

## ETNO response to the European Commission's public consultation on the revision of the Recommendation on Relevant Markets



January 2013

### 1. Executive Summary

1. Electronic communications markets are undergoing profound changes. The revision of the Commission Recommendation on Relevant Markets (the Recommendation) presents a unique opportunity to adapt ex-ante regulation to the needs of electronic communications markets in the EU in the coming 6 – 8 years.
2. Two main market trends are profoundly changing the structure and functioning of e-communications markets in the EU and impact on the need for future ex-ante regulation:
  - i. **Increasing platform competition in a converging NGA environment:** Technology developments in both fixed and mobile NGA and investments by different players driven by local market conditions in fixed NGA mean that platform competition between copper, fibre (FTTP/FTTC), cable and LTE networks is much more relevant today than it was in 2007 and will become even more so in the time period for this review. At the same time, competition 'for the market' for ultra-high-speed broadband (in particular FTTH) may result in different operators covering different parts of a national territory, region or city.
  - ii. **Disappearing entry barriers for service provision on the IP service layer:** As the underlying platform become less relevant for providing IP-based services, entry barriers for competition on services markets are rapidly decreasing. Over The Top (OTT) players and manufacturers, often holding a strong position in adjacent markets, offer products such as VoIP, messaging and social networks, or media content directly to end-users.

## Required changes to current ex-ante regulatory practice

3. In response to market developments, the revision of the Commission recommendation on relevant markets should adapt the scope of ex-ante regulation. It should also promote a consistent methodology for wholesale market definition in line with competition law principles and a better focus of access obligations on preventing consumer harm on retail markets. Three elements should in particular be reflected in the revised Recommendation in order to support the policy goals of the EU Digital Agenda and foster certainty for market players as well as consumer choice, competition and investment:
  - i. Market definition for the purpose of identifying wholesale bottlenecks should be consistently based on a 'Greenfield' approach – i.e. a forward-looking analysis of retail competition absent regulation. This is necessary in particular to reflect the impact of alternative platforms on retail markets,
  - ii. Geographic differences in competition should become a pivotal element of regulation under the revised recommendation. Intervention should be targeted at uncompetitive areas as platform competition will in many areas alleviate the need for regulation.
  - iii. The revision should be underpinned by a clear understanding of the purpose of access regulation, namely to grant access to the relevant bottleneck for ensuring competition on a given retail market, and not to provide multiple access options at different network layers which unnecessarily restrict competition and investment.

## Proposed changes to list of relevant markets

4. ETNO considers that the fundamental changes that the industry experiences and will continue to undergo in the coming years justify the removal of several markets from the list of relevant markets, as well as an adjustment of the scope of intervention in other markets, particularly those that relate more directly to NGA investments.

### Relevant markets for removal from the list

#### Market 1 – Retail market for access to the fixed telephone network

5. A forward-looking analysis of the retail access market shows that no significant entry barriers exist on this market. For access to the public telephone network at a fixed location, substitution from broadband access and, to different degrees in different national markets, increasingly mobile access can be observed.
6. Competitive constraints in the retail access market arise from competing platforms and/or from competition based on wholesale regulation where appropriate. No persisting competition problems exist in this market that could not be solved by ex-post competition law or, where justified, ex-ante wholesale regulation.

#### Market 2 – Call origination

7. As services become ubiquitously available on any platform and entry barriers for service provision disappear in an all-IP environment, regulation to support competition in specific services will no longer be required. Voice services are becoming an integral part of access bundles both on fixed and mobile networks as over the top service provision constrains operators' pricing. Market data shows that the significance of carrier selection

obligations decreases rapidly. The market for phone calls tends towards effective competition absent call origination obligations. Regulation is thus no longer required.

### **Markets 3, 7 – Call termination on individual fixed and mobile networks**

8. The Commission should investigate removing markets 3 and 7 from the list of relevant markets. Intense regulatory intervention on termination rates has resulted in extremely low rates, irreversibly changing market dynamics. Voice termination - and, to an even larger extent, SMS termination - are moreover subject to strong competitive pressure from free over the top applications such as P2P VoIP, instant messaging etc., limiting the pricing freedom of operators. NRAs can ensure the necessary symmetry and reasonableness of termination rates under Article 5 Access Directive if and where competition law cannot ensure these outcomes following a deregulation of M3 and 7 in the present revision.

### **Revision of the scope of markets 4, 5 and 6**

9. Access to a wholesale product to provide fixed retail access services will in many parts of the single market continue to constitute a persistent bottleneck that may require ex-ante regulation in the period relevant for this review. Therefore, (a) fixed wholesale access market(s) will remain part of the list of relevant market under the three criteria test.

#### **(i) New approach to wholesale regulation under the Recommendation needed**

10. Where there is a need for defining a wholesale access market as a result of an analysis of retail markets under a 'Greenfield approach', the market should comprise all infrastructures that exercise sufficient constraints at the retail level. In each case, geographic differences in retail competition should be assessed in order to target regulation to uncompetitive areas where appropriate.
11. In case the Recommendation identifies a relevant market that covers several access layers, it should be accompanied by clear guidance that NRAs should impose access at only one relevant point in the network in that market, potentially differentiated by geography, rather than a set of parallel access obligations. Otherwise, regulation risks being unduly extended by a broader market definition.<sup>1</sup>

#### **(ii) Delineation of current markets 4 and 5**

12. Technologies widely used in the move to fixed NGA such as VDSL-Vectoring and G-PON FTTP will call into question the need for a physical unbundling 'market' in a number of member states within the relevant time period. In other member states, physical unbundling will remain the relevant form of wholesale access also in the medium term.
13. The revised Recommendation should therefore give NRAs the possibility to define a common wholesale broadband market instead of current markets 4 and 5 where appropriate in view of technology and market developments. Alternatively, NRAs should

---

<sup>1</sup> Whereas such guidance would not strictly concern market definition or the three criteria test, in practice, the expected obligation resulting from the regulatory process influences market definition on wholesale markets as demonstrated by current markets 4 and 5, which have been created absent of a merchant market with the aim of making specific access products available. It is therefore appropriate to clarify in the Recommendation that broader market definitions would not lead to multiple access layers.

be allowed to maintain separate markets for unbundled physical access and wholesale broadband access in view of the national market situation.

**(iii) Terminating segment of leased lines (market 6)**

14. Terminating segments of leased lines should be deregulated on a geographic basis wherever competitive conditions allow as well as on a product basis where specific bandwidths are provided in a competitive environment. Substitution to wholesale broadband access products should be assessed in each case.

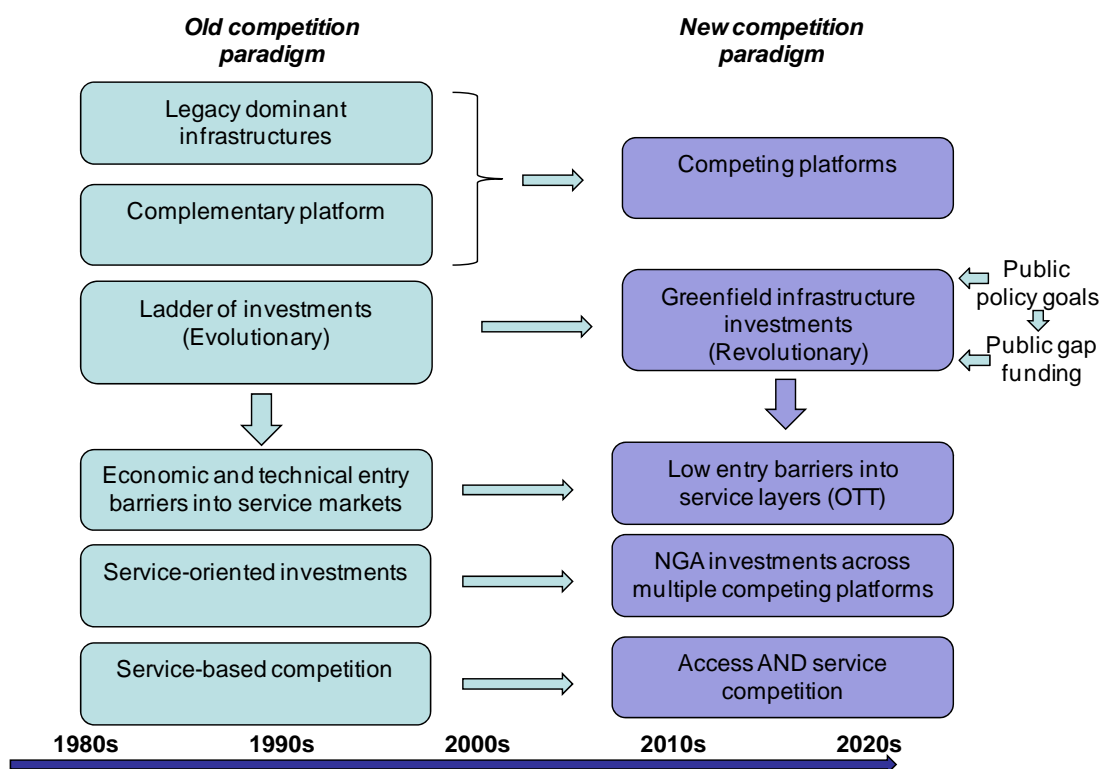
**No new markets should be included in the list**

15. No additional markets display persistent competition problems that would fulfil the three criteria. In particular, we have examined the areas of IP transit and Peering and SMS termination in this respect.

