

# **BEREC Report on the Public Consultation of the BEREC Strategy 2015-2017**

## Consultation BEREC Strategy 2015-2017

### 1. Introduction

The draft BEREC Strategy 2015-2017 was discussed and approved for public consultation at the BEREC Board of Regulators meeting in Rome, Italy, on 25 and 26 September 2014. In accordance with Article 5 of the BEREC Regulation, the BEREC Strategy is subject to consultation. The public consultation was open from 29 September to 24 October 2014 with a public hearing held on 16 October. Eighteen written contributions from the following stakeholders were received in response to the consultation.

1. BT
2. Cable Europe
3. European Association of Full MVNOs (EAFM)
4. European Broadcasting Union (EBU)
5. Electronic Communications Committee's Working Group on Numbering and Networks (ECC WG NaN)
6. ECTA
7. ETNO
8. Fastweb
9. FttH Council Europe
10. GSMA
11. International Telecommunications Users Group (INTUG)
12. Microsoft
13. OpenSignal
14. Telecom Italia (TI)
15. Association of Telecommunications and Value-Added Providers (VATM)
16. Vodafone
17. Voice on the Net Coalition Europe (VON Europe)
18. Wind

Specific contributions are summarised by reference to the paragraphs of the Strategy [draft as submitted for public consultation] to which they refer. New items proposed by stakeholders are summarised at the end of this report.

## 2. Background and BEREC's mission

All contributors welcomed or appreciated the opportunity to comment on the BEREC Strategy 2015-2017.

Both the **FttH Council Europe** and **INTUG** are of the opinion that the period covered by the BEREC Strategy should be extended, i.e. to align with the five-year Commission period or legislative term.

***BEREC believes that three years is an appropriate time-frame for its strategy, and that the framework it provides should be compatible with Commission initiatives in this period***

## 3. BEREC's Strategic Pillars

Several stakeholders (Cable Europe, EAFM, ECC WG NaN, ECTA, Fastweb, OpenSignal, VATM and Vodafone) indicated that they support BEREC's Strategic Pillars.

Overall the **FTTH Council** appreciates the linkage between the BEREC Strategy 2015-2017 and the structure of the annual work programme, but it would like to see a stronger correlation between the BEREC Strategy and the work programme items related to the review of the regulatory framework.

**INTUG** notes that the strategy is naturally focused on the EU, BEREC and Member State NRAs, plus observer countries. At the same time, it notes it is essential that active and effective co-operation is maintained with relevant international bodies, including the ITU, the OECD and similar organisations.

***BEREC intends to ensure appropriate cooperation with all relevant international bodies***

### 3a. Pillar 1 – promoting competition and investment

Several stakeholders agree with the focus on promoting competition (BT, Cable Europe, ECTA, FttH Council and OpenSignal).

**Cable Europe** believes it is vital that both BEREC and NRAs continue to promote infrastructure-based competition. History has shown that where cable operators have invested, other providers have been incentivised to follow suit, leading to cyclical waves of counter-investment and innovation by competing infrastructure providers.

**ECTA** believes that competitive pressure is not only the trigger for innovation and investments by telecoms companies, but also a building-block and pre-requisite for the completion of the internal market. In other words, local competition leads to global competitiveness. ECTA therefore emphasises that it is by nurturing competition, and not by

prematurely deregulating and reducing competitive pressures, that Europe will achieve a single market in telecoms.

**ETNO, GSMA and TI** also recognise the need for BEREC to focus on stimulating investment and innovation, and note that this can be achieved e.g. by imposing lighter and less complex regulation. They argue that the role of NRAs should be better aligned with network investment objectives.

The **FTTH Council** agrees with the emphasis being placed on facilitating competitive markets and believes that competitive forces will indeed deliver benefits to end users. They argue that well-informed consumers with a choice of suppliers will enable a more dynamic and responsive market to the benefit of consumers and industry.

**GSMA** in general agrees with the benefits of promoting competition by stimulating and incentivising private investment in networks. Competition remains an important objective but, it argues, the short-term and long-term consumer interests need to be better reconciled. GSMA also argues that regulation should adopt a global perspective, i.e. that its impact should be assessed not only at the local level but also in relation to the competitiveness of EU industry vis à vis the rest of the world.

**GSMA** and **Wind** emphasise that operator revenues are what drive and enable investment, and that decreasing revenues are therefore a threat to further innovation and infrastructure roll-out.

**INTUG** sees service competition as the best way to achieve investments, and call on BEREC to plan activities which focus on driving up demand, e.g. via content and applications.

**OpenSignal** adds that regular analysis of the performance of networks within a country can highlight opportunities for competition for infrastructure improvements.

**VATM** argues that in order to promote competition, it is also important to ensure regulatory predictability.

### **3b. Pillar 2 – Promoting the Internal market**

**ECTA** welcomes BEREC's commitment to achieving an internal market.

**INTUG** thinks the strategy rightly focuses on enabling the development of the EU Single Market as a whole. It believes that market analysis and regulation should therefore be informed by their impact on the EU economy as a whole, not simply on the communications market.

**BT** is of the opinion that wholesale access services and cross-border service provision should be a key focus for BEREC, because more effective provision of cross-border services to businesses can help significantly boost productivity, innovation and economic growth.

**ECTA** thinks that the focus should also be on the availability of the wholesale access inputs needed to support, *inter alia*, cross-border or pan-European business services.

**INTUG** notes that the current Regulatory Framework assumes an industry structure of national service providers. It points out that many business customers are not structured in this way, and would prefer to deal with truly pan-EU suppliers seamlessly. It argues that the BEREC strategy should consider how ex-ante regulation could address an industry structured in this way.

**Vodafone** experiences significant inconsistencies in the availability, price and quality of key enterprise fixed access products across the EU. Vodafone would also support BEREC's involvement in the development of harmonised fixed access products, noting that facilitating the deployment of best practices in relation to wholesale fixed access services across Member States is a vital next step after benchmarking these best practices in the first place.

**Wind** shares BEREC's view that national markets have certain enduring and legitimate differences and that, in promoting competition and investment, NRAs should take into account their national specificities, creating a level playing field tailored to them.

### 3c. Pillar 3 – Empowering and protecting end-users

**Cable Europe, EBU, ECTA, OpenSignal** and **Vodafone** endorse the importance of empowering and protecting end-users, and note the effects of doing so on competition.

**BT** and **ECTA** acknowledge the need to differentiate between the needs of consumers and business consumers. Confusing the needs of both groups adds either administrative burden or disproportionate obligations, resulting in additional costs for business operators.

**Cable Europe** supports BEREC's monitoring of end-user offers. It believes that competition is driving the availability of high-quality offers that enable consumers to find the best offer tailored to their needs. It notes that protecting consumers online will also rightly require cooperation with other relevant bodies.

**EBU** believes that ensuring end-users' continued ability to choose services appropriate to their needs directly underpins competition in broadband access markets.

**GSMA** remarks that consumer rules make a significant contribution to fostering the trust that is central to the take-up and use of new digital services. However, GSMA feels that more harmonisation is required between Member States, particularly to enable the provision of pan-European offers.

**OpenSignal** feels that empowering and protecting end users is not only an admirable objective to aim for in itself, but also integral to the success of pillars 1 and 2 of BEREC's proposed strategy.

## 4. Major Trends and developments

### 4a. Technology, markets and end-user developments

#### 1. The growth of OTT services

**VON Europe** prefers the use of the term “Content and Application Providers (CAPs)” instead of “OTTs.”

***BEREC prefers the term “OTT” as the fact that these services are “over the top of” networks is key to how they are approached from a regulatory point of view***

With respect to regulatory challenges, **VON Europe** is of the opinion that competition issues in CAP markets should be the concern of competition authorities, and not of NRAs.

***BEREC will consider the role of OTT services , including their possible substitutability with “traditional” electronic communications services and the extent to which they might warrant ex ante regulatory treatment.***

**Wind** points out that OTT players are benefiting a lot from investments made by operators, but are currently not bearing the costs associated with the development of networks.

**BEREC believes that OTT players are providing services which fuel demand for increasingly higher-capacity networks, and are therefore contributing to the business case for network investment**

#### 2. Bundled services

**VON Europe** believes that bundling can discourage switching, especially when different elements of a bundle are subject to different contractual rules on contract termination and switching. For this reason, it believes that information transparency is not sufficient to enable consumers to switch providers.

#### 3. Network convergence

**BT** is of the opinion that the convergence between telecoms and media gives rise to a need for policy consistency. It believes that asymmetries between telecoms operators and Pay TV providers are distorting the market, as bundling becomes ever more important, and content the most compelling element for consumers. By extending the access principles of the Electronic Communications Framework to content bottlenecks, **BT** argues that the EU could level the playing field across sectors, achieve a better deal for consumers and help stimulate demand for fibre.

#### 4. Machine to Machine

**Wind** and **Vodafone** welcome BEREC activities in monitoring the market evolution of M2M. Vodafone adds that it is an area where international cooperation is important.

**Wind** calls for a light-touch regulatory approach in this area.

#### 5. Quality of Service

**Vodafone** remarks that quality of service considerations are equally relevant to securing fit-for-purpose (wholesale) access to incumbent fixed networks.

**VON Europe** is concerned that the provision of guaranteed quality services could impact on the provision of “best effort” internet access services. It argues that safeguards are necessary to ensure the quality of Internet access, in order to avoid a ‘dirt road’ effect, while making it possible for network operators to offer specialised services. VON Europe would therefore like to see QoS guidelines that include QoS measurements, allowing regulators to monitor network management practices and intervene if necessary.

#### 6. Investments

The BEREC Strategy makes the point that investment in new high-speed networks should in turn support innovation in content-rich internet services. **VON Europe** would like BEREC to amend this statement to reflect the interplay between the various stakeholders in the Internet ecosystem, and the fact that a lot of innovation has already been taking place at the content layer.

***BEREC agrees that innovation has already been taking place at the content layer, and that network investment should support continued innovation at this layer***

#### 7. Mobile offload to fixed networks

**GSMA** is of the opinion that the growth of internet access over mobile broadband is dramatically increasing demand for spectrum, and that therefore securing access to long-term harmonised spectrum is critical. **Vodafone** supports this view and encourages the continued harmonisation of EU spectrum policy.

**VON Europe** calls upon BEREC to support allocating more spectrum for WiFi, making the point that a balance of licensed and unlicensed wireless access (WiFi) helps promote innovation and competition, and supports ubiquitous, high-speed affordable Internet access.

#### 8. Data protection and network and information security

**GSMA** is of the opinion that the assessment of the value of personal data in the context of regulation and competition, and the need to guarantee consumer welfare and privacy, can no longer be seen as separate issues. It argues, therefore, that a greater degree of coordination among the relevant authorities is desirable.

## 9. Market consolidation and cross-sector mergers or agreements

**BT** fully supports the need for BEREC and NRAs to take greater account of new bottlenecks across the wider communications value chain. It believes that the convergence and consolidation across and between platforms such as cable/fixed/mobile require a more consistent and neutral approach to the treatment of network bottlenecks, and effective wholesale access.

**GSMA** and **TI** feel that further progress is needed within Europe to reduce barriers to efficient market consolidation, and to enable scaling up, by the simplification of merger reviews by competition authorities, and by their taking a more cautious approach to the imposition of remedies.

**ECTA** welcomes BEREC's continued attention to mergers and consolidation (both service and infrastructure) with a view to ensuring that effective competition is maintained. However, ECTA would also dismiss the argument that market consolidation is necessary to enable investment in network roll-out in Europe. It points to the fact that there is no clear and demonstrable link between the size of telecommunications companies, their profitability and the level of NGA investments.

**VON Europe** thinks it is crucial that that competition is safeguarded at the service level on telecommunications networks, especially if merger and acquisition activity is to be facilitated for the telecoms industry.

### 4b. EU regulatory developments

#### Review of the European regulatory Framework

**Cable Europe** warns against over-prescriptive regulation, when the EU needs a sector that can compete fiercely and innovate quickly based on strong investments. It points out that a good investment environment is harmed when risk levels are aggravated by significant variations in regulatory interventions.

**ECTA** strongly welcomes BEREC's consideration that the evolutionary approach on which the 2009 review was based should be retained.

According to **ETNO** the Framework's objectives of ensuring open and competitive markets are not compatible with the new bias towards entry promotion policies. It argues that the focus has to shift to the promotion of innovation and investment in NGN infrastructures, favouring outcomes that are dynamically efficient and sustainable in the long run. ETNO encourages BEREC to think beyond the current practices and models, and to radically simplify regulation with a simplified single access model on fixed infrastructures, free of price regulation except appropriate non-discrimination conditions in areas where ex-ante regulation is still warranted.

The **Ftth Council** would recommend the inclusion of themes such as structural separation, co-investment, government guarantees etc. on the European policy agenda. It argues that the review of the regulatory framework should signal an easing of regulatory obligations on structurally separated firms, or an enhanced return on separated assets.



**GSMA** thinks the growth of OTT services should be taken into account when the regulatory framework comes to be reviewed, so that the same rules apply to the same services. When OTTs are not regulated at all, it argues, this can distort competition between the two categories of providers.

According to **INTUG** the Framework Review should take into account the impact of the increasing use of communications services by objects and devices (M2M).

**Microsoft** feels that BEREC should guard against reflexively applying legacy communications regulation to CAPs and cloud services. It argues that extending legacy regulation to cloud services would be inappropriate for many of the new services, and would be difficult to enforce in practice given the global nature of IP networks.

The BEREC Strategy considers that the review of the European regulatory framework should include consideration of how best to address the role of OTT players, noting that these are increasingly providing services considered substitutable for traditional electronic communications services. **VON Europe** is not convinced of this substitutability and urges BEREC to amend this statement to reflect the current reality.

***BEREC will examine a possible trend towards substitutability across Europe/across services. Demonstrable substitutability is likely to be a key trigger for regulatory intervention. “***

## 5. BEREC’s strategic priorities

**BT** broadly supports the strategic priorities.

### Strategic Priority 1 – Promoting Competition and Investment

#### a. Promoting competition

**ECTA** feels transparency is indeed key to ensure real choice and to boost the availability of competitive services, and therefore welcomes BEREC’s continued focus on ensuring that end-users can pick the services of their choice, at appropriate levels of price and quality.

**Microsoft** is concerned about the tone BEREC strikes with respect to the relative merits of traditional network-tethered communications services offered by telcos and other network operators, and the rich variety of online and cloud services, applications, and content available on the Internet. It argues that CAPs (including cloud service providers) drive significant investment in much of the physical networks, equipment, and infrastructure that comprise the network of networks that is the Internet. This view is shared by **VON Europe**.

***See BEREC response on p.5***

**VON Europe** welcomes the fact that the BEREC Strategy emphasises that the demand side is of great importance to ensuring competitive national markets, and BEREC’s focus on information transparency and ease of switching.

## b. Fostering a favourable climate for investment

**BT** feels that more recognition should be given to the potential for VULA-based approaches which can deliver a more efficient form of investment, as well as the benefits of more downstream competition and choice. It also points out that EU state aid rules impose burdensome terms on public support for fibre deployment and are therefore a key barrier to the completion of near-universal fibre coverage.

**ECTA** strongly agrees with BEREC's view that benefits can result from network sharing. It is of the opinion that regulation of fixed infrastructure remains an essential competition enabler in an NGA environment. It points out that operators need proper incentives to invest, and that wholesale access products should be available that are fit-for-purpose and at prices that enable a fair and risk-appropriate return on investments. It calls on BEREC to ensure that all market players are able to invest, and to ensure the availability of fit-for-purpose wholesale access products.

**ETNO** doubts that a favourable climate for investment can be fully achieved by maintaining the regulatory status quo. It argues that asymmetric access regulation no longer provides an adequate response to the current market situation. As next generation networks are rolled out, it points out that markets are increasingly characterised by multiple actors at the network access level, including municipal networks and publicly funded rural NGAs, cable operators, and increased competition from wireless broadband networks.

The **FTTH Council** doubts that markets that exhibit market failure will make appropriate technology choices in the absence of regulatory interventions. It notes that the Digital Agenda targets as currently constructed allow cheap, market foreclosing technologies to be rapidly deployed by dominant entities, and that the broadband targets therefore need to be upgraded to something that is both realistic and future proof. The FttH Council therefore calls for a preference for "fibre-first", which it believes can be achieved by a series of business friendly policies set out to promote FTTH over other forms of network deployment.

***In fostering a favourable climate for investment in next generation networks, BEREC does not have a preference for a single roll-out strategy across Europe, noting that in some countries, for instance, alternative technologies like vectoring are being successfully developed/deployed***

**TI** notes that where regulation is still necessary, an adequate return on investments should be guaranteed.

**VON Europe** notes that the distinction between 'electronic communications services' (ECS) and 'information society services' (ISS) is one of the principles that helped CAPs generate growth and innovation in the sector to date.

## c. Supporting innovation

**BT** agrees that BEREC should take a technology-neutral and forward-looking approach in its assessment of the transition to all-IP technology, which supports the development of new business models, looks at end-users' requirements and protects the interests of residential and business end-users and of Communications Providers.

**Microsoft** encourages BEREC not merely to include innovation as a component of promoting competition and investment, but to elevate innovation to a strategic priority in its own right.

Both **Vodafone** and **Wind** point out that the transition from PSTN to all-IP networks does not imply the need to switch off copper networks. They note that non-IP products are still an important part of the telecommunications landscape and that migration to IP-products will be gradual.

## Strategic Priority 2 – Promoting the Internal market

### a. Supporting convergence

No comments here.

### b. Taking down barriers

**VON Europe** believes that relevant stakeholders as well as EU agencies should be included in the exchange of ideas between relevant bodies, and that this would provide all parties access to market players, and enable them to gain a deeper understanding of the topics being discussed.

