

BEREC **Newsletter**

08/2016

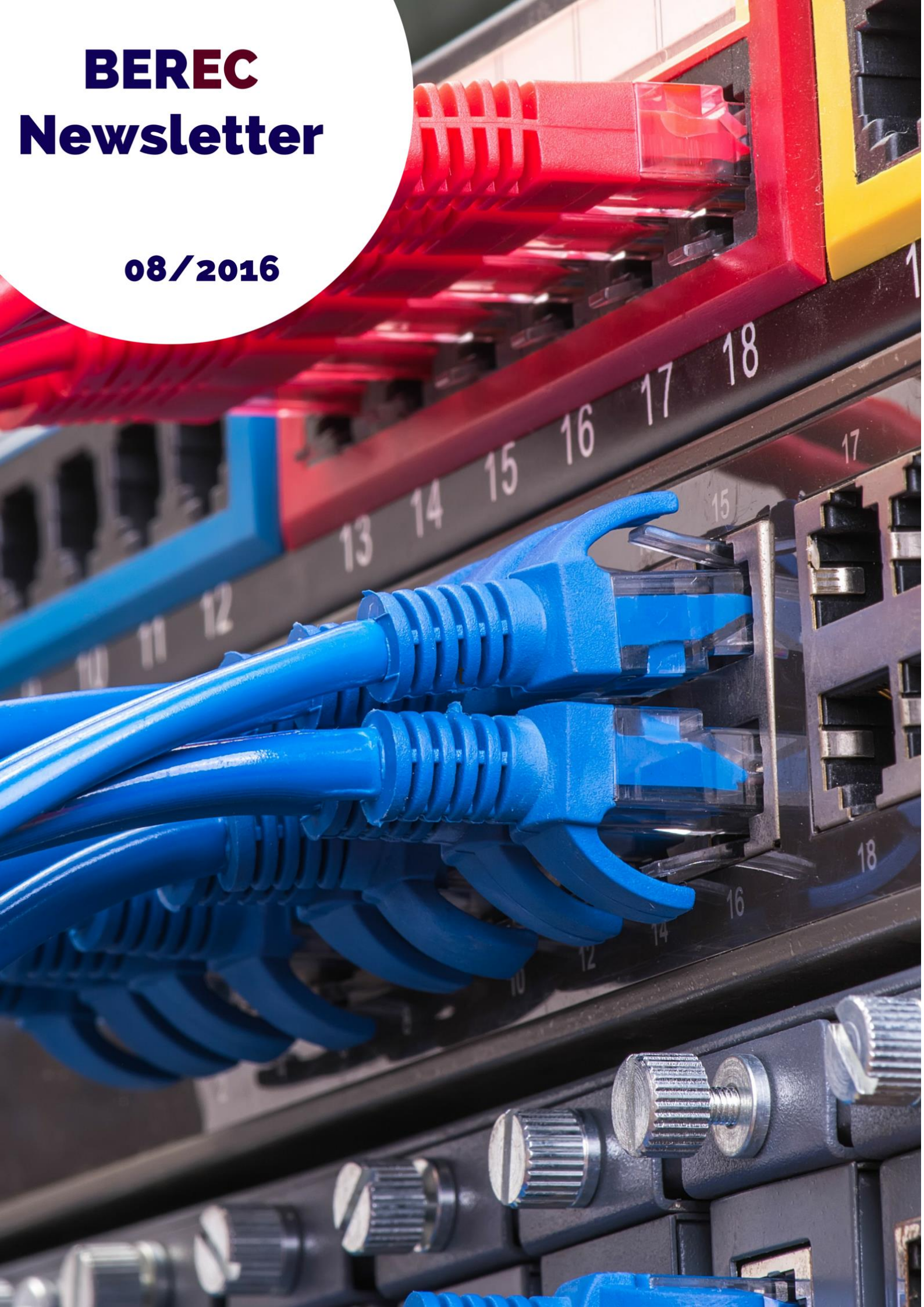
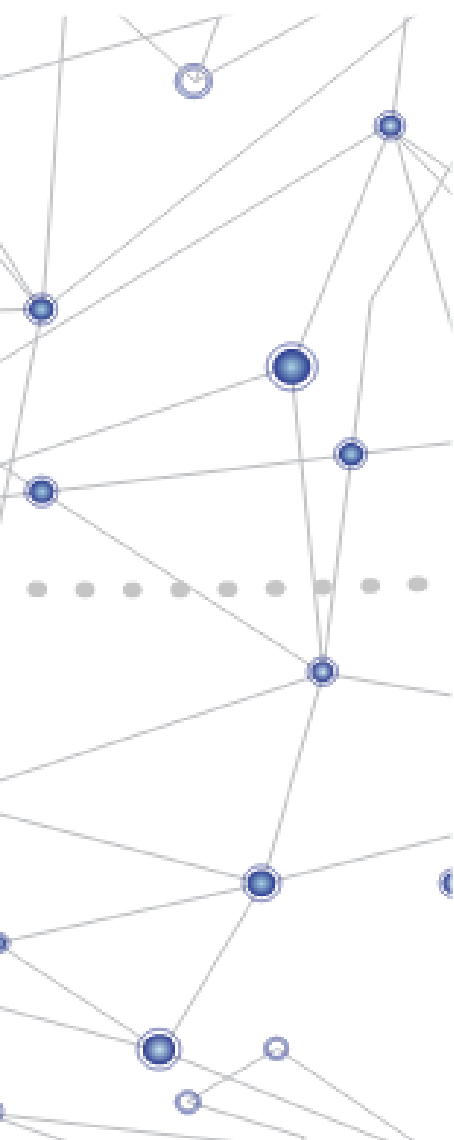


