

Public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services

Fields marked with * are mandatory.

1. Purpose of this document

1.1. Objective of the public consultation

The review of the regulatory framework for electronic communications is one of the 16 actions of the [Digital Single Market Strategy](#) adopted by the Commission on 6 May 2015 and a key element for creating the right conditions for digital networks and services to flourish (second pillar of the Strategy). In accordance with the [Commission Work Programme for 2015](#), the review will be preceded by a Regulatory Fitness and Performance Programme (REFIT) evaluation aimed at assessing whether the current regulatory framework is 'fit for purpose'.

The purpose of this questionnaire is therefore twofold. First, it aims to gather input for this evaluation process in order to assess the telecoms regulatory framework against the evaluation criteria according to the [Better Regulation Guidelines](#):

- Effectiveness (Have the objectives been met?)
- Efficiency (Were the costs involved reasonable?)
- Coherence (Does the policy complement other actions or are there contradictions?)
- Relevance (Is EU action still necessary?)
- EU added value (Can or could similar changes have been achieved at national/regional level, or did EU action provide clear added value?)

Second, the questionnaire is designed to seek views on issues that may need to be reviewed with a view to reforming the regulatory framework in light of market and technological developments, with the objective of achieving the ambitions laid out in the Digital Single Market Strategy. More information on relevant developments and the emerging challenges for the existing sector rules can be found in a [background document](#) to the public consultation.

1.2. Details of the timetable and process

The Commission invites citizens, legal entities and public authorities to submit their answers by 7 December 2015. The Commission will assess and summarise the results in a report, which will be made publicly available on the [website](#) of the Directorate General for Communications Networks, Content and Technology. The results will also be reflected in an evaluation report assessing the functioning of the current regulatory framework and in a Communication underpinning the future review proposals in 2016.

You are invited to read the privacy statement attached to this consultation for information on how your personal data and contribution will be dealt with.

Personal data

Contributions will be published on the website of the Directorate General for Communications Networks, Content and Technology. The responses received will be available on the Commission website unless confidentiality is specifically requested.

To this end we would kindly ask you to clearly indicate in the general information section of this questionnaire if you would not like your response to be publicly available. In case your response includes confidential data please also provide a non-confidential version of your response.

Please read the [Privacy Statement](#) on how we deal with your personal data and contribution.

1.3. Structure of the public consultation

You are invited to fill in the online questionnaire, which is available below. An accessible version for persons with disabilities can be provided upon request. Please note that it is available in English only.

The questionnaire of the public consultation has a first section with general questions on the overall evaluation of the functioning of the current regulatory framework and five sections, which are dedicated to different policy areas (you can download the public consultation document):

- Network access regulation
- Spectrum management
- Communication Services
- Universal service
- Institutional set-up and governance.

These sections are further split into backward and forward looking subsections to distinguish between the evaluation of the current performance of the regulatory framework for each specific policy area and the modifications that you consider need to be introduced for the future.

You can skip questions that you do not feel comfortable responding to. You can also pause at any time and continue later. Once you have submitted your answers, you would be able to download a copy of your completed responses.

Please note that due to technical requirements for processing the questionnaire and in order to ensure a fair and transparent consultation process, only responses received through the online questionnaire will be taken into account and included in the report summarising the responses. Questionnaires sent by e-mail or in paper format will not be analysed except those due to accessibility needs of persons with disabilities.

2. General information

* **Question 1:** You answer as:

- Private individual
- Consumer association or user association
- Business (please specify sector)
- Electronic communications network or service provider
- Internet content provider
- Government authority
- National Regulatory Authority
- Other public bodies and institutions (please specify)
- Other (please specify)

Please specify business sector (if applicable) or if "other"

Text of 1 to 250 characters will be accepted

Trade association, representing electronic communications network operators (ETNO)

* **Question 2:** Is your organisation registered in the Transparency Register of the European Commission and the European Parliament?

- Yes
- No
- Not applicable (I am replying as an individual in my personal capacity)

If yes, please indicate your organisation's registration number in the Transparency Register.

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If you are an entity not registered in the Transparency Register, please register in the [Transparency Register](#) before answering this questionnaire. If your entity responds without being registered, the Commission will consider its input as that of an individual.

* Please enter the name of your institution/organisation/business.

ETNO - European Telecommunications Network Operators' Association
(www.etno.eu) - Contact persons: Francesco Versace, Head of Competition
and Regulatory Affairs (versace@etno.eu); Marta Capelo, Head of Public
Policy (capelo@etno.eu)

If you object to publication of the personal data on the grounds that such publication would harm your legitimate interests, please indicate this below and provide the reasons of such objection

* **Question 3:** What is your country of residence? (In case of legal entities, please select the primary place of establishment of the entity you represent)

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- The Netherlands
- United Kingdom
- Other

If other, please specify

99 character(s) maximum

3. Issues for consultation

3.1. Introduction

Since the liberalisation of the EU telecommunications markets at the end of 1990s, the EU regulatory framework on electronic communications networks and services has been founded on the use of regulatory tools to open markets, free up bottlenecks and enable access to key inputs. These tools have facilitated market entry, protected end-users and enabled them to avail of market opportunities, and ensured social and territorial inclusion. This common framework, applied by Member States authorities and independent regulators and the Commission, has provided consistency of underlying economic principles and a degree of legal security and predictability which have enabled a transformation of European telecommunications markets.

Successive adaptations of the electronic communications regulatory framework, combined with the application of EU competition rules, have been instrumental in ensuring that markets operate more competitively, bringing lower prices and better quality of service to consumers and businesses. Moreover, effective competition is also a key driver for investments. However, important policy and regulatory challenges remain. Since the last review in 2009, electronic communications networks and services have been undergoing significant structural changes characterised by slow transition from copper to fibre mainly via hybrid networks (FTTC), more complex competition with the convergence of fixed and mobile networks and rise of retail bundles as well as emergence of new online players (so called OTTs) along the value chains which challenge the traditional role of Telcos and Cablecos in providing vertically integrated communications/audiovisual services in addition to broadband/internet access, and not least changing end-user expectations and requirements. At the same time societies have become increasingly dependent on broadband networks and demand for capacity is growing year on year. Challenges the reform has to respond to include the following:

- Relatively little full "infrastructure competition" has emerged in the fixed-line networks, except in very densely populated areas, where cable networks were already present, or where local authorities have been active; and the extent of upgrades to the highest capacity networks varies markedly;
- Progress towards more integrated telecoms markets is slow and the provision of connectivity to consumers and business remains highly divergent across the Union;
- Significant differences remain with regard to approaches to spectrum governance and strategies to make spectrum available which cannot be justified solely by differing national circumstances;
- Online services are increasingly seen by end-users as substitutes for traditional electronic communications services such as voice telephony, but are not subject to the same regulatory regime;
- Technological and economic developments, such as fixed/mobile convergence, network virtualisation and the shift to all-IP networks, are likely to profoundly change the functioning of the electronic communications sector.

Further information on policy challenges can be found in the background document and annexes.

Major additional benefits can be derived from a European market with genuinely common rules on key parameters, where players of different scale and business models can seek comparative advantage from economies of scale or from local focus and market knowledge (see background and annexes for more).

At the same time, the content of the rules counts: it is time to examine whether the framework of common rules devised for liberalisation of markets needs remains fit for purpose or needs to be adapted, in particular to face the challenge of growing needs for connectivity and changing consumer demand, habits and expectations.

In this regard, it should be noted that companies in most economic sectors are subject to general law (itself a mix of Union law and of the laws of the respective Member States), whether it be as regards the authorisation to do business, the application of competition rules to their market behaviour ex post, the commercial negotiations to purchase key inputs, the geographic areas or customer segments that they choose to address, or the protection of consumers. On the other hand, electronic communications networks have certain specificities, not least their sine qua non character for the very functioning of the digital economy and society. Moreover, the EU telecoms regulatory framework prevents a possible proliferation of divergent national sector-specific regimes.

The review of the telecoms regulatory framework is one of the 16 actions of the [Digital Single Market Strategy](#) adopted by the Commission on 6 May 2015 and a key element for creating the right conditions for digital networks and services to flourish (second pillar of the Strategy). It encompasses, in particular, the review of the Framework Directive (Directive 2002/21/EC), the Authorisation Directive (2002/20/EC), the Access Directive (2002/19/EC) and the Universal Service Directive (2002/22/EC) as they were modified in 2009 by the Better Regulation Directive (Directive 2009/140/EC) and the Citizens' Rights Directive (Directive 2009/136/EC) and more recently in 2015 by the draft Telecoms Single Market Regulation, as well as the BEREC Regulation (Regulation 1211/2009). This exercise will not cover: the Directive on privacy and electronic communications (Directive 2002/58/EC because of the ongoing legislative process of the general data protection regulation (see COM(2012)11 final); the Roaming Regulation (Regulation 531/2012) as covered by the draft Telecoms Single Market Regulation (COM(2013)627); or the Broadband Cost Reduction Directive (Directive 2014/61/CE), which is currently in the process of being transposed by Member States.

3.2. General questions on the current regulatory framework

3.2.1. Evaluation of the overall functioning of the current regulatory framework

This section of the public consultation includes some general questions on the overall evaluation of the functioning of the current regulatory framework for electronic communications in relation to the key evaluation criteria established in the Commission's [Better Regulation Guidelines](#) (i.e. effectiveness, efficiency, coherence, relevance and EU added value).

Question 4: To what extent has the regulatory framework **effectively** achieved its objectives of:

	significantly	moderately	little	not at all	do not know
a) the development of internal market	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) the promotion of competition	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) the promotion of the interests of the EU citizens, including citizens with disabilities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses, in particular the reasons for the levels of achievement and if there are factors other than the regulatory framework which have contributed to those objectives.

a) The internal market has developed due to the successful

liberalisation of formerly monopolistic telecommunication markets and to the freedom of establishment of network operators and service providers in any Member State. Network operators and service providers are increasingly able to operate on pan-European basis.

However, significant obstacles remain to the operation of businesses and to the attractiveness of investment in network operations in Europe. The divergent criteria and timelines for spectrum allocation or the restrictive and divergent rules on wholesale access are only some examples of these obstacles. These factors, in addition to hampering the internal market, limit business models, constraining investment and innovation, as further detailed below, within the responses to the specific questions in the subsequent sections of the consultation.

In addition, the framework has introduced a large amount of sector-specific regulation concerning consumer protection and universal service obligations, applied to the services provided by electronic communications operators. Lack of harmonization of such regulation across the EU appears as an obstacle to fully leverage the potential of pan-European service offerings. The horizontal rules applied to internet-based services provide far more flexibility and show a higher degree of harmonisation across the EU. This set of horizontal rules better facilitates cross-border services provisioning.

b) The current regulatory framework in the EU has led to high levels of service-based competition and price reductions. However, it has not provided the right conditions for European operators to maximise investments in advanced digital infrastructures.

In the field of infrastructure regulation, rules were designed to spur competition in existing networks but did not provide the right incentives to deploy new ones, ensuring reasonable rates of return for the investors which could override the investment risks. Burdensome access conditions and low wholesale prices (sometimes below costs and/or at incremental costs), in combination with margin squeeze price control, have hampered investment incentives, namely by:

- Leading to market structures where alternative operators are incentivised to “wait” and rely on incumbents’ wholesale services rather than undertake risky investments
- Encouraging incumbent operators to delay investments due to the impossibility to benefit from the resulting competitive advantage and the lack of certainty on the returns;
- Reducing the overall revenues of the market (access seekers and providers), further weakening the business case for investments by access providers.

In this way, the framework has privileged a certain form of competition to the detriment of other more sustainable forms, such as infrastructure-based competition. Unfortunately, the choice has been to support regulation-dependant competition at the expense of sustainable,

regulation-independent competition.

The implementation of the framework has put too much emphasis on supporting the ability of new entrants to compete on price against incumbent operators without having to invest to operate in the market. In other words, the framework and its implementation have considered the requirement to invest as an entry barrier, rather than a legitimate condition to operate in the market. This approach has negatively impacted the sector in the EU, failing to attract capital and to stimulate competition between undertakings ready to invest, stifling investment and innovation.

Additionally, the current rules have not adequately created a level playing field between competing networks (mainly cable), which, in some areas, have even become the dominant access technology.

As a result, the sector in the EU faces a serious problem of overregulation leading to underinvestment, delaying the roll-out of new networks, and to lack of innovation when compared to other regions in the world.