## Strategic priority 3 – Empowering and protecting end-users

**VON Europe** is pleased that the BEREC Strategy emphasises BEREC's commitment to put end-user empowerment at the heart of its work.

### a. Promoting end-user choice, accessibility and affordability

The **FttH Council** would emphasise that the issue of network transparency is not simply one of user rights, but also an issue relevant to the development and take-up of advanced networks and services. For that reason the FttH Council would like NRAs to monitor and publish accurate network metrics from network operators.

**VON Europe** welcomes the fact that the BEREC Strategy acknowledges that competition alone cannot always ensure optimal outcomes for end-users, and that as such the affordability and accessibility of Internet access remains a central concern to BEREC and NRAs.

### b. Safeguarding an open internet

The **EBU** believes that strong legislative safeguards for an open internet at EU level must go hand-in-hand with effective systems for monitoring the quality of Internet access and the impact of new services and products in this market, and to enable the enforcement of open Internet rules.

***BEREC takes note of this and points to the work programme 2015, which has a specific work stream dedicated to traffic management and the monitoring of QoS.***

**ETNO** agrees with BEREC's objective of "ensuring a common approach to net neutrality, so that the Internet remains a fertile platform for the development of new innovative services". It notes that the fact that market and technological developments occurring in our industry are extremely fast-paced and cannot be entirely foreseen by legislators and regulators points against attempting to regulate the Open Internet through strict definitions and concepts whose effectiveness and value over time is impossible to assess.

**TI** adds that the success of the Internet has so far been achieved with negligible regulatory oversight or intervention and that detailed rules at European level risk jeopardizing the innovation and development of new services. It argues that Europe needs an Open Internet policy framework that focuses on general principles and provides appropriate freedom and flexibility for the development and delivery of specialised services alongside general internet access.

Both **GSMA** and **VON Europe** see benefits in differentiating data volume and data speeds. GSMA thinks traffic management could open up possibilities for the delivery of innovative services, as long as no discrimination based on the content, applications or services themselves, or specific classes thereof, is put in place.

**Microsoft** fully supports BEREC's emphasis on preserving robust protections for an open Internet. It also argues that allowing preferential arrangements for some Internet traffic would be incompatible with the fundamental principles of an open Internet, and that these preferential arrangements (as opposed to reasonable network management) distort the marketplace and improperly influence subscribers' decisions in selecting content, applications and services.

**VON Europe** encourages all policy makers to stop using the word "open" in front of the word "Internet". It explains that when regulators are empowered to monitor and enforce net neutrality, the Internet will be per se 'open'.

***BEREC refers the broad principle from the digital agenda: "Open Internet" allows Internet users to access the content, applications and services of their choice and promotes competition among network, services and content providers.***

### c. Promoting end-user protection online

No further comments here.

## 6. QUALITY OF BEREC OUTPUT AND OPERATIONAL EFFICIENCY

### 6a. Working to improve the quality and consistency of individual NRA decisions

No comments here.

### 6b. Engaging and cooperating effectively

No comments here.

### 6c. Improving its working methods and the quality of its output

**BT**, **GSMA**, and **VON Europe** congratulate BEREC on the quality of its work, its efforts to improve transparency and visibility and its continued stakeholder engagement.

TI remarks that many of BEREC's deliverables are benchmarks, best practices and reports, which in many cases do not identify the name of the State or National Authority which follows a particular practice. On this matter, it suggests that BEREC should provide more detailed information for transparency purposes.

## 7. Additional comments from contributions

**ECC WG NaN** and **FttH Council** would like to make clear that they are willing to cooperate and collaborate with BEREC on important issues.

## 8. Conclusions

Following the consultation on the draft BEREC Strategy 2015-2017, contributions from eighteen stakeholders were received. Most of the comments related to:

1. BEREC's Strategic Pillars
2. The role and treatment of OTT players (or "CAPs")
3. The future of regulation in relation to the review of the European Regulatory Framework

Below is a short overview of the main comments, organised according to the structure of the BEREC Strategy 2015-2017.

### **BEREC's Strategic Pillars**

#### Strategic Pillar 1 – Promoting competition and investment

A lot of stakeholders commented that they experience a strong interplay between investment, innovation and the demand side, which in most cases consists of end-users that purchase communications services and OTTs that generate an increase in demand for those communications services by end-users. According to the contributions, this interplay could be further emphasised in this first strategic pillar, as currently the BEREC Strategy describes competition as driving innovation and investment, but not vice versa.

Indeed, several stakeholders indicated that OTTs contribute significantly to innovation and competition through the development of content, applications and services and indirectly through increasing consumer demand for communication services. These stakeholders have requested that BEREC further elaborate on the role of OTTs within the BEREC Strategy.

***BEREC takes note of this and points to the work programme 2015, which has a specific workstream dedicated to the elaboration of the role of OTTs***

In order for infrastructure investment to grow to an optimal size, some stakeholders are of the opinion that network operators should be allowed to raise more revenues.

#### Strategic Pillar 2 – Promoting the internal market

This goal is supported by most of the stakeholders, but diverging opinions exist on whether this requires consolidation and to what extent the size of firms has an influence on the (single market) outcome. In relation to the development of consistent regulatory practice, stakeholders point to differences in national circumstances and express their wish that NRAs retain the freedom to take these differences into account. In relation to the addressing of cross-border issues, some stakeholders ask that more attention is paid to the availability of cross-border wholesale inputs.

### Strategic Pillar 3 – Empowering and protecting end-users

Contributions from stakeholders mainly refer to the fact that well-informed and empowered consumers can be a driving force for competition and innovation, thereby confirming the virtuous circle identified by BEREC. Two stakeholders explicitly asked that BEREC take into account the differences between the needs of consumers and business end-users, .

### **EU regulatory developments**

#### Review of the European Regulatory Framework

Regarding the review of the European Regulatory Framework and what direction it should take, no stakeholder has proposed to increase regulation. Stakeholders have different opinions on whether regulation should be lighter and/or simpler in order to present network operators with more freedom regarding their investments. Those that feel that the current level of regulation has been appropriate over the past years remark that deviating from the status quo should be considered carefully.

The BEREC Strategy already identifies the role of OTT players as one of the subjects to be considered in the review of the Regulatory Framework and the contributions of stakeholders reinforce the importance of this topic. Some stakeholders point out the uneven regulatory treatment of ‘regular’ communications companies, on the one hand, and OTTs, on the other. Given the trend of convergence, this uneven treatment is according to their view “disturbing the level playing field”, and therefore they would like to see these new players subjected to a comparable regulatory regime. Other stakeholders are of the opinion that the growth of OTTs has been the result of the light regulatory burden to date, and are afraid that imposing more regulation would stifle innovation. The BEREC Strategy currently highlights the issue of the substitutability between “traditional” communications services and OTT services, but some stakeholders would like this to be elaborated further.

## Appendix A: Consultation BEREC Strategy 2015 - Full contributions

### 2. Background and BEREC's mission

**BT** supports the key headings of BEREC's strategy document including the 'strategic pillars' and 'strategic priorities', and we welcome the commitment to promote both competition and investment. We attach at annex a paper on the 'Digital Single Market' themes which addresses many of the points raised in the BEREC strategy.

**Cable Europe** appreciates the initiative of BEREC to invite the industry to comment on its Strategy 2015-2017.

The European Association of Full MVNOs (**EAFM**) welcomes BEREC's initiative to consult interested parties on its draft Work Programme for the year 2015 (hereafter 'draft WP2015') and on its Strategy for the years 2015-2017 (hereafter '2015-2017 Strategy'), and is pleased to provide this brief contribution.

The European Broadcasting Union (**EBU**) and its members, public service media organisations from 56 countries across Europe and beyond, welcome the opportunity to respond to this public consultation. We appreciate BEREC's transparent working methods as well as the opportunities it provides for stakeholders to engage and interact with BEREC through public consultations, stakeholder fora and debriefing sessions.

The Electronic Communications Committee's Working Group on Numbering and Networks (**ECC WG NaN**) would like to thank BEREC for the opportunity to respond to its consultations on its Draft Strategy (2015-2017) and its draft Work Programme (2015).

**ECTA** very much welcomes the thorough and ambitious draft BEREC Strategy 2015-2017 (BEREC Strategy) and Work Programme 2015 (WP2015) and the possibility to contribute to its further refinement and improvement.

**ETNO** welcomes the opportunity to provide its views on BEREC's draft Strategy for 2015-2017 (BEREC document BoR (14) 119) and draft Work Programme for 2015 (BoR (14) 120).

**Fastweb** welcomes the opportunity given by BEREC to comment on its work programme and strategy for 2015. Fastweb believes that the priorities set by BEREC rightly address the challenges ahead of the whole electronic communications sector and as an investing challenger in the broadband market. Fastweb particularly appreciates the priority given to the promotion of competition, which is recognised to be the first and most effective investment driver.

The **FTTH Council Europe** welcomes the opportunity to comment on the draft BEREC Strategy 2015-2017. With regard to the content of the draft BEREC Medium Term Strategy

Outlook, the FTTH Council wonders whether a longer timeframe (say consistent with the legislature) might be appropriate.

The **GSMA** welcomes the opportunity to submit its views on the BEREC Strategy for 2015 - 2017. BEREC plays an increasingly important role as an advisory body in ensuring a consistent and proportionate regulatory approach in the European Union and we look forward to a continued and enhanced cooperation.

A key priority for the new European Commission will be the review of the electronic communication framework. This is urgently needed to modernise regulation so that it takes better account of market developments and competition from OTT services, and to ensure a more horizontal approach in terms of services regulation to the benefit of consumers - same service/same protection. BEREC's work on the review will be an important contribution and GSMA looks forward to contributing to this process.

The International Telecommunications Users Group (**INTUG**) is pleased to respond to the public consultation on BEREC's Strategy 2015-2017, following the excellent Stakeholder Forum in Brussels, in which INTUG was privileged to participate.

**INTUG** suggests the Strategy period might be extended to cover the five-year Commission period, to force the flexibility to accommodate radical change - the unknown unknowns.

**Microsoft** appreciates the opportunity to comment on the *BEREC Strategy 2015-2017* and the *BEREC Work Programme 2015* documents (hereafter, collectively 'BEREC documents').

**Telecom Italia** (TI) welcomes the opportunity to provide its contribution to the BEREC Strategy 2015 – 2017 and Work Programme 2015.

**VATM**, the Association of Telecommunications and Value-Added Providers presenting the interests of 120 pro-competitive companies active in the German market welcomes the possibility to comment on the draft BEREC strategy 2015-2017 and draft BEREC Work Program 2015-2017.

**Vodafone** welcomes BEREC's consultations on its 2015-2017 Strategy and 2015 Work Programme and agrees with the main thrust of this proposed activity.

The **Voice on the Net Coalition** ('VON') Europe welcomes the opportunity to comment on the BEREC Strategy 2015-2017 (hereafter 'the Strategy').

**Wind** welcomes the BEREC public consultation on the BEREC STRATEGY 2015-2017 and appreciate the possibility to give its point of view as leading Italian Alternative Operator since the market liberalization in Italy.

### 3. BEREC's Strategic Pillars



Generally speaking, **Cable Europe** supports BEREC in its task to ensuring the independent, consistent, and high-quality application of the European regulatory framework for electronic communications market for the benefit of Europe and its citizens. Therefore, we support BEREC's strategic objectives as set up in its Strategy 2015-2017.

The **EAFM** warmly welcomes BEREC's reaffirmed commitment to three strategic priorities: (1) promoting competition and investment, (2) promoting the internal market and (3) empowering and protecting end-users. The EAFM asks BEREC to systematically keep in mind the existence and role of Full MVNOs, and reflect that role, when finalising the list of items in its draft WP2015. Similarly, we ask BEREC to consider Full MVNOs in its 2015-2017 Strategy, and when subsequently conducting work on the finalised items, and more generally when drafting documents, and when providing advice to EU institutions.

The **EBU** welcomes the fact that BEREC organizes its strategic outlook for 2015-2017 around three strategic pillars – promoting competition and investment (I); promoting the internal market (II) and empowering and protecting end-users (III) and contributed to increasing the visibility of the output scheduled by BEREC. We would just like to highlight the inherent links between the different strategic pillars. While we support BEREC's understanding under strategic pillar I that “effective and sustainable competition is what drives efficient investment” (page 3 of BoR(14)119), we also believe that ensuring end-users continued ability to choose the services of their choice (under strategic pillar III) directly underpins competition in broadband access markets. By establishing effective mechanisms empowering end users in broadband markets and by maintaining and effectively enforcing open Internet safeguards, the incentives to invest in networks and superfast broadband are also likely to be optimized.

**ECC WG NaN** agrees with the strategic objectives set out in the Draft Strategy and the corresponding priority work items contained in the Draft Work Programme.

**ECTA** broadly agrees with the 3 key strategic priorities defined by BEREC in its draft Strategy<sup>3</sup> and the deliverables put forward in the BEREC WP. ECTA particularly welcomes the continued prevalence of and focus on promoting competition and investment in the sector (Strategic Priority 1).

**Fastweb** agrees with the evolutionary – rather than revolutionary – approach taken by BEREC, however, we believe that a change is still needed in the way in which regulatory remedies are designed and implemented because the current regulatory paradigm tends to reward preferentially investments planned by incumbents.

In other words, the current regulatory paradigm, in which access fees are based on “replacement cost” of the legacy copper network, is based on the idea that vertically integrated operators are the only operators directly engaged in network renovation and in the deployment of NGA in Europe.

It is clear that if the best driver of investments is competition, in order to have strong infrastructure investments we need regulatory incentives aimed at nurturing infrastructure competition, that is, infrastructure investments from all market players.

In this context, Fastweb believes that the evolution of the regulation should entail the recognition that FTTC and FTTB investments are sustainable by alternative operators and

that the right costing methodology will be key in encouraging NGA deployment by Altnets. By creating equal opportunity to invest for all category of operators, such a regulatory approach would **trigger a race to invest in fibre up to the next point of concentration** (today in most cases this is the street cabinet, tomorrow this concentration point may be closer to the building), thus fostering a facility-based competition also in the NGA context. Moreover, for the sake of ensuring non-discrimination, while avoiding over-regulation, NRAs should better target remedies to real bottlenecks, reducing the scope of the incumbent monopoly excluding from it activation and fault reparation services.

Overall the **FTTH Council** appreciates the linkage between the 2015-2017 Strategy document and the structure of the annual work programmes. The FTTH Council would like to see a stronger correlation between the Strategy Document and the work programme items related to the Review of the Regulatory Framework (section 3.2.3).

**INTUG** suggests the Strategy period might be extended to cover the five-year Commission period, to force the flexibility to accommodate radical change - the unknown unknowns. The current Regulatory Framework was designed for use of communications services by people. The Framework Review should therefore take into account the increasing impact of significant use of communications services by objects and devices. These “things” have different capability, different needs, different resilience and different usage characteristics. The strategy is naturally focused on the EU, and the work of the European Commission, BEREC itself and Member State NRAs, plus observer countries. It is essential, however, that active and effective co-operation and partnership is resourced and maintained with relevant international bodies, including ITU, OECD and similar organisations. The scope of NRA responsibility should also be reviewed, to consider if content should be included. The current Regulatory Framework operates through transposition at national level by Member States, which assumes an industry structure of national service providers, albeit that many belong to multinational groups. Many business customers are not structured in this way, and would prefer to deal with truly pan-EU suppliers seamlessly. The strategy should consider how ex-ante regulation could address an industry structured in this way.

**OpenSignal** We are providing comments on the Draft BEREC Strategy 2015---2017 because the three strategic pillars of the strategy,

1. Promoting Competition and Investment,
2. Promoting the Internal market, and
3. Empowering and protecting end—users are directly aligned with Open Signal’s mission and methodology of crowdsourcing data to allow accurate analysis of the performance of networks. Based on our extensive experience on data collection and analysis, we are providing comments relating to how a crowd sourced methodology can contribute to achieving the aims laid out in the strategy.

**TI:** BEREC has a fundamental role in harmonizing the regulation in Europe since the creation of a true European Telecom Single Market can be achieved only if the rules do not significant diverge among the Member States.

**Vodafone:** We wholeheartedly support BEREC’s strategy that “effective and sustainable competition is what drives efficient investment” and we have introduced sustainable competition in all the markets in which we operate, whether fixed or mobile. We firmly

believe that the communications industry is the foundation for a vibrant European economy and look forward to working with BEREC in respect of its 2015-2017 strategic objectives.

### 3a. Pillar 1 – promoting competition and investment

**BT:** We fully endorse the commitment to promote effective competition and investment in both infrastructure and services.

**Cable Europe** believes it is vital that both BEREC and NRAs continue to promote infrastructure based competition. Infrastructure-based competition is a key driver for growth and productivity and the beneficial consequences that it delivers for end users have been widely proven. For example history has shown that where cable operators have invested other providers have been incentivized to follow suit, leading to cyclic waves of counter investment and innovation by competing infrastructure providers. We believe therefore that BEREC should hold as a principal objective the realization of the full potential of privately funded, infrastructure based competition - and that this philosophy should be the default approach pursued in the first instance by all NRAs.

#### **ECTA: NURTURING COMPETITION IS KEY TO ENSURE EUROPE'S GLOBAL LEADERSHIP AND COMPETITIVENESS**

The EU electronic communications sector is at a key stage of development, with the transition to next generation access networks (NGA) gathering momentum. Building on the current EU pro-competitive framework and thus promoting competition and ensuring regulatory predictability in an NGA environment is essential if we want to ensure that efficient investments in NGA are made and that European end-users (consumers and businesses) continue being able to choose from innovative products at affordable prices.

