

**Work Programme 2015**  
**BEREC Board of Regulators**

**4 December 2014**

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## 1. Introduction

The Body of European Regulators for Electronic Communications (BEREC) was established by Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009.

According to Article 5 (4) of this Regulation, the BEREC Board of Regulators shall, after consulting interested parties, adopt the annual work programme of BEREC before the end of each year preceding that to which the work programme relates. The Board of Regulators shall then transmit the annual work programme to the European Parliament, the Council and the Commission as soon as it is adopted.

The BEREC Work Programme for 2015, based on the BEREC Strategy 2015-2017, maintains BEREC's commitment to the development of regulatory best practice amongst National Regulatory Authorities (NRAs), leading to independent, consistent, high-quality regulation of electronic communications markets for the benefit of Europe and Europe's citizens. As set out below, the 2015 Work Programme aims to respond to current regulatory challenges and prepares to confront future challenges resulting from market and technological developments, and from the most important European policy objectives.

The 2015 BEREC Work Programme was discussed and agreed at the BEREC Board of Regulators meeting in Rome, on 25<sup>th</sup> and 26<sup>th</sup> September, for submission to public consultation, which run from **29<sup>th</sup> September to 24<sup>th</sup> October** 2014, with an oral hearing at the Stakeholder Forum in Brussels, on 16<sup>th</sup> October. The public consultation increase transparency and provide valuable feedback from stakeholders, supporting BEREC in the assignment of priorities and optimisation of resources.

Following the public consultation, BEREC reviewed the document, taking all relevant comments and responses into account. Submissions received during the consultation as well as a report are published on BEREC's website.

The 2015 Work Programme is adopted at the Board of Regulators meeting on 4<sup>th</sup> and 5<sup>th</sup> December 2014, to be held in Brussels.

Göran Marby, PTS

Fátima Barros, ANACOM

**Chair 2014**

**Chair 2015**

## 2. Background

The BEREC Strategy 2015-2017 gives focus and impetus to BEREC's work, channelling the Body's overall strategy and giving clear direction to all its activities in view of the challenges ahead. The Work Programme embodies the actions to be undertaken in 2015 in pursuit of the designated Strategic Priorities: (1) promoting competition and investment, (2) promoting the internal market and (3) empowering and protecting end-users.

Work streams are presented in section 3, under the three Strategic Priorities, and in section 4, regarding the Quality of BEREC's output and operational efficiency; although, clearly, each individual work stream may contribute to the accomplishment of more than one Strategic Priority.

As in previous years, in addition to the specific work streams set out in the Work Programme, BEREC anticipates that there will be a need for continuous involvement in Article 7/7a Phase II cases. It will deliver its opinions, giving each case the highest priority to ensure compliance with the strict deadlines stipulated by the Framework Directive. BEREC also reiterates its readiness to respond to *ad hoc* requests for advice from the European Commission, the European Council and the European Parliament and will fulfil these requests appropriately and in a timely manner.

BEREC may need to reassess its work priorities during the course of the year, not only in light of available resources, but also, in particular, in view of the possible conclusion of the ongoing legislative process on the proposed Connected Continent Regulation<sup>1</sup> and anticipating developments in terms of the review of the Regulatory Framework during 2015. BEREC will therefore keep its work under constant review and will revisit the Work Programme mid-way through 2015, in order to ensure that the work streams remain properly prioritised and resourced and that any new issues are suitably addressed.

Support provided by the BEREC Office remains key to the successful accomplishment of the BEREC Work Programme. Since its establishment, the BEREC Office has been providing BEREC with increasing administrative and professional support, taking over a growing body of work and ultimately the efficient allocation of resources. This practice will continue, intensifying the Office's engagement in the BEREC Work Programme.

Finally, BEREC will maintain the transparency and visibility of its work and working procedures, and looks forward to strengthening the relations and interaction with stakeholders.

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<sup>1</sup><https://ec.europa.eu/digital-agenda/en/news/regulation-european-parliament-and-council-laying-down-measures-concerning-european-single>

### 3. BEREC work in 2015 – Strategic Priorities

#### 3.1 Strategic Priority 1: Promoting Competition and Investment

BEREC is committed to promoting sustainable and efficient investment in high-speed broadband infrastructure and services, while, at the same time, fostering and safeguarding competition.

In 2015, BEREC will focus on some of the most important challenges and trends envisaged over the coming years, with a view to the anticipated review of the regulatory framework. This will include developments in:

- The need for network investment as a result of increasing consumers demand for bandwidth, especially stemming from their access to content and applications provided by Over-The-Top players (OTT), and the need to support the deployment of fast and ultra-fast broadband on both fixed and mobile networks;
- The transition from PSTN to all IP-technology;
- The overall competitive scenario, including the trend towards market concentration, and the challenge to competition this may represent, and the need to analyse alternatives, such as network sharing, which could help minimise potential adverse effects on competition.

##### 3.1.1 Wholesale products

###### a. Monitoring implementation of the BEREC Common Positions on Wholesale Products – 2<sup>nd</sup> Phase

Subsequent to the adoption of the revised broadband Common Positions on Wholesale Local Access (WLA), Wholesale Broadband Access (WBA) and Wholesale Leased Lines (WLL), in 2012, BEREC developed a methodology to monitor their implementation<sup>2</sup>. BEREC conducted and reported on the outcome of its first monitoring exercise in 2014 and will repeat the exercise in 2015 and 2016.