Furthermore, from the services point of view, the framework has not taken into account the convergence of services and the impact of new Internet based service providers, which offer functionally-equivalent services. Telecom operators are burdened with strict sector-specific regulation when providing services, thus facing a clear competitive disadvantage, which negatively impacts their ability to innovate at the services level.

The current framework is, therefore, based on outdated technology-related definitions that do not adequately take into account the convergence of services and the consumers' perspective.

The various sectors in the digital value chain are increasingly integrated and, when providing similar services, they should abide by similar rules.

(continue here if necessary)

c) Interests of European citizens

The framework has encouraged the availability and diffusion of cheap price packages. Nonetheless, the capacity of the framework to foster long-term investment and innovation is in question, shown by the fact that the EU allocates a less significant part of its resources to electronic communications networks than other regions of the world.

The reliance on service-based competition, which has led to lower prices, also implies lower grade network infrastructures, with less capacity, less speed, delays in the roll-out of efficient technologies, higher marginal costs, and consequently, lower level of usage and higher prices per unit of consumption than in other regions of the world. Therefore, the potential benefit of the framework on consumer, is significantly diluted.

Moreover, the interests of European citizens go beyond the interests of consumers. Europe, once a leader in electronic communications markets and technologies, has lost this position.

The European framework has, in fact, contributed to unbalance the digital value chain, on one hand, by favouring the decline in revenue trends occurred in the past years and the negative repercussions on the sector's investment capacity; on the other, by enabling the development of a stronger bargaining power of other players of the digital value chain (Internet platforms, services or devices), which do not face the same constraints.

Consumers greatly benefited from the dynamics in the digital market through increased choice and innovation. However, they cannot rely on comparable protection rules and standards when using services across the whole digital market, including similar rules. This negatively impacts the level of consumer's trust in the digital market.

While consumer protection rules applied to telecom operators have been continuously extended, the overall approach does not reflect the new market situation, including the convergence of services and the increasing choice. Besides this, there is a deep change in communication habits, using various communication channels in parallel, mobility or willingness to share privacy. Therefore, the current framework although over-protective with regard to legacy services, does not sufficiently reflect new market realities.

Finally, regarding disabled end-users, there is today a wide variety of offers which improve their digital inclusion. The highly dynamic and innovative digital market led to innovative solutions, provided along the whole value chain, including Internet access, device-, soft- or hardware based, as well as solutions via services provided over the Internet. Most of these offers have developed without regulation.

Question 5: As regards the **efficiency** of the regulatory framework, if you compare the administrative and regulatory costs borne by your organisation with the results achieved, how do you rate the cost-benefit ratio at scale 1 to 5 (1=costs exceed significantly benefits, 5=benefits exceed significantly costs)?

- 1
- 2
- 3
- 4
- 5
- do not know

Please explain your response.

The costs borne by telecom operators as a result of the regulatory framework significantly exceed the benefits, as a consequence of both infrastructure and services regulation.

Regarding infrastructure regulation, the costs have been disproportionately high for incumbent operators, as a result of excessive regulatory intervention (e.g. the main wholesale products are still subject to ex-ante cost-based price control requiring the detailed justification of cost calculations).

Too often detailed obligations have been imposed, without any evaluation of the proportionality of the costs incurred against the very limited positive effects.

As a general remark, authorities should not act on the assumption that regulatory intervention should always take place, even once the result sought is achieved and the maintenance of these high regulatory costs is no longer justified. On the contrary, ex-ante intervention should be based on solid grounds, justified by sound impact assessment procedures, applied on a transitory basis and only when necessary to achieve specific objectives.

Moreover, very burdensome measures aimed at increasing levels of consumer protection proved to deliver minor benefits, clearly disproportionate to the costs of implementation.

Burdensome regulation of this kind imposes heavy, less agile, organisational structures and complex and long decision-making procedures, generating permanent costs in companies' technical, marketing, sales or IT decisions.

Excessive regulatory intervention has a systemic impact on product development and innovation processes; on how innovation is valued, integrated and rewarded within the organisation and the management of operators.

(continue here if necessary)

Question 6: Could you give an estimate of annual direct costs for your organisation in applying the regulatory framework? Please indicate, if possible, the cause of these costs.

The implementation of the framework has significant direct costs, but also costs of indirect nature, which are impossible to quantify with accuracy. Costs are due to a wide range of horizontal and sector-specific regulatory obligations, inter alia:

- Management of regulatory proceedings (e.g. market analysis procedures);
- Regulatory accounting (e.g. cost studies related to tariff application procedures);
- Regulatory reporting for public bodies;
- Lack of frequency harmonisation in border areas requiring additional investments;
- Implementing and operating obligations on consumer protection rules (including costs referring to Universal Service Obligations)
- Data protection and security rules (e.g. retention or lawful interception)
- Implementation and operation of number portability and numbering-related investigations/ consultations;
- Compliance monitoring of regulatory obligations (e.g. Universal Service);
- Roaming unbundling costs imposed under Roaming regulation III.

(continue here if necessary)

Question 7: Have you identified any areas in the regulatory framework where in your view there is room for improvement in terms of simplification, elimination of regulatory burden or reduction of associated costs? Please explain.

ETNO has identified many areas where there is room for improvement, as further detailed in the subsequent sections of the questionnaire. For instance:

- In the field of access regulation, the current system has been designed to address a situation where there is only one single network (the incumbent's) shifting from monopoly to a liberalised market. The way it has been implemented has created a great deal of regulatory burden and complexity. This is mainly due to the variety of wholesale regulated access offers and price regulation, which have become inappropriate in view of stronger infrastructure-based competition with other networks (mainly cable operators) and the need to deploy next-generation networks. The framework should be substantially modernised and simplified to become more investment-friendly, incentivising investment in high-speed broadband networks, reducing costs and better rewarding investing operators. Access network regulation should be limited to fixed access infrastructures and substantially reduced. In the presence of voluntary commercial arrangements on access conditions, ex ante regulation of access terms should be lifted.

- The USO concept should be fundamentally reviewed, reducing the burden on private operators and replaced by a funding system based on public finances. As the outcomes of the universal service regime benefit the society as a whole, they should be financed by society itself.

- Regarding services regulation, the sector specific rules applicable to telecom operators is no longer justified. It has created a distortion of competition vis-à-vis the provision of similar services by Internet-based providers that are de jure outside the scope of the framework. Services provided by electronic communication service providers should be subject to the same horizontal laws applicable to all services - based on a new horizontal framework.

- Finally, the institutional set-up should be significantly streamlined to be consistent with the new competitive environment that requires a significant reduction of the regulatory intervention.

(continue here if necessary)

Question 8: As regards the **relevance** of the regulatory framework, to what extent is a regulatory framework for electronic communications at EU level still necessary for EU citizens and businesses in the following areas:

	significantly	moderately	little	not at all	do not know
a) Market analysis and access regulation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Universal service and end-users' protection	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Management of scarce resources (such as numbering, spectrum access)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Authorisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Network and service security	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Other areas	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

a) Ex-ante access regulation has introduced service-based competition in the market. Policy-makers should now envisage a system leading to the progressive removal of ex-ante supervision and the handover to competition law. In the presence of voluntary arrangements on access conditions in the market, ex-ante regulation should be lifted, and NRAs should oversee the implementation of such arrangements as dispute resolution bodies. To the extent that access to fixed infrastructures will still be required, it should be substantially simplified and made much more investment-friendly.

Ex-ante regulation, as it stands, is proving to be counterproductive, hampering incentives to invest in new networks, stifling innovation and dragging out the development of the digital economy in Europe (as detailed in Q.4). The strong focus on replicability (which is antithetic to innovation) and strict revenue reduction is undermining effective competition in Europe and, at the same time, the European competitiveness in the global arena. The wholesale-based way of defining markets has also failed to take into account existing retail competition, thereby excluding for example competitive pressure from unregulated (e.g. cable) network competition. Access regulation may still remain necessary to the extent it is proportionate to solve well

defined competition concerns on the retail level, but it should no longer be an instrument for actively redesigning telecommunication markets.

The future regulatory framework requires fundamental realignment of market analysis, from traditional, predefined market definitions to focus on the identification of actual competition concerns and consumer needs, taking into account the convergence of technology and services.

b) Universal service should remain an instrument to ensure that end-users are safeguarded from the risk of social exclusion, but should not be used as a policy tool for broadband penetration and access to digital services. These should be attained by other means such as the incentives to take-up, a more investment-friendly regulatory framework and public funding, where appropriate.

Considering the existing level of competition, broad consumer choice, and dynamic market developments, an ongoing sector-specific regulation of communication services and internet access services is neither required nor appropriate. End-users' protection should normally be based on horizontal rules without additional sector-specific regulation. Only if indispensable, service specific rules are possible and have to be of limited scope, applicable to all similar services irrespective of the provider. In principle, there is no reason to apply stricter specific rules, if horizontal consumer protection legislation is in place.

c) Management of scarce resources is still necessary (such as numbering, spectrum access). Better harmonisation of specific areas in the field of spectrum management is desirable, as detailed in the relevant section of the questionnaire.

d) Special authorisation rules for ECS, IAS or ISS are no longer necessary.

e) Network and service security has become increasingly important in the digital economy and should be regulated; however, it should address all similar services independent of whether they are integrated services of network operators or Internet-based. A new notion of security should apply also to other sectors of the economy rather than to the electronic communications sector only.

f) Separate rules for broadcast networks, media services, television equipment or media platforms should be removed from the electronic communications framework and be integrated into a coherent horizontal framework for all digital services and platforms.

(continue here if necessary)

Question 9: To what extent are the policy objectives as defined in Article 8 of the Framework Directive (developing the internal market, promoting competition and promoting the interests of EU citizens) **still relevant?**

	significantly	moderately	little	not at all	do not know
a) the development of internal market	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) the promotion of competition	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) the promotion of the interests of the EU citizens, including citizens with disabilities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

To the extent that the referred policy objectives may be still relevant, achieving them in a forward-looking way requires profound changes to the regulatory framework. They cannot be properly reached by keeping or only slightly updating the framework as it stands, as further explained in the response to Q. 4.

The way these objectives are framed is too broad and the policy priorities are not clear. The underlying priorities should be to promote the contribution of the sector to the social welfare and the economic development in Europe, mainly by investing to match the growing demand of consumers and business, through innovation and sustainable investment, the competitiveness of the EU industry as a whole, and the availability of high-performance connectivity to citizens and companies.

In addition, the policy objectives should be revised to encompass a broader vision of communications services in the DSM. Such vision should not focus on telecom services only. The new legislative framework needs to be based on a coherent and structured set of future-proof regulatory principles, within a dynamic market, by:

- Promoting the benefits of EU citizens by maximising their sustainable benefit in terms of availability, quality and choice of electronic communication services;

- Ensuring that consumer protection standards for EU citizens are consistent, proportionate and effective across the digital market;
- Safeguarding competition between all digital market players, based on non-discrimination and a light-touch regulation.

In particular:

a) The development of the internal market remains an important political objective. It should nonetheless be assessed in light of the network realities, taking into account that fixed and mobile networks are deployed at national level (e.g., operations like reaching the end user with fibre or setting up new antennas remain local). More importantly, the internal market should be a space for free initiatives from market players, made of business opportunities, and not designed and planned through regulatory obligations.

b) The promotion of service-based competition may have been a legitimate transitory objective when moving from a monopoly market structure to liberalised markets. Today markets are competitive. The priority should now be to promote the form of competition which maximises investment incentives and innovation. Infrastructure-based competition, which incentivises market players to gain a competitive and technological edge over competitors, rather than “wait and see”, should be clearly preferred.

c) It is indeed important that citizens with special needs, notably disabled, can communicate at the same level as other citizens. However, the future regime should rely more on the market which already offers efficient solutions, provided not only by telcos but by other players, along the whole value chain, including Internet access, device-, soft- or hardware based, as well as solutions via services provided over the Internet. Most of these offers have developed without regulation.

Where the market fails to deliver, it may be appropriate to adopt specific measures, as a matter of public policy, thus supported by public funding.

(continue here if necessary)

Question 10: As regards the **internal coherence** of the regulatory framework, to what extent have the different elements (legislative and non-legislative) which form part of the regulatory framework contributed coherently to the policy objectives of developing the internal market, promoting competition and promoting the interests of EU citizens in the following areas:

	significantly	moderately	little	not at all	do not know
a) Market analysis and access regulation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Universal service and end-users' protection	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Management of scarce resources (such as numbering, spectrum access)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Authorisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Network and service security	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Other areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

As mentioned in the responses to Q. 4 and Q. 8, ETNO believes that, to a great extent, the framework has not coherently achieved its policy goals.