BEREC's continued focus on promoting competition and investment (Strategic Pillar & Priority 1) is therefore most welcomed. As recognised by BEREC, effective and sustainable competition "*is what drives efficient investment*" and "*serves the interests of European end-users, as it provides for maximum benefit in terms of choice, price and quality.*"<sup>4</sup> We note that competition has been, is, and will continue being, the key to satisfying explicit demand and discovering latent demand from customers (consumers and businesses), including the price points at which large-scale adoption of services takes off, thereby driving take-up of services, achieving broad socio-economic benefits, and generating economic rewards for those companies which best satisfy evolving customer demand and are best able to industrialise the satisfaction of such customer demand. Competitive pressure is, has been and will also continue being, in an NGA environment, the trigger for innovation and investments by telecoms companies. Genuine competition is what leads companies to upgrade their networks, invest and innovate.

Competition is also a building-block and pre-requisite for the completion of the internal market. In ECTA's view, global competitiveness springs from local competition. As acknowledged by BEREC in its draft Strategy, achieving effective competition at national level can spur the completion of the telecoms single market and boost Europe's global competitiveness, which in turn will lead to growth and job creation ("*effective competition at the national level fuels the development of the internal market – Europe's global competitiveness relies on competitive European (national) market. A competitive European telecoms sector in turn contributes to a vibrant European economy*").

It is by nurturing competition, and not by prematurely deregulating and reducing the competitive pressure in the European national markets, that Europe will achieve a single market in telecoms and remain globally competitive *vis-à-vis* other parts of the world. We must think global and act local – it is local competition which drives a connected, globally competitive society and economy.

Note that despite claims that Europe would be lagging behind other regions of the world, notably the US, in terms of broadband performance and fibre deployments and that this would stem from our pro-competitive regulatory model, the fact is that today **Europe is a leader on broadband performance** and this is largely due to a well-functioning framework delivering competition. Evidence of Europe's leadership is provided in numerous studies and reports.

According to the latest figures released by the ITU on 21 September 2014, **European countries are the world leaders both in fixed broadband penetration and actual Internet usage**. All countries in the top 10 for fixed broadband penetration are European except for Korea (ranking 6th). The US only ranks 24th (down from 20th the previous year), Japan is 23rd (down from 21st the previous year) and China is 59th (down from 55th the previous year). All countries in the top 20 for fixed broadband penetration are European, except for Korea, Canada and Hong-Kong. All countries in the top 10 for actual Internet usage are European. It is therefore highly doubtful that Europe should take example from other regions of the world.

When it comes to genuine **fibre coverage and take-up** (FTTB+FTTH) the EU28 and the US are broadly on par. The EU28 has approximately 35 million homes passed, corresponding to 16.3% of households, and has 7.8 million actual subscribers (and is experiencing high growth in FTTB+FTTH). The US has approximately 20 million homes passed, corresponding to 18% of households, and has 8.7 million actual subscribers (and is not experiencing high growth in FTTB+FTTH). According to OECD data on actual FTTB+FTTH subscribers, 8 EU Member States rank above the US, with Norway and Iceland (which implement the EU regulatory framework as part of their EEA commitments) also ranking above the US. For the avoidance of doubt, the data presented above does not include cable and (vectored) VDSL2 deployed from street cabinets, which is the incremental upgrade being deployed on a wide scale by Europe's incumbent telecommunications operators to achieve speeds above 30 Mbit/s (which is growing much faster than genuine fibre coverage, and for which incumbents control over 90% of the lines, as per COCOM data).

Instead of looking at other parts of the world (including regions that have put a lot of public money into fibre rollout, which is unlikely to be the case in Europe) Europe should examine more carefully its own 'best practices' such as Sweden (over 38% actual FTTB+FTTH subscribers as a proportion of all fixed broadband subscribers according to OECD data) and there should be a wide policy debate about what investments Europe would like to see precisely and what are the realistic models to finance such investments.

We also note that **average broadband speeds in Europe are well ahead of those in other advanced economies**. A recent report commissioned by the European Commission and carried out by SamKnows shows that European consumers receive higher speeds than American consumers for example (and the same is true for Asia) on all fixed technologies. The study found that xDSL download speeds averaged 8.13 Mbit/s (up from 7.20 Mbit/s the previous year) in Europe compared to 5.30 Mbit/s in the US. Cable download speeds averaged 52.21 Mbit/s (up from 33.10 Mbit/s the previous year) in Europe compared to 17.00 Mbit/s in the US. The same pattern was found for FTTx services too, with Europe averaging 47.74 Mbit/s (up from 41.02 Mbit/s the previous year) compared to the US achieving 30.20 Mbit/s.

The Akamai State of the Internet report for Q1 2014<sup>15</sup> similarly shows that, in terms of average broadband Internet connection speeds, 6 EU Member States rank above the US<sup>16</sup>. The Netherlands ranks 5th (12.4 Mbit/s), Sweden ranks 7th (11.6 Mbit/s), the Czech Republic (11.2 Mbit/s), Finland (10.7 Mbit/s), Ireland (10.7 Mbit/s), and Denmark (10.5 Mbit/s) rank 8th through 11th – all ahead of the US ranking 12th (10.5 Mbit/s). Three more EU Member States, and Norway, are within 1 percentage point just behind the US, and most other EU Member States are in the top-40, whilst China ranks 79th (3.2 Mbit/s).

In order to ensure that Europe keeps its leadership on broadband and avoid a new digital divide in the transition to NGA, ECTA therefore emphasises the need to **safeguard a strongly pro-competitive environment**. At times of technological transition, it is recurrent that dominant companies attempt to squeeze out competition by abusing and leveraging their market power. In the transition from dial-up Internet access to basic broadband, many former monopolist telecommunications operators were found to have abused their dominant positions, with very negative consequences for the level of competition in the markets and consumer welfare. In the transition to NGA, it is of utmost relevant that abuse and end-user harm are prevented.

As BEREC rightly stated in its Work Programme 2014, experience has taught NRAs that “*the hypothesis that ‘2 is not enough for competition’ continues to hold*”. We need real choices for consumers and businesses. It is competition that gets everyone connected and ensures the take-up of services and a virtuous cycle of investments.

ECTA welcomes BEREC’s endeavour to address the challenges brought by network and service oligopolies and monitor the evolution of service bundling. With the increasing demand for bundles, it is essential that wholesale access products are made available which allow all operators to offer bundled offers and effectively compete and innovate at the retail level.

#### **4. RETAIN AN EVOLUTIONARY APPROACH: REGULATORY FRAMEWORK TO REMAIN PRO-COMPETITIVE**

The review of the regulatory framework is indeed the most significant upcoming regulatory development for the sector. ECTA strongly welcomes BEREC’s consideration that the evolutionary approach on which the 2009 review was based must be retained. At the time of the previous review, the European Commission and the co-legislators recognised the marked contribution of the founding principles of competition law to the level of growth and innovation in the sector, ultimately deciding to continue building on these principles. As in 2009, competition today continues to play a fundamental role in ensuring that companies invest and innovate and that the highest levels of consumer welfare are generated.

Unfounded claims to the effect that (i) Europe would lagging behind other regions in terms of broadband performance, (ii) excessive competition and *ex ante* regulation would be to blame and (iii) an overhaul of the regulatory and legislative framework would be required, must continue being disregarded and rebutted by BEREC. Solid evidence from countless reports and studies and BEREC’s own statements on the TSM proposal contradict these assertions and show that the EU pro-competitive regulatory framework has effectively delivered and that promoting competition must remain at the core of any policy initiatives in the sector.

ECTA therefore fully supports BEREC’s commitment to “*protect the underlying principles of the current Framework, which have been broadly successful in promoting the effective competition based on a conviction (supported by the evidence) that end-users benefit from competitive markets, and that innovation and efficient investment (both critical to Europe’s global competitiveness) are spurred by that competition.*” In fact, “*An environment where investment in high-speed networks can flourish depends on market players being able to rely on a stable regulatory framework enabling effective competition in downstream markets.*”

ETNO:

- In its first Strategic Pillar, BEREC sets as a primary goal the promotion of competition and investment. ETNO shares the view that investment and innovation in next generation electronic communications infrastructures is a central goal to be targeted by policy-makers and regulators.
- We therefore encourage BEREC to focus its work in 2015-2017 on incentivising investment in high-speed fixed and mobile broadband infrastructure, ensuring sustainable competition in electronic communications markets.
- As stressed in our recently released Agenda for Europe<sup>1</sup>, we believe that a lighter and less complex regulatory framework for the rollout of NGA infrastructures, a level playing field among all players of the digital value chain and a new public policy framework for the digital industry can provide the right incentives to maximize investments and innovation in the European digital sector, while improving European citizens' lives.
- As a general comment, we also underline that the role of regulatory authorities should be better aligned with the network investment objectives and a new, cohesive and light-touch regulatory and legislative framework, fit for the digital reality, should be put in place.

The **FTTH Council** agrees with the emphasis being placed on facilitation of competitive market and believes that competitive forces will deliver benefits to end users. The Council notes the other work that is being proposed regarding consumer empowerment and notes that many consumer aspects e.g. regarding contract terms, tend to be more national in scope and effect. The FTTH Council would stress certain pan-European issues such as transparency measures in terms of the network performance. Well informed consumers with a choice of suppliers will enable a more dynamic and responsive market to the benefit of consumers and industry.

#### **GSMA:**

- Article 8 covers a broad list of objectives that need to be prioritised so that Europe can meet its connectivity challenge and deliver the infrastructure needed to underpin growth and jobs. Investments, and particularly the need to incentivise private investments in networks, should be BEREC's top priority. This would be also more in line with the objectives developed by the new President of the European Commission.
- Competition remains an important objective but the short term and long term consumer interest needs to be better reconciled. We believe that regulation should be tilted away from managing end-user prices and increasing the number of competitors, to encouraging investment and innovation in networks. Operator revenues are a key driver for investments, whilst innovation and investments in new technologies such as LTE are the best stimulators for the unit price decreases that benefit customers. As an example, US operators benefit from significantly higher ARPU than their European peers and as a consequence Europe is lagging behind the US in 4G network penetration. Regulation should therefore be geared towards better encouraging and supporting operators' investments in networks. The challenge of developing new networks should shape the design of auction conditions, especially in terms of access obligations or spectrum bands reserved for new potential entrants.
- Regulation should also adopt a global perspective, assessing its impact not only at a local level but also on the competitiveness of EU industry vis à vis the rest of the world.

**INTUG** agrees that these objectives are complementary and not alternatives in conflict. Competition drives innovation, which drives demand, which drives investment, which enhances competition, thus creating a virtuous circle. Innovation is encouraged by ensuring service providers have open access to infrastructure, and are not constrained by exclusive

deals or bottleneck resources. The strategy should seek promotion of service competition, whilst avoiding inefficient duplicated infrastructure investment. It is essential that there is effective transposition of last mile access regulation, leading to low pricing.

Regulation therefore also needs to be extended to cover situations of joint dominance.

Whilst enabling innovation and investment in infrastructure supply is important, BEREC should also plan activities which focus on driving up demand via content and applications.

Business users need convergence of fixed and mobile communications services, ideally from integrated transport suppliers. Whilst vertical integration benefits are considerable, and should not be excluded, care must be taken to ensure such offers do not imply lock-in or limitation of choice for content, application or device. Convergence of services comes most effectively from converged suppliers, and fixed and mobile operators should be encouraged to extend their scope, whilst maintaining flexibility for independent supply.

Since ICT is an input to economic growth, it should not be the subject of taxation, which would create friction in the virtuous circle of investment. Frequency spectrum license fees and “benefit in kind” taxes on technology supplied to employees are two examples of this.

At **OpenSignal**, we could not agree more. Effective competition encourages companies to innovate, improve their service offering and lower costs, which can in turn be passed onto consumers. When network operators self-report coverage, it is often hard to compare on a consistent basis. Drive testing methodologies differ, as do testing devices, making apples-to-apples comparison across networks effectively impossible. A crowd-sourced methodology, independent of network and device type allows for consistent reporting of performance of the competition. OpenSignal’s crowd-sourced data compares network operator’s performance at the user level. One way in which this data is presented is through our coverage map, available on our website and in the app itself. This map tool allows the user to compare all network types in a given region, and filter to view the coverage of both individual operators and network type (e.g. 2G, 3G or 4G).

Regular analysis of the performance of networks within a country can highlight opportunities for competition for infrastructure improvements. An example is OpenSignal’s study on Denmark’s Notspots in 2013. The report found 21,098 ‘notspots’ – areas where multiple users reported have no 3G access on a particular network, demonstrating a tangible opportunity for Danish networks to expand their service into these areas.

Since OpenSignal empowers users to report on the quality of their cell phone coverage, both actively and passively through the application, this creates an opportunity for network operators to compete to offer better services to their customers. This in turn encourages and incentivizes further investment in network infrastructure.

**TI:** Promoting investment and competition is the first pillar of BEREC 2015 -2017 Strategy. In order to foster the investments in this period of economic recession, the electronic communication sector requires a rethinking of the European regulation policies. A gradual lightening of the regulatory constraints, as envisaged in the objectives of the European Framework is now necessary. Instead, we are witnessing an exacerbation of the rules at national level, which severely undermines investments profitability and therefore the roll-out of high-speed access networks in Europe.

**VATM:** Regarding the approach taken by the current Commission, VATM welcomes BEREC’s focus on promoting competition and investment (Pillar 1 and pillar 2 of the strategy). Especially against the background of the paradigm change which the current EU

Commission promotes forward, the work and strategic position of BEREC will be essential to safeguard competition and foster investments by all market players. Promoting competition and ensuring regulatory predictability will therefore be essential. "Continuing on as in the past" must not be considered as an extremely dangerous experiment which impedes investments, it is necessary to increase stability with negligible cost. Once competition has been curtailed, few options are left to revive it. Such a move is difficult to reverse. This not only calls into question investments already made but the paradigm change promoted by the outgoing Commission and profiting industry players also does not offer a foundation for long-term investment decisions.

VATM has convincingly explained to the Commission that strengthening competition in the telecommunication markets has led to increased investments in telecommunication networks<sup>1</sup>. Increased competition promotes the demand for telecommunication services. In economic terms, stagnating demand is a rational reason for an increased reluctance to invest.

One key question will probably be to explain what approaches could be used in the future to encourage demand. While the availability of, for instance, fast internet connections have steadily increased in the past, the dissemination and use of innovative services has lagged behind this development. Therefore, stronger emphasis should also be placed on areas outside the streaming services which are particularly important for the increased demand. But in situations where demand would allow for investments, it is precisely the fact that pro-competition policy is not pursued consistently and steadily weakened which turns out to be the greatest obstacle to private investments. Forgoing regulated wholesale products do not solve the problem; it is the problem trigger instead.

The next periodic review of the EU regulatory framework is therefore the right opportunity to assess the extent to which the EU's pro-competitive framework has been consistently

VATM has convincingly explained to the Commission that strengthening competition in the telecommunication markets has led to increased investments in telecommunication networks<sup>1</sup>. Increased competition promotes the demand for telecommunication services. In economic terms, stagnating demand is a rational reason for an increased reluctance to invest.

One key question will probably be to explain what approaches could be used in the future to encourage demand. While the availability of, for instance, fast internet connections have steadily increased in the past, the dissemination and use of innovative services has lagged behind this development. Therefore, stronger emphasis should also be placed on areas outside the streaming services which are particularly important for the increased demand. But in situations where demand would allow for investments, it is precisely the fact that pro-competition policy is not pursued consistently and steadily weakened which turns out to be the greatest obstacle to private investments. Forgoing regulated wholesale products do not solve the problem; it is the problem trigger instead.

The next periodic review of the EU regulatory framework is therefore the right opportunity to assess the extent to which the EU's pro-competitive framework has been consistently implemented and whether new challenges need to be tackled. We therefore ask BEREC to focus on the right balance on promoting competition and investment.

**Vodafone:** BEREC should not let the importance of ensuring a suitably consistent approach on Equivalence of Inputs (EoI) fall off its radar during 2015. Despite manifesting the need for EoI in the Costing and Non-Discrimination Recommendation<sup>3</sup>, we have not observed any significant efforts by NRAs to define and oversee the implementation of EoI. There are also specific considerations which apply in business connectivity markets, and there is no reason why EoI would not be an equally suitable remedy in these markets as well. We welcome the



consultation on the Economic Replicability Test as defined in the Costing and Non-Discrimination Recommendation and recommend that a similar consultation be undertaken at the earliest on EOI. It would indeed be beneficial for NRAs to have ongoing central guidance on what works and what doesn't.

There may also be additional relevant considerations such as the important role that passive infrastructure access (e.g. duct and dark fibre access) may play in achieving the policy goals that underpin an EoI regime. These considerations should also be assessed by NRAs as part of their EoI cost/benefit analysis and it will be important for BEREC to take an active role in sharing experience and learnings across Member States. This is also an area where we have been carrying out our own study and we will of course be sharing our findings with BEREC in due course.

We very much endorse BEREC's proposal that the work that has been done to date on Virtual Access Products should be made "more ambitious and results-oriented". In fact, this should be the goal for all BEREC activity in respect of wholesale fixed access products, virtual or otherwise.

In particular, BEREC's activity should involve a comprehensive benchmarking analysis of Service Level Agreements (SLAs) and Service Level Guarantees (SLGs) across Member States. This would constitute the basis for the definition of best practices and harmonisation across member states. Vodafone has carried out extensive analysis in this area and we would be very happy to share our findings with the BEREC review team. The Quality of Service consideration that BEREC has identified in its draft 2015-17 Strategy (referencing net neutrality and mobile coverage as areas where this may be required) is equally relevant to securing fit-for-purpose access to incumbent fixed networks.

The developments identified by BEREC in section 3.1 of its Work Programme are all relevant, in particular we support the need to analyse the potential offered by network sharing arrangements in light of the trend towards market concentration. We have entered into mobile network and also fibre sharing agreements in a number of Member States and our experience is that it can provide significant pro-competitive and pro-consumer benefits.

We also note that BEREC will be assessing the transition from PSTN to all IP-technology. In so doing, BEREC should recognise that non-IP products are still an important part of the landscape (particularly for operators active in providing services to the enterprise sector).