## 2. Introduction

16. ETNO welcomes the opportunity to provide our comments to the revision of the Recommendation on Relevant Markets ('the Recommendation') which constitutes one of the pillars of the EU Regulatory Framework for electronic communications. ETNO believes that the Recommendation has overall proven to be a valuable tool at EU level for progressively reducing regulation in response to increasing competition in electronic communications markets.
17. However, since 2007 when the current Recommendation was adopted, the electronic communications market has undergone a profound transformation. For example, In 2007 there were no smart phone 'apps', no widespread social networks and only a fraction of the competitive high-speed broadband deployments we see today.
18. ETNO believes that in the period relevant for the next Recommendation the electronic communication sector in Europe, and indeed the world, will continue to undergo radical transformations. A new competitive paradigm is emerging and will consolidate in the coming years.

Figure 1: A changing competition paradigm.



19. This is characterised by a changing interaction between consumers and providers and by evolving dynamics for competition and investments. For example, the emergence of competitors that extend their strong positions in other levels of the value chain to e-communications services and the success of platforms such as cable and increasingly mobile in providing broadband services in many national markets have led to more intense and more infrastructure-driven competition, Today's consumers have a wider choice of platforms and services than ever before, all of which compete with each other for revenues.

20. Against the background of this changing environment for competition and investments, this review offers the opportunity to make a bold step towards the deregulation of the sector. This is essential to unlock investments that can deliver on the public policy goals for the roll-out of superfast broadband set out, among others, in the Europe 2020 strategy.
21. Before setting out our detailed responses to the consultation questions, ETNO would like to point to a set of important high level principle that should guide the present revision which are directly related to the changing competitive environment.

### **Starting point for the analysis should be the state of competition in retail markets**

22. The revision of the Recommendation should be based on a thorough, forward-looking, technology-neutral analysis of market developments in the member states and follow a consistent methodology.
23. As outlined in the explanatory memorandum to the 2007 Recommendation and in line with competition law methodology, an analysis of relevant markets that may still warrant ex-ante regulation under the revised Recommendation has to start with a forward-looking analysis of retail market developments.<sup>2</sup>
24. On the basis of the situation on retail markets for electronic communications, wholesale markets may then be defined on which regulation may still be warranted under the three criteria test.<sup>3</sup> This is the case where a retail market would not tend to effective competition over time absent wholesale regulation (an approach sometimes referred to as the 'modified Greenfield approach').<sup>4</sup> If access to a wholesale input is imposed, a similar methodology applies to any further analysis. If regulation of a wholesale input solves the problem in the retail market, no other wholesale inputs should be identified.<sup>5</sup> In principle, for any given national or sub-national retail market only one relevant access product should be imposed to address the identified market failure downstream.
25. Ex-ante regulation should always be an exceptional form of intervention. It requires a strong economic analysis showing that costs and benefits of an intervention, assessed prospectively, make it preferable to the option of not to intervene. This assessment is made more difficult by the fact that electronic communications markets undergo rapid and thorough transformations, both in the supply and in the demand sides, increasing the risk that intervention creates higher long-term costs than benefits (so-called 'Type I' error). The Recommendation should therefore only identify markets where there is a compelling case for intervention, subject to a detailed analysis of the need for intervention that has to be carried out subsequently at national level.

---

<sup>2</sup> Cf. SEC(2007)1483 final, Explanatory Note- Accompanying document to the Commission Recommendation on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (Commission Staff Working document, 2de editie, C(2007) 5406), ("Explanatory Note 2007"), p. 7: "*The starting point for the definition and identification of markets is a characterisation of retail markets over a given time horizon*"

<sup>3</sup> No retail market passes the three criteria test for the relevant time period, s. Q 9 below

<sup>4</sup> Explanatory Note 2007 , p. 8; M. Cave, U. Stumpf, T. Valetti, "A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to ex ante Regulation" , 2006, p. 4;

<sup>5</sup> Cf . M. Cave, U. Stumpf, T. Valetti, id. p. 4

### **Need to take into account new sources of competitive constraints in the value chain**

26. A major challenge for the review of the list of relevant markets is to ensure that a greater level playing field exists between players operating in different layers of the value chain. The presence of competitive pressure from established internet players has already changed perceptions on the sources of market power in the internet economy. A review that acknowledges the new realities can free up the potential of the European communications sector and help to achieve a new balance in the global digital economy. At the same time, we believe that no new markets should be defined in the IP and internet services sphere.

### **Need to take into account symmetric regulation**

27. An analysis of wholesale markets has to take into account any regulation that may have been imposed on other levels of the network. Where symmetric regulation has been imposed which ensures effective competition at the retail level, no wholesale market should be defined for the purpose of ex-ante regulation. Symmetric regulation as foreseen in Article 12 (1) of the Framework Directive may in some cases, such as access to in-house-wiring and certain ducts and poles in the access network, provide an appropriate solution to market failures (s. Q 3). The revised Recommendation should assess whether and how far symmetric regulation of such passive assets can alleviate the need for SMP regulation. The Recommendation should explicitly instruct NRAs to take into account the effects of symmetric regulation on the passing of the three criteria test and SMP-designation for each market.

### **Need to assess sub-national geographic markets <sup>6</sup>**

28. Starting from an analysis of geographic differences of competition at the retail level, the Recommendation should foresee a strict assessment of the real market circumstances in different geographic areas. As both under the legal provisions of the framework (Art. 15 Framework Directive) and in practice NRAs will be determining the geographic scope of the market, the Recommendation should instruct NRAs to assess the geographic scope of the market in each individual case, and, where conditions of competition are not homogenous across a national market, delineate sub-national markets, taking into account for example the reach of alternative platforms next to the regulated platform.

---

<sup>6</sup> S. also response to Q2 below

### 3. Responses to the consultation questionnaire

#### Question 1:

**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?**

29. Since the entry into force of the present Recommendation in 2007, technological developments have had a significant impact on the competitiveness of the electronic communication sector. As the revised Recommendation will presumably enter into force in 2014 and determine the regulatory regime for the period beyond, the technological developments for this particular timeframe are essential for defining markets. Therefore, the focus should be on both market developments observed since 2007 until today and future developments envisaged over the period when the revised Recommendation will be in place, i.e. from 2014 to ca. 2020.

#### **1.1. *New sources of Inter-platform competition and fixed NGA investment patterns***

30. The most relevant developments in the telecommunication sector until 2020 have recently been assessed with respect to the Digital Agenda targets.<sup>7</sup> One result of this analysis is that the electronic telecommunication sector will be characterised by even more platform competition and no longer by a single dominant infrastructure for a specific retail service such as fixed telephony or broadband services. All retail services can be offered over different platforms. Access competition from alternative networks based on fibre (FTTP/FTTC), cable and LTE will thus be more relevant in future electronic communications markets.

31. While the significance of individual infrastructures might vary between Member States, increasing competition in the electronic communication sector is created by this multitude of platforms.

32. Fixed NGA networks and cable networks on the basis of DOCSIS 3.0 provide already today bandwidths of 100 Mbit/s and more. In regions where fixed NGA networks are not available LTE advanced can be an essential driver of high-speed broadband competition if sufficient spectrum is provided. Estimates show that by 2020 LTE advanced will have the same coverage than 3G networks today, providing a source of competitive constraints on fixed high-speed access networks.

33. Additionally, satellite and Wi-Fi broadband connections will deliver increasingly higher bandwidths. Both technologies will therefore remain an important alternative for broadband access especially in less densely populated areas.

34. A linked trend that can be observed already in today's emerging NGA environment is that of different 'first movers' in NGA, potentially using different technologies. In a number of areas these are no longer former incumbents but municipal initiatives, cable operators or in some cases alternative fibre-based operators. This form of "landgrabbing" competition can be distinguished from platform competition described above. In many cases, the

---

<sup>7</sup> Expert report by Analysis Mason for Telefónica and Telecom Italia "Policy orientations to reach the European Agenda Targets", <http://www.rcysostenibilidad.telefonica.com/blogs/wp-content/uploads/2012/06/Policy-orientations-to-reach-the-European-Digital-Agenda.pdf>



likeliness of having another ultra high speed (esp. FTTH) infrastructure deployed if one is already in place will be low except for prime downtown locations and maybe high-value residential areas. A patchwork of different NGA deployments poses particular challenges to market definition and regulation.

## **1.2. *Internet-based service competition from OTT providers***

35. Along with the growth of platforms, the electronic communication sector will be shaped by internet-based service provision on an all-IP infrastructure. This reinforces competition even more as the underlying platforms become less relevant for the services offered especially in consumer markets. One crucial difference with the past is the disappearance of entry barriers (particularly economic ones) in the service market(s). OTT players and manufacturers, many of which hold a strong position in related markets such as operating systems and end-user devices, have entered the market for services. They are increasingly providing services such as VoIP, instant messaging and media content on any platform directly to the end-user, by-passing the traditional way of service provision. Moreover, content and services are increasingly available at anytime, anywhere and on any device. Internet-based services have a major impact on the degree of competition in electronic communication services markets. This is alleviating over time the need for continued regulation targeted at telecoms services such as voice calls.
36. The importance of a revised Recommendation in providing incentives for investments in infrastructures should not be underestimated given the growing requirements imposed by the growth of new devices and services. Technological developments such as cloud and ubiquitous computing and increasing media consumption via telecommunication networks require networks to provide high bandwidths. Forecasts show that the monthly IP traffic in Western Europe will be 24,4 exabytes already in 2016 while Central and Eastern Europe will have reached 5,987 exabytes that year.<sup>8</sup> In this regard the revised Recommendation should set out a framework that provides enough flexibility to adapt to the varying pace of change as well as the right incentives for investments and infrastructure-based competition.