The internal coherence of the framework has been seriously hampered by “overregulation” and micro-management. In addition, the fact that two layers of legislation apply to companies operating in ECS markets (sector-specific regulation and competition law), creates uncertainties and double proceedings in many cases, increasing complexity. The current set of directives, regulations and recommendations does not help in ensuring coherence.

More specifically, on the areas listed above:

a) Access regulation based on market analysis has not always been implemented or oriented in a consistent way, also due to profusion of legal instruments. The inconsistencies between the NGA Recommendation and the Recommendation on Costing Methodologies and Non Discrimination constitute just one of the possible examples.

Today, market analysis and access regulation do not coherently promote the long-term interests of EU citizens and do not help fostering the overall competitiveness of the EU, inter alia, due to:

- Obsolete market analysis not/insufficiently taking into account internet-based substitutes of traditional telecom services and multi-sided market characteristics;
- Market players refraining from investing in telecommunication networks due to artificially low prices;
- Overregulation deriving from expensive, long-lasting and complex proceedings which often do not match market demand.

b) Regarding Universal Service obligations and end-users protection, ETNO highlights the lack of coherence due to the maintenance of obsolete obligations (e.g. regarding public payphones), and inefficient transparency rules. Moreover, not only divergent end-users' protection standards are applied to the providers of communication services in the digital market, but also sector specific rules come in addition to general consumer laws or other cross-sector rules on digital services, overall failing to contribute to an efficient internal market.

c) Regarding management of scarce resources, incoherence occurs when rights of access to scarce resources are no longer balanced with obligations for the beneficiaries.

d) Authorisation is mostly coherent with the other objectives.

e) Network and service security could be coherent with the other objectives, provided that it addresses similar services in the same way, independently of whether they are integrated services of network operators or provided by Internet-based service providers, thus horizontally concerning all the elements of the digital infrastructure.

(continue here if necessary)

Question 11: To what extent is the regulatory framework for electronic communications **coherent with other EU policies**, in particular:

	significantly	moderately	little	not at all	do not know
a) Competition policy and state aid	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Data protection and privacy	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Audiovisual policy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Rules applicable to online service providers under the e-Commerce Directive	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Other EU policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please explain your responses and indicate if you have identified specific areas for improvement.

ETNO believes that there are substantial inconsistencies between the regulatory framework for electronic communications and other EU policies.

In particular, on the items listed above:

e) Starting with other EU policies, the regulatory framework should, first of all, be consistent with the promotion of the connected Digital Single Market. In order to achieve such goal, the promotion of investments in high-speed broadband networks should become a top priority objective for both competition and sector specific rules. In addition, the regulatory framework should also support R&D, innovation, standardisation and technological leadership of the EU.

It should further encourage strong cooperation between market players, necessary to launch end-to-end, open, and interoperable innovative services, on the top of the R&D and standardisation phases. Concerning complementary services, cooperation between market players can deliver a positive outcome for consumers, even if they concern commercial strategies.

Although the framework is, to a great extent, inspired by competition law, with positive elements (e.g. the State Aid guidelines for broadband indicating that prices on subsidised network should not be below regulated prices), the sector specific rules entail significant

constraints to legal certainty and investment incentives.

a) One major inconsistency is the allocation of funds to finance new high-speed networks in areas where there are broadband networks developed by private investors (distorting competition amongst market players), while universal service is still maintained in many cases at the expense of industry. In our opinion, it would be much more efficient to allocate public funds to cover the needs identified in the context of the provision of universal service. The role of public funding should be limited to address a specific market failure, for example, the lack of demand and digital skills or high costs deterring investments (e.g. in-building wires or other elements in low density areas, etc.).

Moreover, in many cases, the inhibiting factor for the deployment of new networks has been investment-adverse regulation. In this case, the use of public funds to compensate for it is inefficient. The most effective way to foster investment is to simplify regulation. If not properly managed, public funding can also be wasted or, even worse, can crowd out some private investment that would have otherwise occurred.

b) Coherence with data protection and privacy policy will substantially improve once the new General Data Protection Regulation is in place. However, to achieve a fully coherent, comprehensive and technology-neutral framework, ensuring a level playing field between the competing players of the digital value chain, sector specific rules on privacy should be integrated within the EU regulation on data protection. Similarly, the security provisions under the Framework directive should be consistently applied to all the relevant actors of the same value chain; the draft directive on Network and Information Security under discussion is a very important step towards an enhanced and more consistent level of cybersecurity and a level playing field in the DSM.

c) and d) An integrated coherent and horizontal framework is needed with proportionate instruments for the whole digital market, including services such as currently defined as ECS, IAS, ISS or Audio-Visual-Services,. This coherent and horizontal framework also needs to encompass horizontal consumer protection as included in e.g. the Consumer Rights Directive of the Unfair Commercial Practices Directive. A lack of coherent protection standards in the digital market for services needs to be eliminated, in order to promote consumers' trust.

(continue here if necessary)

Question 12: As regards **EU added value** of the regulatory framework, to what extent is there still a need to continue action at EU level by maintaining/establishing sector specific legislation for:

	significantly	moderately	little	not at all	do not know
a) Market analysis and access regulation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Universal service and end-users' protection	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Management of scarce resources (such as numbering, spectrum access)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Authorisation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Network and service security	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Other areas	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

The main added value of action at the EU level is to achieve harmonised, efficient and balanced market conditions. As described before, redesigned market analysis, pro-investment infrastructure regulation and horizontal rules for the protection of end-users can foster investment, fair competition and create benefits for EU citizens. There may be need for harmonisation especially in the management of scarce resources and standardisation.

a) Currently, sector specific legislation has little added value with regard to market analysis and access regulation, universal service and end-users' protection. As further explained below, the review should be the opportunity to set up a future proof and modern common European framework, consistent and effective from the end-user point of view and with the necessary incentives to innovate, covering all digital services. Horizontal regulation for services is the only reasonable means to achieve these targets within an increasingly converged digital market for digital services.

Where access to fixed networks will still be required, it should be designed in a more investment friendly, technology-neutral and

simplified way.

b) As mentioned above in response to Q. 4, the current sector-specific regulation of services is neither proportionate for telecom operators, nor consistent or effective from the end-user point of view. Also, it significantly narrows down flexibility for telecom operators to innovate. As far as the universal service regime is concerned, as underlined in Q. 8, it should remain a tool to ensure that end-users are safeguarded from the risk of social exclusion, but should not be used as policy tool for broadband penetration and access to digital services, which should be attained by other means, such as the incentives to take-up, a more investment friendly regulatory framework and public funding, where appropriate.

c) Sector specific regulation will be required for resources like numbering and spectrum. In particular, regarding numbering, these specific rules need to be aligned with the new overall horizontal framework for digital services. This alignment requires specific legislation to focus on the kind of service and not on the kind of provider.

d) As far as authorisation is concerned, the rules should be as simple and technology-neutral as possible.

e) On network and service security there is an added value to have common EU rules within the digital value chain, setting up a European and holistic approach, combining the current article 13 of the Framework Directive and the NIS draft directive as proposed by the European Commission; the draft directive on Network and Information Security under discussion is very important step towards an enhanced and more consistent level of cybersecurity and a level playing field in the DSM.

f) The EU framework can have added value in the promotion of innovation and industry cooperation, which is necessary to launch of time-to-market innovative services based on open platforms.

(continue here if necessary)

Question 13: In your opinion, what is the additional value resulting from the implementation of the EU regulatory framework for electronic communications? Please explain your responses.

The aim of the last framework review (2009) was to achieve a harmonised regulatory environment reinforcing competition and fostering incentives to invest. Consequently, the framework and regulatory practice have focused on further harmonisation of sector-specific legislation.

However, the implementation of the framework has often led to complex, lengthy and inefficient procedures, losing sight of new challenges derived from the rapidly changing market environment and Europe's global competitiveness.

Consequently, telecom operators bear more compliance costs and have less flexibility to innovate and invest in a highly dynamic and competitive digital market, compared to other competing service providers. Consumers cannot rely on consistent protection standards and are left at risk in regard to newly emerged issues.

Deregulation and re-levelling of the broader playing field needs to be an integral part of the forthcoming review. An investment friendly and forward-looking regulatory environment should be regarded as an urgent priority. To this regard, the first best tool to achieve harmonisation is indeed to reduce the scope of regulation to the extent possible, as less regulation provides less risk of diverging implementation.

(continue here if necessary)

3.2.2. Review of the objectives of the regulatory framework

The 2002 regulatory framework laid down as objectives the promotion of competition, development of the internal market and promotion of the interests of EU citizens. The 2009 reform included the promotion of efficient investment and innovation in new and enhanced infrastructures as a regulatory principle to be applied by the National Regulatory Authorities (NRAs) while pursuing the aforementioned policy objectives.

Access by all citizens and businesses to high-quality networks is a prerequisite for them to reap the full benefits of digital society. As set out in Commission's Communication on the Digital Single Market strategy, individuals and businesses should be able to seamlessly access and exercise online activities under conditions of fair competition. This goal cannot be achieved without ensuring access to connectivity based on ubiquitous, high-speed and high-capacity fixed and mobile broadband infrastructure. The telecoms review therefore offers an opportunity to recognize achieving access to such high-performance connectivity, on terms which would enable widespread take-up by end-users, as the main substantive policy priority sought by the Commission and as one of the main objectives of the regulatory framework.

Question 14: As regards the policy objectives included in Article 8 of the Framework Directive and taking into account the need to reflect adequately and completely the main European policy priorities in the electronic communications field, and more generally in the digital sector:

	yes	no	do not know
a) Should any policy objective be withdrawn or amended?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Should any additional policy objective be included?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

Since the adoption of the telecoms framework back in 2002, electronic communication markets have drastically evolved. The convergence on technology and services raises new challenges for the sector.

a) As mentioned above in the response to Q. 9, the following policy objectives should be amended:

1) The development of the internal market remains an important political objective. It should nonetheless be assessed in light of the network realities, taking into account that fixed and mobile networks are deployed at national level (e.g., operations like reaching the end user with fibre or setting up new antennas remain local). More importantly, the internal market should be a space for free initiatives from market players, made of business opportunities, and not designed and planned through regulatory obligations.

2) The promotion of service-based competition may have been a legitimate transitory objective when moving from a monopoly market structure to liberalised markets. Today markets are competitive. The priority should be now to promote the form of competition which maximises investment incentives and innovation. Infrastructure-based competition, which incentivises market players to gain a competitive and technological edge over competitors, rather than "wait and see", should be clearly preferred.

3) As regards the management of scarce resources such as numbering and spectrum access, the policy objectives as defined in Article 8 of the Framework Directive are deemed still relevant.

b) As already mentioned in the response to Q.9, the framework should have among its main objectives the promotion of social welfare and economic development, through sustainable investments, fostering of the competitiveness of the EU industry, and the alignment of the industry policy with regulation goals, to achieve the availability of high performance connectivity to citizens and companies.

In addition, the policy objectives should be revised to encompass a broader vision of communications services in the DSM. Such vision should not focus on telecom services only. The new legislative framework needs to be based on a coherent and structured set of future-proof regulatory principles, within a dynamic market, by:

- Promoting the benefits of EU citizens by maximizing their sustainable benefit in terms of availability, quality and choice of electronic communication services;
- Ensuring that consumer protection standards for EU citizens are consistent, proportionate and effective across the digital market;
- Maintaining competition between all digital market players, based on non-discrimination and a light-touch regulation.

(continue here if necessary)

Question 15: Should those primary policy objectives explicitly include the promotion of investment in and wide take-up of very high-performance fixed and mobile broadband infrastructure corresponding to the future needs of the European digital economy and society?

- yes
- no
- do not know

Please explain your responses.

All activities in the digital economy depend on networks. The availability of high-speed fixed and mobile broadband infrastructure is a precondition for the European Digital Single Market. Such new networks will be widely used by citizens and businesses to increase social welfare and achieve the DSM goals.

Networks require permanent and substantial investments to meet the constantly growing demand and the large scale adoption of high-speed connectivity services.

Accordingly, the primary policy objectives of the new framework should explicitly include the promotion of investment (to build those new networks and upgrade them where necessary). Promotion of take-up should also be included, in order to assure that the potential of those networks is actually exploited.