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Short overview on the outcomes of the 26th BEREC plenary meetings

BEREC held its first [Plenary meeting of 2016 meeting in Rotterdam](#) on 25-26 February, during which it adopted a [report on OTT services](#), and one on [enabling the Internet of Things](#). Both reports followed a public consultation in late 2015, and both will serve as BEREC inputs into the Commission's review of the regulatory framework for electronic communications (in addition to BEREC's opinion on the review, published in December 2015).

BEREC adopted [guidance for operators and regulators on the application of the new international roaming rules](#) adopted last year in the Telecoms Single Market Regulation. BEREC also adopted an [analysis of the wholesale roaming market](#), which will inform the European Commission's review and proposals for new wholesale roaming price caps.

A full list of documents adopted at the Plenary is available [here](#).

The Plenary meeting was preceded by a workshop focused on the development of guidelines on the implementation of the net neutrality rules in the Telecoms Single Market Regulation, which BEREC is required to produce by 30 August 2016. The [workshop](#) provided the opportunity for BEREC to hear from high-level academic, legal and technical experts in the field of net neutrality. Discussions centred around the extent to which different commercial practices (including zero-rating) are consistent with the new rules, permissible traffic management, the role and nature of specialised services, and how regulators should assess the quality of Internet Access Services. BEREC intends to publish draft guidelines for public consultation following its second Plenary meeting on 2-3 June 2016.

BEREC Report on the wholesale roaming market

Regulation (EU) No. 2015/2120, adopted by the European Parliament on 27 October 2015 and published in the Official Journal of 26 November 2015, included amendments to the Roaming Regulation 531/2012. These amendments oblige mobile telecommunications operators not to levy any surcharge in addition to the domestic retail price on any EU roaming customer for any regulated voice call, SMS or use of data outside the customer's home country for periodic roaming from 15 June 2017 onwards. This obligation depends on a legislative act being proposed by the European Commission (EC) in July 2016, following a comprehensive review of national wholesale roaming markets in the EU, and to be adopted by the co-legislators by June 2017.

On 26 November 2015, the EC began its public consultation on the review of national wholesale roaming markets, fair use policy (FUP) and the sustainability mechanism referred to in Roaming Regulation 531/2012 as amended by Regulation No. 2015/2120.

In this context, the Body of European Regulators for Electronic Communications (BEREC) wishes to provide data and an analysis which will be relevant to assessing the optimum regulatory wholesale structure to accompany the implementation of Regulation No. 2015/2120 with a view to ending the roaming surcharges, including data on domestic price levels, consumption patterns, existing roaming offers and travel patterns as well as a broader analysis of the workings of the wholesale roaming market independent of the costs and assessment of different scenarios for a wholesale roaming market regulation. This report is therefore intended

to constitute BEREC's response to the EC's public consultation in respect of its review of the national wholesale roaming markets.

BEREC has analysed the domestic retail and intra-EU roaming market and found that it is hard to disaggregate the different mobile communications services since they are often provided as part of a bundle. BEREC therefore used the Average Retail Revenue per User (ARRPU) figures and data on average consumption for different mobile communications services. Both these data sets show a lack of convergence between EU/EEA countries for both ARRPU and service consumption and also between ARRPU and consumption, especially for data.



Important differences between EEA countries are also observed in the travel patterns. In particular, some EEA countries have higher roaming inbound traffic compared to the traffic generated by the customers when roaming, especially during the touristic season.

