific wholesale market analysis be conducted for each of these retail functions or, on the contrary, is it possible for a NRA to define one single wholesale market? BEREC thus wonders to what extent the link between the final (mostly retail) usage and the wholesale product should be taken into account when defining wholesale markets. Based on the various relevant documents (directives, guidelines, notice on the definition of relevant markets), it does not seem

³⁹ 2007 Explanatory memorandum: *"The starting point for the identification of markets susceptible to ex ante regulation is the definition of retail markets over a given time horizon, taking into account demand-side and supply-side substitutability. Having defined retail markets, which are markets involving the supply and demand of end-users, it is then appropriate to identify the corresponding wholesale markets which are markets involving the demand and supply of products to a third party wishing to supply end-users"*.

impossible to define a wholesale market that would not be specifically related with one single retail market.

- (127) One of the specific issues that has arisen recently in some Member States in relation with passive access to backhaul infrastructure is whether regulation is required to provide dark fibre from a radio base station to the backhaul network of a mobile network operator, as a means of promoting the network upgrade which is needed for next generation mobile network services (e.g. via LTE).
- (128) BEREC is aware that a market analysis for such a specific product would raise a number of complex issues, especially how the market boundaries should be defined and problems such as compatibility with existing regulation and the possibility for regulatory arbitrage, the impact on investment incentives, consistency with general regulatory principles.
- (129) The growing demand for bandwidth for mobile services requires the provision of high bandwidth backhaul networks which connect the radio base stations. In case of problems with the connection of radio base stations to the core network of the mobile operator, e.g. in rural areas, possible alternative solutions, such as the use of leased lines with high bandwidth or point-to-point radio systems, should also be considered. In addition, if the market was narrowly defined to only include access to the backhaul level, fibre being used to support a wide range of downstream services, many of which are provided in competitive markets, various companies might be capable of providing passive access to backhaul infrastructure. Depending on the national circumstances, it is thus possible that no operator would be found to have SMP.
- (130) Overall BEREC believes that the Commission should leave it open to the NRA to analyze a potential market for dark fibre in the backhaul network and decide whether or not there is a need for regulation.

SRS services

- (131) BEREC is of the opinion that a market for call origination services to SRS should not be listed in the revised Recommendation. Nonetheless, as BEREC pointed out in its report on special rate services (SRS) issued in 2012⁴⁰, SRS voice calling to service providers, at least in some countries, have problems of (a) low transparency and (b) relatively high prices at the retail level. This leads to several negative effects like reduction in demand, increased risk of fraud and loss of service diversity. Although transparency measures may prove to be sufficient, they might not solve all these problems in every national situation.
- (132) The BEREC paper lists pros and cons of different retail pricing models and identifies various regulatory approaches and legal instruments that should be considered by NRAs if they indeed find a problem. Legal instruments available are legal dispute settlement (with or without prior tariff guidelines), symmetric decisions, asymmetric regulation (involving market analysis) or even Competition authority intervention⁴¹. BEREC concludes that, although a problem exists in some countries,

⁴⁰ BEREC Report on Special Rate Services – BoR (12) 55.

⁴¹ Instrument used in Portugal, for instance, in order to address the competition distortions caused by the high origination prices charged by mobile operators. Note that this instrument was not discussed per se in the abovementioned report.

there is no ubiquitous or universal regulatory approach that can be pointed to, at this stage.

(133) BEREC considers that wholesale SRS call origination should not be listed as a relevant market, as so far, no NRA has conducted a market analysis that concluded that *ex ante* SMP regulation was required for SRS call origination from mobile networks or fixed alternative networks. Furthermore, in case regulatory intervention would be considered relevant in one country, the best option could differ between NRAs.

(134) Nonetheless, given that asymmetric regulation (involving market analysis) of SRS call origination (either from mobile or fixed networks), one of the options potentially suitable to cope with SRS problems, BEREC suggests that the revised Recommendation, in its Explanatory Memorandum, mentions that high SRS call origination prices have a negative impact on competition and therefore can cause problems (for consumers and for service providers), and that NRAs should consider the options for regulation available. These options include SMP analysis (covering potentially each operators, whether they are fixed, mobile, incumbent or alternative operators) if they indeed find a problem. In accordance with the BEREC's paper, the Commission should also stress that the most appropriate regulatory intervention can differ between NRAs. Some of the rationale that could, in some situations, leads an NRA to regulate wholesale SRS origination could be developed in the revised Explanatory Memorandum.

Question 15: On the basis of the three criteria test carried out at EU level, can any transnational market(s) be identified in the revised Recommendation, from an *ex ante* perspective? If yes, please provide comprehensive reasoning thereof.

Question 16: If the answer to the previous question is yes, please specify the qualitative and quantitative impact of the relevant market(s) you propose to introduce on consumers (users), competition, and development of the internal market. Please, provide separate reasoning on the impacts for each market you propose to introduce.

(135) BEREC has no remarks on these questions.