This was noted by Ofcom in its 2013 Business Connectivity Market Review, where Ofcom found that although they expected that many businesses will increasingly favour (lower cost) IP services over non-IP services, migration of enterprise applications can be disruptive and typically requires investment in new or upgraded equipment. Ofcom concluded that it expected "migration to proceed gradually and that there will be significant demand for Traditional Interface leased lines during the timescale of this review and beyond".

We do however think there is scope for BEREC to consider what should be done when certain geographic areas have sufficient fibre coverage and whether legacy non-IP infrastructures such as copper can be switched off.

#### **VON Europe:**

The Strategy remarks that "a competitive European telecoms sector (...) contributes to a vibrant European economy".

VON Europe considers that this a narrow view of the Internet ecosystem. We would like to point out that:

- 1) it is the range and diversity of content, applications and services made accessible over the Internet, often at no or little cost, that is the main, if not the only, driver for consumers increasing demand for bandwidth;
- 2) demand for bandwidth is thus driven by consumers accessing content, applications and services, not by the network operators themselves.

Importantly, without this increase in consumer demand for (mobile) Internet access, network operators would see their market and revenues shrink.

We considers that the efforts from content, application and service providers to create a demand for their services are thus to the benefit of networks operators, who in turn are able to extract revenues from consumers requiring data connections or upgrading their existing connections to access these services.

Therefore, we believe that the BEREC should amend this statement to recognise that content, application and service providers also contribute to a vibrant European economy, as without the European telecoms sector would not thrive without them.

**Wind:** The current market situation, in which telecommunication companies are competing, is characterized by a story of retail price decrease and increase in quality and innovation provided to end users mainly thanks to the paramount role of alternative operators across EU. This fact is more evident if compared with other sectors, in particular for other utilities which gained years after years by increase in prices (see Figure 1).

To make some few example, on average, prices for the Energy sector grown more than 50%, at the same time Gas grown more than 65%, Water and Transport respectively grown more than 37% and 39%. Bearing in mind this consideration, the role of BEREC, as the group of European National Regulators, remains of paramount importance especially considering how regulatory decision may impacts on investments, innovation and competition.

At the same time, the use of Internet via wireless networks and devices is still growing strongly, mainly driven by an ever-increasing use of applications and services in the markets provided by Over the Top Players (OTT). According to Cisco's Figures (2013a), global mobile data traffic grew by 70% in 2012, to a level which corresponds to almost 12 times the entire Internet traffic in 2000. Half of the traffic was video traffic. Cisco forecasts that "global mobile data traffic will increase 13-fold between 2012 and 2017.

The strong growth in mobile data traffic puts enormous pressure on mobile networks, which requires investments by Telco Operators (as correctly highlight by ITU, see Figure 2) but at the same time the value is continuing to flow mainly on OTT side of the Market.

These figures reflect the shift of consumer interest towards the internet communication services instead of traditional telecommunication services, but again there is very little compensation in terms of data revenues. The main beneficiaries of the trend are players other than telecommunications network operators, the OTTs.

In order to be as clear as possible, it should be considered that all retail services sold by telecommunications network operators to end users generate a certain typology and amount of traffic which in turn impose a certain *expected* amount of budgeted costs in order to make all the related investments to develop and maintain the network as efficient as possible, capable to face, inter alia, saturation of network capacity. This consideration will be therefore more and more important considering the expectations in terms of data growth.

This scenario is also the consequence of a Regulatory Framework which looks only to traditional telecommunications networks and services, missing the evolution of the internet based services, forcing a *de facto* situation in which network infrastructure investments are increasingly difficult to finance given that players other than the telecommunications network operators are the main beneficiaries of network development. One of the fundamental consequence of this approach is the incorrect allocation of content/application costs within the overall ecosystem.

In this view, Wind welcomes BEREC approach on OTT services, encouraging its role in monitoring all market dynamics and impacts for telecommunication operators and advising the Commission on current regulatory imbalance to the detriment of Telco players. Such high-level advisory role should be promoted and enhanced especially considering the forthcoming review of the Regulatory Framework. For what concern the "traditional"

telecommunication services, BEREC did a lot of efforts to ensure a proper implementation of the rules made by the Commission, but Wind envisages yet a strong power exerted by incumbents on fixed networks. In this sense, it is important to bear in mind that according to OECD Figures<sup>1</sup>, in July 2014, DSL is still the prevalent technology, making up 51.5% of fixed broadband subscriptions, but it continues to be gradually replaced by fibre, now at 16.7% of subscriptions. As explained also in Wind's response to the to the public consultation of BEREC on Regulatory Accounting and BEREC Work Programme 2015, LLU access obligation is the main regulatory tool to foster competition and it will remain of paramount importance for the years to come, especially in those countries where there are no cable operators which can compete at wholesale level to provide access to Altnets.

The promotion of competition and investment should be pursued every time taking into account the countries specificities, and in any case when NRAs intend to promote investments in the new generation networks it should be taken into account that already exists investments made in some countries by alternative operators on the copper network. Therefore maintaining NRA capability to safeguard national specificities means taking the proper remedies to address such issues and create a level playing field tailored for the country which is applied. For example, the presence of cable or not (i.e., Italy has no CATV), and other features should be encompassed in any regulatory analysis. Moreover these investments and competition on copper network should still be protected also in the future. At the same time it is important to guarantee a level playing field through the reduction of ULL prices and ensure that all operators are able to compete on quality of fault repair and activation services delivered to end-users also through a liberalization of maintenance and activation services.

Considering that the physical and virtual products are far from being fully comparable and substitutable, physical LLU obligations remains an important access mechanism also in case of NGN networks. It is clear from incumbent's intention and investments across EU that FTTC solution (namely fiber *plus* copper) are forcing competitors to consider virtual access products in their development plans but this entails a weaken in competition dynamics if this solutions will not bring to multi-operator vectoring or actual sub-loop availability.

It has to be remarked that the statement "*Turning to next generation networks (NGNs) in the core and backbone networks, BEREC will continue to help ensure a smooth transition from PSTN to all IP-technology, including the possible switching off of copper networks, by taking a pro-competitive, technologically neutral and forward-looking approach that supports the development of new business models, while protecting the interests of end-users.*" can be misleading. In fact the transition from PSTN to all-IP networks does not imply any need to switch off copper networks: there is no correlation between the use of IP-technology and the switch-off of copper networks, that in some areas will continue to be used for a very long time frame, therefore from wind's view, for the next few years it is not yet the right time to switch-off the copper network, considering the huge investment did by the alternative operator in some countries (ie Italy) and the evidence stressed above and reported by the OECD on DSL lines.

Finally, it is important to remark that a development of a "consistent regulatory practice" is a reasonable approach inherent with the BEREC mission for the years to come and Wind firmly believes that it should be always accompanied by NRAs independence, in particular in promoting country specificities and taking into account the history of each country. In this sense, to make an example, when BEREC will manage MTR issue across EU, in countries like Italy where its level is both well below the EU average and below to ones of other countries, and at the same time the deployment of LTE network is ongoing, no other MTR reduction should be required (for a comparison on imbalance effects please see the Wind response to the BEREC Public Consultation on the draft BEREC Work Programme 2015).

### 3b. Pillar 2 – Promoting the Internal market

**BT:** We strongly endorse the need to develop consistent regulatory practice, particularly in relation to cross-border issues. This should focus not just on the examples given, such as international roaming, dispute resolution, but also on the availability of the wholesale access inputs needed to support cross-border or pan-European business services.

**Cable Europe** believes it is vital that both BEREC and NRAs continue to promote infrastructure based competition. Infrastructure-based competition is a key driver for growth and productivity and the beneficial consequences that it delivers for end users have been widely proven. For example history has shown that where cable operators have invested other providers have been incentivized to follow suit, leading to cyclic waves of counter investment and innovation by competing infrastructure providers. We believe therefore that BEREC should hold as a principal objective the realization of the full potential of privately funded, infrastructure based competition - and that this philosophy should be the default approach pursued in the first instance by all NRAs.

**ECTA** welcomes BEREC's commitment to achieving an internal market, notably the actions aimed at developing consistent regulatory practice and addressing cross-border issues. The focus must be put in removing the obstacles which prevent operators from providing domestic and cross-border communications services and thus entering into new markets, expanding, innovating and investing in the roll out of NGA and in new services. Therefore, the areas of focus should be broader than those mentioned in the BEREC Strategy (e.g. dispute resolution) and also specifically encompass the availability of the wholesale access inputs needed to support *inter alia* the cross-border or pan-European business services. There are clear and tangible benefits associated with establishing a true internal market for electronic communications, notably by improving the way in which the requirements of business customers are met. Granting European businesses access to more competitive and innovative communications services could have the EU reaping benefits of almost 800 billion euros over a 15 year period. ECTA calls on BEREC to ensure that the true obstacles to achieving a single market in telecoms are tackled by e.g.: simplifying administrative procedures, including authorisation procedures, and ensuring the consistent availability of key wholesale access products – both  
13  
physical and virtual – at EU level, which would enable new investments by market entrants and cross-border service provision both to European businesses and consumers.

**GSMA:**

- **Level Playing Field** - BEREC and policy makers should adopt a holistic approach when considering the internal market dimension. Consistent regulatory practice within the EU is important but is currently too narrow and should take into account prevailing market developments. With OTT players now competing with operators in the same markets, it is time to review the framework to deliver a level playing field, to ensure better consumer protection within the EU and fair competition among all players.
- **Spectrum** - Broad and bold reform to the management of Europe's spectrum assets is required. The growth of Internet access over mobile broadband is dramatically increasing demand for spectrum and securing access to long-term harmonised spectrum is critical. Policy makers and regulators should support and promote the on-going reallocation of radio spectrum to the communications industry so that operators can continue to meet

consumer- and business needs for faster connection speeds and greater capacity. This process needs to be coordinated at the European level.

- Policies recently supported by the Commission and the European Parliament concerning spectrum licensing provide the right answers to these issues. There is also a need to ensure award processes avoid being structured to extract excessive payment for spectrum as this has a direct impact on the financial capacity to invest in infrastructure.

**INTUG:** The strategy is right to focus on enabling the development of the EU Single Market as a whole, and should do this by recognising that communications services are, to a large extent, a means to an end. ICT is responsible for half EU productivity growth and a quarter of GDP growth - roughly ten times that of the communications/ICT sector alone.

Analysis of markets and the design of regulation should therefore be geared towards an impact analysis on the EU economy as a whole, not simply the communications market. Some industries, such as finance, are almost entirely dependent on the ICT ecosystem.

Removal of national barriers to on-line business processes is vital, including elimination of roaming charges (which should not be diluted or delayed beyond end 2015), consistency and reduction of mobile termination charges, similar actions on cross border leased lines and telephony, and consistency of spectrum allocation methods and charging for licensing. Long-term action is also needed to align data protection and privacy directives.

**OpenSignal** agrees it is important to ensure that all countries within Europe strive for the same high standards of connectivity for their citizens. Using a consistent methodology to compare coverage across borders is challenging, however crowd-sourcing data that is agnostic of nation states allows for consistent framework for reporting on and comparing coverage between countries. Consistent reporting on quality of service is also important for brokering cross-border deals, such as agreements between carriers for international roaming.

*“Addressing cross-border issues. Typically this relates to activity targeting services which are provided across national borders. This includes cases where a single coordinated approach is required (e.g. international roaming), or cases where cooperation between regulators is required (e.g. cross-border dispute resolution or consumer protection concerns arising from cross-border fraud or misuse of numbering resources)”.*

Consistent reporting is important not only for cross-border roaming opportunities, but also domestic roaming. OpenSignal investigated the impacts national roaming could have on signal availability in the UK in 2014, demonstrating how if this were possible then the time an average UK user spends with no signal would drop from 15% to 7%. Being able to draw consistent comparisons across networks internationally across Europe, such as we have done with this study within the UK, demonstrates the benefits that can be won through making consistent performance comparisons throughout the European Market.

**Vodafone:** We believe the priority activity for BEREC in this area should be the future allocation and renewal of spectrum. We would encourage ongoing harmonisation of spectrum policy across the EU to provide the following:

- timely access to spectrum -addressing delays to the release of mobile spectrum in particular member states e.g. the 800 MHz band in Spain, and looking ahead to the release of the 700 MHz band around 2020;
- adequate harmonised spectrum -supporting industry efforts to identify, harmonise and secure further mobile spectrum bands over the long-term, to support industry innovation and growth, including 5G;

- sufficiently long terms -extending licences to 25+ years, and encouraging administrative renewal, to allow a longer investment horizon for implementing and upgrading mobile technology;
- open, efficient and fair award processes –allowing national variations in award design but preventing discrimination against existing players and artificial scarcity;
- fair prices –reserve prices reflecting opportunity costs to alternative users rather than pre-empting auction outcomes, and award processes that focus on identifying the most efficient users rather than the maximum revenue that can be raised per se, and
- measures to ensure fair distribution of spectrum among market players is maintained in the event of mergers.

In addition, there are currently significant inconsistencies in the availability, price and quality of key Enterprise fixed access products across the EU. One consequence of this is that European businesses may find it more difficult to secure communications services from the same supplier –and pan European providers may find it more difficult to compete with national providers, including incumbent firms.

In our view the inclusion of the proposal for harmonised fixed access products in the Connected Continent Regulation proposed by the European Commission in September 2013 is a welcome initiative that could promote competition and investment in the industry. We would support BEREC’s involvement in this area –facilitating the deployment of best practice wholesale fixed access services across Member States is a vital next step after benchmarking best practice in the first place.

We also believe that BEREC should focus on measures to achieve harmonisation of consumer protection requirements across the EU (which drive innovative EU products to scale and delivers more certainty to end users). This should be light touch, principles based in order to be flexible enough to adapt to new technology and the same rules should apply to the same services. This element is currently missing from BEREC’s draft work programme.

We very much agree that BEREC needs to take an active role in preparing for the next Framework review, which should amongst other things revise the definitions of Electronic Communication Services (ECS) and Electronic Communications Networks (ECN) –both of which have blurred with the convergence of communications services and development of networks. We acknowledge that this was to some extent covered in BEREC’s preliminary informal views on the set of questions put by Catherine Trautmann MEP, but it is essential that the subsequent questions posed by BEREC in that response are also brought into the work programme, for example whether to classify OTT players as ECS and also the regulation of equipment. As BEREC noted in that response, “concerns might arise when proprietary operating systems limit the transferability/portability of applications and data from one system environment to another”. This is a concern that we would share.

### 3c. Pillar 3 – Empowering and protecting end-users

**Cable Europe** supports BEREC’s monitoring exercise of offers proposed to end-users. Competition is indeed driving high quality offers that enable consumers the best proposal tailored to their needs. Protecting consumers online will also rightly need cooperation with other relevant bodies to look at various issues from many different angles.

#### **ECTA: PROMOTING END-USER CHOICE, ACCESSIBILITY AND AFFORDABILITY**

ECTA welcomes and supports BEREC’s statements that “*appropriate levels of information transparency and ease of switching are necessary to enable end-users to find the offer that meets their needs and to oil the wheels of competition*”, with the recognition that “*Improving the welfare of European end-users has always been at the core of BEREC’s mission. As*

*mentioned above, it is a virtuous cycle – a high level of competition empowers end-users, and end-users empowerment further fuels competition”.*

Transparency is indeed key to ensure real choice and boost the offer of competitive services, and ECTA therefore welcomes BEREC’s continued focus on ensuring that end-users can pick the services of their choice, at appropriate levels of price and quality. The recognition of the intertwining relationship between competition, transparency, effective switching and end-user empowerment is particularly welcomed.

ECTA would like to take this opportunity to reiterate, however, that when empowering and protecting end-users, it is necessary to acknowledge and differentiate consumer and business customers’ needs. In fact, legislation and rules aimed at protecting consumers’ rights often extend the scope of specific obligations to business operators when such extension is not required. Imposing rules whenever strict arrangements with business customers (of potentially any type or size) are already in place through contract negotiations (e.g. high level of quality of service provision, dedicated helpdesk, SLAs with very strict penalties in case of non-compliance) can add administrative burden or create disproportionate obligations on operators serving business customers, resulting in additional costs in service provision and potentially preventing business operators from providing innovative and future-proof services to business customers. This could be avoided by clearly defining the scope of application of the consumers protection rules e.g. by consistently using appropriate wording (i.e. “user”, “consumers” or “mass market”). This issue should also be considered at the time of the upcoming review of the EU Regulatory Framework.

**FttH Council** looks forward to a more systematic measurement of network performance in the future<sup>1</sup> to complement the work being done today by certain regulators to inform and protect consumers.

#### **GSMA:**

**Consumer protection** - trust is central to the take up and use of new digital services, and consumer protection rules make a significant contribution to fostering that trust. However, more harmonisation is required between Member States, particularly to enable the provision of pan-European offers, since differences in national consumer law are one of the main obstacles to the full and effective development of the digital single market. Greater consistency is also required in regulating between different providers of the same service. If a service satisfies the same consumer needs as another, they should both be treated the same way by regulation, irrespective of the technology being used, which might be providing the service, from where the service is provided, or where the end-user is located. In that sense, moving from a sector specific framework on services to an EU general or cross-sector law would tackle this issue, at the same time as ensuring a better level of harmonisation across the EU.

□□ **Open internet** - the GSMA fully supports the concept of the Open Internet and its central role as a platform for economic growth, innovation and social inclusion. Ever increasing data traffic is smartly and actively managed by network operators to optimise and to ensure the best possible experience for all users, and this is becoming even more important as increasing pressure is put on network capacity. Different types of traffic have different requirements and need to be managed efficiently. This does not mean that the Internet is distorted or that customers are not able to enjoy content, services and applications of their choosing; it just means that services work better and networks run more efficiently. Openness should also be assured across the whole ICT value chain.