The current commercial and regulatory situation for intra-EU roaming is characterised by relatively high regulated wholesale data caps compared to actual roaming wholesale tariffs, non-convergent domestic prices and a range of different Roam Like at Home (RLAH) or variant offers which include special "add-ons". The number and range of such offers are diverse in nature with different terms and conditions including different FUPs, for example, in respect of maximum call duration, number of days and/or geographic scope of the offer. The most complete offers also tend to be targeted at intensive users and the highest elasticities, if reported, tended to be for data.

Direct, ongoing wholesale agreements exist between mobile network operators (MNOs) which are complemented, where necessary, by annually negotiated i.e. discounted, bilateral agreements, which are based on a variety of pricing models. These agreements also reflect the variations in the number of roaming customers, and their usage of roaming services, between Member States. For operators which are part of larger groups, such annual agreements would tend to be negotiated at group level.

Light and full mobile virtual network operators (MVNOs) see their position as weak compared to MNOs due to their lack of volumes and associated negotiating power. Overall, these operators are not seen to benefit from the lower actual observed wholesale tariffs, especially for data, when compared with the current wholesale caps.

A range of measures suggested by some MNOs and MVNOs (such as converging mobile termination rates (MTRs) and lower wholesale caps) are needed to ensure that their domestic tariff schemes are sustainable in a RLAH environment.

The cost of providing wholesale roaming services is being evaluated in a separate assignment, for which the EC published a call for tender on 23 July 2015 with the intention to estimate the cost of providing wholesale roaming services by a mobile network operator and to estimate these costs for a generic European mobile network operator. In October 2015 the EC appointed TERA consultants to build a cost model. BEREC wishes to emphasise that, in addition to estimating wholesale roaming costs, the analysis of the wholesale roaming market also implies taking account of general policy questions.

The estimates of wholesale costs are necessary but not the only input. Key issues related to wholesale regulation include the derivation of a result (or results) which meets the regulatory objectives while appropriately balancing the risks of wholesale charges being too high or too low in any Member State. The challenge is finding a balance between wholesale charges that are sufficiently low to allow for a sustainable suppression of retail roaming surcharges, protect competition and avoid significant retail price increases in the home country, and sufficiently high to allow efficient cost recovery and return on investments to visited network operators to avoid retail price increases in the visited network and avoid a negative impact on MVNO competition in the visited markets. As there is no uniform wholesale tariff that would satisfy those conditions in every Member State, this is likely to involve a trade-off between the protection of competition, investment and consumers in the home markets, on the one hand, and their protection in the visited markets on the other. Given the foreseeable impact of changes to wholesale regulation, this task may be more challenging than the technical analysis of costs because of the competition issues involved around the roaming markets and the depth of the impact of the analysis to be carried out.

Finally, BEREC sees the need to adapt the conditions in the retail and wholesale roaming market to achieve a balanced outcome for home and visited networks with regard to RLAH.

BEREC GUIDELINES on Regulation (EU) No. 531/2012 as amended by Regulation (EU) No. 2120/2015 (Excluding Articles 3, 4 and 5 on wholesale access and separate sale of services)



On 26 November 2015, the Regulation (EU) No. 2015/2120 of the European Parliament and of the Council of 25 November laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No. 531/2012 on roaming on public mobile communications networks within the Union (hereinafter

"Telecom Single Market Regulation", "TSM Regulation")¹ was published and came into force three days after publication.

These revised BEREC Guidelines present an update of the former BEREC Guidelines on the application of the third Roaming Regulation excluding those regarding Article 3 (BoR 12(107)) of 27 September 2012 and those on Articles, 4 and 5 (BoR 13(82)) of 5 July 2013. This is considered necessary as the third Roaming Regulation, amended by the TSM Regulation (hereafter "Roaming Regulation"), incorporates substantial changes to the existing provisions and leads to significant changes to the current roaming regime. The revised BEREC Guidelines are designed to explain the Roaming Regulation and are complementary to the provisions set out therein. As such, the revised Guidelines are not presented as an official legal interpretation of those provisions.

The changes in this update of the former BEREC Guidelines deal especially with the implementation of the transitional regime, where operators from 30 April 2016 until 14 June

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2015:310:FULL&from=EN>

2017 are only allowed to charge the domestic price plus a surcharge that shall not exceed the maximum wholesale charges for intra-EU roaming services. When the Implementing Acts on the Fair Use Policy and the sustainability of the abolition of retail roaming surcharges are adopted, new guidelines could be produced to clarify the implementation of the new provisions. The intention of the Regulation is to abolish retail roaming surcharges without distorting domestic and visited markets.