With regard to promotion of investment, we believe that the current framework has not provided favourable conditions for the intensive investments required to meet the new digital economy demands. Hence, we believe that the first priority should be to profoundly review the telecom rules in order to incentivise investment in high-speed broadband networks. European telecoms infrastructures need to be made more attractive for private investors.

Europe lags behind other developed countries in deployment and adoption of next generation networks, the cornerstone of the Internet economy. While individual countries vary (Sweden has better NGA coverage and higher adoption than the US, for example), overall, the EU is far behind nations such as the US, Japan and South Korea, in both coverage and penetration of critical technologies such as LTE and NGA, as outlined in a recent study by the Boston Consulting Group for ETNO. The framework has therefore not delivered the desired level of availability and quality of electronic communications networks and services across the EU.

Incentivising take-up of high-performance services is also extremely important for the future needs of the European digital economy and society. To this regard, one of the objectives of the framework should also be to encourage the development of end-to-end open and interoperable innovative services, and to support and secure industrial and commercial cooperation between market players.

(continue here if necessary)

Question 16: Have you identified regulatory or any other type of obstacles which could constrain fixed-line networks from fully contributing to the provision of full ubiquitous and accessible very high-speed connectivity across the EU?

- yes
- no
- do not know

Please explain your responses, outlining any obstacles you have identified.

The current form of access regulation to fixed networks is an obstacle to investment in fixed lines, as already developed in the answer to previous questions. The current system has promoted entry and led to lower prices for consumers and business, causing, however, a substantial decrease of the total market value, resulting in less investment and less value for customers.

This has sparked major concerns in the industry, as the framework has been incapable of providing propitious conditions for the intensive investments required to build new networks, as needed to meet the new demands of users and businesses. Rules were designed to spur competition in existing networks but do not provide the right incentives to create new ones. In particular, ETNO highlights the following obstacles:

- As a general principle, access obligations tend to favour non-investors at the expense of investors and encourage incumbent operators to delay investments since they are deprived of the competitive advantage of undertaking them.
- Multiple access products imposed to incumbent operators have posed significant constraints to their technical and pricing strategy while providing a competitive advantage to alternative operators;
- Network operators are deprived from enjoying a competitive advantage from their investment, therefore hampering investment incentives;
- Total market revenues have shrunk over the past 5+ years (for both access seekers and providers), which for access providers complicates even more the business case for investments;
- The distortion of infrastructure competition between cable and telecom operators, by reliance on a service-based form of competition through regulation, has hampered potential benefits in terms of investments;
- Actual or potential price regulation has deprived investors of the ability to price their products in an efficient way to recover investment costs;
- Limiting the possibilities of risk-sharing access prices and providing unclear and possibly inappropriate specification of the Economic Replicability Test, regulation can impose a wrong allocation of the investment risk between access providers and access seekers, at the expense of the former and the advantage of the latter, thus hindering investment incentives.
- the possibility to be subject to ex-post margin squeeze test analysis by competition authorities following the methodology defined by case law which is incompatible with any sound case of investment in access infrastructure is also a strong deterrent of investment;
- The risk that public funding may overcrowd private investments in "grey" areas increases the risk and reduces the incentive to invest.

As a result, Europe is, in a number of key areas, lagging behind other geographies and there is a significant risk that it will lose competitiveness in a global context due to lack of investments and backward-looking regulation that blocks innovation and network upgrade.

(continue here if necessary)

Question 17: Have you identified regulatory or any other type of obstacles which could constrain advanced wireless technologies from fully contributing to the provision of full ubiquitous and accessible very high-speed connectivity across the EU?

- yes
- no
- do not know

Please explain your responses, outlining any obstacles you have identified.

The main obstacles to the development of wireless technologies are:

- Reservation of scarce spectrum resources for services such as terrestrial broadcasting in regions with minimum demand for these forms of broadcasting;
- Reservation of spectrum for new entrants without realistic chances in sustaining competition unless they are artificially kept alive by regulation;
- Uncertainties in terms of spectrum renewal (timing, prices) or allocation conditions (bands reserved for new entrants, MVNO obligations, delayed calendar for the 800MHz) do not help incentivising investments;
- Missing standardisation of wireless technologies.

More recommendations on how to improve the current spectrum framework can be found in the relevant section of the consultation.

(continue here if necessary)

Question 18: In your view, should there be a prioritisation amongst the current and/or future policy objectives?

- yes
- no
- do not know

Please explain your response and describe possible conflicts which may have been experienced between the objectives. If your answer is yes, please explain how any conflicts between such priorities should be resolved.

As previously referred in the answer to Q. 9, ETNO underlines the need to prioritise the provision of wide availability and adoption of world class connectivity services, permanently integrating innovative technologies, for European citizens, by promoting sustainable investment, the competitiveness of the EU industry and the alignment of the industry policy with regulation goals. From an economic theory perspective, the regulatory framework should aim at maximising European social welfare instead of pure consumer surplus.

To achieve this overarching vision the following objectives should be listed as key priorities:

- Promotion of sustainable investment and innovation, ensuring the good functioning of competitive markets;
- Ensure technology neutrality;
- Promotion of innovation and quality of services, enabling a wider choice for consumers and companies;
- Address converging technologies and services, ensuring a level playing field on the whole digital value chain;
- Ensuring that consumer protection standards for EU citizens are consistent, proportionate and effective across the digital single market.

(continue here if necessary)

3.3. Network access regulation

The current framework for electronic communications has delivered more competition, better prices and choice for consumers, and spurred operators to invest. However, it is often criticised for not having sufficiently promoted the transition towards high-capacity Next Generation Access (NGA) networks fit to meet future needs, and the huge investments required, especially in rural areas. Progress towards more integrated telecoms markets is slow and the provision of connectivity to business and consumers remains highly fragmented and divergent across the Union today. It is also important not to lose the benefit of the positive pro-competitive effects of the liberalisation achieved over the past years.

The Digital Agenda for Europe targets of universal access to connectivity at 30 Mbps by 2020 indicated the ambition to ensure territorial cohesion in Europe. The penetration target of 100 Mbps (50% of subscriptions in Europe by 2020) sought to anticipate future competitiveness needs, in line with the likely global developments.

The vision of ubiquitous, high-speed, high-capacity networks as a necessary component for global competitiveness lies at the heart of the Digital Single Market strategy. While the 30 Mbps target for 2020 is likely to be largely reached on the basis of current trends, the uncertainty of adoption dynamics remains a key constraint to investment in very high-speed fixed connectivity. The EUR 90 billion investment gap identified in order to meet the 100 Mbps take-up target for 2020 will not be entirely filled from EU and national public sources, which was also never intended. Moreover, in late 2015, it is already necessary to look further than 2020, and to seek to identify and anticipate the needs of Europeans in 2025 and beyond. The incentives for investors to do more must therefore be examined afresh, along with alternative regulatory regimes which have been applied in certain areas. The review offers this possibility.

3.3.1. Evaluation of the current network access regulation

The first set of questions aims at providing input for the evaluation of the functioning of the current regulatory framework.

Question 19: To what extent has the access regulatory regime overall contributed to deliver the three objectives set in Article 8 of the Framework Directive:

	significantly	moderately	little	not at all	do not know
a) Competition in the provision of electronic communications networks, electronic communications services and associated facilities and services?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) The development of the internal market?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) The interests of the citizens of the European Union?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

The current access regulatory regime has privileged a service-based form of competition with focus on static efficiency, over a more dynamic and sustainable one, which would instead be needed to satisfy Europe's investment needs and achieve the DSM Strategy goals. In terms of the development of the internal market and the interests of EU citizens, the regime has contributed to only moderate results.

You can find below detailed reasoning explaining our response:

a) The current regulatory framework has placed a very strong focus on service-based competition and the promotion of entry in already existing networks, based on the ladder of investment (LoI) theory and on its strong emphasis on price competition.

The current framework does not adequately take into account dynamic (long-term) effects. This model is no longer sustainable, as it discourages the massive investment in next-generation networks that the completion of the DSM Strategy requires.

In some Member States, the impact of the EU framework on competition has been low, as competition based on infrastructures has been the main competitive force. In general, the LoI-based EU framework has rather weakened the business case for alternative networks by driving down prices.

b) Access regulation has mainly imposed, in a harmonised way, carrier selection, fixed termination rate regulation, unbundling solutions on fixed incumbent operators and mobile termination regulation on mobile operators. As a consequence, we see that:

- No successful and sustainable entry on a pan-European basis has resulted from fixed access infrastructures;
- The European expansion of large mobile operators has begun to stop in the mid-2000s when European regulation has started to negatively affect mobile operators.

c) With its strong focus on service-based competition, the EU framework has led to price decreases, but has not promoted the long-term interests of citizens, as it has not contributed adequately to encourage investments in networks to the extent needed by the EU digital economy.

Access regulation has not been grounded on a forward-looking vision which better takes into account changing user habits and technological developments.

Furthermore, the current framework has provided an excessively complex regulatory setting, with high implementation costs, both in the area of network access and consumer protection. Overregulation has had a negative impact on operators' costs and commercial flexibility and ultimately on citizens.

(continue here if necessary)

Question 20: Within the current model of access regulation, to what extent have the rules to determine whether a market should be regulated, based on the definition and analysis of relevant markets, on the three criteria test used to identify markets susceptible to ex ante regulation under the Recommendation on relevant markets, and on the identification of Significant Market Power (SMP) operators, been effective in:

	significantly	moderately	little	not at all	do not know
a) Promoting competition?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Maximising incentives for different types of operators to innovate and invest efficiently, in respect of both networks and services?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c) Delivering the desired level of availability of electronic communications networks and services, as well as quality of connectivity, throughout the Union?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Promoting to the extent possible take-up of high-quality services by end-users?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Ensuring efficiency, bearing in mind in particular the impact of compliance costs on providers of electronic communications networks and services?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

Summary of the response:

- The current framework has promoted a static, service-based form of competition, which has not properly encouraged investments in next-generation networks and network differentiation. In fact, strong emphasis on access-based competition has often undermined the investment

incentives of both new entrants and incumbent operators.

- The framework has also led to overregulation, with market definitions having often been designed with the idea to regulate specific services.
- The impact of infrastructure-based competition, and particularly competition of cable operators, is not adequately captured by the framework, often leading to overregulation.
- Europe lags behind other developed countries in deployment and adoption of next generation networks, the cornerstone of the Internet economy. While individual countries vary (Sweden has better NGA coverage and higher adoption than the US, for example), overall the EU is far behind nations such as the US, Japan and South Korea in both coverage and penetration of critical technologies such as LTE and NGA technologies. The framework has therefore not delivered the desired level of availability and quality of electronic communications networks and services across the EU.
- The conclusion arising is that Europe needs to establish new rules bearing in mind current market realities, and to establish a more investment-friendly and light-touch regulatory approach, in order to unlock the investments needed to keep the EU Internet economy growing.
- Specific proposals on how to achieve this goal are in the detailed response below.

Detailed response:

Regarding a) and b), the current framework has promoted static, service-based competition. However, it has promoted infrastructure-based competition only to a very limited extent (in markets where access regulation has focused on civil infrastructures). The framework has essentially promoted a competition model based on the provision of wholesale services, whereby access-seekers rely on the access network of the SMP operator, without having to invest in access infrastructure.

Consequently, the framework has contributed to lower prices, but by means of business models which do not encourage investment incentives and give little scope for differentiation. Indeed, the framework has allowed newcomers to enter the market without investing or innovating, therefore reducing the entrants' incentives to invest and innovate, notably in the last mile. It has also imposed on investing network operators the obligation to share their investment with competitors, further reducing their incentives to invest and innovate.

It should also be noted that the framework has not promoted innovation nor investments in new technologies and services also because every time a regulated company introduces new services or technologies it has to face demands for access to such services by alternative operators, which substantially undermines investment incentives.

Moreover, current market definitions are designed to result in wholesale market regulation. Even though current rules to define markets follow a theoretical approach relying on competition law concepts, in practice markets are identified with the idea to regulate a specific service. A

notable example is the LLU market, which in reality corresponds to a remedy. This leads to the identification of markets which are “engineered” by the regulatory framework.

The current regulatory regime has not been fit to properly address the bottom-up deployment of fiber networks with local dominance and with many different infrastructure owners in certain markets. This is so because the regime is based on the notion of SMP aimed at addressing market failures in a scenario with a single monopolistic operator owning the national network.