##### ***Deliverable***

BEREC Monitoring Report on the implementation of the BEREC Common Positions on WLA, WBA and WLL – 2<sup>nd</sup> Phase  
Adoption in P4/2015

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<sup>2</sup> BoR (13) 108

## b. Virtual Access Products

BEREC has identified Virtual Access products and bitstream at layer 3 – and to a lesser extent Ethernet LL – as relevant areas. The work developed so far, i.e. monitoring the implementation of best practice by NRAs, should be made more ambitious and result-oriented. To this end, BEREC will analyse whether there is room for further consistency in the definition of common specifications, enhancing it at EU level. A starting point will be to develop BEREC internal work on layer 2 into a report.

### *Deliverable*

BEREC Report on Virtual Access Products

Public Consultation after P2/2015

Adoption in P3/2015

### 3.1.2 Implementation of the Recommendation on Relevant Markets and Common Position (CP) on Geographical Segmentation

The reviewed recommendation on Relevant Markets introduces important changes in the delineation of markets (i.e. new markets 3a/3b and 4), as well as some additional issues in other markets, including specific remarks about current markets 1 and 2. Geographical segmentation is also addressed, following an approach that is in line with the BEREC Common Position on geographical aspects of market analysis<sup>3</sup> published in June 2014.

Taking this into account, BEREC will follow the implementation of this reviewed recommendation amongst Member States, facilitating the exchange of experience amongst NRAs in applying the new Recommendation and identifying any other issues where BEREC may provide additional guidance for NRAs in the future.

BEREC will organise an internal workshop to share experiences from NRAs, focusing on the market analysis notifications submitted since the revised recommendation's entry into force and on the feedback received from the EC and other stakeholders.

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<sup>3</sup> BoR (14) 73.

***Deliverable***

BEREC Workshop on the implementation of the Recommendation on Relevant Markets and Common Position on Geographical Segmentation

BEREC Internal Workshop

### **3.1.3 Challenges and drivers of NGA roll-out and infrastructure competition**

With the increasing demand for broadband, regulators need to consider options which foster investment in high-speed broadband infrastructure while preserving a competitive environment and a level playing field.

Since this will remain a key challenge for EU regulation over the next few years, building on its previous work in this field BEREC will need to study the broad regulatory approaches towards incentivising NGA investment. An understanding of the situation in each Member State, in particular investment dynamic/models, could provide additional basis for future regulatory intervention, as applicable.

There are a number of areas of intervention to safeguard competitive gains while stimulating NGA roll-out which call for analysis. These include access to ducts/poles and infrastructure databases, wholesale prices, geographic differentiation and the generation of synergies through use of network infrastructure belonging to utility companies for the deployment of telecommunications infrastructure and vice-versa.

The potential benefits of the Directive on broadband cost reduction may also be considered under this work stream, although probably only in 2016 following the Directive's transposition in all Member States.

***Deliverable***

BEREC Report on challenges and drivers of NGA roll-out and infrastructure competition

Public Consultation after P4/2015

Adoption in P2/2016

(Different reports may be envisaged – focusing NGA investment drivers, Regulatory policies and Cost reduction directive)



### 3.1.4 Preparing migration to ‘all IP networks’

A key issue for BEREC in coming years will be the regulatory implications of ‘all IP migration’.

With this in mind, BEREC will conduct a comprehensive analysis of regulatory implications in the IP eco-system as a whole, building on the work already developed in terms of net neutrality (traffic management), transit/peering agreements and termination rates.

Since migration to IP implies a switch from old access products to new IP-based access products, work should further focus on the issues entailed in the migration process, such as appropriate time scheduling and overlay periods, measures to minimise impact on end-users, appropriate alternatives for phased out services and how to deal with stranded assets with a view to safeguard competition. The current state of play in terms of IPv4 address space and the deployment of IPv6 (still slow) in the EU might also be considered in this analysis.

The consideration of new business models in a convergent IP environment encompasses ongoing debates between stakeholders on charging mechanisms used for IP-interconnection like peering and transit. In this context, the successful cooperation of BEREC with the OECD should also be continued through a 3<sup>rd</sup> joint BEREC/OECD workshop to discuss relevant interconnection issues at the wholesale level.

#### ***Deliverable***

- BEREC Plenary Workshop in P3/2015 on migration to all-IP networks
- BEREC Report on migration towards IP-based interconnection for voice services

Adoption in P1/2016

- 3<sup>rd</sup> BEREC/OECD workshop on IP-interconnection in Q2/2015

### 3.1.5 Oligopoly analysis and regulation

In the WP2014, BEREC already recognised the importance of a proper economic analysis of oligopoly market structures and has started working in this area; in particular as regards the impact of such structures on competition, investment and innovation and how to respond when consumers are not getting the best deal.

Recent market developments confirm a clear trend towards consolidation - a trend which the proposed Connected Continent Regulation and some recent Commission Decisions on merger and acquisition processes seem to strengthen.

In 2015, BEREC should conclude its analysis, and provide input to the European Commission on the review of the market analysis Guidelines, as well as on the Framework review.

BEREC will also be organising a Plenary Workshop on this subject.

Depending on the resources available, a fact-finding exercise on the most recent Merger and Acquisition processes and on regulatory remedies in the EU could be included in this work item. This will be a useful tool for BEREC to further develop a forward-looking analysis on this subject. In addition, a report on market developments post-merger may also be envisaged.