The other parts of the revised Guidelines mainly remained unchanged except some minor wording clarifications. On retail issues the revised Guidelines make clear that the Roaming Regulation still provides the possibility to offer and choose alternative roaming tariffs in addition to the regulated roaming tariffs. Moreover, the main provisions to protect customers from running up high bills are left unchanged. According to the Roaming Regulation, operators are obliged to provide basic and personalized detailed information to roaming customers and a cut-off limit. The Guidelines explain in detail how these transparency and bill-shock provisions are to be applied in practice and when the basic information is to be delivered to the customer.

The Guidelines also include some paragraphs to take account of inadvertent roaming close to bordering countries, addressing customer protection measures that operators are required to take in such cases. Finally, as set out in the former Guidelines, BEREC also recommends and considers as good practice the application of bill-shock measures to communication services on ships and planes, whereby handsets automatically connect to a mobile network, as well as to inform customers about any additional charges that may occur as a result of this.

The Guidelines related to wholesale issues include an explanation on how to calculate the average wholesale charges for voice, SMS and data roaming which are subject to the maximum wholesale charges set out in the Regulation.

Furthermore, the Guidelines clarify uncertainties that may arise for calculating the maximum charging intervals with regard to retail voice and data and wholesale voice, SMS and data roaming services.

Finally, the BEREC Guidelines cover various general issues such as charges for voicemail messages, charges in currencies other than the Euro, the scope of regulated roaming calls, the scope of regulated data roaming, value added services, machine-to-machine communication (M2M) and the geographical scope of the Roaming Regulation.

Regarding charges for voicemail messages the Guidelines stress that those are prohibited within the EEA pursuant to the Roaming Regulation. In order to prevent the application of different algorithms for charging in countries where charges need to be converted to Euro, the Guidelines clarify which exchange rates should be applied.

The scope of regulated roaming calls and regulated data roaming services are set out clearly to define these services. Data roaming services do not include voice calls and SMS, but, according to the Roaming Regulation, do include MMS messages. The revised Guidelines point out that the definition is applicable irrespective of the spectrum used and is therefore technology-neutral.

Value-added-services that are premium rate services account for the maximum wholesale charges only for the tariff component corresponding to the connection to such services and not to the service of the content provider itself. Providers should ensure that consumers are informed about how any such service expenditure is tarified, charged and controlled.

International Roaming BEREC Benchmark Data Report April 2014 – September 2015

The BEREC Benchmark Report on International Roaming presents the results of the 16th round of data collection on European international roaming services. The Report covers the period 1 April 2015 – 30 September 2015, i.e. quarters 2 & 3 2015. The applicable regulatory framework for this data collection is the Roaming III Regulation (EU) No. 531/2012 applied in the EU and the EEA countries with obligations for retail and wholesale (inbound and outbound) voice, SMS and data roaming services.

The information gathered by BEREC continues to show a good level of compliance with the Roaming Regulation in all EU Member States. At the retail level, all consumers have access to a Euro-voice, Euro-data and Euro-SMS tariff. At the wholesale level, the voice, SMS and data roaming charges set between operators are in line with the declining regulated average caps. Some countries reported average prices slightly above the price caps. The Eurotariffs account for the majority of voice and SMS traffic. Nevertheless customers opt for these alternative tariffs and in Q3 2015, 43.56% of calls made and 30.55% of calls received were based on non-Eurotariffs. For text messages sent while roaming within EEA countries, unregulated non-Euro SMS tariffs accounted for 27.35% of the total volume. There is a significantly different trend in the case of data roaming services. In Q3 2015 around 55.3% of data traffic was based on the non-Euro data tariff while roaming.