### **Question 2:**

**What are the changes in 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?**

37. The technological developments outlined in question 1 have a significant impact on the structure and functioning of the relevant markets of the electronic communication sector that should be fully reflected in the revised Recommendation. As access competition from alternative infrastructures increases and internet-based service provision increasingly shape the service markets, the telecommunication sector has become significantly more competitive in comparison to 2007. In short, end users have access to a bigger range of competing access platforms and services than ever before.
38. As a basis for our response to questions 7 – 16 below, which covers changes to the current list of relevant markets, the comments below set out the most important market

---

<sup>8</sup> Cisco White Paper "The Zettabyte Era", page 16, [http://www.sonoma.edu/users/f/farahman/sonoma/courses/es465/lectures/es465\\_fall2010/approaching\\_zeta.pdf](http://www.sonoma.edu/users/f/farahman/sonoma/courses/es465/lectures/es465_fall2010/approaching_zeta.pdf)

developments on electronic communications retail markets observed in the market today and expected within the relevant time period for the revised Recommendation.

39. As outlined in the introduction, a thorough analysis of retail market trends in member states needs to form the basis of any revision of the market list. We understand that the European Commission has commissioned a study on market developments in the 27 member states. We encourage the Commission to publish the results of the study early on in the process to provide a common factual basis for the debate.

## 2.1. **Retail access markets**<sup>9</sup>

40. The following areas appear particularly relevant for defining relevant markets for the forthcoming Recommendation: (a) the structure of fixed retail access markets and whether they should be divided into separate markets according to product characteristics and (b) increasing geographic differences in competition conditions; and (c) the degree of substitution between fixed and mobile access.

### a) **Developments in fixed access markets**

41. Access markets have developed in a dynamic and diverse manner across the internal market. More and more customers adopt broadband access<sup>10</sup>, a trend that will be compounded by the goals of the Digital Agenda for Europe which – if the targets were fully met - would result in 30MB broadband connections being available to all households by 2020.
42. Different access bundles have established themselves over the past years. In some member states '**triple-play**' bundles including TV, voice and broadband services have been the prevailing driver for competition. Often, such markets are characterized by a high share of cable networks providers.<sup>11</sup> The need to take such developments - where relevant - into account at both retail and wholesale level is also recognised by BEREC in its report on the impact of bundled offers.<sup>12</sup>
43. With respect to **cable networks**, it is important to acknowledge the major impact of cable in shaping competition in broadband markets and in particular the high-speed segment of the broadband market. Following the upgrade to DOCSIS 3.0, and in view of lower and more incremental upgrade costs in comparison to other infrastructures such as fibre, cable is the most-widely available technology for delivering up to 100 Mbit/s in Europe.<sup>13</sup> The role of cable networks regarding relevant markets should be fully reflected in the revised Recommendation, at both retail and wholesale level (s. chapter on self-supply below). Cable is also still by far the preferred delivery mechanism for TV services. In

---

<sup>9</sup> On fixed-mobile substitution, s. 3. below

<sup>10</sup> European Commission, "Digital Agenda Scoreboard 2012", pp. 50-52

<sup>11</sup> OPTA, "Market Monitor 2011" page 5; In the Netherlands, 54% of broadband and 71% of fixed telephony is offered as part of triple play today while growth in triple play is declining, s. <http://www.telecompaper.com/research/dutch-triple-play-market-growth-slows-to-37-percent-in-q3-2012-914495>; Portugal's NCA has stated in January, 2011 that triple-play bundles constitute a relevant market of its own for the purpose of competition policy and will be treated as such in the context of their investigations. [http://www.concorrenca.pt/SiteCollectionDocuments/Noticias\\_e\\_Eventos/Intervencoes\\_Publicas/2011-01-14\\_SEMINARIO\\_JN.pdf](http://www.concorrenca.pt/SiteCollectionDocuments/Noticias_e_Eventos/Intervencoes_Publicas/2011-01-14_SEMINARIO_JN.pdf) (in Portuguese)

<sup>12</sup> BEREC report on impact of bundled offers in retail and wholesale market definition, Dec 2010, BoR (10) 64

<sup>13</sup> Expert report by Analysys Mason, p. 27

terms of penetration, in 2011 cable had a reach of 42% of households across all 27 EU countries, with penetration above 50% in 13 countries.<sup>14</sup>

44. **Access lines used only for PSTN telephony** are still a significant, but declining proportion of the fixed access market as 72% of European households have access to the internet over broadband services. If and where PSTN lines are transformed into all-IP access lines on which voice services are no longer PSTN-based, also voice-only access will technically be provided over broadband data connections.<sup>15</sup> Especially where price differences between simple broadband connections and telephony lines are low, a small hypothetical price increase would lead customer to switch to a higher-value broadband access. Moreover, mobile access may constitute a significant competitive constraint for fixed telephony access (s. point c) below).
45. **New services available over NGA infrastructure** should be properly analysed in each member state to assess whether NGA based broadband and other broadband services are a part of one single retail broadband market or not. Accordingly, a separate analysis would be required as to whether the wholesale markets related to broadband (current M 4 and 5) are distinct markets insofar as NGA and traditional broadband are concerned.

#### **b) Geographic differences in competition**

46. The developments of the broadband markets in the transition to NGA as described above highlight the growing importance of geographic differences in competition.
47. Broadband markets in a number of member states are characterized by competition between several platforms such as copper, fibre and cable networks, and no longer by a single dominant infrastructure. There are several operators covering densely populated regions and, in some cases, rural areas, along with a couple of nationwide operators. In some regions the market share of the former incumbent operator in the retail broadband market is below 25%. The competitive conditions significantly vary in different regional areas across many European countries (such as UK, Portugal, Germany, Slovakia etc.). This is also recognised in the Explanatory Memorandum of 2007 when stating that:

*“Investment in alternative infrastructure is often uneven across the territory of a Member State, and in many countries there are now competing infrastructures in parts of the country, typically in urban areas. Where this is the case, an NRA could in principle find sub-national markets. The NRA would need to identify the competitors of the potential SMP operator(s) and assess the area of supply of these competitors”.*

*A number of NRAs such as OFCOM and ANACOM have successfully established regional differentiation in the past years. The first sub-national geographic market definition with respect to the wholesale broadband market was in the UK In 2007. It identified three sub-national WBA markets, the competitive conditions of which differ significantly. As a result, an area covering around two third of the territory was deregulated. The Commission, in its Art. 7 comments letter, supported regional differentiation.<sup>16</sup> OFCOM*

<sup>14</sup> See <http://ec.europa.eu/digital-agenda/en/news/study-broadband-coverage-2011>

<sup>15</sup> A factor that reduces the speed of transition is the existence of *non-voice* services over PSTN/ISDN (such as alarm services and pin-transaction services) that use terminal equipment not suitable for use on IP networks; transition to IP communications is delayed by investment decisions for this terminal equipment, rather than by the choice of access networks.

<sup>16</sup> “Although a sub-national market approach requires NRAs to analyse the competitive conditions in a large number of geographic areas and may prove to be cumbersome, it appears to reflect the presence of alternative supply channels and the corresponding regional differences in market conditions in a

recently indicated that the boundaries of the markets had stayed globally stable, but that the number of exchanges where alternative suppliers are available has increased since the last review.<sup>17</sup>

The Portuguese NRA ANACOM introduced geographical segmentation of the wholesale broadband market in 2009. ANACOM identified two types of wholesale broadband access markets according to the degree of competition and did not find SMP in the competitive regions (local exchange areas) comprising around 60% of the broadband market. The Commission endorsed the proposal stating that “the proposal is a reasonable move towards better targeted regulation, concentrating on regions where structural competition problems persist.” ANACOM is currently reviewing its analysis of markets 4 and 5 of the current Recommendation: in the public consultation<sup>18</sup> (February, 2012) it is proposing to maintain the geographic segmentation defined in 2009 for market 5; as for market 4, ANACOM is proposing to keep it with a national scope but with some geographic differentiation in the application of remedies. Namely, a VULA type of wholesale access offer is foreseen to be imposed over Portugal Telecom’s FTTH network except in 17 municipalities in which ANACOM identified competitive conditions for the replicability of fibre.

48. The revised Recommendation should lead to a more targeted and proportionate regulation with respect to geographic differences in competition. The starting point needs to be the market analyses at retail level. The initial examples imply that it is very likely that at least certain densely populated regions will be classified as effectively competitive with end-users benefiting from a rich choice of product offerings by different providers based on own access infrastructure. Only if a persistent market failure is identified in specific geographic areas it is appropriate to identify and analyze the relevant wholesale market. The fact that supply side conditions may be considerably different, e.g. due to infrastructure-based competition, needs to be acknowledged when assessing the three-criteria test on properly defined geographic markets.
49. As a result of the roll-out of different NGA networks which serve different regions within a country, it cannot be ruled out that in certain cases regional infrastructure bottlenecks emerge. In that case, regulation may need to be geographically differentiated to sustain end customers’ choice and provide access to those regional networks, thereby reflecting the actual competitive landscape.
50. NRAs may be hesitant when it comes to defining sub-national markets even if these are indicated by significant differences in competition. The forthcoming revision on relevant markets should therefore explicitly foresee the obligation for NRAs to request data in a way that allows differentiation between regions and to in each case assess the definition of sub-national wholesale broadband access markets. Where the competitive constraints from alternative platforms differ between regions, national regulators should explicitly justify if they want to maintain a national market in order to ensure a consistent approach

---

number of telecommunications markets. Provided it is based on sufficient evidence [...] the evolution towards the definition of sub-national markets may allow better targeted regulation”

<sup>17</sup> S. par. 1.27 OFCOM Call for Inputs for the Wholesale Broadband Access market review: <http://stakeholders.ofcom.org.uk/binaries/consultations/review-wholesale-broadband/summary/reviewL.pdf>

<sup>18</sup> Text available (in Portuguese) in: <http://www.anacom.pt/render.jsp?contentId=1117155&languageId=1>

to targeted access regulation. In such cases, regional differentiation of remedies may be appropriate.