***Deliverable***

- BEREC Plenary Workshop on oligopoly analysis and regulation in P1/2015

- BEREC Report on oligopoly analysis and regulation

Public Consultation after P2/2015

Adoption in P4/2015

### **3.1.6 Facilitation of access to radio spectrum**

As has been stated on several occasions, radio spectrum is essential to the development of the broadband market, the proper functioning of competition and the achievement of the goals set out in the 2020 Digital Agenda.

BEREC will continue to work closely with the Radio Spectrum Policy Group in this area, since it represents a crucial aspect of BEREC's radio spectrum work. The work begun in 2014 will therefore continue throughout 2015, and may entail an internal workshop, whose outcome will be presented to the BoR.

Additional work might also be considered, as a possible input to the Connected Continent Regulation process, for the forthcoming review and for the review of the Radio Spectrum Policy Programme (RSPP) due in 2015.

***Deliverable***

BEREC workshop on facilitation of access to radio spectrum

BEREC internal workshop

## 3.2 Strategic Priority 2: Promoting the Internal Market

BEREC has been actively delivering consistent and properly reasoned opinion on Article 7/7a Phase II cases, along with the provision of timely advice and opinions to EU institutions, chiefly regarding draft decisions recommendations and guidelines, but also concerning new legislation. On top of this, BEREC should not lose sight of the permanent developments in the electronic communications and adjacent sectors. In this regard, there will be a focus on the evolution of the internet, internet-driven services and the role of OTT providers. BEREC will look into how the penetration of OTT services is evolving and at the impact on the traditional business models of telecom operators.

BEREC will also give emphasis to the development of connected services, the so-called Internet of Things, and Machine-to-Machine (M2M) communications.

Finally, BEREC will continue to follow-up on questions related to roaming, particularly through the compilation of market data.

### 3.2.1 Article 7/7-A – Phase II

BEREC anticipates continuous involvement in Article 7/7a Phase II cases, entailing examination and the delivery of relevant opinions within strict deadlines while maintaining the highest levels of quality. An analysis of the Art. 7/7a cases undertaken in 2014, through an internal exchange of views at plenary meetings or workshops, may be of use in this context, in order to ensure further consistency in these Opinions. To this end, this type of reflection should also be continued in 2015.

Closely linked to this qualitative analysis of Phase II cases, BEREC will also seek to identify cases of special interest, whose specific features merit in-depth discussion. This may be the case, for example, of regulatory processes where NRAs have decided not to follow a BEREC Article 7/7a Opinion or where the Commission has not followed a BEREC opinion.

#### ***Deliverables***

- |   |
|---|
| <ul style="list-style-type: none"><li>- BEREC Opinions on Article 7/7-A – Phase II</li><li>- BEREC Internal workshops on qualitative analysis of Article 7/7-A – Phase II cases</li></ul> |
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### 3.2.2 Implementation of the Recommendation on Termination Rates

On 7th May 2009, the European Commission adopted a Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, to be implemented by 31<sup>st</sup> December 2012. Within this framework, BEREC will examine practical implementation issues in order to foster common answers between NRA. In particular, BEREC is committed to achieve a better understanding of the cost methodologies adopted to determine fixed and mobile termination rates within BEREC countries (see also 4.1 Benchmarks).

In the context of internal market development, BEREC should also continue to monitor and report on cross-border EU and EEA trade in terminations and define the regulatory treatment given to the termination of calls originating outside the EU and EEA.

#### ***Deliverable***

- BEREC Internal Report on the implementation of the Termination Rates Recommendation  
Adoption in P4/2015
- BEREC Internal Report on the regulatory treatment of termination of calls originated outside EEA  
Adoption in P1/2015
- BEREC Internal Report on Cross-border voice terminations rates  
Adoption in P2/2015

### 3.2.3 Legislative Evolution

#### **a. Subjects linked to the proposal on a Connected Continent regulation**

Subject to the continuation of the legislative process in 2015, BEREC will undertake monitoring of the Connected Continent dossier and its developments at a legislative level. Depending on the final version of the relevant provisions, BEREC will also contribute, as appropriate, to the implementation of any new rules which require action on its part. BEREC is aware that the Commission and the European Parliament have proposed a number of responsibilities for BEREC, such as in the market entry notification procedure, the definition of guidelines on obligations relating to wholesale business services, Quality of Service (QoS) safeguards and a range of guidelines related to amendments to the Universal Service Directive (USD) on consumer protection and amendments to the Roaming Regulation.

Depending on the quantity and nature of the activities assigned to BEREC in the final version of the Regulation, BEREC is ready to prioritise its 2015 Work Programme as necessary to meet the stipulated deadlines; this may require postponing or dropping some planned activities

***Deliverable***

- Position papers on the draft Connected Continent Regulation

- Further BEREC activities stemming from the final Connected Continent Regulation

Adoption of these deliverables depends on the progress of the Connected Continent dossier and relevant timing

**b. Preparation of the next framework review**

Considering the broad experience of its member NRAs in implementing the electronic communications framework, BEREC is in a privileged position to engage in an internal reflection on the functioning of the regulatory framework, in preparation for the next review.

BEREC has already provided its own input on several aspects regarding the implementation of the current framework (see document BoR (13) 74 with respect to BEREC's preliminary informal views on the set of questions put by Catherine Trautmann MEP<sup>4</sup>).