□□ Today the mobile industry is playing a crucial role as an innovation platform for new services, but it has the potential to deliver even greater benefits to society in the future with a whole range of new applications that can spread the benefits of mobility to sectors such as

energy, health, transport and education. For mobile to fulfill this potential, network operators must be able to develop services that meet the needs of consumers and charge different prices for differentiated products. Any restrictive measure e.g. which might attempt to limit innovation and especially competition from network and service providers, will harm consumer choice and will put Europe at a disadvantage as compared to other regions of the world, with effects not only on the ICT sector, but also on the whole European economy.

□□ Europe needs an Open Internet policy framework that focuses on general principles; recognises the consumer benefits that flow from traffic management, irrespective of the level of congestion; and provides appropriate freedom and flexibility for the development and delivery of innovative services alongside general Internet access.

**INTUG** welcomes the establishment of the new Relevant Market 4 for business services.

Whilst the business market may be considered smaller than the mass consumer market for communications services, it represents a significant majority of the Digital Market.

The differentiating characteristics of the business market include

- special factors arising from multi site and cross border connectivity needs
- lack of regulatory protection arising from sub-national geographic deregulation
- dysfunctionality and lack of competition in international mobile services
- potential loopholes in the interpretation of the NGA Recommendation
- oversimplification of broadband definition using just headline downstream speed
- risks of anti-competitive service quality issues arising from traffic management

Promoting end user choice requires ease of switching suppliers of any component of the ecosystem without functional or financial penalty for the remainder. This is true for all such situations, whether fixed networks, mobile operators, or content or application suppliers.

INTUG believes the strategy needs to consider what regulation is necessary to protect users of cloud services from potential loss of historical or current content or application.

**OpenSignal:** Empowering and protecting end users is not only an admirable objective to aim for in itself, but also integral to the success of pillars 1 and 2 of BEREC's proposed strategy; Until the end-user's needs are put first, effective competition will not prosper and internal markets cannot improve in efficiency. Removing knowledge asymmetries and ensuring that consumers can make informed choices is key. OpenSignal embraces this approach and benchmarks network operator's performance against each other. Our network rank methodology calculates which operator is best based on a number of metrics.

This network rank algorithm uses a series of Quality of Service (QoS) parameters (listen below), all of which are measured empirically from users of the the OpenSignal mobile app. To calculate the ranking, the score assigned to an operator for a given parameter is calculated according to the best performing operator for that parameter in a given region. In other words, it is a measure of the performance of an operator in relation to the local best operator. Therefore the network or rank is not based on an absolute scale and rankings of operators from different regions cannot be compared directly.

#### Network parameters

- **Signal Coverage:** This is an average of the signal strength reported. For LTE this is the RSRP, but for all other network types this is the RSSI (as defined by 3GPP specifications TS 27.007 8.5).
- **Download Speed:** This is an average of the upload speeds reported by any data network tests carried out in the region.



- Latency: This is an average of the latency times reported by any data network tests carried out in the regions.
- Data reliability: This is based on a combination of the success rates of the latency, download and upload tests. It is the proportion of data requests that are successfully completed.

OpenSignal has partnered with consumers groups to ensure that end-users are informed of the performance of the network options they are considering. For example, we have partnered with Which, a UK based consumer group, to embed our coverage map on their website and to publish a number of reports examining the status of coverage in the several UK cities. We are also in discussions with several other consumer groups across Europe, including Altroconsumo in Italy and Deco Proteste in Portugal. OpenSignal has also partnered with cell phone retail websites to allow consumers to be fully informed of their options, such as mobiles.co.uk, which also has an embedded coverage map on their website.

Being able to conduct periodic analysis of network performance is also cost effective through OpenSignal's app since there is a ready user-base on continual data collections. For example, we produce an annual State of LTE report. 2014's report found that Tele2 of Sweden is one of the top networks in terms of coverage.

OpenSignal has real world experience of using crowd-sourced methodology to analyse network performance, empowering the end-user in both terms of enabling them to contribute data on their own experience of the network, but also so that they are informed of the best options available to them.

**Vodafone:** We agree with BEREC's strategy to give priority to user protection and user access to clear and relevant information. However, it is not obvious which of BEREC's proposed work packages is designed to review whether the current regulatory framework actually delivers good outcomes for consumers –or whether the current information requirements merely serve to confuse consumers. We would encourage BEREC to focus its attention on how to ensure that consumers have the right information and have access to better ways of receiving the information so that they are able to make the right choices.

We also support BEREC's proposed report of OTT services, which should cover all salient questions, including those identified in paragraph 3.2.5 of the draft work programme and also BEREC's response to the questions posed by Catherine Trautmann MEP.

We are very supportive of BEREC continuing with its work stream on ecosystem dynamics and demand-side forces in net neutrality developments from an end-user perspective, but this should also cover impact on the service side, and especially whether net neutrality restrictions would encourage or restrict innovation at the edge.

The use of encryption by third parties also needs to be assessed in this context as it may prevent network operators from efficiently managing traffic, offering parental controls and virus protections and ensuring the security of the network. This can result in operators being unable to meet various regulatory requirements.

Finally, we note BEREC's ongoing priority of initiatives to facilitate operator switching by non-residential customers. At present this appears to be an internal BEREC activity and we would ask that there is an opportunity for industry to engage with this review. For example, Vodafone has taken a lead role in advocating for specific action in this area in the Netherlands, and the Ministry of Economic Affairs subsequently set up a special working group focused on eliminating switching barriers with respect to small and medium

enterprises. We would welcome the opportunity to share our experiences in this area with BEREC.

We thank BEREC for the opportunity to comment on its proposed 2015-17 Strategy and 2015 Work Programme and look forward to working with BEREC on these important topics over the years to come.

**Wind:** In these years of heavy crisis for many European Countries, BEREC should concentrate its efforts in order to safeguard both end users' interests and European operators' businesses, that are an invaluable resource for the European economy and that can boost the economic recovery of the Union. Continuing to penalize operators through policy strategies (like roaming regulation, reduction of MTR) with populist approach, will likely lead in the medium term to a decline of the telecommunication market, with loss offered services and probably workplaces, moving the telecommunication business towards other continents like the Americas and Asia.

Wind express its concern about the statement: *“Network convergence between fixed (cable/copper/fibre) and mobile technologies is fuelling the supply and demand of triple-and quad-play bundles, which in some cases could result in the development of service oligopolies.”*, which is considered fully not justified. Network convergence can be an advantage for the market and end users, since it can be provided with value added service, but even in this light NRAs shall watch over possible incumbent abuse of dominant position, that can lead to re-monopolize the market, hampering the development of new technological developments of networks and provisions of services, before trying to find oligopolies. Finally Wind welcomes BEREC activities in monitoring the market evolution of M2M and its role in evaluating, as Wind wish for, the needs for a light regulatory approach in order to assure a level playing field for all market players creating a suitable level of competition granting long term customers safeguards both on economics and privacy issues.

## 4. Major Trends and developments

**BT:** We fully support the need for BEREC and NRAs to take greater account of new bottlenecks across the wider communications chain. Much political attention has been given to the perceived market power of OTT players, but other bottlenecks such as PayTV content also need to be addressed, given the increased prevalence of bundled services, which BEREC rightly recognises as a key driver of competition. Similarly, the convergence and consolidation across and between platforms such as cable/fixed/mobile requires a more consistent and neutral approach to the treatment of network bottlenecks and the need for effective wholesale access.

**Cable Europe** acknowledges that market and technological developments introduce challenges that the sector will have to face as well as end-users and regulators. However, Cable Europe would be cautious about reflections that could lead to introducing over prescriptive regulations when EU needs a sector that can compete fiercely and innovate quickly based on strong investments. But to invest you need a good investment environment where risk levels are not aggravated by significant variations in the market driven by regulatory interventions.

The **FTTH Council** agree with the major trends and developments as identified by BEREC, however, the FTTH Council believe that BEREC need to give greater consideration to a

number of topics not currently listed. Industry structure (vertically integrated or separated) should be reviewed and treated as appropriate. The treatment of technological neutrality continues to be inappropriate with Policy Makers continuing to wash their hands of any requirements and/or technology considerations. Since every fixed access market in Europe exhibits market failure in the form of dominant firms, policy makers needs to be clear on the kind of functionality that networks should and should not exhibit, rewarding good characteristics and penalising bad characteristics. The FTTH Council would also note that we are currently not experiencing the kind of investment levels required to move to high capacity networks. Consideration needs to be given to the revision of WACC rates and more generally, feel that the general direction of regulation should leave more pricing discretion on the market. The FTTH Council believes that the State can act in an important 'anchor-client' role by move service delivery on-line and coordinating across services. BEREC can play an important role in advising how public services might leverage their position in this way on the demand side.

#### 4a. Technology, markets and end user developments

**ETNO** agrees with BEREC that the following market and technological trends will be central to the evolution of the electronic communications sector in the coming years:

- The growth of OTT services and the need to address the regulatory challenges that this raises.
- The growing demand for bandwidth-hungry services, together with the continued migration from PSTN to all IP-technology, which requires significant investment in high-speed electronic communications networks across Europe.
- The need to secure sufficient spectrum resources for wi-fi and other wireless technologies, also as a consequence of the increased use of bandwidth-hungry services.

##### **Ftth Council;**

##### **The treatment of technological neutrality**

Policy makers should define a clear vision for Europe in terms of the networks to be attained and the FTTH Council believes that by applying appropriate and measurable targets an expressed preference for 'fibre-first' would result.

The FTTH Council is concerned that the on-going interpretation of the technological neutrality principle set out in Recital 18 of the Framework Directive appears to be (a) not technologically-neutral and (b) not logical in the European regulatory context.

Setting targets (COM(2010) 245 final/2) which are set in order to include as many technologies as possible is, the FTTH Council believes, not technologically neutral and is a misinterpretation of the principle. Setting download speeds without corresponding upload speeds explicitly includes technologies which are not appropriate for Europe's long term needs and thereby favours them. The FTTH Council is strongly in favour of a neutral approach to technology that sets more measurable, appropriate and evolving targets related to the quality of experience for end users such as latency and jitter (critical to the deployment of certain services) as well as taking into account average bandwidth at peak times and that include targets for upstream bandwidth.

While the FTTH Council agrees that market players are best placed to make technology choices in well-functioning markets, that view is turned on its head where markets are characterised by market failure. In Europe, the fixed physical infrastructure market is characterised by market failure (leading to regulation) is every one of the 28 markets in the European Union. There is a dominant entity in every one of these markets and that entity is regulated – it is never free to choose prices or to whom it grants access. And yet, when it comes to technology choice, the Commission washes its hand and says it is none of their business and indeed, by not taking any position it allows the cheapest market foreclosing

technology choice to emerge. The FTTH Council does not expect the Commission to specify the actual technology it would like to see it should, at a minimum, specify the characteristics it would like to see in technology choices (technology parameters, openness, development paths etc.). That the Commission does not specify these characteristics does not make sense in the context of the European regulatory framework.

The FTTH Council see FTTH like solutions (FTTH, FTTB, FTTO,...) as the only future proof solution to growing broadband requirements. Fibre solutions are not only required in their own right but are also necessary to support the wider broadband ecosystem including advanced mobile solutions such as 4G and 5G. The FTTH Council sees mobile markets as working efficiently for now, a view shared by the Commission where market failure on access markets is rarely, if ever, identified. While the Commission chooses not to favour technologies with better socio-economic profiles in deference to private investors, at a minimum, where public money is spent, a strong preference for future proof solutions should be inherent in any tender.

The FTTH Council thinks technology neutrality should only operate once appropriate broadband targets and technology characteristics have been defined.

Excluding unsuitable technologies would still provide the market with a set of options, ranging from PON variants to P2P and even G.fast (which in some scenarios would be part of an FTTB roll-out).

**Recommendation:** Set realistic network usage targets which focus on consumer experience and after that let the technologies fall where they may. The Commission should express its preferences for technological characteristics by allowing preferable returns and conditions to apply to such technologies. Such an approach is consistent with Article 18 of the Framework Directive (2002/21/EC) which grants Regulators discretion to promote services where justified. Where public money is spent and choices are made about the type of infrastructure there should be a fibre-first principle in operation.

**VON Europe:** The Strategy warns for the tying of OTT services to devices and platforms as potential bottlenecks.

It is not entirely clear to VON Europe what is meant by this statement, nor what the BEREC is worried about, in its capacity as electronic communications regulator. The bottlenecks created at the infrastructure layer are obvious and were nicely identified and analysed by the recent Nobel Prize Winner, Professor Jean Tirole, as 'natural monopolies'.

The same situation does not exist when looking at the content, application, and services layers, where barriers to entry are much lower, the market more dynamic and switching costs are low. Whilst some situations may lead to anti-competitive claims, at this stage these do not seem to us to be of the competence of the BEREC, but rather in the remit of competition authorities (though we do understand that some of the BEREC's members may have competencies in both areas).

## 1. The growth of OTT services

**GSMA:**

**The growth of OTT services** needs to be taken better into account so that the regulatory framework can be properly adapted to the digital age. It is time for more consistency in the application of the same rules to the same services, independently of who is providing them (operators or OTTs). This area covers consumer protection rules, data protection and network and information security rules. Similarly, the question of whether competition law and practice needs to be adapted to the digital economy should also be discussed. To the extent that customary telecommunications services are seen as functionally equivalent to services provided by OTTs, the fact that telecommunications service providers are highly

regulated in their commercial activities, while OTTs are generally not regulated at all, can distort competition between the two categories of provider.

## **VON Europe**

### OTT

From a terminology point of view, the new trend to use 'OTT' as an expression to cover content, application and services providers is slightly disturbing. For reference, the term over the top is used when something is done in excessive amounts or beyond reasonable limits. The term was first coined during the Great War when the troops became engaged in trench warfare. When the troops were sent over the trench wall, the order given would usually be *over the top lads and best of luck*.

We honestly believe that the terminology adopted by the BEREC in its Report on differentiation practices and related competition issues in the scope of net neutrality, namely CAPs (content and application providers), gives a less biased and negatively coined image of these market players and would encourage the BEREC to refrain from adopting this expression.

A new balance between market players

The Strategy observes that there are calls from some quarters for a new balance between market players.

VON Europe would like to remark that incumbent telecoms operators have been very effective at using the 'level playing field' rhetoric to:

- 1) imply that players such as Skype, Google, etc. are escaping regulation which should in fact apply to them in areas such as privacy and data protection, switching and data portability, audiovisual rules, taxes, and identification and safety-related measures; and,
- 2) try to obtain at the same time that telecoms operators be relieved from some of the burden of regulation, by having services such as Skype and others considered as substitutes to traditional voice telephony.

The funny thing about the level playing field image is that it seems to appear in all sorts of contexts, yet no one ever bothers to define the field they are talking about.

The complaints by telecoms operators regarding the 'lack of level playing field' that exists between them and content, application and service providers could be compared to builders of football stadiums complaining about the fact that they are subject to a raft of regulations when building a stadium (possibly with subsidies) and that their investment takes decades to have a return, while football players that come to kick a ball in their stadiums make millions in a very short time span. Some would say that spectators rarely come to look at empty football stadiums but that they are attracted by the performance of these shallow football players. Some would also argue that for every successful football players, there are thousands of failed players, with no career or shattered knee-caps. Some would finally say that the claims by the football stadium builders are absurd as it is impossible to compare such diverse 'players'.

**VON Europe encourages the BEREC to put an end to some of the sterile discussions taking place in the telecoms world, and to stop using terms such as OTT and level playing field, unless it is prepared to properly define in each case what field they are talking about.**

## **2. Bundled services**

**BT:** Convergence between telecoms and media gives rise to a similar need for policy consistency. Asymmetries between telecoms operators and Pay TV providers are distorting the market as bundling becomes ever more important, and content the most compelling element for consumers. By extending the access principles of the Electronic Communications Framework to content bottlenecks, the EU can level the playing field across sectors, achieve a better deal for consumers and help stimulate fibre demand.

**VON Europe** The Strategy considers that bundled services bring new competition challenges, amongst others in terms of consumer switching, as triple- and quad-play bundles could in some cases result to the development of service oligopolies.

VON Europe considers that this is especially true when divergent contractual rules on contract termination and switching apply to the different services composing a bundle, then end-users are effectively prevented from switching to competitive offers for the entire bundle or parts of it.<sup>2</sup>

We consider that triple or quad-play bundles often translate into a reduction in the switching ability of consumers. Although this is not a problem *per se*, it means that relying on consumers switching providers thanks to transparent information cannot be sufficient.

It is also crucial that the BEREC monitors market developments to ensure that competition is safeguarded on telecommunications networks, especially, if merger and acquisition activity is to be facilitated for the telecoms industry.

### 3. Network convergence

#### 4. Machine to Machine

The **GSMA** estimates that cellular **Machine to Machine (M2M)** connections will account for almost 1 billion of the 10 billion total mobile connections expected worldwide by 2020. The IoT services enabled by these connections will provide significant positive socio-economic benefits to citizens, consumers, businesses and governments in Europe and around the world.

Operator capabilities such as security, billing and charging and device management can enhance the IoT by enabling the development of new services. Through the provision of these extra value services to their

Governments and regulators can realise significant social and economic benefits from the growth of IoT services by ensuring that policies and regulations are flexible, balanced and technology neutral. Excessive, prescriptive or technology-biased regulation risks stifling innovation, raising costs, limiting investment and harming overall citizen welfare.

**Vodafone:** BEREC is correct to be monitoring the development of M2M services as this is an innovative technology that has great potential to transform the European economy. It is vital that this emerging technology is understood by NRAs, and that any regulatory approach is proportionate and technology neutral. M2M is also an area where international cooperation is likely, given that global enterprises are incorporating M2M applications into their operational processes and products for use in many countries across the globe. These companies seek a consistent regulatory approach, driven by a desire to derive economics of scale from their global supply chains.