### **c) Fixed-mobile substitution**

51. The effect of fixed to mobile substitution will continue to differ between Member States, but overall become even more significant than at present as mobile broadband connections reach higher bandwidth.
52. Technological development as outlined above, in particular the roll out of LTE, reduce the gap between fixed and mobile networks broadband in terms of speed and quality. In addition, mobile retail prices have further decreased for access and service bundles, increasingly including mobile broadband services.
53. During recent years new offerings that from a consumer perspective blur the boundary between fixed- and mobile have been introduced in many markets. Some examples are: the 3G/4G wireless router that connects tablets and laptops in the home and the possibility to transfer your fixed number to one or several mobile phones.
54. Fixed and mobile access can still be distinguished on the basis of their characteristics, however. Notably, customers of mobile services value mobility of their service not presenting fixed access. Network capacity, available speeds and quality of service still differ in some respects between fixed and mobile access. Moreover, mobile services are perceived as 'personalised', whereas fixed services are used on a per household, or business organisation, base.
55. The degree of fixed mobile substitution differs significantly between member states, in function of fixed-line penetration, usage habits – for example a high degree of triple play products in the market would signal limited readiness to switch to mobile (broadband) only - and other factors.
56. As a very rough categorization:
  - i. in many large Western European member states with high fixed-line penetration, the large majority of customers still view mobile and fixed line services as complements rather than as substitutes. The large majority of NRAs have so far concluded that fixed and mobile services do not belong to the same retail market.
  - ii. in some, typically Central and Eastern European member states with a lower fixed line penetration and a well- developed wireless sector, fixed-mobile substitution is a determining factor in the market and should guide the market definition by NRAs at retail level.
  - iii. in 'Nordic countries' with a traditionally high fixed line penetration but with very a high mobile broadband penetration and low prices for mobile services, competition between fixed and mobile creates a market dynamic that should be reflected in the regulation.
57. In conclusion, whether or not one single retail market for voice and/or broadband could be defined will differ based on national circumstances. This has also been highlighted by BEREC in its report of last May 2012 on fixed mobile substitution.<sup>19</sup> Where no joint fixed-mobile market is defined, the competitive pressure from wireless broadband on fixed infrastructure should be reflected by each NRA in the market analysis. For broadband, the phenomenon is going to be more important on a forward-looking basis over the

---

<sup>19</sup> BEREC report on the Impact of Fixed Mobile Substitution in Market definition, May 2012, BoR (12) 51

relevant period for the next Recommendation given the roll-out plans for LTE networks across member states

## **2.2. *Impact of OTT competition on electronic communications services markets***

58. A further aspect regarding structure and functioning of the relevant markets is the level of competition created by OTT. Since the last Recommendation of 2007 the telecommunication sector has been witnessing a growing number of entrants that compete with classic telecommunication operators.<sup>20</sup> On the one hand the growing penetration of smart phones has given application such as “WhatsApp” an entrance to the mobile market where it competes with services offered by traditional MNOs, such as SMS.<sup>21</sup> On the other hand programs such as “Skype” or “Google Talk” make use of the growing bandwidth of fixed platforms to offer telecommunication services. Where OTT services provide ‘free’ alternatives to existing communication services that are perceived as (partial) substitutes by the end-user, this will limit price setting freedoms in traditional telecoms services that regulation has addressed in the past, for example in the field of voice call termination. The structure of retail markets has become much more competitive due to the entrance of OTT players on fixed and mobile markets.<sup>22</sup>
59. Taking together the increase in competition between platforms as well as the entrance of OTT players it becomes obvious that the structure of relevant markets has changed significantly. Since the last Recommendation the level of competition on telecommunication markets has strongly increased which should be reflected in a Recommendation for the period from 2014 onwards. As the trends of platform competition and pressure by OTT players will develop even stronger in the timeframe of the revised Recommendation, a forward looking approach with regard to the structures and functioning of the relevant markets should be applied.

## **2.3. *Trend towards greater diversity in market conditions***

60. While a number of common trends can be identified, it should be borne in mind that due to current differences in market structure, technological developments will not have the same effects in all Member States. For example different forms of fibre roll-out may lead to competition focusing on different network layers. Such differences will have a fundamental impact on market definition. As a result, the revised Recommendation on relevant markets may in some respects need to be more flexible than the 2007 Recommendation.
61. We will comment in more detail on the consequences of changes in technology and market structure when addressing individual markets of the Recommendation below.

---

<sup>20</sup> Arthur D. Little, “Disruptive Threat or Innovative Opportunity? Scenarios for Mobile Voice OTT”, page 11

<sup>21</sup> Ernst & Young, “Inside Telecommunications – July to September 2011”, page 6

<sup>22</sup> Roland Berger, “Telco 2020 – How Telcos transform for the “Smartphone Society””, page 5

### Question 3:

**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?**

62. Present and future market developments as outlined above may over time lead to new bottlenecks in the ICT value chain and in some areas have led to challenges that can best be solved by symmetric regulation rather than SMP regulation.

#### **3.1. *Addressing bottlenecks in electronic communications through symmetric regulation***

63. As fixed networks evolve towards NGA, in a number of areas there may be only one single fibre connection to the network termination point (NTP) in the household, while there may be several independent providers with infrastructure present in the road where the house is located: a rather limited investment could in this case facilitate service delivery based on infrastructure from other network owner(s).

64. In this context, we encourage the Commission to consider the use of other instruments than SMP-regulation to address specific market failures. Where applicable, such measures should replace SMP-regulation, not merely complement it, to avoid creating an additional and partly overlapping layer of regulation. Where symmetric regulation leads to effective competition or a tendency to effective competition downstream, SMP regulation should be lifted.

65. In a recent consultation, the European Commission has proposed measures to lower the cost of NGA-roll-out which would apply irrespective of the existence of significant market power.<sup>23</sup> As outlined in more detail in ETNO's comments on these proposals, access to ducts in the access network can be better addressed by an obligation that covers all infrastructures capable of carrying electronic communications networks than by SMP regulation. Where players roll out NGA networks (based on DOCSIS 3, GPON or P2P fibre etc.), in-house cables and the infrastructure on the last stretch leading into the building and inside the building constitute a bottleneck irrespective of who has been identified (if any) as SMP on the wider national or sub-national market.

66. In parallel, the new NGA roll-out paradigm leads to the need for a more granular market definition under the SMP-regime that differentiates between geographic areas characterised by differing conditions of competition (s. introductory comments and response to Q1).

67. Another area where symmetric regulation may act as a safeguard when SMP-regulation is rolled back to the benefit of the application of general competition law under the revised Recommendation on relevant markets is termination (current markets 3 and 7, s. Q. 9 below). In an environment of symmetric rates and comparable, if not fully symmetric traffic flows, the dispute resolution mechanism under Article 20 of the Framework Directive and the powers granted to NRAs under article 5 Access Directive are suited to address potential Interconnection disputes.

#### **3.2. *Potential bottlenecks in other areas of the ICT value chain***

---

<sup>23</sup> See:

[http://ec.europa.eu/information\\_society/policy/ecomms/doc/library/public\\_consult/cost\\_reduction\\_hsi/cost\\_reduction.pdf](http://ec.europa.eu/information_society/policy/ecomms/doc/library/public_consult/cost_reduction_hsi/cost_reduction.pdf)

68. The ICT value chain has become both much more varied and more complex since the introduction of telecoms regulation. A number of important inputs for competing on retail markets lie outside the field of electronic communications, such as premium content.
69. Moreover, traditional electronic communications services such as voice and SMS are being replaced by voice and messages over IP such as Skype or WhatsApp. Such 'Apps' are marketed by device manufacturers and operators through their own App stores distributing Apps directly to the clients. The increased use of Apps available via proprietary shops can lead to considerable market power on the side of internet application providers and device manufacturers over the review period. However, as Apps in themselves constitute software downloads, the impact on electronic communications services is indirect, via competition at the retail level. Further consolidation in the field of operating systems may also lead to a small number of players dominating that sector and acquiring strong market power.
70. We believe that these developments need to be fully taken into account when assessing the market power of electronic communications providers at retail and wholesale level (cf. discussion on IP transit and peering under Q 11).
71. We do not at this stage advocate an extension of SMP-regulation under the framework and the relevant markets under this Recommendation to these areas, but rather an approach to ex-ante regulation that does not impose asymmetric burdens on telecoms operators, leading to an uneven playing field between different actors in the value chain.
72. Any anti-competitive leveraging of market power from adjacent businesses into electronic communications markets should moreover be addressed by competition authorities.