A reflection by the European Parliament was also initiated with the EP's First Reading Resolution on the proposed Connected Continent Regulation<sup>5</sup>, bearing in mind its Report on the Implementation of the Regulatory Framework for Electronic Communications<sup>6</sup>, adopted on 1 October 2013, with the intention of identifying areas and goals for the next legislative review process to be launched by the Commission.

Taking the contents already elaborated as a starting point, BEREC will carry out a comprehensive analysis of all the areas of the framework that require review. This analysis will also take into consideration the subjects raised during the discussions on the Commission's Connected Continent legislative proposal. Some of these issues are already featured in the European Parliament's report (referred to above).

This analysis may then feed into any input that EU institutions formally require from BEREC as part of the next review process.

<sup>4</sup>[www.europarl.europa.eu/document/activities/cont/201306/20130617ATT67940/20130617ATT67940\\_EN.pdf](http://www.europarl.europa.eu/document/activities/cont/201306/20130617ATT67940/20130617ATT67940_EN.pdf)

<sup>5</sup><http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0281+0+DOC+XML+V0//EN>

<sup>6</sup>[www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A7-2013-0313+0+DOC+XML+V0//EN](http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A7-2013-0313+0+DOC+XML+V0//EN)

Some of the topics that might be addressed include the scope of the framework, as well as the role of OTTs, joint dominance and the growing complexity of the link between retail and wholesale products (including bundles, some of which are also encompassing services which fall outside the definition of electronic communications services and the scope of universal service).

### ***Deliverables***

- BEREC Internal Report on the aspects of the electronic communications EU legislative framework requiring review
- BEREC public Statement/Position paper on the perspective review of the current electronic communications EU legislative framework
- BEREC Opinion/BEREC Response to the European Commission's public consultation on the perspective review of the current electronic communications EU legislative framework (depends on EC)
- BEREC input to possible requests received from the EP and the Council

Adoption of these deliverables depends on the progress of the review process and relevant timing

### **3.2.4 International Roaming**

The 2015 work plan develops the activities that were ongoing throughout 2014 and focuses on giving support to the NRAs in interpreting Regulation (EU) No 531/2012 and applying the associated BEREC Guidelines.

BEREC will also continue the benchmarking work on the evolution of roaming traffic volumes, prices and levels of competition at retail and wholesale levels, producing two reports during 2015. The work plan also envisages the compilation of information from NRAs and operators on roaming tariffs, and on information and tools made available to consumers to help compare and select different international roaming tariffs, with the aim of producing the third report on tariff transparency and comparability.

Further to the work already initiated in 2014, BEREC will continue throughout 2015 its work on BEREC Opinion on the EP legislative resolution of 3<sup>rd</sup> April 2014 on the proposal for a Connected Continent Regulation.

Finally, depending on the outcome of the Connected Continent regulation process, BEREC may also lay down guidelines on fair use criteria, as well as provide input to the European Commission on the need to address related wholesale market problems.

### a. International Roaming Benchmark

In accordance with Article 19 of the Roaming Regulation (Regulation (EU) No 531/2012), BEREC shall regularly collect data from NRAs on the development of retail and wholesale charges for voice, SMS and data roaming services; this data is to be notified to the Commission at least twice a year.

Taking this into account, BEREC will continue to monitor the Roaming Regulation's functioning and provider compliance, compiling information on trends in traffic volumes and pricing at retail and wholesale level, and producing two benchmark reports covering the periods April 2014-September 2014 (14<sup>th</sup> Benchmark Report) and October 2014-March 2015 (15<sup>th</sup> Benchmark Report).

#### ***Deliverables***

14 <sup>th</sup> and 15 <sup>th</sup> BEREC Benchmark Reports, in view of Regulation (EU) No 531/2012
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Adoption in P1/2015 & P3/2015
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### b. Transparency and Comparability of International Roaming Tariffs

Also in accordance with Article 19 of the Roaming Regulation, BEREC will collect information from NRAs on the transparency and comparability of different roaming tariffs offered by operators to their customers. The information gathered from NRAs and operators will be used to prepare the third report on transparency and comparability of roaming tariffs, which seeks to identify issues that need addressing, in particular as regards consumer choice and the availability of adequate information to make that choice possible.

#### ***Deliverables***

BEREC Report on transparency and comparability of International Roaming tariffs
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Adoption in P4/2015
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### 3.2.5 Report on OTT services

BEREC has taken note of a growing number of new products and services used by consumers that make use of electronic communications infrastructure, and which may affect the ICT value chain. In light of these developments, BEREC will assess the potential changes in the ICT value chain and the possible evolution of digital markets in the internet ecosystem, including potential issues relevant to policy makers, and will consider whether and how to address them.

In this context, and with a view to defining a taxonomy for digital market players and services, BEREC will conduct an overall analysis of OTT activities and business models and their impact on the electronic communications sector, both in terms of competition and consumer issues, as well as their impact on the current regulatory framework, particularly on its scope and reach.

The analysis may start by identifying and defining OTT services and relevant players, as well as consumer behaviour, in order to obtain a picture of the demand side, as there has been an increasing use of OTT services in the past years. The assessment may cover market players that have not been considered as providers of electronic communication services, such as content providers or equipment vendors.

BEREC will also take into account the work being developed by the European Commission in this field, and it will seek to engage with it as appropriate, in order to avoid overlapping, ensure coordination and provide technical advice when relevant.