#### 5. Quality of Service

**VON Europe;** The Strategy points out that some stakeholders have raised concerns about the fact that the provision of guaranteed quality services could impact on the provision of “best effort” internet access services. VON Europe is amongst these stakeholders, and we would like to reinforce these concerns. We believe that safeguards are necessary to ensure the quality of Internet access, in order to avoid a ‘dirt road’ effect,<sup>3</sup> in parallel to the possibilities for network operators to offer specialised services. Mechanisms need to be put in place to minimise the risk that network improvements favour specialised services only, and/or that Internet access becomes overpriced compared to specialised services. Therefore, we consider that:

- Quality of Service (QoS) guidelines must focus on creating safeguards for the reasonable network management practices, all others being prohibited, and they should be supported by proactive QoS measurements, whereby regulators monitor network management practices of network operators in a proactive and ongoing manner, in order to be able to step in in case of sudden and arbitrary changes.
- The objective of QoS measurements should be to:
  - 1) identify breaches to the open Internet principles;
  - 2) verify if the announced performances by Internet access providers are met in practice; and,
  - 3) verify the respective qualities available on Internet access and specialised services.
- Data collection about network management practices and QoS should have an open nature as regards to the methodology used, the questions asked and the data collected. This notably includes well-documented and open source measurement tools; openly available data and analytic methodologies, to support independent analysis and peer-review; and a consistently-managed well-documented measurement platform to ensure the robustness of the collected data.
- The setting of QoS relevant measures should be conducted with the support of a body of technical experts, put in place through a multi-stakeholder approach that includes relevant industry segments (including content, application and service providers), consumer organizations and civil society representatives.

## 6. Investments

**VON Europe:** The Strategy points out that investment in new high-speed networks should in turn support innovation in content-rich internet services.

VON Europe welcomes this statement, as it recognises the symbiosis between the end-users (including both consumers and the Internet content, application and service providers) and the companies that control the access network infrastructure and provide transmission services at the access network level.

The Internet ecosystem is characterised by a virtuous cycle whereby all actors in the value chain benefit and contribute:

- Internet content providers (including users, public services, businesses across the economy, etc.) bring innovative content, information, applications, tools and services to the global public using the Internet;
- These innovations motivate continued and renewed consumer demand for (better, faster) broadband and mobile Internet access;
- This content-driven demand from consumers provides the return on investment for network operators, hence the basis for further investment in Internet-supporting infrastructure; and,
- Upgrades in Internet infrastructure provide new opportunities for over the top providers to develop new online content, applications and services, thus fuelling the cycle again.

Therefore, we would like the BEREC to amend this statement to reflect this interplay between the various stakeholders in the Internet ecosystem, and the fact that a lot of innovation has been taking place at the content layer, regardless of the lack of enthusiasm sometimes displayed by certain access operators in investing in network upgrades. Maybe an 'and vice versa' could do the trick.

Analysys Mason rightfully points out in a recent Report that that content, application and service providers make a significant and on-going contribution to the 'physical fabric of the Internet', as they invest in hosting, transport and delivery,<sup>4</sup> while emphasizing that their "main business is the provision of attractive content and applications to end users".<sup>5</sup> VON

Europe believes that this needs to be put in perspective with the core business of network operators, namely the provision of Internet access and investments in network assets.

## 7. Mobile offload to fixed networks

**VON Europe:** The Strategy refers to the increased mobile offload to fixed networks, which brings along challenges, such as the need to secure sufficient spectrum resources for WiFi and other wireless technologies.

Therefore, VON Europe calls upon the BEREC to support efforts in allocating more spectrum for WiFi. Today the majority of Internet data traffic is already delivered to consumers via WiFi. WiFi carries 69% of the total traffic generated by smartphones and tablets, and 57% of the total traffic from PCs and laptops. The overall data volume delivered by licence-exempt WiFi exceeds that of cabled connections and licensed mobile networks combined. A recent Report from the European Broadcasting Union (EBU) estimates that “71% of all wireless data to mobile devices in the [EU] was delivered using Wi-Fi”.<sup>7</sup>

**We believe that a balance of licensed and unlicensed wireless access (WiFi) helps promote innovation, competition and supports ubiquitous, high-speed affordable Internet access.**

See also our comments on the review of the Radio Spectrum Policy Programme (RSPP) in section 4 ‘major trends and developments’, subsection B ‘EU regulatory developments’.

## 8. Data protection and network and information security

**GSMA:** The increasing importance of **data protection and network and information security** rules across the entire value chain is vital in encouraging trust in, and take-up of, new digital services. The guiding rule should be ‘same service/same protection’. At the same time, the assessment of the value of personal data in the context of regulation and competition, and the need to guarantee consumer welfare and privacy can no longer be seen as separated issues. A stricter coordination among authorities is desirable so as to produce policies in a holistic and consistent way.

## 9. Market consolidation – Cross-sector mergers, or agreements

In addition to these, **ETNO** believes that the following key trends should be considered:

- The existing fixed electronic communications networks will increasingly require significant additional investments in fibre to replace a significant proportion of the copper, in order to remain competitive.
- In several Member States, local/regional fibre deployment by players such as utility companies and municipalities will lead to increasingly competitive and heterogeneous market structures in high-speed broadband access.
- In many EU countries, cable operators have been rising as strong, largely unregulated competitors in both fixed broadband and, increasingly, wireless broadband markets.

None of the above-mentioned trends were anticipated when the basis of the current European telecoms framework was being developed in the late 1990s.

This entails that, more than fifteen years after the liberalisation of the sector, the framework objectives of ensuring open and competitive markets are not compatible anymore with a bias towards entry promotion policies. The focus has to shift to the promotion of innovation and investments in next-generation network infrastructures, favouring outcomes that are dynamically efficient and sustainable in the long run.

**GSMA:** Further progress is needed within Europe to reduce barriers to efficient **market consolidation**, and enable scaling up, by simplifying merger reviews and taking a more cautious approach to the imposition of remedies.



**TI:** In this new scenario, operators need bigger scale to become more competitive on a global level and to rely on sufficient resources to make the required investments. Consolidation, in-country and across borders, is needed to make this happen and can be perfectly consistent with the maintenance of an adequate level of competition. In this regard, TI does see any need for BEREC to investigating into oligopoly and consolidation which are typical matters of the competition Authority.

**VON Europe** thinks it is crucial that the BEREC monitors market developments to ensure that competition is safeguarded at the service level on telecommunications networks, especially, if merger and acquisition activity is to be facilitated for the telecoms industry.

## 4b. EU regulatory developments

**BT:** The BEREC document captures many of the issues to take into consideration in the next Framework Review, but we believe some of the key points highlighted above should also be given prominent consideration, namely:

- availability of the wholesale access inputs needed to support cross-border or pan-European business services;
- convergence between telecoms and audiovisual.

***Differentiating consumer and business customer needs.*** In a number of cases regulation which is intended to protect consumer rights actually confuses the different needs of consumers and business customers (of potentially any type or size). Current discussion on Net Neutrality legislation illustrate this problem. It is not appropriate to apply the same procedures or rules to businesses as suit consumers. This confusion adds either administrative burden or disproportionate obligations resulting in additional costs for business operators and could in some circumstances prevent business operators from providing innovative and future-proof services to business customers. This could be avoided by using an more specific wording (i.e. consumers, business customers). This could be part of the adjustments addressed in the review the Electronic Communications Framework. Any regulation should be focused on addressing a defined customer protection, investment or competition need, identified in relation to the market or markets being addressed.

***Wholesale Access services and Cross-border service provision*** should of course be a key focus for BEREC in the Single Market. BT is a significant player in this market, providing service to businesses across the EU, but regulatory inconsistency and non-availability of key wholesale access inputs mean large business customers in Europe as well as globally are still missing out on the full productivity benefits of ICT. What is needed is effective wholesale access to business connectivity products (Ethernet leased lines and wholesale broadband access over Ethernet) across all EU markets. Competitive conditions must improve via genuinely non-discriminatory wholesale access services, with the capacity and in the geographic markets where our customers need us to be. This is the key solution for the achievement of genuine pan-EU competition in telecoms and the completion of the provisions necessary for the single market. More effective provision of cross-border services to businesses can help significantly boost productivity, innovation and economic growth.

### **Ftth Council;**

#### **New finance and industry models should be considered.**

The FTTH Council Europe proposes that policy makers should examine and facilitate a market structure that enables investments in future proof fibre access networks that can offer higher up- and download speeds, better consumer experience and better reliability.

The FTTH Council Europe proposes that the Digital Single Market should - at a minimum - facilitate a market structure in way that reflects the different economic and risk profiles of different assets (i.e. passive telecom infrastructure v active technology equipment) and advocates open access networks so that consumers can enjoy innovative service from all players, including incumbents. The FTTH Council notes that the current industry structure in communications is vertically integrated, that is communication networks and services integrate a large utility component (perhaps as much as 90%) with a small minority technical component. The unfortunate result is that finance views the entire project as one which is technology driven and therefore seeks a higher return over a shorter period. A different structure in the industry could allow a vast amount of investment to be rerouted. Telecom Italia whose own ability to raise capital is severely constrained with a net debt to cash-flow ratio of 3.4 recently considered pursuing structural separation as a means to release value for shareholders while simultaneously facilitating new capital-raising.

Other industry players are also talking about 'layering' whereby the services part of the business would be treated at arm's length to the infrastructure part of the business. Their logic is to recognise that the services business is a global business whereas infrastructure is local.

The FTTH Council agrees with this analysis but believes it is not sufficient to simply restructure telecom operators as separated-entities. These separated entities would still face problems such as that the structure of the project debt has a major impact on its attractiveness to investors. Projects which can be paid on availability (e.g. a school or hospital) are much lower risk project than projects whose return is dependent on demand or usage (toll-roads, energy generation and communications networks). Clearly, communication networks as currently structured and financed have a significant level of demand risk attached. Within the community of projects for long term financing, communication networks will likely sit a long way down the preference order.

However, the covenants attached to such projects in terms of buying commitments may ameliorate that situation and a movement to new structures such as "wholebuy" agreements (where customers of the infrastructure commit to a minimum buy) or underwriting by the Government (or some combination) could push preferred projects even with higher risk back up the preference order. Therefore the FTTH Council believe that in this critical sector, the European interest would be improved if the public debate would also include aspects such as 'Wholebuy' and not only 'Wholesale' business models. Wholebuy commitments from network operators have the potential to attract the interest of long term investors by lowering covenant risks. This is all the more important as the current debate is centred on existing debt and equity investors the interest of investment banks in significant M&A fees. In particular, Member States could underwrite the first X% in Wholebuy, a share which guarantees a return for investors but which diminishes as market demand evolves. Other models of investment including co-investment should also be considered with a regulated utility model showing a lot of desirable characteristics over a competition based model of deployment.

**Recommendation:** Put themes such as structural separation, co-investment, government guarantees etc. on the policy agenda. The review of the regulatory framework should signal an easing of regulatory obligations on structurally separated firms or an enhanced return on separated assets. Guidance should be given on the steps that will need to be taken in order to achieve a structurally separated entity from competition perspectives to clarify what regulatory obligations will apply to the different parts of the entity. Involve activist shareholders to discuss opportunities to release value and promote investment.

## Review of the EU regulatory framework

### GSMA:

BEREC's engagement and contribution to the review of the regulatory framework will be important in informing the European Commission's work in this area. We believe in fundamental reform based on the following objectives:

- encouraging private investments;
- achieving a level playing field on the regulation of services;
- ensuring better consistency between ex ante regulatory objectives and ex post competition objectives;
- improving harmonization in terms of spectrum policy and conditions for allocation.

The main goals of the review should include:

- promoting the global competitiveness of the Union and the European digital industry, as well as investment and innovation;
- promoting sustainable competition within the single market by ensuring fair rules between all the different categories of actor competing in this market, in particular ensuring that fully substitutable services are subject to the same rules, and to reduce sector-specific market regulation;
- securing simplified, predictable and convergent regulatory conditions and ensuring harmonised, consistent and effective application;
- ensuring that the regulatory framework is adequate for the digital age and delivers an internet ecosystem that supports the entire economy.

**VON Europe:** The Strategy considers that the review of the European regulatory framework could include consideration of how best to address the role of OTT players, claiming that these are increasingly providing services considered substitutable for traditional electronic communications services.

VON Europe is not convinced of this substitutability.

As regards the different categorisations of players that exist under the regulatory framework, the BEREC has recently recognised that “[...] in many instances, services and applications provided by OTT players are not considered under the Framework to be electronic communications services”.<sup>8</sup> The European Commission's explanatory note to the relevant markets Recommendation equally notes that “currently OTT services are not yet at a level in which they can be considered actual substitutes to the services provided by infrastructure operators”.<sup>9</sup> The explanatory note also indicates that “unmanaged VoIP is still not considered by the great majority of NRAs as a substitute for fixed voice”.<sup>10</sup> Hence, we would like to urge the BEREC to amend this statement to reflect the current reality. The ‘increasingly’ certainly seems to be inaccurate, unless you consider that any incremental substitution factor when the starting point is zero allows you to qualify something as ‘increasing’.

VON Europe would also like to stress that both the 2009 Review of the Regulatory Framework and the ongoing Telecoms Single Market / Connected Continent proposal do not touch the electronic communications service (ECS) definition. We believe that the distinctions between ECS and ‘information society services’ (ISS) is one of the principles that helped generate growth and innovation in the sector to date.

The interpretation and application of the ECS definition determines how broadly telecommunications regulations will be applied to new, innovative services. An unconsidered application risks to stifle innovation, instead of enabling and encouraging it.

VON Europe emphasises the need to keep Internet applications and services with communications features outside the ECS classification. This guarantees that innovation can

flourish. Where applicable, the ISS classification ensures that the provisions of the E-Commerce and Data Protection Directives provide protections for ISS users.

We would also like to remark that the European Parliament emphasised that the next review should be preceded by a comprehensive evaluation by the European Commission, and be supported by “a full public consultation as well as on ex-post assessments of the impact of the regulatory framework since 2009 and a thorough ex-ante assessment of the expected impact of the options emanating from the review”.

**Microsoft:**

**LEGACY REGULATIONS SHOULD NOT BE APPLIED REFLEXIVELY TO CLOUD AND “OTT” SERVICES**

In addition to BEREC adjusting its viewpoint to safeguard and promote innovation at all layers of the Internet, it also should guard against efforts to reflexively apply legacy communications regulations to CAPs and cloud services, whether the services, applications, and content are provided by new entrants or by incumbents. Moving forward, communications regulators should approach the question of regulation through a focus of the policy outcome that needs to be achieved rather than through the lens of the current legacy regulatory framework.

The telecommunications sector has a long history of regulation, driven in part by the high up-front investment costs necessary to build and maintain a nationwide telecommunications infrastructure (historically, the copper last mile, backhaul and core networks, etc.) which has led to public monopolies or protected private monopolies for much of the 20th century. Even with progressive liberalisation in the 1990s, and the EU local loop unbundling Regulation at the end of 2000, the high barriers to entry for new entrants continued to shield incumbent telecommunications providers from competition across a very large proportion of the EU’s geography (cable networks were mostly rolled-out in denser areas). Regulation of this market throughout most of the 20th century had downsides – in particular, it stifled innovation, as was shown by the acceleration of business models and services that occurred when liberalisation began in Europe in the 1990s. But liberalisation also successfully harnessed the market structure and environment to deliver more affordable legacy services for companies and public administrations (leased lines, early data communications, fax), consumers (telephony), and society more broadly (development of dial-up Internet, mobile communications, and subsequently broadband Internet access, multi-play bundles, and all the innovation driven by the Internet).

Careful thought must go into the next generation of regulation in this rapidly changing and complex space. While some of these rules may still be relevant for some aspects of traditional, network-tethered telecommunications service, modern communications often bear little resemblance to traditional “plain old telephone services” both with respect to the features they offer as well as the manner in which they are delivered.

For example, *ex ante* regulatory obligations on enduring telecoms access network bottlenecks should remain complementary to general competition law due to market foreclosure risks associated with the significant market position of one or more telecom operators and where general competition law is not sufficient to address the problems. This will remain important for example, for access to ducts and poles, access to radio spectrum, physical and virtual access to fixed networks’ last mile (and where applicable backhaul), terminating segments of leased lines (offered to businesses who ask for dedicated capacity etc.), and fixed and mobile termination rates as long as economic bottlenecks cannot be overcome. Additional telecommunications regulation over and above addressing economic bottlenecks to achieve general public policy goals should be assessed with a critical view on the public policy objectives that are the motivation for the legislation.

Online services, in particular, by their innovative and often international nature and the level of control and interaction they give users, deserve a fresh approach. Microsoft is particularly concerned with what appears to be a theme in the BEREC document that “OTT” and cloud services should somehow be constrained or regulated specifically to protect or relieve pressure on incumbent network operators. Extending legacy communications regulations to the world of cloud services, particularly under a misguided notion of a “level playing field,” would be inappropriate for many of the new services, applications, and content which have been made possible by the Internet, and would be economically and politically difficult to enforce in practice given the global nature of IP networks.

On the contrary, rather than suggesting a reflexive extension of legacy rules, a strategic policy approach should be taken to ensure that regulation is fit for purpose – fit for the ‘digital age’. Such an approach requires that policymakers be ready to revisit public policy goals by challenging existing regulations, and by examining whether the premises for such regulation remain appropriate and justified. Indeed, this is just as true for network-tethered communications services as it is for CAPs. It also is true not only in determining whether regulations should be applied to any particular service, application or content, but also how regulations should be applied. It is imperative that BEREC adopt and promote a technology agnostic approach to compliance with regulatory requirements. What works for a particular service delivered in a particular manner may very well not work for another service delivered in a different manner. Having determined that a particular public policy goal demands adoption of a regulation, regulators should refrain from imposing any particular technical solution for compliance with that regulation. Regulators should define behaviours necessary for or antithetical to important public policy objectives. The technical means for achieving those public policy objectives should come from industry, and, where appropriate, standards bodies.