Figure 1: Average retail price per minute for intra-EEA roaming voice calls made

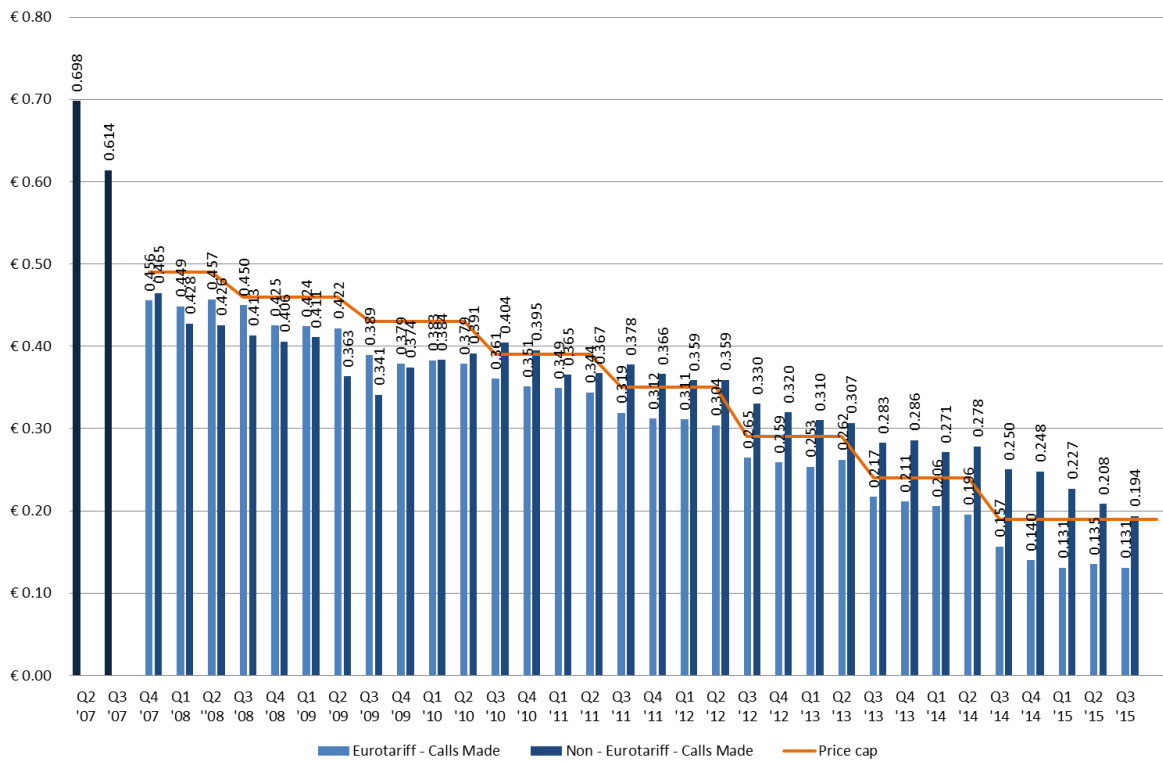


Figure 2: EEA average price per minute for wholesale non-group roaming voice calls