The way in which product markets are defined has made it very hard to properly take into account infrastructure competition in the market. In fact, self-supply of competing infrastructures is normally not included within the market definition. By focusing regulation on the incumbents’ legacy networks, and extending such “default regulation” also to investments in new networks by the same operators, the regulatory framework has generally lost sight of other actors’ activities and their market positions. With regard for example to broadband markets, cable operators’ broadband activities are clearly substitutes and have clear impact on other broadband services (e.g. xDSL and fiber), but are generally being considered out of the scope of the regulatory framework. This approach leads to wrongly focused regulation and overregulation.

(continue here if necessary)

c) In a recent study commissioned by ETNO to the Boston Consulting Group (“Five Priorities for Achieving Europe’s Digital Single Market”, October 2015, available at: https://etno.eu/datas/publications/studies/FINAL_BCG-Five-Priorities-Europe-Digital-Single-Market-Oct-2015.pdf) the following relevant conclusions are reached:

- The EU-28 lags behind other developed countries in deployment and adoption of next generation networks, the cornerstone of the Internet economy. Within the EU the performances of individual countries vary (Sweden has better NGA coverage and higher adoption than the US, for example). However, overall the EU is far behind countries such as the US, Japan and South Korea in both coverage and penetration of critical technologies such as LTE and NGA technologies.
- Meeting the goals of the EU Digital Agenda and creating a Digital Single Market is not a technology issue. It could easily become a funding problem if outdated regulations and uncertainty over the future regulatory regime continue to hold back investment in NGA networks. In fact, the BCG study has identified an investment gap of 106 B€ in order to meet EU Digital Agenda targets.

The conclusion arising is that Europe needs to establish new rules

bearing in mind current market realities, and to establish a more investment-friendly and light-touch regulatory approach, in order to unlock the investments needed to keep the EU Internet economy growing.

It should also be noted that NRAs have normally not followed a rigorous impact assessment methodology, evaluating and quantifying costs and benefits in a prospective approach. Impact assessments should be key for NRAs to determine if a specific draft decision is justified and can thus be pursued.

This is another important element that should be modified in the regulatory framework: NRAs should make a sound impact assessment when taking regulatory decisions, including assessing the prospective impacts on investments.

With such impact assessments, the NRAs should check if the considered intervention is beneficial bearing in mind a triple objective: (i) incentivising network investments and innovation, (ii) promoting sustainable competition, and (iii) fostering long-term consumers' interests. The most important point in this assessment is if the decision will encourage investments in infrastructure.

d) Regarding the take-up of high-quality services, there is clearly an adoption problem of high-speed services, as reflected by the Commission's Staff Working Document "Implementation of the EU regulatory framework for electronic communications - 2015". As an example of this:

- The share of >30 Mbps subscriptions (% of fixed broadband subscriptions) in 2014 was 26%.
- The share of >100 Mbps subscriptions (% of fixed broadband subscriptions) in 2014 was 9%.

e) Regulation has been very costly, particularly for SMP operators, which are obliged to provide a full set of wholesale services to make the "investment ladder" possible. In addition, the concept of "associated facility/ ancillary service" has been used to include any possible network element, information or access to systems. This concept has created significant regulatory uncertainty regarding the scope of regulation.

Indeed, regulation has been very detailed and intrusive. This has made the structure of SMP operators heavier, less agile, with complex and long decision processes, generating permanently high costs in technical, marketing, sales, IT choices. Regulation has a systemic impact on innovation processes, on how innovation is valued, integrated and rewarded within the organisation and on the management of operators.

As stated before, NRAs have normally not followed a rigorous impact assessment methodology, taking into account costs and benefits with a prospective approach. They tend to impose the full set of wholesale access obligations following the "investment ladder" theory. As a consequence, many overregulation errors (false positives) occur and

subsist. The revocation of unwarranted access obligations is very rare even in cases where data shows that they are ineffective and irrelevant. See for instance how CS and WLR were maintained in Portugal in 2014 (despite the fact that these account for less than 1% of traffic and customers) or the situation in Belgium, where WLR and multicast were imposed without any take-up. This is another element that should be modified in the regulatory framework: NRAs should make a sound impact assessment when taking regulatory decisions, including in particular analysing the impact on investment.

Question 21: To what extent has the definition of the type of networks and services to which SMP regulation can be applied, been effective in :

	significantly	moderately	little	not at all	do not know
a) Promoting competition?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Maximising incentives for different types of operators to innovate and invest efficiently, in respect of both networks and services?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c) Delivering the desired level of availability of electronic communications networks and services, as well as quality of connectivity, throughout the Union?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Promoting to the extent possible take-up of high-quality services by end-users?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Ensuring efficiency, bearing in mind in particular the impact of compliance costs on providers of electronic communications networks and services?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

See also the answer to Q. 20.

Summary of the response:

- The narrow definition of wholesale relevant markets has contributed to the development of service competition instead of infrastructure competition. Regulating narrowly defined wholesale markets generates circular regulation i.e. regulation preventing investment in regulated activities.
- Regulators have struggled in many cases to adjust the scope of the regulatory analysis to the evolution of technologies and of players active on the markets.
- Wholesale market regulation has had a negative impact on incentives to invest in networks, both on the access provider's side and on the access seeker's one.
- Impact on the take-up of high quality services by the end-users has been very limited also as a result of this type of regulation.
- Finally, the system has not promoted efficiency. On the contrary, obligations have provided for less flexible network architectures and imposed numerous specific functions and interfaces in operators' Information Systems. This represents a significant burden for the industry as a whole.

Detailed response:

a) Until now, the type of networks and services to which SMP regulation can be applied has been - in an unbalanced way - typically limited to the networks and services offered by "historic telecom operators".

1. The regulatory framework has typically been looking for regulated wholesale access to technological solutions as offered/feasible on historic networks (PSTN/xDSL). Subsequently, it has extended wholesale access to the new types of networks/services offered by the same historic operators (FTTx). In doing so, wholesale broadband markets, for example, have generally been defined in a "non technology-neutral" way, by excluding retail-substitutable services such as HFC cable-based networks and services.

2. Markets are defined with the purpose to apply a specific remedy to the network of the SMP operator. As an example, LLU is a remedy historically designed for a "PSTN"/DSL type of network.

(continue here if necessary)

3. The narrow definitions of wholesale relevant markets (number

of products covered, no integration of self-supply, inter alia) have contributed to the development of service competition instead of infrastructure competition. Regulating narrowly defined wholesale markets generates circular regulation i.e. regulation preventing investment in regulated activities.

As a result of the above, regulators have - wrongly - struggled in many cases to adjust the type of networks and services that should enter in the scope of the regulatory analysis to the evolutions of technologies and of market players active on the markets. For example, in recent cases, ACM argued that VULA could not be delivered on a HFC cable network (which was a key argument in order to exclude cable competition from the relevant product market). However, a truly forward-looking analysis on the technological characteristics of such wholesale access services (e.g. VULA) not only on copper networks, but also on HFC networks, would lead to the conclusion that these networks are sufficiently interchangeable forming therefore a substitute. Consequently, they should be part of the same relevant product market. On the same account in Belgium the regulator still considers that HFC is not even a valid substitute to be taken into account in the relevant product market for wholesale broadband access (thus bitstream).

Therefore, regulatory analysis in the future should depart from this technologic- and remedy-centric way of looking at "markets". This would be also the case where markets and SMP assessment are abandoned in favour of dispute resolution mechanisms (see more details on this point in answer to question 25).

Any test assessing the need for regulatory intervention should be based on competition problems occurring in retail services market including in the analysis all substitutable retail market offers present on the market.

b,c) Market definitions are designed to result in wholesale market regulation. Wholesale market regulation has a negative impact on incentives to invest in networks, both on the access provider's side and on the access seeker's one. On the access provider's side, because it forecloses the opportunity of benefitting from competitive advantages as a result of investment; on the access seeker's side because access regulation allows it to enjoy the benefit of network investment without having to invest itself.

This dynamic also has a negative impact on innovation at connectivity services level, because of the indirect constraints it generates on retail prices and offers. It finally has a negative impact on innovation in digital services in general, because narrow market definitions within artificial and obsolete regulatory boundaries generate distortion of competition between electronic communications providers and other information society services providers.

d) Narrow market definitions have led to strong restriction of the

freedom of access providers to sell innovative services at attractive prices and have discouraged access seekers to invent their own services on their own facilities, and to price them independently of regulated access price. Less regulation would have led to unleashing more investment and, consequently, to a competition model less focused on price reductions.

e) The narrow segmentation of wholesale sub-markets has generated the obligation to provide a very large number of regulated wholesale access offers, tailored to a large variety of competitors each with its own business model, investment or non-investment strategy and benefitting from a specific regulatory niche. These obligations have provided for less flexible network architectures and imposed numerous specific functions and interfaces in operators' Information Systems. This represents a significant burden for the industry as a whole.

Question 22: To what extent have the provisions of Directive 2009/19/EC (Access Directive) concerning the principles that guide the imposition of remedies on SMP operators, as well as the description of the types of remedies that can be imposed, been effective in:

	significantly	moderately	little	not at all	do not know
a) Promoting competition?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Maximising incentives for different types of operators to innovate and invest efficiently, in respect of both networks and services?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Delivering the desired level of availability of electronic communications networks and services, as well as quality of connectivity, throughout the Union?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Promoting to the extent possible take-up of high-quality services by end-users?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Ensuring efficiency, bearing in mind in particular the impact of compliance costs on providers of electronic communications networks and services?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

See the answer to Q. 20. Additionally it could be added that:

a) Remedies provide a toolbox for NRAs, from which NRAs should choose. However, NRAs tend to apply the entire set of remedies in most of the regulated markets. In theory, whenever SMP is found in a market, at least one remedy should be applied, but in practice NRAs tend to mechanically apply them all, leading frequently to overregulation. The result is a high degree of service competition, most of it not sustainable, with direct impact on the level of investments required for the evolution of networks.

b) Cost orientation, and more generally price regulation is a very intrusive regulatory intervention and one which inevitably shifts market dynamics away from investment and innovation to a "price only" competition. Price control of wholesale prices, in particular if based on cost orientation, drastically reduces the value of the networks and definitely discourages investment.

c) In order to build new NGA networks it is necessary to attract high levels of investment. No one would be willing to invest and run significant risks in order to just get a regulated price. It is a very onerous remedy which is no longer proportionate to the observed market failures, given the widespread infrastructure competition from cable, fibre and wireless networks which exercise pricing constraints and should no longer be part of the toolbox of NRAs.

e) The current framework relies on the Ladder of Investment (LoI) concept that has generated several layers of access products, involving complex regulatory measures. Their application has implied a large degree of discretion for regulators to find SMP and to apply remedies, which generates an increasing demand for detailed regulatory provisions and provokes a vicious cycle of continuous market distortions and conflicts. NRAs frequently surpass their role getting involved with product management, business cases and steering market outcomes.

Finally, it is important to take into account that the current framework poses a threat to network evolution and copper switch-off.

(continue here if necessary)

Question 23: To what extent is the current scope of the symmetric obligations (i.e. imposed irrespective of SMP) of co-location and sharing of network elements and associated facilities for providers of electronic communications networks as established in Article 12 of the Framework Directive effective?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your responses.

Symmetric obligations have had a positive impact in some countries where competition is infrastructure-based (e.g.: France, Portugal, Spain) and these kinds of measures have been used. Evidence shows that, in those cases, symmetric regulation for in-building wiring, together with an effective regulation for granting access to ducts, have been instrumental in allowing alternative operators to deploy their own networks and create infrastructure-based competition.

(continue here if necessary)

3.3.2. Review of the network access regulation

a) Addressing bottlenecks in access networks with an appropriate regulatory regime

The telecoms review offers an opportunity to assess ex ante wholesale access regulation, in light of market and technological developments including in particular the transition to new and enhanced infrastructures such as NGA networks, fixed-wireless convergence and the migration to an all-IP environment. The objective would be in particular to ensure that regulation addresses the remaining "bottlenecks" or obstacles that impede effective competition and choice for consumers, lowers barriers to investment and facilitates cross-border services, while insisting on the sufficiency of ex post competition law in markets where competition has sufficiently developed. This includes taking stock of the level of competition, including infrastructure competition, which has developed in the market since liberalisation, and identifying any areas where enduring – often local - bottlenecks require particular attention in view of both a potentially persistent risk of abuse of dominant market positions and the European ambition to have a universally connected society. In this regard, the telecoms review offers an opportunity to consider whether access regulation is focused on the necessary inputs to allow alternative operators to deploy NGA networks in the future and compete effectively in the market, and whether they, as well as historic incumbent operators, have effective incentives to do so according to realistic timeframes.