The work being developed under work items 3.3.1-b – ECODEM – Ecosystems dynamics and demand-side forces in net neutrality developments from an end user perspective - and 4.1 - Benchmarks (as regards OTTs) - might also be used as an input. BEREC will also consider the work to be undertaken by the European Commission on these issues, in order to avoid overlapping, to ensure coordination and to provide technical advice when relevant.

In the event that a comprehensive electronic communications framework review process is launched in 2015, the work on OTT world may be included in that context.

### ***Deliverable***

BEREC Report on OTT services

Public Consultation after P3/2015

Adoption in P1/2016

(Different reports may be envisaged)

### **3.2.6 Advanced connectivity of devices, systems and services (M2M)**

Machine-to-Machine (M2M) services are rapidly growing, with more than 1 billion devices predicted by 2020. BEREC has been devoting considerable attention to this issue and will continue to do so, particularly to identify potential regulatory challenges which might emerge upon the full development of M2M services.

Two internal reports were completed in 2013 and 2014 which compiled information on the experiences of NRAs with M2M and which provided an insight into the current situation in



M2M markets, incorporating the views of relevant stakeholders and an overview of the various M2M services. As a consequence, it became clear that there is a range of regulatory issues which need to be addressed in relation to M2M (e.g. numbering, spectrum, International Roaming, etc.). BEREC needs to discuss these issues in depth, to ensure that NRAs are ready and able to face the challenges posed by M2M.

Notable examples of the growth in M2M services include the ongoing equipping of energy grids with ICT (creating the so called “smart grids”) and the deployment of smart meters. BEREC should therefore assess how regulation needs to respond to the roll-out of these and other M2M services on a broad scale, and also examine the regulatory requirements which might apply to these services and/or underlying electronic communication networks.

BEREC will discuss its preliminary findings at a public workshop, following the publication of a BEREC report on M2M regulatory aspects.

BEREC will also give its support in enabling cross-sector cooperation for broadband and smart grid deployment by continuing to provide inputs, as requested, to the European Commission Expert Group (EG) 3 on Smart Grids.

Issues to be considered in this field may include the generation of synergies through the use of network infrastructure belonging to utility companies for the deployment of electronic communications infrastructure, the regulatory requirements applicable to electronic communications networks comprising smart grids and smart metering, the promotion of cooperation between telecoms and energy regulators and the deployment of electronic communications networks by utility companies.

### ***Deliverables***

- BEREC workshop on M2M

External workshop in Q2/2015

- BEREC Report on M2M

Adoption in P4/2015

- BEREC input to the European Commission Expert Group (EG) 3 on Smart Grids (as needed)

### **3.2.7 Cross-border regulatory cooperation within the scope of Art. 28 (2) of the Universal Service Directive**

Following approval of the ‘Article 28 (2) USD: BEREC Guidance Paper’, which outlined the BEREC process for cross-border regulatory cooperation in intervention by regulators or other

relevant NRAs in cases of fraud and misuse, BEREC will continue to monitor the process by reviewing the experience obtained as a result of representative incidents, through a series of meetings/workshops as needed (which may involve the participation of third parties such as operators or Europol).

### ***Deliverable***

BEREC workshops on cross-border regulatory cooperation within the scope of Art. 28 (2) of the Universal Service Directive (as needed)
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BEREC internal workshops
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## **3.3 Strategic Priority 3: Empowering and Protecting End-Users**

On issues directly concerning users, BEREC will give priority to user protection and will focus, in particular, on user access to clear and relevant information, especially access to information about new services and new technologies. As such, BEREC will maintain focus on the empowerment of consumers by enabling an informed decision process and by facilitating provider switching.

One of the main areas of interest continues to be net neutrality (NN) - BEREC will closely monitor developments in this area and will actively provide advice and input related to legislative initiatives, as well as monitoring enforcement of NN rules, including rules stemming from new legislation.

### **3.3.1 Broadband quality of service and net neutrality**

#### **a. Feasibility study of QoS Monitoring in the context of NN**

Following on the 2014 NN QoS monitoring report, BEREC will conduct a feasibility study on quality of service monitoring in the context of NN, based on which BEREC will take a decision on the development of an opt-in monitoring system. This work stream is divided into three activities:

- Fostering dissemination of knowledge amongst NRAs and further developing best practices on this subject. This should facilitate increased convergence of metrics and methodologies used in monitoring Internet access services, as well as enhance competences in terms of quality of service monitoring in the context of NN.
- Developing implementable technical scenarios for QoS monitoring in the context of NN, including possible voluntary pilot activity in order to accomplish the objectives

stated above. Important aspects include monitoring of degradation of IAS as a whole, as well as individual applications. This would take into consideration the need for and the feasibility of cross-network (and possibly cross-border) measurements, while building on existing experience. In particular, this study would take leverage from the policy objectives identified in the 2014 NN QoS monitoring report (transparency and regulatory supervision in the scope of NN).

- Identifying situations where a multi-NRA opt-in monitoring system could be useful, and evaluating the cost of cooperation, the complexity of the system, the legal requirements and the time constraints related to alignment amongst NRAs. The work will also identify any other factors involved in the development and establishment of such a monitoring system, taking into account the current situation of NRAs.

### ***Deliverable***

BEREC Internal Report on the feasibility of QoS monitoring in the context of NN
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Adoption in P4/2015
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### **b. ECODEM – Ecosystems dynamics and demand-side forces in net neutrality developments from an end user perspective**

In 2013, BEREC initiated this work stream with the goal of providing NRAs with a more evidence-based understanding of the extent to which the dynamics between consumers, ISPs and Content and Application Providers (CAPs) impact Net Neutrality policy development in Europe.