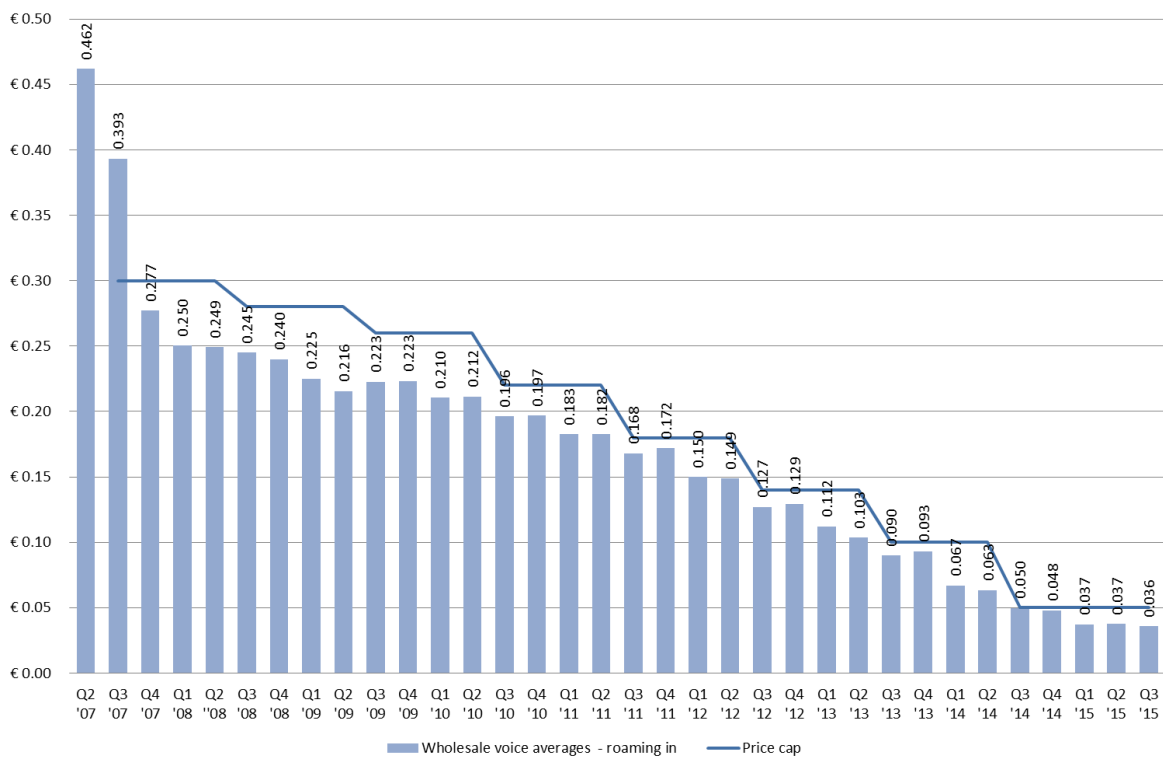


Figure 3: EEA average price per Mb for retail EU/EEA and Rest of the World (RoW) data (Eurotariff and Non-Eurotariff: prepaid + postpaid)

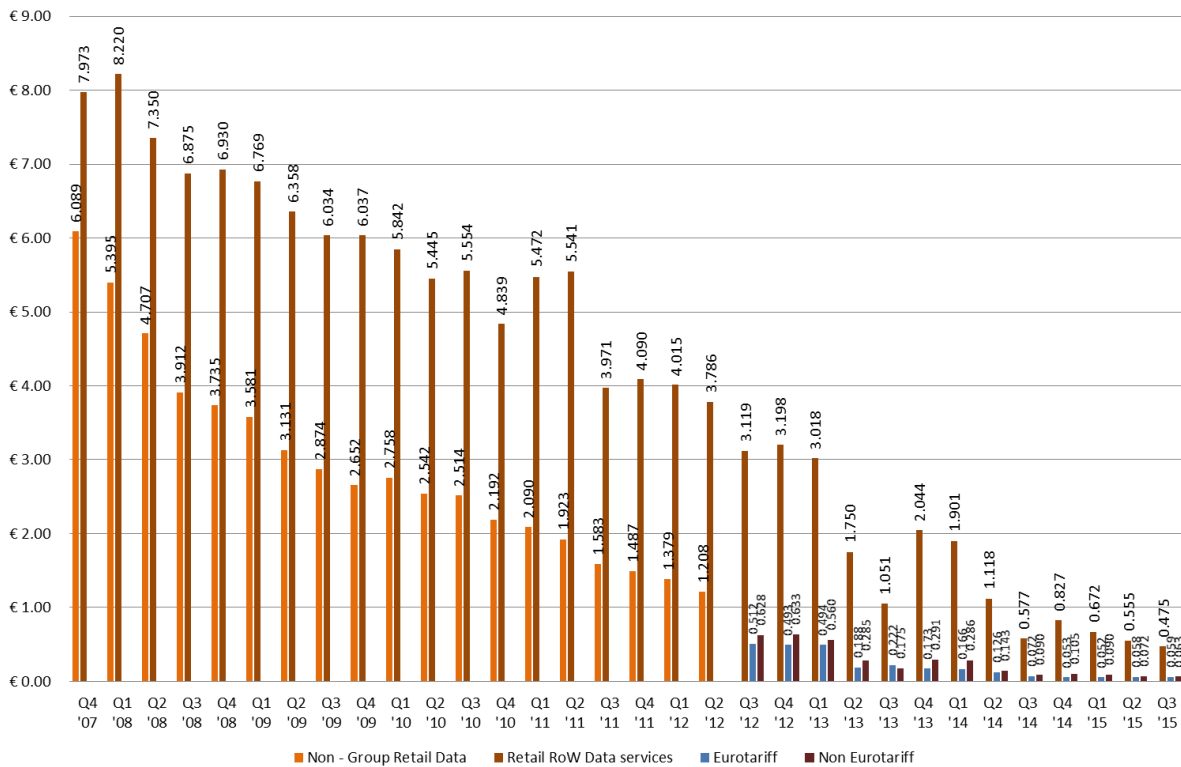


Figure 4: Retail data traffic Index (prepaid and postpaid) Q3 2015 (Q3 2008 = 100)