Question 24: Should access and interconnection to electronic communications networks and services continue to be regulated *ex-ante*?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

The question is quite wide as it concerns “access”, “interconnection”, of “networks” and “services”. It is complex to select an option that can adequately reflect ETNO’s views. This is why we deliberately decide not to tick any of the boxes above.

Instead, please consider our detailed remarks below:

Access and interconnection should not continue to be regulated ex-ante as has been done until now. In fact, ex-ante regulation was meant to take place only for a transitional period of time. Instead, regulation has been steadily extended since the beginning of liberalization. A clear mind shift from the current system is needed. It is necessary to decrease intervention, complexity and bureaucracy, and provide companies with more freedom to invest, innovate, and profit from their investment efforts. The future regime should take into consideration the current progresses in the fields of voluntary access, e.g. joint network investments and network sharing as well as commercially driven voluntary wholesale access offerings. It should move a more market-driven approach, where commercial solutions for wholesale access take precedence over regulated outcomes.

As a general principle, ETNO believes that regulatory intervention should be thoroughly justified. It should not to be taken for granted as an ever-existing feature, particularly taking into account that it implies a very intrusive form of intervention. Thresholds for ex-ante regulatory intervention have to be high. The need for regulation must be very rigorously analyzed and, if applied, is should be on a transitory basis and be focused on the achievement of very specific objectives. As far as services are concerned, see related chapter in the consultation questionnaire.

(continue here if necessary)

Question 25: Will the current access regime model, including the analysis of relevant markets and the identification of Significant Market Power (SMP) operators as well as the three criteria test used to identify markets susceptible for ex ante regulation, continue to be the appropriate operational tool in determining the threshold for ex ante regulatory intervention beyond 2020, in all types of geographic areas and economic conditions?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

See also the answer to Q. 20.

ETNO disagrees with the question, on the basis of the reasons outlined below:

Regulation should aim for an efficient and sustainable level of competition at retail level. In case it is necessary to apply some form of access regulation, to allow sustainable competition at retail level, it should be reduced to the essential access obligations and substantially simplified to one layer.

The reasoning behind the Ladder of Investment principle has obviously failed. Now the focus should be on preserving the value of the infrastructure, to promote further investment in upgrading existing networks and in the deployment of new networks. The focus should not be on promoting competition without investment.

Taking into account the above, in the future framework, regulators should identify the relevant "Key Network Input (KNI)". The decision about the access level would have to be taken at national level, as NGA network architectures and other important aspects vary widely at local level.

It is very relevant that this type of access should not hamper the development of full infrastructure competition where it is feasible. National specificities are also recognized in the Nordic NRAs' viewpoint: "[...] the current significant market power regulation should be replaced with a more flexible framework that could be adapted to different market conditions" ("Digital Single Market Strategy. The Nordic NRAs' viewpoints", August 2015).

The current framework in theory is designed around principles that aim to promote competition at retail level by imposing regulation in the presence of market failures, and lifting it where there is competition.

However, in practice, these principles have evolved into a circular analysis generating further regulatory intervention. Therefore, the current market analysis process is biased towards promotion of entry, trying to find competition at several wholesale levels. The concepts of wholesale markets (particularly the notional markets) should be abandoned as a reference for regulation.

Indeed, a simple and lighter regulatory regime for wholesale services should be based on a market-driven approach, where commercial solutions (i.e. voluntary wholesale arrangements) should take precedence to regulatory impositions. It means that:

- In case the access seeker is satisfied with a wholesale offer (which it considers appropriate in terms of economic and technical replicability), no further regulatory analysis is required. In that case, as regards remedies, obligations on transparency, cost accounting obligations and price control are not considered appropriate anymore.
- An unsatisfactory response may lead to a dispute resolution mechanism, which brings the case before an NRA, which performs a “Test”. (retail-based and with a higher burden of proof) showing that such access is indispensable (see the concept of KNI above).

(continue here if necessary)

Question 26: Do you consider that the current ex ante regulatory approach gives regulatory authorities adequate tools to map and reflect in their analysis the local variations in infrastructure availability, investment and competition within many Member States?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

We believe that there are sufficient tools to address local variations. However, in practice these instruments have not been properly considered by regulatory authorities or, in some cases, rejected by European Commission as part of Article 7 procedure .

Some of the factors which have contributed to this outcome are for example:

- The lack of prospective analysis;
- Self-provision of significant competitors, such as cable operators, has not been taken into account in the definition of product markets;

The lack of in-depth analysis taking into account geographic segmentation.

- Regulators should be required to thoroughly take into account the heterogeneous geographic market circumstances. In fact, regulators should not start the analysis with a default national market as starting point. To the contrary, the analysis should be made with a bottom-up approach, determining which type of geographic areas in a country show similar competitive characteristics. Areas with sufficiently similar competitive characteristics that are different from other areas should be grouped together and analyzed separately.

(continue here if necessary)

The review will have to consider whether the parts of the networks that are regulated under the current rules are the appropriate and sufficient point of intervention to address the market failures that limit the growth of the Digital Single Market, or whether - in certain cases - it would (also) be necessary or more proportionate to address retail market failures at the level of services and/or content, which are increasingly important to consumer choice and to the competitive dynamics at the retail level, and are in many circumstances controlled by undertakings that are not network owners.

Question 27: Should the regulatory framework indicate more clearly that the absence of effective retail competition is the justification for regulatory intervention?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses. In case of a positive reply, please indicate what should be the mechanism for determining such intervention.

ETNO strongly agrees with this statement, for the following reasons:

We believe that the new framework should identify the retail market as the focal point for the assessment of potential need for regulatory intervention. This approach would help to reduce complexity, increase proportionality and ultimately design regulation to solve well-defined market problems in a much more targeted manner. At the same time, the analysis should always take a prospective stance and focus on dynamic (long-term), rather than static, competition.

In addition, please consider the answer to question 25. The concept of wholesale markets (particularly the notional markets) should be abandoned as a reference for regulation.

(continue here if necessary)

Moreover, electronic communications networks are currently undergoing significant technological changes due to the transition to new and enhanced infrastructures such as NGA networks, fixed/mobile convergence, and future developments such as network virtualisation and the shift to an all-IP environment. These trends need to be taken into account in the effort to make access regulation simpler. It is opportune to verify whether the number of wholesale access products to SMP networks should be reduced, in order to reduce administrative burden while addressing the most important types of demand expressed by access seekers, and adapting to technological change.

Question 28: In 2020 and beyond, will the essential inputs that an access seeker would need to effectively compete downstream in the retail market be the same as they are today, when legacy copper networks still play an important role? If not, which will be those vital inputs?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

Due to dynamic market developments, it is very difficult to predict which will be the essential inputs to enable competition downstream in the retail market in 2020 and beyond.

However, the current system to trigger access obligations based on looking at competition in relevant (notional) wholesale markets should disappear. ETNO believes that, rather than trying to figure out which will be the essential inputs, the Commission should focus on how these essential inputs should be determined. In doing so, the Commission should keep as a guiding principle the need to create a stable and predictable framework for network operators to take investment decisions.

Many factors have a clear influence on the competition analysis and hence on the overall regulatory setting. The degree and geographic scope of infrastructure competition, NGA network topology, availability of ducts, are among the main examples. Furthermore, across Member States there are a variety of national and local characteristics.

Hence, a targeted assessment of the inputs needed to effectively compete downstream in the retail market is crucial, as there will be no "one size fits all" solution.

The analysis leading to the justification for regulatory intervention should be carried out from a retail market perspective as referred to in Q. 27 and focused only on the non-replicable inputs of the fixed network, if any. The aim should be to try to keep regulation as simple as possible, also against the background of increasing infrastructure competition and changes in market structures (i.e. increasingly convergent markets).

Against this background, ETNO supports changes in the framework according to which commercial solutions (i.e. voluntary wholesale arrangements) should take precedence over regulatory impositions. Successfully concluded commercial contracts should be deemed compliant with regulatory requirements and given priority over regulated solutions.

(continue here if necessary)

Question 29: Should the number of wholesale products providing access to SMP networks be reduced?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses. If you agree with the above, what are the most relevant access products?

As said above, the current framework has imposed access at multiple levels, creating a complex, inefficient and costly scenario. Europe has achieved a level of competition, and in some areas infrastructure competition, that should allow for a drastic reduction of sector-specific regulation.

In areas where infrastructure competition is in place, NRAs should lift wholesale obligations leaving to market forces the negotiation of access agreements under market conditions. In these situations there is no essential input warranting regulation. Regulatory oversight of these agreements by NRAs in case of substantiated abuse of market power would be sufficient.

In non-competitive areas, in the absence of satisfactory, voluntary wholesale offer, the existing network should be regulated at only one access level. The final decision on the single access level should be taken by NRAs taking into account national circumstances, provided, however, that regulators identify a relevant Key Network Input.

(continue here if necessary)

Question 30: What will be the appropriate type, layer and number of wholesale access products that would ensure that investment is incentivised and that retail competition thrives in new and enhanced infrastructures, such as NGA networks?

Should the answer to this question take into account the interest in incentivising all market participants – historic incumbents and alternative operators – to invest in the highest capacity networks, instead of more incremental upgrades, in areas where infrastructure competition is possible?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

It is clearly not conducive neither to innovation nor to investment to mandate a wide range of wholesale access products at different levels of the network to cater for any business model of an access seeker, whether sustainable or not.

The upcoming framework should abandon the concept of the “ladder of investment”. The “ladder of investment” approach has failed, as favourable conditions for access seekers encourage service-based market entry but discourage infrastructure competition.

The future access regulation regime should be much simpler, efficient and proportionate, and should limit access regulation where it is still required to one layer of the network. The final objective should be to improve social welfare by fostering investment and sustainable competition. Hence, the new framework should foster innovation by not blocking technological development.

Access regulation should no longer represent an instrument for actively redesigning telecommunication networks. It should focus on the remaining key network inputs and leave the market to commercial agreements where infrastructure competition is in place.

Different from what the question suggests, no single answer at EU level can be given to what will be the appropriate type and layer for wholesale access.

The decision about the single access level has to be taken by NRAs taking into account several factors such as geographical conditions and the technologies used to deploy the new NGA networks. Care should be taken that such single access product does not freeze network upgrades and the evolution of NGA technologies.

(continue here if necessary)

Question 31: Should NRAs have the powers to address access bottlenecks in relation to other inputs, whether or not these relate to electronic communications services and networks, if such inputs are considered to be decisive for the development of the retail market (i.e. such as for example access to content)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

Additional regulation of telecoms beyond the current strict regulation of access bottlenecks related to communication services is in our opinion unnecessary and might even lead to the undesirable outcome of overall increasing the regulatory burden.

In fact, new online platforms have emerged, offering their services to consumers and other end-users. A few of these players have gained dominant market positions and, thus, have become crucial digital gatekeepers. Until today there has been no regulatory scrutiny of such gatekeepers at all. However, in several Member States discussion on these issues are ongoing, including completed or ongoing competition proceedings.

Any reasonable assessment and, possibly, definition of rules applied to services that are bottlenecks in the digital market with negative impact on consumers or competition needs to be much broader. It should take into consideration the whole digital market, and other cross-sector rules, such as competition law rules and general consumer protection rules.

(continue here if necessary)

One important aspect is the enduring importance of legacy copper networks, which continue to be controlled by former monopolies in all Member States and continue to be a vital input for a large share of access seekers, and have an impact on their owners' incentives to roll out NGA networks. In this regard, the state of copper switch-off in Member States needs to be examined.

The Commission Recommendations on regulated access to Next Generation Access Networks (2010/572/EU, NGA Recommendation) and on Consistent Non-Discrimination Obligations and Costing Methodologies (C(2013) 5761, Non-discrimination and Costing Recommendation) aim at fostering the development of the single market by enhancing legal certainty and promoting investment, competition and innovation in the market for broadband services in particular in the transition to NGAs.

NGA coverage has reached 68% of households in the EU, to a large extent through incremental upgrades of cable networks and of copper networks through FTTC. As NGA networks become more common, it needs to be assessed whether – at least in more densely populated areas or in areas where such upgrades are already far advanced – the risks linked to NGA roll-out beyond 2020 will mainly concern the roll-out of new networks up to the end-users' premises, justifying a corresponding focus of regulatory incentives on those challenges.