**Question 4:**

**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?**

**Question 5:**

**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?**

**5.1. *3-criteria test should be an integral part of NRAs' market analyses***

73. The three criteria test should continue to serve as a tool for limiting regulators intervention in the internal market in a revised Recommendation and be applied also by NRAs at national level both if they intend to extend regulation to markets not included in the Recommendation and on markets that are listed in the Recommendation.
74. Currently, only a few NRAs carry out the three criteria test in all national market analyses.<sup>24</sup> To fully take into account specific market circumstances and to establish a consistent practice across the internal market, the Recommendation should foresee that national regulators assess the three criteria for all national or sub-national markets.

---

<sup>24</sup> These include, e.g., OFCOM and BNetzA



Without such an assessment, NRAs' market reviews are not conclusive with regard to whether the reviewed markets should continue to be susceptible to ex ante regulation.<sup>25</sup>

75. The three criteria test cannot, however, replace a thorough competition analysis based on state of the art market definition and competition assessment by NRAs at national level.

## **5.2. Three criteria should be maintained and strengthened**

76. ETNO takes the view that all three criteria serve a purpose in singling out exceptional circumstances that require ex-ante regulation and have overall proven to be sound.
77. The first criterion "high and non-transitory barriers to entry" needs to be analysed in detail and not only in a theoretical manner. It is necessary to also assess the technical developments (alternative and less costly broadband technologies), process and product innovation and market entry strategies. In addition, it should be analysed whether local market entry is the dominant and efficient strategy for infrastructure competitors.
78. The second criterion is a central criterion for the revision of the Recommendation, since it encompasses the prospective analysis of entry barriers and competition behind such barriers. A thorough, forward-looking assessment should cover a considerably longer period than the normal market analysis cycle, spanning the period of application of the revised Recommendation. This avoids a costly and time-consuming implementation of remedies that is out of proportion not only with regard to the nature of market failure identified but also to the expected duration of such market failure.
79. The third criterion should be assessed in a stricter manner than is the case at present. Market structure and levels of competition in many national electronic communications markets resemble more and more those in other industries characterised by scale effects which are not subject to ex-ante regulation. To point to the need for frequent intervention, e.g. for the purpose of cost modelling or monitoring of tariffs and behaviour of a dominant firm, as does the staff working document to the present Recommendation, is not sufficient to justify the insufficiency of ex-post competition law as this need generally arises from the ex-ante intervention itself. The importance of the analysis of the third criterion also at national level is highlighted in the framework. Recital 27 of the Framework Directive states that ex ante regulatory obligations should only be imposed where there is not effective competition "and where national and Community competition law remedies are not sufficient to address the problem".

### **Question 6:**

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

80. We agree that legal certainty is an important ingredient of a stable and investment-friendly regulatory framework.
81. The Recommendation on relevant markets in itself plays an important role in signalling the boundaries of future ex-ante regulatory intervention. It should be clearly stated in the Recommendation that any regulation outside the scope of the relevant markets identified in the revised Recommendation should be subject to a three criteria test by the NRA which in turn would be subject to Commission and BEREC scrutiny and may entail a

---

<sup>25</sup> M. Cave, U. Stumpf, T. Valletti, "A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to *ex ante* Regulation", p. 34

Commission veto. This clarification is required to end the legal uncertainty under the present Recommendation over whether the Commission can veto a national decision on the basis of an incorrect application of the three criteria test.

82. Within the limits set by the Recommendation as regards the scope of ex-ante intervention, market developments, and in particular the different pace and forms of NGA roll-out, in tendency call for a higher degree of flexibility to adjust market definition to national circumstances in the revised Recommendation than under the present Recommendation.
83. As observed in the Explanatory memorandum to the present Recommendation, the definition of relevant markets can and does change over time as the characteristics of products and services evolve and the possibilities for demand and supply substitution change. This is particularly important where the characteristics of products and services are continually evolving, where new products and services appear and where the way in which such products and services are produced and delivered evolves as a result of technological evolution. Within the limits to ex-ante regulation set by the Recommendation, the definition of markets in the revised Recommendation should leave flexibility to NRAs to adapt market definitions to differences between member states and over time.
84. For example, the degree of fixed-mobile substitution differs between markets and will lead to different outcomes of the market analysis process in different member states.
85. Similarly, the boundaries - and indeed separate nature - of current markets 4 and 5 may vary between member states and over time, calling for a more flexible approach in the list of relevant markets list as regards this key market area.

**Question 7:**

**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.**

**Question 8:**

**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.**

86. In the light of retail market developments outlined under Q1 and 2 above, the revised list of relevant markets should no longer comprise markets outside the scope of current markets 4, 5 and 6 (s. Q 9 below). In this area of wholesale access to the fixed network and certain leased lines inclusion in the list of relevant markets may still be warranted if and where persistent market failure at retail level absent regulation prevails in the majority of member states.

**8.1. Wholesale market definition and the 'ladder of investment'**

87. Identifying relevant markets susceptible to ex-ante regulation in the Commission Recommendation constitutes the first in a series of steps that have to be followed before specific ex-ante obligations can be imposed. While market definition in this context follows competition law methodology that is in principle neutral to the remedies imposed, in regulatory practice the desired outcome of the regulatory process in terms of access obligations influences market definition especially on wholesale markets. This is not

surprising as for example current markets 4 and 5 have been created absent of a merchant market for wholesale products with the aim of introducing making specific access products available to alternative operators.

88. The revision of the Recommendation should be carried out against the background of a clear vision on how to address in an efficient and proportionate way any remaining competition problems in retail markets for electronic communications at the remedies stage. In particular, the Commission should clarify that in order to achieve effective competition downstream, generally not more than one relevant access product in the market is required. Market circumstances in the initial liberalization phase may have favoured a set of parallel wholesale inputs to incentivise entry. In the presence of strong inter- and intra-platform competitors, such exceptional circumstances in any case no longer apply.
89. As recognised in the regulatory debate<sup>26</sup> the concept of the ladder of investment it is not suited for a transition to NGA as it leads to a disproportionate imposition of several access remedies to provide the same retail offers. A multiplication of access remedies unduly constrains the network investor (for example in pricing) and does not lead to efficient investment by maintaining access options for competitors that could be 'build' as opposed to bought or, reversely, imposing costly obligations that do not meet significant demand from access seekers.
90. To avoid the imposition of access products at multiple layers, NRAs should, inter alia, follow an appropriate geographic segmentation of markets and/or remedies.
91. In the following, where reference is made to wholesale markets that can comprise several access products, ETNO understands that in any given national or sub-national market only one relevant access product within this market should be imposed to address the identified market failure downstream.

## **8.2. Delineation of current markets 4 and 5**

92. We believe that the revised Recommendation should provide more flexibility and ensure more appropriate results as regards the delineation of current markets 4 and 5 at national level, both as regards product market definition and geographic market definition.
93. In summary:
  - The revised Recommendation should **allow NRAs to define a common wholesale broadband** – or "IP" access market comprising current markets 4 and 5 where appropriate in view of national technology and market developments. NRAs should be allowed to, alternatively, maintain the current delineation between markets 4 and 5<sup>27</sup>.
  - The revised Recommendation should set out a truly technology neutral wholesale market definition by **explicitly including all substitutable platforms competing at retail level in the wholesale market definition** if these platforms significantly constrain the behaviour of (the) operator(s) in question.

---

<sup>26</sup> S. for example Marc Bourreau, "A Critical Review of the 'Ladder of Investment' Approach", 2009 with further references.

<sup>27</sup> As outlined above, this option should be provided based on the strict understanding that the broader market definition should not lead to multiple regulated access layers, but to a targeted opening of the relevant bottleneck in a given market.

- The revised Recommendation should **advise NRAs to analyse** in every market analysis on markets 4 and 5 or a joint wholesale broadband access market whether **geographically differentiated markets** based, inter alia on the reach of alternative platforms, exist.
94. If an analysis of retail markets comes to the conclusion that the relevant retail markets would not tend to effective competition absent wholesale regulation in certain geographies or in the entire territory of a member state, a relevant wholesale market will be defined that allows the imposition of (a) wholesale product(s) that enables effective competition downstream.
95. Market and technology developments in the transition to NGA have raised the question whether the current delineation of markets 4 and 5 is still valid. In particular, certain fibre technologies, as well as cable networks, may not permit physical unbundling, or do not allow it at the network layer where ULL is currently offered:
- Sub-loop unbundling is no longer possible in case VDSL Vectoring is deployed.
  - GPON fibre to the home can no longer be physically unbundled before the splitter (which in case of FTTB is normally located in the basement of the building). Similarly, cable networks could only be unbundled at the last flexibility point before the last drop or in the basement.
  - ‘Virtual’ unbundling (VULA) is an active product and can be offered at different levels of the network, potentially providing for a link in a chain of substitution between different wholesale products currently placed in markets 4 and 5.
96. In particular when and where these types of fibre infrastructures become determining for broadband competition, maintaining a separate, technology neutral unbundling market may lead to the imposition of regulation on the ‘wrong’ layer of the network, leading to inefficient investments, over-regulation and a loss of consumer benefits. A market analysis based on the retail market in that case is likely to conclude that an active wholesale product would be most efficient, as well as sufficient to ensure effective downstream competition.
97. To the contrary, in ADSL-driven broadband markets where significant unbundling-based competition is in place and is expected to continue, different demand-side structures (where LLU is used by competitors to provide own bitstream services on the merchant market) and differences in prices of products and value remaining with the regulated operator indicate that markets 4 and 5 will remain separate for the relevant time period.
98. The same may apply in markets where point-to-point fibre unbundling is to become the relevant wholesale offer on a future fibre access market or where (potentially symmetric) access to the splitter in a GPON environment ensures effective competition downstream.<sup>28</sup>
99. Where access to passive infrastructure and/or the terminating segment has been mandated and significant demand for such access exists, such access may either fall into current market 4 where the NRA still identifies separate markets 4 and 5, or may be designed as a separate, symmetric regulatory obligation that should be based on Article 12 of the Framework Directive.