This work has continued throughout 2014 with BEREC gathering information and empirical data (including through commissioned consumer research) on the various traffic management and strategic responses adopted by ISPs in the face of technical, legal and market constraints and on the way consumers' expectations and market dynamics are reflected in retail offers.

The report to be adopted in 2015 will set out BEREC's general approach and will support future analysis by NRAs of their national markets, while also contributing to the ongoing public debate on NN issues.

***Deliverable***

BEREC Report on ecosystem dynamics and demand-side forces in Net Neutrality developments from an end-user perspective
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Adoption in P2/2015
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**c. Traffic Management Investigation**

The first BEREC-Commission joint investigation into traffic management practices employed by fixed and mobile operators was very successful and the outcome was deemed to be extremely useful. As such, and in keeping with its previous work programme, BEREC considers that there is substantial value in repeating the exercise, so as to provide updated data and identify evolving practices more accurately.

Whether and when to best carry out the new investigation will depend on other factors, including developments with the proposed Connected Continent Regulation. The appropriate timing for commencement of this work will therefore be discussed with the European Commission.

***Deliverable***

BEREC Report on TMI2 – preparation and launch of a second round of the Traffic Management Investigation (depending on European Commission plans)
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**3.3.2 Review of the scope of Universal Service**

The Universal Service Directive calls on the European Commission to review the scope of universal service every three years in the light of social, economic and technological developments. The European Commission started working on the next review in 2014 and BEREC will continue to work closely with the European Commission on Universal Service providing input as required, including a formal opinion on any report or proposals issued by the Commission.

***Deliverable***

BEREC opinion on European Commission's review of scope of Universal Service
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Adoption depending on European Commission plans
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### **3.3.3 Initiatives to facilitate operator switching by non-residential customers**

In 2011, after a stakeholder request, BEREC investigated the specific case of business markets in its report on restrictions affecting the provision of business services. Additionally, BEREC has also dealt with several other theoretical aspects of business service regulation over recent years (relevant market definition, cross-border services, etc.). Electronic communication services are indeed critical to the day-to-day running of government and companies. A breakdown or degradation of service, however short, can be a serious issue for business end-users.

Moreover, the development of competition in non-residential markets requires a wider range of variable conditions such as: consistent, simple and robust switching processes; banning of unfair retail contractual provisions; thorough and flexible wholesale offers; etc. As a result, non-residential markets are structurally less fluid than residential markets. BEREC will proceed in its role of fostering the dynamic of business markets by organising workshops for NRAs to share their experiences in increasing the fluidity of non-residential markets, notably with regard to small and medium sized enterprises.

#### ***Deliverable***

BEREC workshop on initiatives to facilitate operator switching for non-residential customers  
BEREC internal workshop

### **3.3.4 Update of the Report on Equivalent Access and Choice for Disabled End-Users**

Article 23a (1) of the Citizens' Right Directive aims to ensure that end-users with disabilities, estimated at 16% of the European population, may fully participate in and benefit from technological advances and developments in electronic communications that are available to other end-users. The challenges faced by disabled citizens in access to education, jobs, health and cultural goods are immense. The provisions of the aforementioned Article 23a (1) allow Member States to enable NRAs to specify requirements to be met by undertakings providing electronic communications services to ensure that disabled end-users have equivalent access to and choice of undertakings and services that are available to the majority of end-users. Therefore, Article 23a provides a mechanism to apply relevant obligations to all electronic service providers. Also, according to the recital 41 of the Universal Service Directive, "Member States should take specific measures to ensure that emergency services, including "112", are

equally accessible to disabled end-users, in particular deaf, hearing-impaired, speech-impaired and deaf-blind users. This could involve the provision of special terminal devices for hearing-impaired users, text relay services, or other specific equipment.”

In this context, the BEREC Accessibility Workshop will discuss and collect views on:

- a. What have regulators done to improve accessibility for disabled citizens and what is the impact of national measures to date?
- b. Accessibility from the industry perspective;
- c. Designing for all: a manufacturers and service providers' challenge;
- d. Accessibility and usability: what are the challenges faced by disabled users accessing the electronic communication services?

The workshop proceedings will contribute towards an update of BEREC Report on equivalent access and choice for disabled end-users, which will also consider the more recent market and technological developments regarding disability issues and the evolution of the needs of disabled end-users.

### ***Deliverable***

- BEREC workshop on equivalent access and choice for disabled end-users

BEREC External workshop in Q2/2015

- Update of the BEREC Report on equivalent access and choice for disabled end-users

Public consultation P2/2015

Adoption in P4/2015

#### **4. Quality of BEREC's output and operational efficiency**

As set out in the Regulatory Framework, BEREC is determined to ensure that the outputs of its works are delivered in an effective and timely manner and are of the highest possible quality.

Equally important are activities which aim to further enhance the consistency and quality of individual NRAs decisions. This may be achieved, for instance through Common Positions Guidelines and the sharing of Best Practice, or by providing, upon request, assistance to NRAs on regulatory issues. BEREC will continue with its monitoring, benchmarking and reporting activities so as to provide NRAs and policymakers with sound factual input for their decision-making, taking the most recent developments and trends into account. Particular consideration will be given, for instance, to MTR, FTR and SMS benchmarking, as well as to the assessment of regulatory accounting practice.