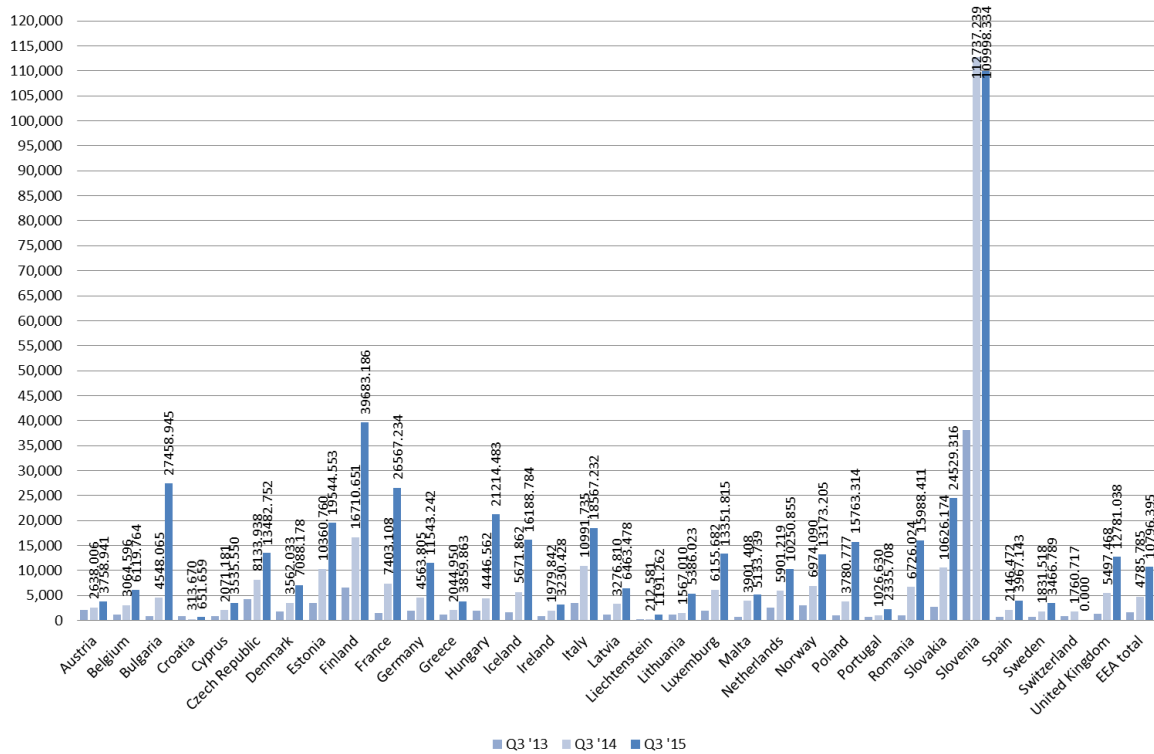
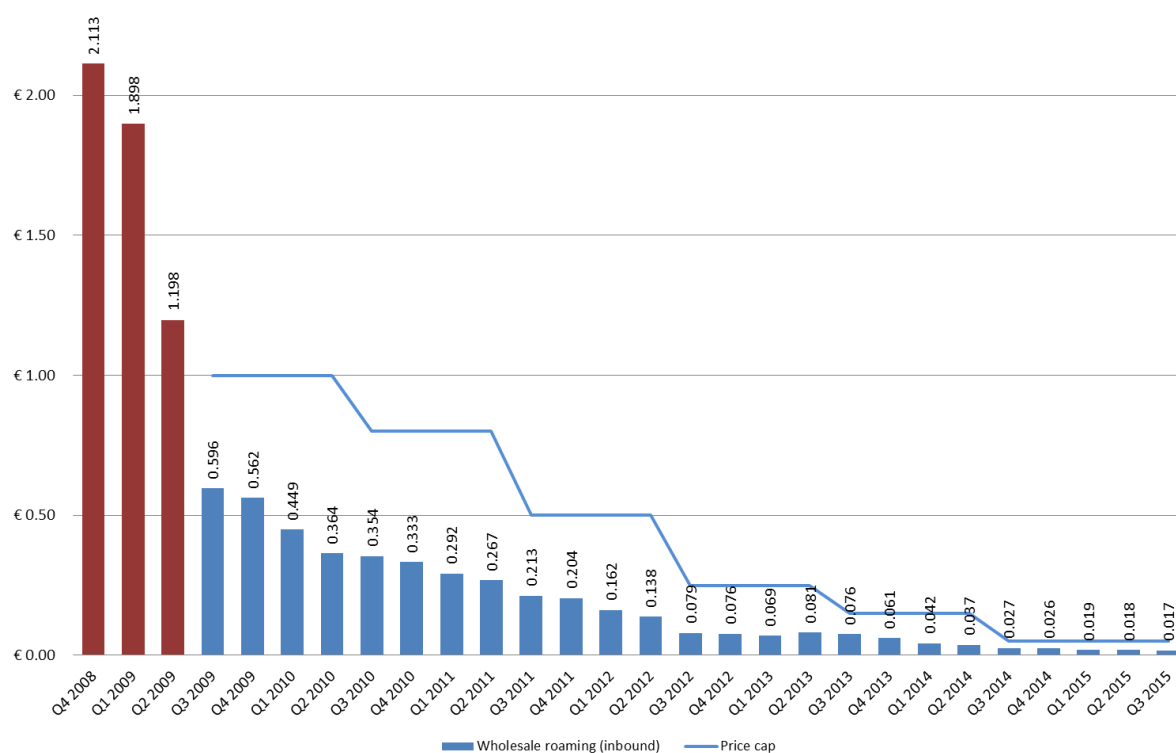