---

<sup>28</sup> A solution notably pursued in France where access to the “mutualisation point” is the central remedy in the FTTH space.

100. Since the appropriate market definition between markets 4 and 5 will not only differ between member states but may also change over time as NGA roll-out and take-up advances in different national markets, the Recommendation should impose neither separate markets for unbundling and bitstream access nor a joint market covering all wholesale broadband access products. The list of relevant markets itself should include the option to define a common wholesale broadband access markets comprising both current markets 4 and 5 or, alternatively, allow NRAs to maintain the current delineation between markets 4 and 5.
101. This would give an important signal to NRAs to move to a joint wholesale access market with access to the relevant 'bottleneck' wholesale input where appropriate in the light of national circumstances without the need to justify this market definition as an exception based on specific national circumstances and without triggering potential Commission or BEREC intervention.

### **8.3. *Role of symmetric regulation in assessing the need for regulation on M 4 and 5***

102. As outlined above the Recommendation should oblige NRAs to take into account symmetric regulation in place under national law or national regulatory practice or stable voluntary symmetric access arrangements, as well as, any possible future EU legislation on the topic. Where national or sub-national retail markets tend towards effective competition based on the symmetric regulation in place for access to, e.g., civil engineering infrastructure, wholesale markets downstream to that access would not fulfil the three criteria test.

### **8.4. *Inclusion of self-supply in wholesale market definition***

103. With regard to future markets 4 and 5 or a joint wholesale broadband access market, self supply by alternative platforms that compete at the retail level should be taken into account at the market definition stage. This is indispensable in order to come to a wholesale analysis that captures the dynamics at the retail level.
104. Any offer in the retail market needs to be based on an upstream network input, be it a merchant wholesale supply, be it a self-supply based on own network assets. When considering the market in a modified Greenfield approach (i.e. in the absence of regulation in the market concerned under this regulatory framework but including regulation which exists outside this framework)<sup>29</sup> one considers the market in the absence of a merchant wholesale broadband access offer (which typically exists by virtue of regulation only). In such case the market needs to be approached via the construction of a notional market in which the (implicit) self-supply of the retail substitutes are taken into account. In the absence of a commercial merchant market, the substitutability analysis should be carried out from a retail perspective and reflect all competing retail offers of a given market in the same wholesale market.<sup>30</sup> Such an approach correctly reflects the dynamics in the market and measures market failure and dominance where it is present and potentially causing consumer harm, i.e. at the retail level.

---

<sup>29</sup> SEC(2007)1483 final. Explanatory Note, p. 8,

[http://ec.europa.eu/information\\_society/policy/ecomm/doc/library/proposals/sec2007\\_1483\\_final.pdf](http://ec.europa.eu/information_society/policy/ecomm/doc/library/proposals/sec2007_1483_final.pdf)

<sup>30</sup> This constitutes, in a sense, a form of application of the indirect constraint methodology, simply recognising that two platforms that constrain each other at retail level – i.e. belong to the same retail market - indirectly constrain each other at the wholesale level as well, as there is – where no non-merchant market exists - a one-to-one relation between the retail and wholesale level.

105. Regulatory practice up until now has instead defined markets starting from the regulated wholesale offer in place, applying competition law methodology to define the product set that competes with this wholesale input.
106. This approach does not take into account the competitiveness of the retail market absent regulation and is unsuited to address competition problems at retail level linked to another than the currently regulated platform. For example, the application of the SSNIP test in the current regulatory practice in the absence of an indirect constraint (i.e. when the SSNIP is profitable), would lead to the finding that the alternative retail platform does not belong to the relevant market. However, the absence of an indirect constraint from the alternative platform might well indicate there is no constraint exercised by retail products based on regulated inputs on that alternative platform. In other words, if the SSNIP test is profitable this indicates low cross-platform elasticity with consumers being locked on an alternative platform that can – at the retail level – act sufficiently independent from its competitors. In order to ensure that such market failure would remain unaddressed, self supply needs to be taken into account. Absent the presence of indirect constraints, one needs to conclude that the self supplied (notional wholesale) of the alternative platform does not belong to the same wholesale market. In such case regulation should address it on a separate wholesale market, on which the above described consumer lock in and loss of welfare, could then be addressed.

#### **8.5. *Indirect constraints to be taken into account at the market definition stage***

107. Notwithstanding the need to take the above approach to market definition, if one approached markets 4 and 5, or a combined wholesale market, as it is presently done by NRAs, indirect pricing constraints should be taken into account at market definition stage. The commonly used approach to market definition is based on applying the SSNIP test, identifying all the sources of competitive constraints.<sup>31</sup> There are two types of constraints: direct constraints, reflecting the ability of the purchasers of the wholesale product to switch to an alternative supplier of the wholesale product; indirect constraints, reflecting the ability of the final consumers of the product in the retail market to switch to an alternative provider of the product.<sup>32</sup>
108. In practice, direct constraints in wholesale broadband markets are often limited, as the operators of alternative access networks are not required by regulation to provide access, and thus do not provide this access. Regarding current market 4, direct constraints are also limited by the fact that ULL is an access product which the Commission specifically designed at the time by reference to the copper network and, as a result, it is not technically feasible for certain alternative networks to offer ULL access. Therefore, the definition of wholesale markets in the telecommunications industry has to be based primarily on indirect constraints.

---

<sup>31</sup> Under this test, a market is defined by: “postulating a hypothetical small, lasting change in relative prices and evaluating the likely reactions of customers to that increase. [...] The question to be answered is whether the parties’ customers would switch to readily available substitutes or to suppliers located elsewhere in response to a hypothetical small (in the range 5 % to 10 %) but permanent relative price increase in the products and areas being considered. If substitution were enough to make the price increase unprofitable because of the resulting loss of sales, additional substitutes and areas are included in the relevant market”, Market Definition Notice, paras 15 and 17

<sup>32</sup> Cf. G. Edwards and V. Sorana (2006): “Indirect Constraints and Captive Sales: Overview of regulatory practice and competition case law with regard to indirect constraints and captive sales in market definition and market power assessment”, CRA International, available at [http://www.crai.com/ecp/assets/Indirect\\_constraints\\_and\\_captive\\_sales.pdf](http://www.crai.com/ecp/assets/Indirect_constraints_and_captive_sales.pdf).

109. Competition law practice varies with regard to the issue in question: the need to take indirect constraints into account at the market definition stage was stated by the General Court in its judgment relating to the Schneider/Legrand merger.<sup>33</sup> There is established precedent of the application of indirect constraints at the market definition stage in broadband markets, which has been accepted by the Commission.<sup>34</sup> In the UK, Ofcom systematically includes cable and ULL self-supply in the relevant market for wholesale broadband access in the market reviews.<sup>35</sup> The Portuguese NRA (ANACOM) also considered cable and ULL-based wholesale broadband services on the basis of indirect constraints at retail level.<sup>36</sup> If the SSNIP test ignores the impact of a price increase on downstream (retail) demand, it can lead to narrowly defined wholesale markets and critically the calculation of market shares. If the market is defined too narrowly, the market share of the regulated undertaking and will be higher. If indirect constraints are then considered at the SMP assessment stage, this will bias the assessment of SMP.
110. The case of geographic markets illustrates this very clearly: if the product market does not take into account self-supply, it will include only the network of the regulated operator. Despite large geographic variations of market shares at retail level, the wholesale market will always be the same: one network with 100% market share. This does not allow making a sound SMP assessment and adjust regulation to the competitive conditions.
111. Against this background, the revised Recommendation should in any event explicitly opt for taking into account indirect constraints in the context of wholesale broadband access markets at the market definition stage.

## **8.6. Leased lines market**

112. In order to carry out a thorough forward-looking assessment of the need for regulating market 6 ('terminating segments of leased lines') and the boundaries of this market, it is necessary to consider some trends that have consolidated over the past few years which are impacting the way businesses consume traditional leased lines products, for example:
113. Improvements in the performance of asymmetric broadband services, both in terms of QoS and bandwidth: Evidence exists that in particular SMEs are switching from traditional leased lines to broadband services such as ADSL and cable services.<sup>37</sup>
114. Moreover, competition in the business market segments, particularly for high bandwidth leased lines, is today in many Member States fierce in urban centres and business parks, where many Altnets have deployed alternative fibre-based infrastructures.<sup>38</sup>

---

<sup>33</sup> Case T-310/01, *Schneider v Commission* [2002] ECR II-4071.

<sup>34</sup> See Ofcom, "Review of the wholesale broadband access markets 2006/07", 21 November 2006, paras 4.126 et seq., available at <http://stakeholders.ofcom.org.uk/binaries/consultations/wbamr/summary/wbamr.pdf>.

<sup>35</sup> See Ofcom, "Review of the wholesale broadband access markets", Statement, 3 December 2010.

<sup>36</sup> See Commission decision of 5 January 2009, Case PT/2008/0850: Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location; and case PT/2008/0851: Wholesale broadband access.