In addition, it is necessary to reflect on the question whether all investors – including incumbents - in higher risk, more costly infrastructures, in advance of short-term demand in many cases, are able to draw sufficient benefits from the differentiating effect that such an investment can give them in competing in the area in question. At the same time, equality of investment opportunity may be desirable – network economics may not allow every operator present in a given area to build its own network, leaving SMP operators a significant strategic advantage even if others are willing to commit capital to raising network performance and competing at a new level.

Question 32: Are incremental upgrades to copper networks likely to be exposed to such a level of investment risk in 2020 and beyond, that specific regulatory incentives will continue to be justified for all NGA technologies?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response, and indicate which incentives you would consider appropriate (e.g. continued application of the Non-Discrimination and Costing Recommendation to Fiber-to-the-premise (FTTP) networks only (or equivalent), improved access to passive infrastructure, adaptation of wholesale access products to SMP networks, lifting of access obligations to the highest capacity SMP networks if a credible anchor access product is made available, or others).

ETNO believes that regulatory intervention should not steer the market into a specific direction abandoning the principle of technological neutrality. Regulatory policy should aim at the best solutions for investments in NGA networks by providing network operators with a stable, predictable and investment-friendly framework but should not discriminate against cost-efficient technologies for connecting customers to very high-speed broadband.

Network operators should be able to decide their investments according to market developments both on the supply and on the demand-side; to the cost of deployment; to the long-term strategy which in some cases may lead to an upgrade of an existing network and in others to investments directly to, or very close to, the premises of the customer.

An approach that deviates from the well-established principle of technology neutrality would be inefficient and contradict current EU policy goals such as the Digital Agenda broadband targets. Most importantly, the focus shall not be diverted from the consumer, who is not concerned about technologies, but focused purely on the quality of the experience.

The ability of network operators' to address different areas with the most cost-efficient technology should be preserved. It is key to maintain the principle of technology neutrality and allow flexibility in business models for delivering high-speed connectivity in rural and urban areas.

The incentives suggested in the question (e.g. Non-Discrimination and Costing Recommendation) are not enough for continued upgrading in the networks. What the industry needs are fundamental changes in the current regulatory framework as mentioned in the answers to Q. 28 and 29; promoting commercial solutions instead of regulatory impositions; and limiting regulation in non-competitive areas, in the absence of satisfactory, voluntary wholesale offer, to one mandatory single wholesale access product, in case such mandatory access is deemed necessary in the context of a dispute resolution analysis and provided regulators did identify a relevant Key Network Input.

Finally, cost orientation, and more generally price regulation, is no longer proportionate to the observed market failures and therefore should no longer be part of the toolbox of NRAs.

(continue here if necessary)

Supporting out answer, it should be noted that in Germany a study by TÜV Rheinland from August 2013, commissioned by the Federal Ministry for Economic Affairs, concludes that the costs of a nationwide FTTH coverage in Germany exceeds in four to five times the investment needed for nationwide NGA coverage of at least 50 MBit/s (which is the declared broadband coverage target of the Federal Government for 2018) with an efficient technology mix of CATV, VDSL, FTTC Vectoring and LTE-Advanced. According to this study, the nationwide coverage of 50 MBit/s with the said efficient technology mix would cost approximately €20 bn., where the costs of a nationwide FTTH coverage would amount to €85.5 - €93.8 bn.

Question 33: Should incentives linked to an adaptation of regulated wholesale access to the highest-capacity SMP networks (lifting of access in the presence of an anchor, or regulated access without direct price controls) – which would be principally directed to the SMP operator – be conditional upon the offer to alternative operators of reasonable co-investment opportunities in such infrastructure roll-out?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses.

ETNO believes that commercial solutions (i.e. voluntary wholesale arrangements) should take precedence over regulatory impositions. Successfully concluded commercial contracts should be deemed compliant with regulatory requirements and given priority to regulated solutions.

Also bearing this in mind, the idea of limiting access to high-speed networks to an anchor product is worth considering. A 'first-mover advantage' on the highest speed and quality products can improve investment incentives both for the first mover and for competing players that would have to invest in turn to fully match the capacity of the initial investor.

However, the suggested approach should not be exclusively related to the highest capacity networks and not subject to conditions such as obligations to offer co-investment opportunities. The negative effect of direct price control on NGA investment incentives has been already recognised by the Commission and is part of the current framework (Recommendation on Costing Methodologies and Non-Discrimination). It is unclear why they should be made subject to additional conditions or limited to certain technologies.

ETNO believes that co-investment and risk-sharing agreements can and will flourish. However, they should not be mandated by regulation. De facto, in these scenarios, regulation should be lifted or kept to a minimum if necessary. Maintaining several access layers in "planned" co-investment networks will rather give market players an incentive to wait (delay investments) and ask for wholesale access than to enter in a co-investment agreement. In addition, regulation should not pick up specific co-investment models.

(continue here if necessary)

Question 34: To what extent will connections provided via purely copper-based access points continue to represent effective access points for competitive market entry (inter alia, as a competitive anchor vis-à-vis the most advanced NGA networks) in face of network upgrades?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response. If your response is negative, and in the absence of other infrastructures that could serve as a credible competitive anchor, could regulators require intermediate wholesale NGA access products that could serve a similar function?

ETNO wishes to recall that ULL prices have a relevant impact on the migration from legacy networks to new NGAs. Indeed, the enduring pressure to reduce wholesale copper prices highly disincentives NGA investments and take up (i.e. the migration rate from copper to fiber services, both at retail and wholesale level).

This has been widely explained in the report by Plum Consulting: "Copper Pricing and the Fibre Transition - Escaping a Cul-de-Sac", 2011, available at <https://www.etno.eu/datas/publications/studies/plumreport-costing-dec2011.pdf>

(continue here if necessary)

Question 35: Should copper switch-off be promoted to increase the speed of transition to NGA networks, and if so, within what time frame and geographic range and by what means?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

If so, should any unintended effects of such switch-off (e.g. potentially higher costs for some users who would not voluntarily migrate) be mitigated, and if so by what means?
What transitional measures might be necessary in case of copper switch-off to safeguard sunk investments by access seekers and existing levels of access-based competition?
Please explain your response.

It is up to the operators to direct the timing of any switch-off, given the complex challenges involved, and this should neither be pushed for nor be prevented by the regulator.

ETNO believes that legacy copper switch-off policy will happen alone for cost-efficiency reasons consistently with the DSM Strategy targets. Otherwise:

- operators have to spend OPEX to maintain two networks;
- the NGA business case will be harmed.

Regulation should not hamper copper switch-off in reasonable periods, bearing in mind that:

- A proper balance between the rights of fibre investors and new entrants is needed;
- NGA investors should be able to set the migration pace, within reasonable limits;
- Negotiation between parties should be prioritized;
- Conditions related to thresholds and periods should be minimized;
- Relevant markets related to the PSTN should be removed, without transition periods.

When it comes to copper switch-off, we believe that regulatory intervention in this process would contradict the basic regulatory principle of technological neutrality. Market players have been able to innovate because they have not been restricted or pushed by regulation to use one specific technology.

(continue here if necessary)

The trend towards convergence between fixed and wireless mobile retail broadband access has accelerated in the last three years. Wireless, including mobile, networks can contribute to a more cost-efficient network roll-out, especially in the less dense areas. Whilst current mobile network upgrades usually relate to the last mile of the access network, they also typically include other parts of the network, both backhaul and backbone up to the core (switch). These parts of the network can in many circumstances also be used to route fixed traffic. A [recent report](#) by the Radio Spectrum Policy Group has stressed that backhaul links with insufficient capacity would become a bottleneck, impacting the operations of the mobile broadband system. It is therefore necessary that access to fixed networks is available, preferably via commercial market mechanisms.

Question 36: Is access to fixed-line back-haul capacity for denser wireless networks likely to constitute a bottleneck in future, to which wholesale access regulation should be extended?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response, including what market developments are likely to have an impact on fixed backhaul needs and availability if any.

This issue was already addressed in the revision of the Relevant Markets Recommendation conducted by the Commission last year. The Commission concluded that it was not necessary to include a new market for passive access to backhaul infrastructures in the list of markets susceptible to ex-ante regulation.

In the future, it is likely that competition will be more based on infrastructure than today, due to the availability of ducts of operators and other utilities, in light of the implementation of the Cost-Reduction Directive (2014/61/EU). There will also be alternative radio technologies suitable to backhauling function.

(continue here if necessary)

Question 37: If wireless high-capacity broadband were facilitated by commercial or regulated access to backhaul on an SMP operator's fixed-line network, would the resulting competitive constraint justify a relaxation of wholesale access regulation for the purposes of provision of competitive fixed-line services?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

It is difficult to tick a response, as the competitive constraints should always be taken into account, irrespective of the way backhaul services are provided. They can be provided via self-supply by independent infrastructure deployments, co-investment agreements, etc.

Wireless networks are already a competitive driving force on the market and this should be increasingly considered in market analysis. A proper analysis of competitive effects of wireless networks would normally need a relaxation of regulation.

(continue here if necessary)

In light of the upgrade to NGA networks, one way of lowering deployment costs is to avoid costly duplication and to take more advantage of existing infrastructures that are unlikely to be replicated. This could be achieved by mandating that assets be shared at various levels of network deployment, in particular civil infrastructure (ducts and poles).

Moreover, the regulatory framework was drafted at a time when a high level of vertical integration prevailed in the markets, i.e. when one single undertaking was providing the electronic communications network and services as well as the facilities associated with the provision of these, such as ducts and poles. Other, often competing, business models have developed since then and pure providers of associated facilities, such as ducts and masts, which only provide wholesale services, have had a significant influence on the competitive landscape. On the one hand, municipalities and other local authorities have invested in ducts, while a number of mobile network operators (MNOs) have sold their masts. While providers of associated facilities are within the scope of the regulatory framework, not all its provisions are applicable to them. Certain provisions, and in particular the provisions related to rights of way and to facility sharing, only apply to providers of electronic communications networks.

Question 38: Will obligations to grant access to ducts and civil engineering infrastructures play a role in enabling the rollout of new and enhanced infrastructures (such as NGA networks), irrespective of whether or not they are associated to the provision of access to other network elements?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If yes, how and what adjustments in this regard are needed in order to facilitate rollout, and is sector specific regulation required?

Ducts and civil engineering infrastructures can play a key role, once they are open and effectively used by alternative players for NGA deployment. This is already shown by the experience in several EU countries. For FTTH networks, access (sharing) to the last part of the fibre cable (terminating segment/ last fibre drop) will normally be also necessary for economic and practical reasons.

If access to ducts is necessary it should be based on commercial agreements and not anymore on cost orientation to respect the symmetric approach of the Directive on Cost Reduction (2014/61/EU), which recognizes the importance of these types of civil infrastructures for the roll-out of high-speed networks.

Concerning in-house wiring, the system should take national and local specificities properly into account to achieve a balanced set of obligations for telecommunications operators as well as for property owners.

(continue here if necessary)

In addition to the obligations imposed following the analysis of relevant markets and the identification of Significant Market Power (SMP), the current regulatory framework also empowers NRAs to impose certain type of symmetric obligations on providers of electronic communications networks, i.e. irrespective of whether they hold significant market power. In particular NRAs are empowered to impose objective, transparent, proportionate and non-discriminatory symmetric obligations of access and/or interconnection in order to ensure end-to-end connectivity, interoperability of services to end users and accessibility for end-users to digital radio and television broadcasting services (Article 5 of the Access Directive). Such measures are subject to the Article 7 of the Framework Directive consultation procedure, when they affect trade between Member States.

Moreover, the current regulatory framework also empowers NRAs to impose symmetric obligations of co-location and sharing of network elements and associated facilities for providers of electronic communications networks (Article 12 of the Framework Directive), in order to protect the environment, public health, public security or to meet town and country planning objectives and only after an appropriate period of public consultation. Such obligations may concern the sharing of facilities or property, including buildings, entries to buildings, building wiring, masts, antennae, towers and other supporting constructions, ducts, conduits manholes, cabinets of electronic communications network operators.

Question 39: Should in your view the NRAs be empowered to impose obligations set out in Articles 9 to 13 of the Access Directive on operators irrespective of whether they hold SMP, in circumstances other than those listed in Article 5 of the Access Directive?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If your answer is yes, please specify these circumstances.

ETNO warns against the extension of the scope of regulatory intervention to situations characterized by the absence of single/joint significant market power (SMP), as BEREC has proposed with the concept of “tight oligopolies”.