BEREC will also identify potential new indicators or benchmarking requirements, in particular considering the massive development of multiple-play services and the impact of OTT services. The increasing importance of bundled products and OTTs will thus deserve BEREC attention, particularly by analysing their impact on the wholesale market and its regulation.

BEREC will also proceed with its internal dialogue to exchange experience and views on institutional aspects of NRAs, as well as on their full participation in BEREC's work, while noting the diverse range of remit among NRAs.

Some topics (mostly in the Strategic Priorities 2 and 3) have an impact on the electronic communications sector but are not exclusively handled within the boundaries of BEREC's remit. BEREC shall, therefore, devote additional attention to its engagement and cooperation with the relevant EU agencies or regulatory bodies – such as the European Network and Information Security Agency (ENISA) or the European Regulators Group for Audiovisual Media Services (ERGA) – in adjacent areas.

Lastly, BEREC will continue its cooperation with non-EU third parties (mainly regulatory authorities) and with other international bodies.

## 4.1 Benchmarks

In 2015, BEREC will continue to produce benchmarks on mobile and fixed termination rates as well as on SMS. These benchmarks have reached a satisfactory level of maturity and have proved invaluable, not just for monitoring consistency but also in the regulatory process.

BEREC will also cooperate with the EC in the development of existing benchmarking methodologies, in order to improve compilation of data on OTT and multiple-play services (bundles) and price analysis, identifying potential new indicators. This analysis could be used for the work being developed on OTT services under 3.2.5 – Report on OTT services.

Specifically with respect to OTT indicators, while a variety of measurements exist across countries and in different studies, comparability is somewhat limited. One task to be developed is to share experiences obtained by several countries in terms of indicators on a variety of OTT activities, i.e., voice, messaging or content services. A further task is to propose a set of indicators to the EC and to NRAs which will be useful in identifying end-user usage and demand for OTT services; these indicators can then be used for benchmarking purposes.

In terms of bundles, BEREC is tasked with updating the current set of indicators to better reflect the more complex bundles that are appearing in different EU countries, specifically quadruple and quintuple-play combinations and to better identify the specific services included in each type of bundle. These indicators are of crucial importance for any further analysis that NRAs may develop, given the clear convergence of services at a commercial level.

BEREC will also cooperate closely with the European Commission and international organisations, seeking on the one hand to achieve the widest possible adoption of such benchmarks and on the other hand to examine the possibility of extending the exercise to cover additional topics.

In view of the market's current stage of development, BEREC will go on to consider potential adjustments to the frequency of this analysis and/or any other aspects as they arise.

### ***Deliverable***

- FTR, MTR, SMS Snapshot

Adoption in P2/2015 and P4/2015

- BEREC Report on the development of new indicators for bundles

- BEREC Report on selected OTT services indicators for usage and demand, and methodology recommended

Adoption in P4/2015



## 4.2 Regulatory Accounting in practice

BEREC will repeat this annual exercise in 2015, with the intention, as in previous years, to assess the degree to which there is consistency in regulatory accounting across the EU and to identify differences among Member States which may have arisen as a result of different implementations of the same regulatory accounting approach.

BEREC will continue to collect data on the methodology and input parameters used to calculate the rate of return on capital employed.

In 2015, emphasis will continue to be given to consistency in regulatory accounting with respect to key access products and will seek to increase the detail and the in-depth analysis of the methods covered.

BEREC will also include an overview of the costing methodologies applied with a view to the Recommendation on Consistent Non-Discrimination Obligations and Costing Methodologies (2013/466/EU).

### ***Deliverable***

BEREC Report on regulatory accounting in practice
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Adoption in P3/2015
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## 4.3 Stakeholders' Forum

In 2015, BEREC will once again engage in dialogue with stakeholders with two principal aims: Firstly, to keep stakeholders up-to-date on BEREC's activities and positions, and secondly, to obtain feedback and relevant information from stakeholders on the issues that BEREC is currently dealing with and on issues that BEREC needs to address, over the short and long term.

BEREC should therefore continue to provide a platform for strategic dialogue, which will enable participation by all members and key stakeholders and ultimately increase transparency.

The feedback received in this context will be an important complement to the written inputs received through public consultations and other discussions that take place (for example to compile views).

***Deliverable***

BEREC Stakeholders' Forum

Q4/2015

**4.4 BEREC annual report on activities and developments in the sector**

According to Article 5.5 and Article 3.1 (n) of the BEREC Regulation, BEREC is required to present an Annual Report of its activities every year, as well as an Annual Report on developments in the electronic communications sector. As of 2012, these two reports are to be presented as two parts (part A and part B) of a single document and are published jointly.

The Annual Report on BEREC activities is based on the Work Programme, elaborating on the work conducted by the expert working groups and ad-hoc teams.

The report on the electronic communications sector should reflect BEREC's perspective of the main developments of the previous year, while at the same time adopting a forward-looking approach.

***Deliverable***

BEREC Annual Report on activities and developments in the sector

Adoption in P2/2015

**4.5 Engagement with EU institutions****4.5.1 Cooperation with EU institutions**

BEREC will continue to engage with the European Commission, the Council and the European Parliament, providing advice and opinions on European Commission draft decisions, recommendations and guidelines, and taking on any questions related to electronic communications that fall within the scope of its competence. Cooperation with the European Commission will be reinforced, in particular where BEREC is a relevant partner in the work being developed in various European forums, such as the European Commission Expert Group (EG) 3 on Smart Grids or the RSPG.