<sup>37</sup> See for example responses from BT and other major business providers to Ofcom's Call for Inputs on this point as summarized in the Business Connectivity Market Review, par. 3.112, <http://stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/>

<sup>38</sup> For example, see Ofcom analysis of the UK business markets <http://stakeholders.ofcom.org.uk/consultations/business-connectivity-mr/>; in particular, par. 7.293 and following for the finding of no SMP in the West and Central London Area (WECLA).

115. These trends are likely to continue over the period relevant for the revised Recommendation and should be taken into account in the revision of the Recommendation.

### **8.7. Boundaries between market 5 and market 6**

116. Against the background of those market developments, the question has been raised whether current market 6 or parts of it would become part of a wholesale broadband access market. For example, in the Netherlands, OPTA recently found a substitution between high quality bitstream access and leased lines with lower bandwidths.<sup>39</sup>

117. Most NRAs in Europe, however, have defined a separate market for terminating segments of leased lines. At this stage a general trend of substitution between bitstream access and leased lines for the relevant review period cannot be determined with certainty.

118. On the one hand, leased Lines develop to very high bandwidth up to 10 or more GBit/s, beyond the typical bandwidth provided over bitstream access. Leased lines are dedicated lines with special quality features such as guaranteed symmetric bandwidth and security options. This remains a feature explicitly requested by certain wholesale and retail customers. The product features of leased lines, the more complex infrastructure, the quality requirements and the point-to-point character of this dedicated data transmission still lead to a higher price level for leased lines compared to bitstream on many national markets. On the other hand, advances quality of IP-Network based data transmission via bitstream allow use cases that have traditionally been served by leased lines, including, in some instances, mobile backhaul.

119. Accordingly, an assessment whether substitution occurs with market 5 should be carried out in detail by each NRA.

### **8.8. Need for deregulation of competitive geographies and bandwidths**

120. As outlined above, competition in the business market segments, particularly for high bandwidth leased lines, today is fierce in urban centres and business parks in many Member States due to the presence of alternative fibre-based infrastructures.

121. Against this background, deregulation of sub-national geographic markets is particularly relevant for terminating segments of leased lines in order to not hinder the competitive process in sustainably competitive areas.

122. As several NRAs have found in their analyses of M6, competitive conditions may also strongly differ according to bandwidth, providing scope for deregulation for example in the very-high speed leased lines segment of the market.<sup>40</sup>

<sup>39</sup> See: OPTA decisions OPTA/AM/2012/203110 and OPTA/AM/2012/203111; cf. notification form for English language summary: <https://circabc.europa.eu/sd/d/3a29b0a4-3dfc-4da5-95c0-652653575459/OPTA%20notification%20form%20draft%20decision%20WBA%20and%20leased%20lines%20final%2023nov12.pdf>

<sup>40</sup> For example, BNetzA defines four product markets: below 2 Mbit/s, 2 -10 Mbit/s, 10 - 155 Mbit/s and above 155 Mbit/s; cf. [http://www.bundesnetzagentur.de/DE/DieBundesnetzagentur/Beschlusskammern/1BK-Geschaeftszeichen-Datenbank/BK1-GZ/2009/2009\\_001bis100/BK1-09-006/BK1-09-006\\_2.Konsultation\\_BKV.html?nn=76940](http://www.bundesnetzagentur.de/DE/DieBundesnetzagentur/Beschlusskammern/1BK-Geschaeftszeichen-Datenbank/BK1-GZ/2009/2009_001bis100/BK1-09-006/BK1-09-006_2.Konsultation_BKV.html?nn=76940); similarly, Ofcom defines separate markets by bandwidths, see par. 1.17-1.19, <http://stakeholders.ofcom.org.uk/binaries/consultations/business-connectivity/summary/condoc1-4.pdf>



**Question 9:**

**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.**

**Question 10:**

**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.**

**10.1. *Access to the public telephone network at a fixed location for residential and non-residential customers. (Market 1)***

123. Market 1, the only retail market remaining in the current list of relevant markets should be removed. A forward-looking analysis of the market clearly shows that in the presence of adequate wholesale regulation no major entry barriers exist on this market.
124. Both in mature competitive fixed access markets with competition based on ULL, bitstream and/or broadband cable and in markets characterized by fixed-mobile substitution, there is sufficient evidence in support of the trend towards effective competition in market 1.
125. Broadband access lines are already today by far the dominant form of consumer access in the EU.<sup>41</sup> In well-developed fixed markets, regulated wholesale services such as ULL or bitstream access provide for stable entry to the market. ULL-based competitors use their own infrastructure up to the “last mile”, where they obtain wholesale services from the incumbent operators. Cable is solely based on independent infrastructure. With cable gaining ground in a number of member states, the competition shifts towards more sustainable intermodal competition.
126. In markets where fixed-mobile substitution is a driving force of retail competition, the presence of multiple access platforms allows sustainable competition behind any existing entry barriers.
127. In case a market is characterised by both low broadband penetration and low levels of fixed-mobile substitution, a continued regulation at wholesale level targeted at voice connections such as a wholesale line rental product might be required, in particular for the first market review period starting in 2014-2015. Any remaining competition problems in this limited area should not lead to maintaining retail market 1 in the Recommendation, however.
128. Following the deregulation of retail services markets in 2007, competition law has proven sufficient to deal with any potential competition problems on retail markets in the electronic communication sector.
129. Most NRAs have not deregulated market 1 in their respective country. It should be recalled, however, that the regulation of market 1 was due to exceptional circumstances and partly based on a set of particular features of the EU regulatory framework in force in 2007 that are no longer present in today’s (2009) set of EU Directives: Until the present round of market analysis, regulation on this market was based on the previous (2002) regulatory framework that imposed Carrier (Pre-)Selection obligations under former

---

<sup>41</sup> 72% of all European households have access to the internet via a broadband connection (Eurostat, Statistics in Focus 50/2012 ).

Article 19 (1) Universal Services Directive on an SMP-finding in market 1. Equally, wholesale line rental obligations were – and partly still are -based on a retail market SMP finding. NRAs that did not want to deregulate the retail access market and the above-mentioned wholesale products at the same time, had a strong incentive for maintaining regulation on M1. SMP-findings were based on high remaining market shares of the incumbent, without an analysis of the need for continued regulation under the three criteria.<sup>42</sup>

130. Current and expected market developments support deregulation of the market in this revision. The access market changes fundamentally as access lines are transformed into all IP, broadband-capable accesses. On the access markets inter-modal competition from cable, alternative fibre and, increasingly, mobile as outlined under question 1 undermines the market positions of the established operators. The 2007 Recommendation stated that

*“Regulatory controls on retail services should only be imposed where national regulatory authorities consider that relevant wholesale measures or measures regarding carrier selection or pre-selection would fail to achieve the objective of ensuring effective competition and the fulfilment of public interest objectives.”<sup>43</sup>*

131. For broadband lines, as well as voice-only lines based on broadband where these are in use, a set of wholesale products is available ensuring low entry barriers into the market. As broadband lines compete with traditional voice-only PSTN access lines and will gradually replace them (s. above Q2), functioning wholesale regulation in place (at ULL and/or Bitstream level) can be seen as an additional safeguard for removing market 1 from the Recommendation.

132. The deregulation of market 1 in the next Market Recommendation would give further proof that, the EU framework, by using the instrument of the Recommendation on relevant markets as a tool, can deliver necessary deregulation in view of changing market conditions.

133. Another important effect of the deregulation of market 1 which can be observed, for example in the UK, is that it can introduce new forms of pricing flexibility that spur price competition and give impetus to broadband investments and penetration.

## **10.2. Call origination on the public telephone network provided at a fixed location. (Market 2)**

134. The present Recommendation identified a separate call origination market. The explanatory memorandum explains that “An undertaking may make a decision to enter the combined market for access and calls or simply enter part or all of the calls market”.<sup>44</sup>

135. With the new regulatory framework, the obligation for Carrier Pre-Selection (CPS) is imposed under market 2. Most alternative call offers, however, do no longer rely on CPS. In the large majority of member states, retail markets for telephone calls are driven by access operator bundles on broadband on the one hand and over-the-top service provision on the other hand. Access-based provision of telephone calls no longer

---

<sup>42</sup> S. response to Q 4 above. Only a minority of NRAs applies the three criteria to markets in the list of relevant markets; for example, Spanish regulator CMT in its most recent analysis of M1 notified to the Commission did not analyse the need for continued regulation under the three criteria; Case ES/2012/1380, cf. EC comments letter C(2012) 8828 of 26.11.2012.

<sup>43</sup> 2007/879/EC, Recital (15)

<sup>44</sup> Explanatory memorandum, p. 17

provides a future-proof business model. This development will continue within the period relevant for this revision of the Recommendation. With a move to all-IP access lines, call origination will eventually cease to be a meaningful service.

136. Publicly available market data shows that CPS is already starting to become obsolete. This is confirmed by observations of individual ETNO members. For example, within the overall volume of calling minutes in Germany, Carrier Pre-selection has dramatically lost relevance in the calls markets.<sup>45</sup> In Portugal, carrier selection and pre-selection already accounts for only 2.3% of the fixed voice traffic in the country.<sup>46</sup>
137. In those markets characterized by fixed-mobile substitution, call by call and pre-selection calls carried out on the fixed network play even less of a role. In both mobile and fixed broadband bundles, voice services will become one part of the access bundle. The market for phone calls is competitive absent call origination regulation, which thus no longer fulfils the three criteria test.
138. In the absence of a market failure on retail calls markets, call origination markets containing origination of CPS-Calls, should no longer be susceptible to ex-ante regulation.
139. In member states where market 2 would still account for a substantial part of the services market, for example for value-added services, NRAs may continue to find that the three criteria are met on this (sub-)market in the first round of market analysis. The diminishing importance of this market cannot justify an inclusion in the Recommendation anymore.