Today’s innovations in cloud services and online communications have largely been driven by the industry’s response to customer and general demand. Because regulators in Europe and other regions decided largely to refrain from applying (sector specific) regulations to online services, the sector has been able to deliver value to consumers, businesses, and public administrations in new and inventive ways and to foster a continuous cycle of innovation throughout the entire Internet ecosystem. Many of the traditional telecommunications regulations that were adopted decades ago were intended to address, among other things, the scarcity of spectrum and high barriers to entry that resulted in limited choices in service providers and content. In an online environment, however, users enjoy an abundance of providers and choices beyond network-tethered communications services. Regulations intended to address the limited number of network-tethered communications service offerings are not as relevant in an online environment in which consumers can seek a variety of content, applications and communications services from many different sources.

At the same time, consumers are not unprotected. The European Union has developed a strong consumer protection framework that is applicable to all products and services delivered within the Single Market. Those horizontally applicable consumer protection laws aim to provide consumers with protections based on the fundamental principles of information, transparency, fairness, and redress and have proven to be future-resistant.

### **Review Radio Spectrum Policy Programme (RSPP)**

**VON Europe:** The Strategy refers to the expected review of the Radio Spectrum Policy Programme (RSPP) in 2015. In light of this, we would encourage the BEREC to put forward three key principles in its work on the RSPP, and also review of the European regulatory framework, namely:

- 1) Prioritise making additional, harmonised bands available for wireless broadband – to meet pressing capacity and coverage requirements.
- 2) Recognise that more intensive spectrum sharing will be key to achieving more efficient use of existing allocations, particularly when licence-exempt access is enabled. Sub 1 GHz spectrum is a particular priority for additional licence-exempt capacity, given its potential for coverage enhancement – in rural and urban areas.
- 3) Strive toward rough harmonisation of bands both within Europe and internationally, when making spectrum available for licence-exempt access, but should also recognise that spectrum sharing can be extremely effective in making use of fragmented bands.

Europe must provision greater spectrum capacity for the future to accommodate rapid growth in wireless data traffic and a multiplicity of emerging wireless applications. Regulators will need a variety of tools to address this spectrum shortage and should work to make new bands available for wireless broadband.

Harmonizing the bands available for dynamic spectrum access within Europe and internationally will encourage investment in these technologies by providing regulatory certainty and creating a world-wide market for standardised chipsets.

However, the complexity of making harmonised bands available across all member states means that the full benefits of harmonisation for both licensed and license-exempt spectrum might not be achieved for many years.

It is also essential to be clear about the fact that, while VON Europe welcomes harmonisation, we would also like to stress the importance of the principles of technological, network and service neutrality within a common regulatory framework, and the importance to permit new spectrum uses wherever there is no objective interference-related impediment (to be assessed on a scale which is less than nation-wide).

VON Europe feels that greater attention needs to be paid to ensure that sufficient of the identified capacity will be made available on a licence-exempt basis.

By making such unused spectrum available for sharing, using dynamic spectrum access, we believe that significant economic benefits will be gained. For example, geolocation databases can be used to signpost which spectrum is available in any given location at the time when users need it. This would allow value to be extracted from isolated pockets of non-harmonised spectrum and should incentivise radio manufacturers to build corresponding flexibility into their devices. Geolocation databases are a good fit with such fragmented capacity and access conditions: enabling single market economies of scale in end-user devices.

See also our comments on mobile offload to fixed networks in section 4 ‘major trends and developments’, subsection A ‘technology, market and end-user developments’.

## 5. BEREC’s strategic priorities

### BT:

- We broadly support the ‘strategic priorities’, which effectively build on the points summarised earlier in the paper, and subject to a focus on the points we have emphasizes above. Under ‘fostering a favourable climate for investment’ we feel more recognition should be given to the potential for VULA-based approaches which can deliver a more efficient form of investment as well as the benefits of more downstream competition and choice. EU state aids policy also needs to be reviewed
- A key barrier to the completion of near-universal fibre coverage is the state aid rules imposing burdensome terms on public support for fibre deployment in the white areas of cities: these should be changed, otherwise countries such as the UK will experience the

perverse outcome of higher fibre coverage in rural areas than in cities and will be stymied in achieving the targets in the Digital Agenda for Europe.

- Migration to all-IP – in its assessment of the transition to all-IP technology we agree that BEREC should take a technology-neutral and forward-looking approach that supports the development of new business models while also looking at end-users requirements and protecting the interests of residential and business end-users and of Communications Providers. Although markets 1 and 2 have been removed from the Recommendation on Relevant Markets, NRAs will still need to carry out appropriate market analysis based on the 3 criteria test, and it must be noted that the pace of migration away from PSTN, and the approaches to implementation of technology to support IP voice, will vary significantly across Europe, and regulation of narrowband voice markets therefore needs to reflect local conditions, and continue to support effective competition and protect end users.
- Ease of switching is clearly important for end-users – consumers and providers. In the context of convergence, we would emphasise the need for a level playing field across the value chain, and particularly in relation to bundled services.

## Strategic Priority 1 – Promoting Competition and Investment

### **VON Europe:**

#### OTT players

The Strategy remarks that the BEREC will also look closely at the potential impacts of OTT players on the competitive dynamics of the market. In light of this, we would like to refer to our comments on the growth of OTT services in section 4 ‘major trends and developments’, subsection A ‘technology, market and end-user developments’, and our comments on the review of the EU regulatory framework in section 4, subsection B ‘EU regulatory developments’.

#### Radio Spectrum

The Strategy recognizes the fact that radio spectrum is essential to the development of the market and of innovative products and services. VON Europe welcomes this, and we would like to refer to our comments on the review of the Radio Spectrum Policy Programme (RSPP) in section 4 ‘major trends and developments’, subsection B ‘EU regulatory developments’, and our comments on mobile offload to fixed networks in section 4, subsection A ‘technology, market and end-user developments’.

### **a. Promoting competition**

#### **Microsoft: THE BEREC DOCUMENTS APPEAR TO UNDERVALUE CONTENT AND APPLICATION SERVICES**

Microsoft is concerned about the tone the BEREC documents strike with respect to the relative merits of traditional network-tethered telecommunications services offered by telcos and other network operators and the rich variety of online and cloud services, applications, and content available on the Internet. The BEREC documents appear to portray online communications applications as a threat, or challenge, or problem to be addressed, rather than as valuable contributors to the overall benefit of society and therefore priorities to be promoted. This mode of thought emanates from what appears to be a network-primary or network-centric perspective as to where value lies in the realm of the Internet and thus where BEREC’s priorities lie with respect to the creation and promotion of its strategic priorities.

It is critical that BEREC abandons any such limited perspective. BEREC should re-orient its philosophy to a more holistic appreciation of the benefits of all facets of the Internet

ecosystem. And, it should adopt strategies and effectuate a work programme consistent with such a philosophy. In particular, consistent with the layered nature of the Internet ecosystem, BEREC should acknowledge that there is significant value both in and on networks, and, rather than perceive any part of the Internet as a threat, BEREC should adopt policies and positions that seek and promote value throughout the entirety of the Internet ecosystem.<sup>1</sup> In particular, with respect to positive strategic values and priorities such as innovation and investment, BEREC should strive to promote such values and priorities at all levels of the Internet, not merely in last mile physical networks.

**VON Europe** welcomes the fact that the Strategy emphasises that the demand side is of great importance to ensure competitive national markets, and the BEREC's focus on information transparency and ease of switching. to oil the wheels of competition. See also our comments on bundled services and network convergence in section 4, subsection A 'technology, market and end-user developments'.

## **b. Fostering a favourable climate for investment**

**ECTA:**

### **2. FOSTERING INVESTMENTS FROM ALL PLAYERS AND MAKING FIT-FOR-PURPOSE WHOLESALE INPUTS AVAILABLE IS ESSENTIAL**

BEREC mentions in the Strategy that "*despite continued access investment by competing operators (e.g. through local loop unbundling) there has not been the degree of infrastructure replication (and competition) in the last mile across all EU countries as might once have been expected.*"<sup>20</sup>

ECTA notes that since liberalisation, alternative operators have been investing heavily in local loop unbundling and most recently in fibre networks, whenever economically feasible.<sup>21</sup> As indicated in a 2013 study commissioned by the ITRE Committee, entrants are not "cream skimming" without making significant investments of their own but are indeed significant actors in the roll-out of FTTH technologies.<sup>22</sup> Recently, there has also been significant take-up of sub-loop unbundling, specifically in Italy and Germany. '*The small think and act big*' and investment is in a 'challenger's DNA, with challenger operators having been the first fibre investors pushing the large operators to follow. Replication of the last mile is however not economically sustainable or desirable in all cases and therefore the availability of harmonised and fit-for-purpose wholesale products, at prices which allow a return on investments for all parties involved, is key, notably in the transition to NGA. Regulation of fixed infrastructure remains an essential competition enabler in an NGA environment.

Policies which favour investments and NGA deployments by incumbents only – and not by all operators - are contributing to declining competitive intensity in the last mile in some countries. Only by ensuring that all operators are given the proper incentives to invest, and that wholesale access products are made fit-for-purpose and offered at prices which allow not more than a fair and risk-appropriate return on investments, will competition at retail level be nurtured. An analysis of the challenges to competition in an NGA environment, including an assessment of best practices and how to incentivise standardisation of pro-competitive technology solutions such as multi-operator vectoring and WDM-PON, is needed. BEREC's activities must specifically reflect the need to ensure investment by all market players and the effective availability of fit-for-purpose wholesale access products.

ECTA welcomes BEREC's continued "*focus on promoting competition and creating a favourable climate for investment (e.g. removing possible barriers) and innovation through effective, predictable and consistent regulation of national wholesale markets (and in particular, the broadband markets)*".

### **3. NETWORK SHARING ARRANGEMENTS AND FORMS OF SEPARATION MUST BE REVISITED**



ECTA strongly agrees with BEREC's consideration that "*Among other initiatives, facilitating different types of network sharing arrangements (including co-investments between private operators and/or public/private arrangements) could help stimulate investment further.*"<sup>24</sup>

Indeed, the role of co-investments in spurring NGA investment, addressed in the 2009 amendments to the EU regulatory framework and in the 2010 EC Recommendation on Next Generation Access, seems to have fallen to the wayside. ECTA posits that the generalised failure (with partial exceptions) of incumbent/altnet co-investment negotiations, may be attributable to: (i) incumbents insisting on maintaining total decision-making control, (ii) incumbents preventing the altnets from owning their infrastructure (in the long run), (iii) incumbents insisting on mandatory buy-back/buy-out clauses of altnet infrastructure, (iv) a recent focus on consolidation, and (v) political reversals. Various solutions deserve further study. The question also arises as to whether persistent discrimination by incumbents needs to be further addressed by NetCo separation or whether additional options, such as permitting third parties (independent contractors appointed by altnets or altnets' own personnel) to perform activation and maintenance on the SMP operators' infrastructure, are required. A reinvigorated focus on network sharing arrangements and forms of separation is warranted.

ECTA would also like to dismiss the arguments, sustained by some, that market consolidation is necessary to enable investment in network roll-out in Europe. There is no clear and demonstrable link between the size of telecommunications companies, their profitability and the level of NGA investments. As recognised by the report commissioned by the European Parliament/ITRE Committee<sup>25</sup>, the level of NGA deployments is most notably related to infrastructure competition and population density.

ECTA welcomes BEREC's continued attention to mergers and consolidation (service and infrastructure) with a view to ensuring that effective competition is maintained.

#### **ETNO:**

- As far as BEREC's strategic priorities are concerned, we would like to comment in particular on the need to foster "a favourable climate for investment" and to support innovation.
- While we of course agree with these goals, we doubt that they can be fully achieved by maintaining the regulatory status quo. In fact, we believe that asymmetric access regulation that systematically targets the former telecoms incumbent operators does no longer provide an adequate response to the current market situation. As next generation networks are rolled out, markets are increasingly characterized by multiple actors at network access level, including municipal networks and publicly funded rural NGAs, cable operators, and increased competition from wireless broadband networks. Moreover, platform convergence blurs the traditional market boundaries between fixed and next generation mobile services with strong effects on at least some user groups.
- The diversity of the actors operating at the access level and the high level of competition achieved in Europe should lead to less and more equitable regulation, limited to those geographic areas characterized by absence of competition. It is worth noting that the main success story of alternative infrastructure roll-out in the past decade have been cable networks.
- In elaborating its reflection on the next review of the framework, we therefore encourage BEREC to think boldly beyond the current practices and models. For instance, a possible way to respond to developments in competition and the regulatory challenges posed by an all-IP, Internet-driven next generation network environment could be to radically simplify regulation with the objective of:
  1. Ending sector specific ex-ante regulation of services;
  2. Replacing current asymmetric regulation with a simplified single access model on fixed infrastructures, free of price regulation except appropriate non-discrimination conditions in areas where ex-ante regulation is still proven warranted.

**Ftth Council;****Creating an appropriate commercial environment**

The FTTH Council is concerned that DG Connect trusts markets that exhibit market failure will make appropriate technology choices in the absence of regulatory interventions. Every physical access market in Europe has a dominant entity that faces restrictions in terms of its business choices but not in terms of its technology choices. The Digital Agenda targets as currently constructed allow cheap, market foreclosing technologies to be rapidly deployed by dominant entities. The broadband targets need to be upgraded to something that is both realistic and future proof. A strong preference for fibre-first should be expressed.

Today in Europe there is no difference in regulatory treatment of FTTH over upgraded copper solutions although a future proof FTTH technology is preferable from a socio economic perspective and it might be expected that some preference for a better technology would be put in the regulatory treatment of these technology choices.

FTTH has many desirable properties such as higher bandwidths, symmetrical bandwidth, lower latency and jitter which Policy makers with upgraded targets would wish to see deployed.

This fact is acknowledged in the Cost Reduction Directive which seeks to lower costs for new network deployments. This measure is useful but needs structural funds to help implement the measures.

Other factors such as the length of time to switch copper networks services to fibre based service delivery also needs to be reviewed. While the FTTH Council believes only competitive markets will drive take up (and investment) where sufficient wholesale access is available over fibre, operators should be in a position to switch of their copper networks when they want. Minimum notification periods should be abolished.

When a FTTH network is being deployed a review of the Weighted Average Cost of Capital (WACC) should be conducted with an additional percentage available for FTTH assets above the prevailing copper based WACC in line with recital 18 of the Framework Directive.

**Recommendation.**

The FTTH Council would like to see a series of business friendly policies set out to promote FTTH over other forms of network deployment. A guaranteed WACC for FTTH investments should be envisaged for prolonged periods which increases depending on the form of industry structure.

Enabling legislation such as the cost reduction legislation should be adequately financed to ensure a proper implementation.

**VON Europe:** The Strategy points out that market players need to be able to rely on a stable regulatory framework for investment in high-speed networks to flourish.

It should be noted that investment in networks is also driven by content, application and service providers. Analysys Mason concludes, in a recent Report, that content, application and service providers make a significant and on-going contribution to the 'physical fabric of the Internet', as they invest in hosting, transport and delivery. Significant investments are made in, for example, content delivery networks (CDNs), through which approximately 60% of the Internet traffic travels with the aim of optimising the efficiency of the transport and delivery networks.<sup>12</sup>

VON Europe would like to remark that for innovation to flourish on the Internet, content, application and service providers also need a stable regulatory framework. We believe that the distinctions between 'electronic communications services' (ECS) and 'information society services' (ISS) is one of the principles that helped generate growth and innovation in the sector to date.

The interpretation and application of the ECS definition determines how broadly telecommunications regulations will be applied to new, innovative services. An unconsidered application risks to stifle innovation, instead of enabling and encouraging it. See also our comments on the review of the EU regulatory framework in section 4 'major trends and developments', subsection B 'EU regulatory developments'.

### c. Supporting innovation

#### **VON Europe: (IP-) interconnection markets**

The Strategy indicates that the BEREC will continually monitor the dynamics and functioning of (IP-) interconnection markets in order to inform its views on whether or not regulatory intervention is needed.

We note that the BEREC 2014 Work Programme remarked that the IP-interconnection market currently seems to function well without any significant regulatory intervention, and pointed out that any measure could potentially be harmful, and therefore be carefully considered.<sup>13</sup> We continue to support this analysis.

#### Review of the Framework

See our comments on the review of the EU regulatory framework in section 4 'major trends and developments', subsection B 'EU regulatory developments'.

## Strategic Priority 2 – Promoting the Internal market

### a. Supporting convergence

#### b. Taking down barriers

**VON Europe:** The Strategy indicates that the BEREC will seek to cooperate with other relevant EU bodies where appropriate.

VON Europe believes that, while there is room to exchange ideas with other relevant EU agencies, there is also a need to include relevant stakeholders in these exchanges. This would provide all involved agencies access to market players, and allow them to interact with them to gain deeper understanding on the topics being discussed between agencies.

## Strategic priority 3 – Empowering and protecting end-users

**VON Europe:** VON Europe is pleased that the Strategy emphasises BEREC's commitment to put end-user empowerment at the heart of its work.

### a. Promoting end-user choice, accessibility and affordability

#### **FttH Council;**

Users are not properly informed about the services they receive, or are likely to receive when signing up for a broadband connection because the use of 'up to' advertising suggests that consumers will receive speeds that are often never available. In other sectors such misleading advertising is not tolerated and purchasing a litre of milk which only has 700ml in it would immediately lead to action.

The European Commission has through a series of studies and surveys noted the poor relationship between actual and advertised speeds with 75% of the advertised speed being delivered on average with xDSL being a particularly poor performed at 62% of the advertised speed delivered.