Figure 5: Average wholesale data price per Mb (prepaid and postpaid), EEA average



Public Expert Workshop on the Regulatory Implications of Software-Defined Networking and Network Functions Virtualisation

Software-Defined Networking (SDN) and Network Functions Virtualisation (NFV) are two new fundamental technological developments on which the electronic communications sector, and the IT sector, have been working very intensely over the last years. SDN and NFV have the potential to completely change how networks are built and operated today. Therefore it is important to anticipate the possible regulatory implications of SDN and NFV. For this reason BEREC included this topic in its work programme for 2016.

BEREC held a public expert workshop on the regulatory implications of SDN and NFV on 21st of January 2016 in Brussels. The objective of this workshop was to invite experts on SDN and NFV to present their views on the impact these technological developments could have on regulation. The results of the workshop will help BEREC to form its opinion on the review of the regulatory framework with regard to SDN and NFV, which will be communicated to the European Commission.



Presentations were held by three standard development organisations,

- the Open Networking Foundation (ONF);

- the ETSI NFV Industry Specification Group; and
- the MEF.

three network operators,

- Colt;
- QSC; and
- Telefonica.

and three vendors,

- Nokia (which recently took over Alcatel-Lucent);
- Fujitsu; and
- Hewlett Packard.

The workshop ended with a panel discussion among all the speakers at the workshop. The workshop provided an overview of the large variety of developments in the area of SDN and NFV and suggested some potential answers to questions which are relevant from a regulatory point of view. The [presentations and videos from the workshop](#) are available on the BEREC website.

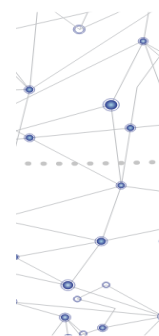
BEREC Future events

On 2 March 2016 at 14:30 (CET), in Brussels, BEREC will hold a public debriefing for presenting the results from its 26th BEREC plenary meetings in Rotterdam, The Netherlands. This will be the first public debriefing chaired by [BEREC Chair 2016 Wilhelm Eschweiler \(BNetzA, Germany\)](#), who will introduce the participants of event with the main outcomes of the plenary meetings. The debriefing will be available to the public through [web-streaming](#) and the audience has the opportunity to ask questions to the speakers via social network [Twitter](#) or send them to press@berec.europa.eu. The recording of the event will be available on BEREC website or on BEREC channel on [YouTube](#).

On 12-13 May 2016 in Budapest, Hungary the 2nd Contact Network meeting for 2016 will take place, kindly hosted by the Hungarian [National Media and Infocommunications Authority \(NMHH\)](#). The main objective of the meeting is to prepare the 27th ordinary plenary meetings of the BEREC Board of Regulators and the BEREC Office Management Committee to take place on 2 and 3 June 2016 in Vienna. Therefore, the Contact Network will consider all items included in the agendas of the afore-mentioned meetings. The event is open for participation only to Contact Network Members. To increase the transparency of the Contact Network work the BEREC Office will publish the meeting agenda and meeting conclusions.

The **27th BEREC and BEREC Office Management Committee plenary meetings** will take place on **2 and 3 June 2016** in Vienna (Austria), kindly hosted by the [Austrian Regulatory Authority for Broadcasting and Telecommunications](#) (RTR). The events are open for participation only to BEREC Members and Observers and to invited experts.

On 8 June 2016 in Brussels, BEREC will hold a public debriefing for presenting the results from its 27th BEREC plenary meetings in Vienna, Austria. The debriefing will be available to the public through [web-streaming](#) and the audience has the opportunity to ask questions to



the speakers via social network [Twitter](#) or send them to press@berec.europa.eu. The recording of the event will be available on BEREC website or on BEREC channel on [YouTube](#).