### **10.3. *Markets for termination on individual fixed and mobile networks (3, 7)***

140. ETNO invites the Commission to consider removing markets 3 and 7 from the list of relevant markets. In a prospective analysis, it is highly questionable whether the termination markets in the near future any longer fulfil the three criteria.
141. Intense ex-ante regulation over the past years has created a situation where competition law and symmetric regulation under Article 5 Access Directive, where applicable, are sufficient to counter any potential market failure on these markets.
142. In the satiated voice markets there are stable interconnection relationships and reference interconnection offers approved by regulators have not changed materially for years. The Commission Recommendation on termination rates has brought severe reductions of termination rates to marginal costs and imposed symmetric rates. Market analysis and choice of remedies have become a routine. After the full implementation of the Commission Recommendation on termination rates in 2013, similarly low rates would be the outcome of any future ex-ante rate settings and cost modelling. In view of price levels driven down to marginal costs, further ex-ante scrutiny would be disproportionate, creating high administrative costs, e.g. for cost modelling and possible legal challenges, with no additional consumer benefits.
143. From a market analysis perspective it is important to note that the main reason to delineate separate call termination markets used to be the 'call termination monopoly'. A call towards any individual subscriber could only be routed via the customers' number.

---

<sup>45</sup> In four years, both call-by-call and pre-selection call minutes on Deutsche Telekom's network have decreased by more than factor three

<sup>46</sup> Fixed telephony Q3, 2012 statistics available in: <http://www.anacom.pt/render.jsp?contentId=1143769>

This very aspect of the service is under rapid change, driven by the new ('app based') OTT services that use other identifiers (e-mail, specific customer chosen codes, etc.) to reach the customer on the same device. Reaching customers using devices such as smart phones, tablets, laptops is no longer dependent on the (mobile or fixed) number and thereby the telephone access. Any device connected to a broadband network can now potentially be reached via a multitude of services (including messaging, social media, VoIP) and that leads to the necessity to revisit the concept underlying the current Recommendation. The 'caller' has a choice on the way (and associated costs) he chooses to reach the person using the device.

144. Furthermore, a deregulation of termination markets will largely re-establish bargaining power between the operators which due to relatively balanced traffic between the access operators will guarantee a market driven development. In case operators still could not agree on the terms and conditions of termination in future negotiations, they will not have to rely on the competition authorities alone but can still get support from their NRA using its powers under Article 5 Access Directive, to safeguard symmetric reasonable terms and tariffs if and where competition law alone can no guarantee these. Termination is covered by Article 5 Access Directive which allows intervention to ensure adequate Interconnection in the case of control of access to end-users (para 1 lit. a).
145. To prevent asymmetric developments of termination rates, the Commission could advise NRAs to apply the principles of symmetric rates from the Commission termination rates Recommendation in an analogue manner under Art. 5 AD. In this context, it is important to note that neither Article 5 AD nor the existing EU Framework in general would allow NRAs to set the price of a termination service at zero<sup>47</sup> (cf. Article 13 (1) Access Directive which foresees recovery of costs).
146. Developments at retail level moreover curtail any remaining price setting power in termination. OTT services which provide free alternatives to existing communication services such as VoIP and instant messaging are wide-spread and growing and provide a substitutes for end-user's needs for traditional voice calls. Raising termination pricing would foster this revenue-eroding trend. This is demonstrated on the messaging market by the enormous growth rates of Whatsapp, and the fall of the SMS volumes.<sup>48</sup> Future technology and product innovation might even bring further cuts in termination rates beyond the levels reached under the Recommendation.
147. Deregulating markets 3 and 7 would confirm the transitory character of sectors- specific regulation which should not only cease once no undertaking with SMP can be found but also when – according to the third criteria – the instruments of competition law are sufficient to control the market.

---

<sup>47</sup> As would be the case in a so-called 'Bill and Keep' scenario

<sup>48</sup> See, for example, Ovum, The Casualties of Social Messaging, February 21, 2012

**Question 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? Please provide comprehensive reasoning.**

**Question 12:**

**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.**

**12.1. *No inclusion of SMS termination***

148. No market should be added to the list in the revised Recommendation.

149. As voice termination does no longer qualify to be on the list of relevant markets, and in line with the arguments presented under Q 9 above, it would be even more inappropriate to reconsider SMS termination as a candidate, as messaging is easier to substitute and free OTT services like Whatsapp, i-messaging etc. have already severely influenced retail SMS pricing and revenues. These services use access to the same (mobile) device as the customer uses for his traditional SMS and messaging services and thereby the traditional termination monopoly no longer applies (s. under Q 12). This means in ETNO's view that this market would fail to pass the first of the three criteria test, namely the lack of high and non-transitory barriers to entry. Currently Whatsapp delivers more than ten billion messages which is more than ten times the volume from ten months before. According to market research about 53% of interviewed Android Smartphone users use the Whatsapp messenger in Germany.<sup>49</sup> These market developments erode the price setting power of operators as higher termination rates would increase this substitution. 'Pushing' customers into free services would also affect own revenues as out going SMS would also be substituted

**Question 13:**

**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.**

**Question 14:**

**If the answer to the previous question is yes, please specify the qualitative and quantitative impact of the relevant market(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.**

150. No additional market should be added to the list.

**14.1. *No need for a (wholesale) market for IP Connectivity***

---

<sup>49</sup> "App Monitor Deutschland", October 2012 at <http://de.statista.com/themen/581/smartphone/infografik/655/top-20-smartphone-apps-in-deutschland/>

151. In the recent past both regulatory and competition authorities have shown an increased interest in the market for IP connectivity, or more specifically IP peering and transit. In one case – ARCEP – a systematic reporting procedure has been set up to submit this inter carrier business to a constant monitoring. However, this has been done outside a market analysis framework and in absence of a proper market definition.
152. Before even considering the inclusion of a market for IP connectivity on the list of recommended market, the first step would be to properly define the market. Without attempting to determine a concrete market definition it seems worthwhile to conduct a plausibility check for the 3 criteria with regard to IP connectivity:
- The presence of high and non-transitory barriers to entry: there is a large number of companies that offer global IP transit services at various locations across Europe. In recent years we have seen both market entries (and market exits). Hence, it is safe to assume that barriers to entry are not insurmountably high.
  - A market structure which does not tend towards effective competition within the relevant time horizon: the average price level for IP connectivity has decreased between 20% and 30% every year for the past ten years. In the same time the transported traffic has roughly doubled, every year. In combination with the number of actors this is a strong indication that both actual and potential competition is effectively high.
  - The insufficiency of competition law alone to adequately address the market failure(s) concerned: there is no reason to assume that competition law would not be able to address a market failure. But since there is no market failure the criteria test would not even have to be conducted up to stage 3.
153. Furthermore the French competition authority has ruled recently in a case that revolved around alleged anti-competitive behaviour by Orange-France Télécom.
- “In this case, the US telecommunications operator Cogent claimed, among other things, that France Télécom was compromising the peering system (enabling exchange of traffic flows between networks, free of charge) used by transit operators, by requesting payment for opening up additional technical capacity for access to Orange subscribers. Regarding this claim, the Autorité considered that in view of the highly asymmetric nature of the traffic exchanged between France Télécom and Cogent, such a payment request does not in itself constitute an anti-competitive practice inasmuch as this type of remuneration is not uncommon in the Internet industry in cases where a significant imbalance exists between the incoming and outgoing flows exchanged between two networks, and is consistent with the overall peering policy adopted by France Télécom, with which Cogent is familiar.”<sup>50</sup>*
154. This demonstrates that competition law and competition authorities are capable of addressing potentially anti-competitive behaviour in this domain. There is no reason to consider extending the list of relevant markets susceptible to ex-ante regulation to IP connectivity.

---

<sup>50</sup> [http://www.autoritedelaconurrence.fr/user/standard.php?id\\_rub=418&id\\_article=1971](http://www.autoritedelaconurrence.fr/user/standard.php?id_rub=418&id_article=1971)

**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.**

155. No relevant transnational market can be identified over the review period.
156. It has been argued that a “transnational market for pan-European business services” would require regulation of specific wholesale products at national level and that this should lead to changes in a revised Recommendation. ETNO believes, however, that market definition under the EU framework and the Recommendation should follow demand and supply-side substitution patterns observed in the markets in question. Markets which include wholesale products used to provide business services to large corporate customers have been analysed and, where appropriate, regulated under the present Recommendation, notably under current market 6.
157. Whether a pan-European market for business services exists or not, regulation at the national level shall not extend beyond persistently uncompetitive segments of the market. Where wholesale markets are already competitive or not subject to high- and non-transitory entry barriers over the period of the revision, wholesale inputs for offers to corporate customers can be purchased freely on the market. Given the purpose of the Recommendation to target ex-ante intervention to those markets where it is still required due to their persistent bottleneck characteristics, the availability or lack of availability of certain types of EU-wide standardised wholesale access products requested by some stakeholders to improve economies of scale for business services providers is outside of the scope of this review.
158. The Commission should investigate whether reported problems in the provision of pan-European business services are substantiated and, if so, whether they result from a lack of technical coordination. Activity in areas such as standardisation of bitstream offers for business services may in that case enhance market performance in this area. The Commission could encourage and assist a standardisation process in this domain.