The mislabelling of product has an important distortive effect on consumer choices and in turn, these misinformed choices send inappropriate investment signals to network operators. Furthermore, the parameters that are specified need to go beyond speed and give metrics for other QoS parameters that effect service delivery on-net, such as latency and jitter.

Studies suggests that consumers will pay for higher speed once they understand the difference that exists between high and low capacity networks. Over time, FTTH consumers on average deliver 46% higher ARPU than DSL consumers<sup>3</sup>. Misleading advertising can undermine the transition from low to high speed since uninformed consumers don't realise the difference and would not be prepared to pay for better service. Such misleading advertising would artificially depress the fibre premium.

If consumers do not understand what they are buying then they cannot send appropriate investment signals to market operators.

The FTTH Council acknowledges on-going efforts to increase transparency of network performance and actual vs advertised speeds though notes also the continuing delays in that timetable. In the interest of consumer protection, the Council believes that published results should make possible a comparison of network technologies and service providers<sup>4</sup>.

The FTTH Council would emphasise that the issue of network transparency is not simply one of user rights (though these are important) but it is also an issue regarding the development and take-up of advanced networks and services which will have an impact on the general economy. Well informed consumers with choice of suppliers will be enable a more dynamic and responsive market to the benefit of consumers and industry.

### **Recommendation**

The FTTH Council believes that NRAs should monitor and collect accurate network metrics from network operators which are published. This would allow NRAs to judge the correspondence of actual versus advertised broadband speeds in the name of transparency and the assessment of network management. NRAs must have the ability to sanction blatantly misleading advertising.

**VON Europe** welcomes that the Strategy acknowledges that competition alone cannot always ensure optimal outcomes for end-users, and that as such the affordability and accessibility of Internet access remains a central concern to the BEREC and NRAs. See also our comments on 'empowering and protecting end-users' in strategic priority 2 'promoting the internal market'.

### **b. Safeguarding an open internet**

The **EBU** welcomes BEREC's continued focus on empowering and protecting end-users particularly the proposed workflows aimed at safeguarding the open Internet (see pages 18-20 of BOR(14)120). In general, we believe that strong legislative safeguards for the open Internet at EU level - as currently discussed in the framework of the proposed EU "connected continent" Regulation - must go hand-in-hand with effective systems monitoring the quality of Internet access and the impact of new services and products in this market and enforcing open Internet rules. In this respect, BEREC plays an essential supporting role for NRAs. Thus, we appreciate that "*BEREC will ... focus on safeguarding an open Internet and ensuring a common approach to net neutrality, so that the Internet remains a fertile platform for the development of new innovative services.*"

Finally, **ETNO** would like to comment on BEREC focus on "safeguarding an Open Internet" (p.11).

- We agree with the following objective, as stated in the draft Strategy:
- "ensuring a common approach to net neutrality, so that the Internet remains a fertile platform for the development of new innovative services".
- In doing so, it is of paramount importance that EU rules on the Open Internet support continued innovation in networks and services. Care should be taken that service

innovation is not limited to certain technologies/networks or services and in ensuring that operators can efficiently manage rapidly growing Internet traffic in line with technology developments.

- We also stress the fact that market and technological developments occurring in our industry are extremely fast-paced and cannot be entirely foreseen by legislators and regulators. This should pose a caveat against any attempt to regulate the Open Internet through strict definitions and concepts whose effectiveness and value in time is impossible to assess.

**VON Europe** welcomes the fact that the Strategy reinforced the BEREC's commitment to protecting end-users interests by safeguarding:

- 1) the provided quality of service on networks; and,
- 2) an open Internet and ensuring a common approach to net neutrality.

We are especially supportive of the BEREC's intention to ensure that "the Internet remains a fertile platform for the development of new innovative services".

We would also like to encourage all policy makers to stop using 'open' in front of Internet, as we consider that if they do their job right and regulators are empowered to monitor and enforce net neutrality, the Internet will be per se 'open'. As long as the need is felt to add this adjective, we will all seem to imply that a 'closed' version of the Internet could exist to, something VON Europe certainly does not want to see happen.

**VON Europe:** The Strategy remarks that the BEREC needs to continue to address issues around the open internet, as the welfare of end-users is a the core of its mission.

VON Europe welcomes the BEREC's commitment to the open Internet, and would like to stress that content, application and service providers are innovators that bring benefits to consumers. These innovations motivate continued and renewed consumer demand for (better, faster) broadband and mobile Internet access.

Therefore, the BEREC needs to recognize that access to content, application and services are key elements for infrastructure demand, as that's what the Internet is about for most, if not all, citizens and businesses. The BEREC should keep in mind that the end goal should be user benefit, not preservation of established players or their business models at all cost.

VON Europe believes that agreements that differentiate according to data volumes and speeds are the way forward, as long as no discrimination based on the content, application or service themselves, or specific classes thereof, is put in place.

**Microsoft:**

**PRESERVING AN OPEN INTERNET**

Microsoft fully supports BEREC's emphasis on preserving robust protections for an open Internet. There is no question that an open Internet is critical to encouraging innovation and maintaining a strong and vibrant economy. However, just as use of the Internet as a distribution channel for content and services has brought more choice and competition, it has inadvertently also effected new challenges. In the digital age, and especially when it comes to information and content delivered over the Internet, unhindered access to online platforms and services is a prerequisite. Microsoft shares the concerns expressed by the EU High Level Group on Media Pluralism in its recent Recommendation that the "*dominant position held by some network access providers or internet information providers should not be allowed to restrict media freedom and pluralism. An open and non-discriminatory access to information by all citizens must be protected in the online sphere, if necessary by making use of competition law and/or enforcing a principle of network and net neutrality*"<sup>4</sup>. Network operators should not be able to unduly favour their own content, applications or services, or the content, applications, and services of third parties with whom they have negotiated

arrangements, while discriminating against third party unaffiliated content, applications and services. When users buy 'Internet access', users themselves should decide how they use it. Network operators should not be able to choose what content, applications or services users can access and distribute, or pick who succeeds or fails in the markets for Internet content, services, and applications.

EU rules enforcing net neutrality are long overdue. Net neutrality rules are significant for societal as well as economic well-being. The principle of net neutrality has emerged in the Connected Continent legislative package as an important focus for principle-based regulation in the field of Internet access, taking account of the fact that not just an incumbent monopoly, or duopoly, but even a tight oligopoly of those controlling last mile network access, have incentives to restrict Internet access for rent-seeking motives.

Microsoft's longstanding commitment to ensuring that the Internet remains an open platform for competition, innovation, and economic growth is based in part on Microsoft experiencing firsthand the blocking, degrading, and impairing of consumer access to lawful online products and services at the hands of some broadband access providers, particularly in jurisdictions without open Internet protections. Indeed, according to the joint investigation conducted by BEREC and the EC, a significant proportion of European citizens are affected by undue restrictions on the use of many online content, application, and service offerings, such as Voice over IP (VoIP) or Peer to Peer (P2P), a technology commonly used to distribute media content<sup>5</sup>. And, there are growing signs that mobile broadband operators throughout Europe are establishing discriminatory walled garden arrangements for particular online services, applications, and content chosen by the operators. Allowing preferential arrangements for some Internet traffic would be incompatible with the fundamental principles of an open Internet. These arrangements (as opposed to reasonable network management) distort the marketplace and improperly influence subscribers' decisions in selecting content, applications and services.

Preferential transmission arrangements could also chill deployment of faster, more reliable broadband access services to European consumers and professional users over time. Instead of offering their subscribers broadband access packages with faster, more reliable service and increased data allowances, preferential transmission arrangements would incentivize broadband access providers to add new capacity and network improvements only to meet contractual commitments contained in existing or anticipated preferential transmission arrangements and to enter into more of these potentially lucrative deals.

BEREC must strive to preserve an environment in which online innovations are not limited because it becomes artificially more expensive to access and use them, or because online providers are 'forced' into concluding a deal for distribution via a managed service with an access provider, due to the quality of delivery of the open Internet having become increasingly and comparatively sub-standard compared to 'managed services'. Such cases would have a significant negative impact on innovation and content creation, growth, and user choice. BEREC should also continue to monitor closely whether broadband access providers circumvent open Internet principles through peering, paid peering, or other forms of interconnection agreements. Similarly, it should continue to monitor whether broadband access providers undermine core open Internet objectives through their specialized services. It should also continue to push for appropriate disclosure and transparency practices and rules. Ensuring that broadband access providers' practices are transparent is critical to allowing stakeholders and the larger Internet community to identify any activities that undermine the openness of the Internet.

An open Internet framework will preserve a competitive playing field in which users—not broadband access providers—decide which content, applications, and services succeed in the marketplace. This framework is critical not only to the successful investment in and deployment of high-speed broadband access services but also to economic growth, leadership in innovation, and longstanding commitment to free expression, robust competition, and democratic ideals.

### c. Promoting end-user protection online

**VON Europe:** The Strategy refers again to the substitutability of OTT services for traditional telecoms services. In light of this, we would like to refer to our comments on the review of the EU regulatory framework in section 4 ‘major trends and developments’, subsection B ‘EU regulatory developments’.

## 6. QUALITY OF BEREC OUTPUT AND OPERATIONAL EFFICIENCY

**BT:** BEREC’s published positions in late 2013 on the legislative proposal for a Regulation on the Single Market in telecoms were incisive, balanced and well-argued. In setting out a robust critique of the EC’s proposal and of the assumptions on which it was based, as well as the procedure followed by the Commission, BEREC made a valuable and welcome contribution to the debate.

### **GSMA:**

We would like to congratulate BEREC for its continued efforts to improve the transparency and visibility of its work, and to strengthen its interaction with stakeholders at both the Working Group and Chair levels, through events like the stakeholder forum.

### 6a. Working to improve the quality and consistency of individual NRA decisions

### 6b. Engaging and cooperating effectively

**VON Europe:** The Strategy notes the continued development of the BEREC’s stakeholder engagement strategy. VON Europe would like to applaud the BEREC’s continued commitment to engage with stakeholders. We would encourage the BEREC to engage all stakeholders on as many occasions as possible in their preparatory work, be it through the Stakeholders Forum or public consultations.

### 6c. Improving its working methods and the quality of its output

**TI** welcomes that BEREC is engaging in improving its working methods and the quality of its output. Many of the BEREC’s deliverables are benchmarks, best practice and reports where European NRA’s practices are compared (i.e. Regulatory Accounting in Practice). TI notes that in many instances BEREC’s documents do not show the name of the State or National Authority which follows a certain practice. On this matter, BEREC should provide more detailed information for transparency porpoise.

## 7. Additional comments from contributions

In the interests of avoiding duplication of effort and utilising resources as efficiently as possible, **ECC WG NaN** is ready to cooperate and collaborate with BEREC on these important issues of mutual interest.

The key concern for the **EAFM** at this time relates to the on-going developments on international roaming as part of the European Single Market for electronic communications (EC Connected Continent legislative proposal COM(2013) 627, European Parliament legislative resolution P7\_TA-PROV(2014)0281, and Italian Presidency proposal in September 2014). The EAFM considers it absolutely essential for BEREC, within the boundaries of its remit, to put its full weight in this debate.

7. We call upon BEREC to:

- a) Act as a trusted source of factual information and evidence;
- b) Objectively calculate wholesale network costs;
- c) Demonstrate consequences and risks arising from insufficiently considered proposals on international roaming;
- d) Use its authority as an EU institution advising the co-legislators to help avoid severe economic shocks to market participants, damage to regulatory predictability, and damage to end-users; and,
- e) Systematically keep in mind the existence and role of Full MVNOs.

8. We note in this regard that:

- a) Mobile Virtual Network Operators (MVNOs) collectively serve over 10% of EU mobile users.
- b) Full MVNO access has been the key antitrust remedy in recent 4 to 3 mobile mergers in Austria, Ireland and Germany.

MVNOs contribute strongly to competition and to financing mobile networks (through payment of wholesale charges which assure revenues to mobile network operators), whilst avoiding costly duplication of network assets.

10. Full MVNOs, in particular, bring not only commercial innovation, but also technical innovation to mobile markets, and are intrinsically well-placed to foster the development of the EU Single Market. Indeed, several EAFM members are multi-country operators.

11. The proposals on the table on international roaming, notably the fact that it is not guaranteed that wholesale caps would be reviewed/reduced prior to the abolition of retail roaming surcharges, pose an existential threat to Full MVNOs. This is the case because: (i) genuine retail 'roam like at home' cannot be achieved if wholesale payments are due at the level of the regulated wholesale caps of the Roaming III Regulation, (ii) Full MVNOs have no bargaining power to negotiate wholesale roaming charges in a bilateral/multilateral context.

12. Indeed, without material reduction of wholesale roaming charges, Europe will face:

- a) Competitive distortion;
- b) Eviction of Full MVNOs from the international roaming market;
- c) Risk of eviction of Full MVNOs from their domestic market(s) on account of inability to compete with MNOs offering 'roam like at home';
- d) Only bilateral/multilateral MNO alliances will be able to offer 'roam like at home', on account of their ability to trade below the regulated wholesale caps, and,
- e) Higher overall retail pricing for consumers (waterbed effect in home country) including for 'roam like at home', driven by high wholesale roaming costs.

13. For the avoidance of doubt, the EAFM agrees with the policy objective to enable 'roam like at home', insofar as: (i) it does not reduce competition, (ii) it is not exclusionary, and (iii) it is not damaging to users of mobile services in the EU. EAFM members want to offer RLAH retail bundles, if they can.



Finally, the **FTTH Council** would like to make clear that we as an organisation wish to support and work constructively with BEREC and that the Council is available to provide input and assistance on technical or policy parameters should a need arise.

**Microsoft:**

**THE BEREC DOCUMENTS APPEAR TO UNDERVALUE CONTENT AND APPLICATION SERVICES**

Content and Applications Providers (CAPs) are themselves significant contributors of value on the Internet. Indeed, CAPs are just as integral a part of the Internet ecosystem as are ISP last mile networks and all other components that make up the various layers of the Internet. Conversely, CAPs (incl. cloud service providers) drive significant investment in much of the physical networks, equipment, and infrastructure that comprise the network of networks that is the Internet.

Moreover, the BEREC documents presume a false dichotomy between services provided by network operators and by CAPs. From cloud storage services offered by Orange and Vodafone, to social networking and messaging offered by Telefonica (tuenti), to VoIP services offered by O2 (Tu Go), telcos themselves are significant players in the offering of “OTT” and cloud services. Business services have long decoupled access provisions from services/SaaS – indeed, Microsoft partners with a number of telcos to offer cloud services to anyone, not just their own broadband subscribers.

Rather than try to promote any one deconstructed component of the Internet, such as last mile networks, BEREC should fully acknowledge the significant contributions of services, applications, and content provided at all levels and by all providers in the Internet ecosystem, and it should orient its strategy and work programme accordingly.

**Microsoft:**

**INNOVATION AS A STRATEGIC PRIORITY**

To fully effectuate a paradigm shift toward affirming and promoting value at all levels of the Internet ecosystem, BEREC should strengthen and deepen its commitment to innovation as a strategic objective. The *BEREC Strategy 2015-2017* document identifies “Supporting Innovation” as a component of its “Promoting Competition and Investment” strategic priority, which is encouraging and a good start. However, Microsoft encourages BEREC not merely to include innovation as a component of promoting competition and investment, but to elevate innovation to a strategic priority in its own right.

It is widely accepted that innovation enabled by widespread Internet connectivity is a significant driver of economic growth<sup>3</sup>. The development of the cloud and even the Internet generally is a direct result of an innovation-focused regulatory approach. An “innovation first” regulatory approach would be a significant touchstone to drive the development of network infrastructure as well as achieve critical communications policy goals. Such an approach also would serve as a broad incubator for innovation throughout society. Microsoft’s cloud services promote competition, innovation, and economic growth by helping consumers and businesses be more productive, and by generating upstream and downstream opportunities for the thousands of organizations that make up Microsoft’s partner ecosystem. These partners include, for example, the companies that sell devices running Microsoft’s online tools and solutions, developers who write applications for Microsoft’s online platforms, and service firms that install and manage Microsoft-based services and applications at business customers’ premises, in public administrations, in schools, etc. The potential for these entities to drive innovation and economic activity is significant.

Microsoft urges BEREC to drive policy to achieve an environment in which innovation is not only preserved, but accelerated. BEREC should adopt policies and strategies that preserve

the online development model of “*permissionless innovation*” that has allowed the Internet and communications in general to thrive, with more services, higher quality products and lower prices. Conversely, BEREC should guard against proposals that, under the guise of protecting or encouraging investment, are intended to protect entrenched interests and insulate them from incentives and pressures to innovate. Any other approach that focuses on preservation of incumbent or entrenched interests would be fundamentally contrary to an innovation first regulatory philosophy and ultimately harm the interests of companies that must necessarily adapt to changes in consumer demand.

**VATM calls on BEREC to help to sharp the focus on the following:**

- Concentration on Europe’s strengths: The existing regulatory framework focusing on strengthening European oversight and consistency of national market regulation, has served its objectives well. This success needs to be continued and developed and not disturbed through a hasty paradigm change.
- Access is local and diversity is strength: Europe is not unified centralized nation-state but a Union of different states and different people. Whereas there is a lot of merit in creating harmonized access products – for example for business solutions – to reduce the inherent cost of diversity, not every access or service needs to be provided by a European champion.
- The permanent comparison with USA or Asia falls too short: A careful analyses based on an accurate diagnosis is essential to prevent the wrong prescription. Any strategy and legislation should focus on the benefits and target clearly identifiable failures
- Balanced view: The future politics in telecoms must further enforce competition on a pro-competitive market-driven approach, instead of reducing regulation in favour of European incumbents

In VATM’s opinion BEREC will play a key role to create the right background conditions in which innovation and investment of all market players are possible. As the new Commission will start its work, it can be expected that 2015 will offer particular challenges and opportunities for BEREC.