BEREC will also develop its cooperation with other relevant EU agencies and regulatory bodies dealing with issues that impact or are impacted by the electronic communications sector, such as the European Union Agency for Network and Information Security (ENISA),

the European Regulators Group for Audiovisual Media Services (ERGA) or the Consumer Protection Cooperation (CPC) Network, where workshops could be held to exchange views on issues such as network and information security, net neutrality or OTT. BEREC gives particular emphasis to its collaboration with ENISA within the scope of its Permanent Stakeholders Group.

#### **4.5.2 Information Sharing Portal**

Building on the outcome of BEREC's work in 2014, BEREC will continue to assess the possibility of implementing an information sharing portal, developed with the aim of sharing documents, publications, studies, reports and data produced by each NRA, BEREC and the European Commission through a common web site, in response to a European Commission request.

Based on this assessment, BEREC will proceed accordingly on the implementation of this project together with a timetable for the different stages of implementation, coordinate work among the different parties involved (NRAs, BEREC Office, European Commission), define functioning rules for the portal's maintenance and monitor general implementation of the common portal.

### **4.6 International Cooperation**

Despite its principal focus on the European market, it has become increasingly necessary, within the limits of its mandate, for BEREC to engage in dialogue with NRAs based outside the EU and with international regulator networks, policymakers and institutions involved in communications matters.

The increasing volume of electronic communications flowing in and out of the EU and the global nature of most developments mean that policies, legislation and regulations have to be seen from a more global perspective. BEREC will need to closely follow global trends in technology and changing business models, so that it retains the capacity to address challenges swiftly and effectively as they arise.

Additionally, regions outside the EU and non-EU regulators networks have been expressing great interest in the European regulatory approach. This could lead to an approximation between regulatory framework policies and ultimately promote competition, investment and improved social well-being. This work is further enhanced by the many activities of international cooperation which NRAs have been involved in over the past several years, as

well as the programmes established by the European Commission, such as Twinning and Taiex, with the aim of promoting cooperation and the development of markets in non-European countries.

With this in mind, in 2015, BEREC will continue to pursue and develop contacts with international regulatory authorities (such as FCC) and with regional regulatory networks (such as EMERG, Regulatel and EaPeReg), in accordance with the BEREC Regulation.

Various forms of cooperation with other international institutions involved in communications (such as OECD and ITU) could be envisaged. BEREC will also actively support initiatives such as Twinning and Taiex and will continue to provide support, upon request, to the European Commission in its dialogue with non-EU counterparts.

## Annex – Outputs

### Reports

- BEREC Monitoring Report on the implementation of the BEREC Common Positions on WLA, WBA and WLL – 2nd Phase
- BEREC Report on Virtual Access Products
- BEREC Report on challenges and drivers of NGA roll-out and infrastructure competition
- BEREC Report on migration towards IP-based interconnection for voice services
- BEREC Report on oligopoly analysis and regulation
- BEREC Internal Report on the implementation of the Recommendation on Termination Rates
- BEREC Internal Report on the regulatory treatment of termination of calls originated outside EEA
- BEREC Internal Report on Cross-border voice terminations rates
- BEREC Internal Report on the aspects of the electronic communications EU legislative framework requiring a review (poss.)
- 14<sup>th</sup> and 15<sup>th</sup> BEREC Benchmark Reports
- BEREC Report on transparency and comparability of international roaming tariffs
- BEREC Report on OTT services
- BEREC Report on M2M
- BEREC Internal Report on the feasibility of QoS monitoring in context of NN
- BEREC Report on ecosystem dynamics and demand-side forces in net neutrality developments from an end-user perspective
- BEREC Report on Traffic Management Investigation (poss.)
- Update of the BEREC Report on equivalent access and choice for disabled end-users
- FTR, MTR, SMS Snapshot
- BEREC Report on the development of new indicators for bundles
- BEREC Report on selected OTT services indicators for usage and demand, and methodology recommended
- BEREC Report on regulatory accounting in practice
- BEREC Annual Report on activities and developments in the sector

### Opinions

- BEREC Opinion/BEREC Response to the European Commission's public consultation on the perspective review of the current electronic communications EU legislative framework (poss.)
- BEREC Opinion on European Commission's review of the scope of Universal Service (poss.)

### Other Documents

- Position papers on the draft Connected Continent Regulation (poss.)
- BEREC public Statement/Position paper on the perspective review of the current electronic communications EU legislative framework (poss.)
- BEREC input to possible requests received from the EP and the Council
- BEREC input to the European Commission Expert Group (EG) 3 on Smart Grids (as needed)

### Workshops / Other Meetings

- BEREC Internal Workshop on the implementation of the Recommendation on Relevant Markets and Common Position on Geographical Segmentation
- BEREC Plenary Workshop on migration to all-IP networks
- 3<sup>rd</sup> BEREC/OECD workshop on IP-interconnection
- BEREC Plenary Workshop on oligopoly analysis and regulation
- BEREC Internal workshop on facilitation of access to radio spectrum
- BEREC Internal workshops on qualitative analysis of Article 7/7-A – Phase II cases
- BEREC workshop on M2M
- BEREC Internal workshops on cross border regulatory cooperation within the scope of Art. 28 (2) of the Universal Service Directive (as needed)
- BEREC Internal Workshop on initiatives to facilitate operator switching for non-residential customers
- BEREC workshop on equivalent access and choice for disabled end-users
- Stakeholders' Forum