Instead, it should clearly be acknowledged that - under the current framework - in situations characterized by the absence of SMP, the spirit and foundation of the framework require the lifting of the relevant market’s ex-ante regulation. We refer herewith to the SMP guidelines where they emphasize that “a finding that effective competition exists on a relevant market is equivalent to a finding that no operator enjoys a single or joint dominant position on that market.” (§ 19).

Within the current framework, it is clear that one or more obligations set out in Articles 9 to 13 of the Access Directive could only be imposed on undertakings that hold SMP in a proportionate way.

Similarly we believe that in line with our proposal, in a context where the framework relies on a mechanism taking into account Key Network Inputs (KNI), where such KNI cannot be identified, regulatory intervention cannot be justified outside the circumstances listed in article 5 of the Access Directive.

(continue here if necessary)

Question 40: Is the current procedure envisaged for supervising the application of symmetric remedies effective, or could a more efficient procedure be envisaged?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and indicate possible improvements.

The application of symmetric remedies, mainly fixed infrastructure sharing remedies pursuant Art.12 of the Framework Directive, is not fully recognized as an important regulatory instrument for access regulation.

To encourage its implementation, it should be stated more explicitly that access sharing applies, when relevant and proportionate (especially where it is not economically rational to duplicate an infrastructure that constitutes a bottleneck), to all fixed access infrastructures.

Consequently, as it would make sense to have building wiring covered by such a symmetric approach, this should also be made explicit - which is not the case today. The call for complementary national law is not satisfactory. In addition, the access and framework directives could be revised in order to:

- Recognize access sharing of the last drop/vertical in-house wiring as an important resort. Thus no further access obligations should be applied when competition is possible based on symmetric remedies;
- Ensure that obligations could geographically vary to better adapt to regional contexts;
- Ensure that obligations are based on commercial agreement in respect to price fixing, to be also removed if not relevant anymore;
- Follow the Commission's notification process.

(continue here if necessary)

Question 41: Are current rules in the Framework Directive, in the Access Directive and in the Cost Reduction Directive (2014/61/EU) sufficient to ensure that operators that roll out networks to a building have access to entries to buildings and to building wiring, for example where that wiring is not owned by an operator?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

We believe that, until now, the currently available tools in the Framework Directive have provided a basis to allow for access to entries to buildings and to building wiring.

Looking forward, we draw the attention to the fact that building wiring may increasingly constitute a fundamental issue, for which particular attention is required in the new framework. Indeed, new wiring into the house and laying out the inside building wiring for an individual living unit entails considerable costs, adding up to the already highly risky investment of large-scale new networks.

A new framework better incentivizing new network investments should take duly account of the importance and the financial magnitude of this final part of network roll out. This means that the framework should, on the one hand, allow straightforward access to existing in-building wiring in case such access is deemed necessary to allow a cost-efficient connection of the consumer to a new network. On the other hand, it should set out clear property rules. The ownership by network operators investing in newly rolled out networks inside buildings should be clearly recognized.

We believe that the Cost Reduction Directive (2014/61/EU) will play an important role, although it has some drawbacks. In particular, it includes an unsatisfactorily long list of reasons for not giving access to physical infrastructure. This list of reasons is too large in the sense that there are too many reasons to refuse access. Moreover the current process to have a competent authority deciding that a refusal to access is not reasonable is too long and costly. In the light of this, art 3.3 of this Directive should be reviewed.

(continue here if necessary)

Market developments in several Member States point towards an increasing prevalence of oligopolistic market structures, at regional if not national level. To an extent, oligopolies have come about as a result of the regulated access regime and the transition from monopolistic market structures to competition following liberalisation. Given the high fixed costs of electronic communications networks, in particular of fixed-line networks, it can be expected that, in most areas, at the network level only a limited number of infrastructures will be deployed or would be efficient. Such a scenario, however, does not necessarily lead to an uncompetitive market outcome.

This development may raise the question, however, of the extent to which, in circumstances where SMP (individual or joint) might be difficult to demonstrate, but retail competition is still thought to be at risk, the current model of ex ante regulation is sufficient for answering the challenges of the markets that will develop in the future. This also raises the question whether ex ante regulation, which currently is exceptionally applied in the electronic communications sector, requires a lower intervention threshold than ex post antitrust rules applicable to all economic sectors and whether such a further exceptional approach is sufficiently justified.

Question 42: Should there be exceptions to the principle that ex ante access regulation can only be imposed in circumstances where regulators can demonstrate SMP, individual or joint?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. In the case of a positive response, please indicate the additional circumstances under which wholesale access remedies should in your view be possible (which retail market conditions, a broader wholesale market structure test, generalised symmetric wholesale access obligations, or other).

ETNO warns against any extension of the scope of regulatory intervention to such situations as those that BEREC has proposed to categorize under the concept of “tight oligopolies”.

Instead, it should clearly be acknowledged that, in situations characterized by the absence of SMP, the spirit and foundation of the EU regulatory framework requires the lifting of ex-ante regulation.

The market developments mentioned are actually related to the high level of competition and dynamism in which electronic communication markets are evolving: strong development of alternative infrastructures in fixed markets; fixed-mobile convergence as a consequence of the complementarity of fixed and mobile services; and mobile-mobile mergers which aim to overcome artificially fragmented and unsustainable market structures.

At the same time, there has been a trend of revenue and profits decrease in the past years, while network capacities and traffic volumes continue to grow. These trends are not expected to change in the coming years.

All these issues point to high levels of competition, underlining the efforts that companies are making and the challenges in terms of network investment that the sector faces. This deserves proper recognition in the regulatory framework.

Introducing a lower threshold for regulatory intervention, dependent on when “retail competition is still thought to be at risk” - or the “tight oligopoly concept” as proposed by BEREC, goes in the opposite direction of what is needed for the future framework.

It would fail to adapt the framework to the economic reality of the electronic communications sector, and would facilitate the extension of ex-ante regulation beyond its original reach, instead of setting the path for a progressive removal of ex-ante supervision and the handover to competition law. Ex-ante regulation has a deep impact in the market. Introducing a new and loose trigger for ex-ante regulation would go against the principle of regulatory certainty and would send a wrong signal to investors.

The high degree of competition and the investment challenge to build the new networks that Europe needs requires a re-think of the current regulatory framework. On the one hand a substantial reduction of the regulatory burden, and on the other a better recognition of the value of investments are needed.

(continue here if necessary)

Question 43: In the event that the wholesale access market in a given area is deemed no longer subject to SMP, or that access remedies are no longer deemed appropriate in that area, by virtue of ongoing infrastructure-based competition on quality and price between a limited number of operators, would you consider it justified in the interests of market stability and existing levels of competition to maintain for some period wholesale access comparable to that previously enjoyed by access-based operators?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. In the case of a positive response, please indicate under which conditions (e.g. what degree of infrastructure competition, nature of the transitional access product, duration, etc.)

NRAs are usually slow in removing ex-ante regulation. If an area is deemed competitive, it is not justified to maintain regulation. There may be a transition period to maintain wholesale access, where parties can negotiate on commercial terms. This period should not last more than six months and be applied only to already existing services (not to new requests).

(continue here if necessary)

An assessment of the future evolution of the regulatory framework also needs to explore how to simplify and make more predictable the current rules for economic regulation, which are based on a forward-looking assessment of market and technology developments, and are necessarily subject to policy drivers at national and EU level, which may not always be consistent. This includes, inter alia, the possibility to extend the review cycles (and as a consequence the implemented remedies) beyond the current 3 years, more routinely than for the exceptional circumstances currently foreseen by the regulatory framework, for instance where the market conditions are unlikely to change significantly or where regulated operators make longer term commitments and access seekers agree. It is also necessary to assess the benefits of reflecting in the regulatory framework itself the key principles outlined in relevant Commission Recommendations, namely the 2010 NGA and the 2013 Non-Discrimination and Costing Recommendations, with the aim of further promoting legal certainty and predictability for NRAs and market actors.

Question 44: Should periods of review longer than the current three years be systematically considered for certain markets which are less likely to change?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If you agree, which markets do you consider to be suitable for such longer review periods.

There is no straightforward answer to this question. Depending on the market circumstances and the exact nature of the issue at hand, longer or shorter review periods could both be appropriate.

There is a clear need for regulatory stability and regulatory predictability to boost long-term highly risky investments. Indeed investors in such projects prefer to have clear visibility on what to expect as external constraints, and this over a longer period of their investment timeframe. This means that regulatory conditions as decided at a certain moment should not be altered as long as the context does not substantially change.

(continue here if necessary)

Question 45: If so, should this be subject to certain criteria (for example to binding regulatory commitments and agreements between access providers and access seekers) in the interest of legal predictability and certainty for the market and/or to specific investment or other performance criteria required to the SMP operator?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

We believe that commercial solutions (i.e. voluntary wholesale arrangements) should take precedence over regulatory impositions, so that successfully concluded commercial contracts should be deemed compliant with regulatory requirements and given priority over regulated solutions. Anyway, in the context of the question, we need to underline that the existence of those agreed commercial solutions should constitute a reason to remove regulation, and not only to delay market analysis.

(continue here if necessary)

Question 46: Should key principles of the non-binding guidance provided in Commission Recommendations on EU-wide regulatory approaches in respect of wholesale access regulation be made binding?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

The current framework of wholesale access regulation has failed to reach the intended objectives of promoting massive EU-wide investments and the transition from legacy to NGA networks across the Union.

This is because its underlying key principles are not adequate to these objectives (the framework is negatively biased by the investment ladder theory). ETNO believes that the new framework needs to better reflect the principles of minimum intervention and provide for simpler access regulation.

(continue here if necessary)

b) The impact of network technologies developments: facing new challenges

The telecoms review offers also an opportunity to assess the regulatory framework's capacity to cope with the electronic communications sector's fast-moving technological environment, and in particular to identify regulatory areas which could require adaptations in order to keep up with the main trends in network technologies, operations and market developments. Against this background, it is necessary to already anticipate these developments taking into consideration relevant time horizon(s) matching the technology's life cycles, from research and development to the roll-out of infrastructure, extending beyond 2020.

The shift to "all-IP" networks has been driven by the gradual roll-out of NGA, and implies moving the point of interconnection for voice services from distributed local central offices to a central point in the network, thereby enabling cost savings for operators as well as a more efficient network management (including across countries). For the time being, one can observe in Europe that the migration to "all IP" in the Member States is moving at various speeds and does not receive the same degree of attention from national regulatory authorities.

Question 47: Is it necessary to establish regulatory incentives to speed up the migration to "all IP" networks?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

IP migration requires a high level of investment. IP migration is a strategy that should be defined by each company based on its own interests, needs, costs, and opportunities. The industry should have the final say on this, depending on the evolution of the market. According to the technology neutrality principle, such decision should not be forced by regulation. Regulation should not put barriers or delays to switching (e.g. copper switch-off conditions).

(continue here if necessary)

Question 48: Would a common EU approach be required to ensure that the migration towards "all IP" networks in the EU contributes to the achievement of the single market objectives?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Because IP migration is a business issue, not a regulatory one, each company has to manage its own deployment taking into account its own constraints and notably those related to the market setting.

(continue here if necessary)

There is a trend in communication network architectures towards the "virtualisation" of network infrastructure and functionality (through various approaches such as "Software Defined Networks" (SDN) and "Network Function Virtualisation" (NFV)). The definition of open network interfaces enables to abstract the actual physical deployment, removes proprietary dependencies and allows flexible service provisioning. Network functions (such as set-top boxes, mobile signal encoding/decoding, routers etc.) run in software on general-purpose hardware, instead of expensive locally-distributed and dedicated hardware equipment, and hence add further flexibility, scalability, security and cost savings for operators and their customers.

Question 49: Will the on-going virtualisation of communication network infrastructures have an impact on the future demand for wholesale access products for the provision of connectivity services?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that this debate is very premature, taking into account that virtualization is still a new technology to be developed / implemented in the future in a progressive but still uncertain manner.

The evolution of wholesale products and the corresponding demand will be determined by the market. Virtualization will allow for delocalization/centralization of certain functionalities to manage the network in a dynamic way and will ease operational functionalities. These functionalities will be offered to the clients, wholesale and even retail in some cases (for example in the case of virtual home gateway the subscriber could be able to configure its own services).

There will be positive impacts on wholesale products: easier and more flexible daily operations/routines that will benefit the clients giving them more service possibilities of more control at the connection point.

However, in terms of regulation of wholesale services, the access obligations have to concern only those essential network elements that are key for providing competition at retail level, without discouraging infrastructure competition and network differentiation.

The introduction of new technologies is done by operators in order to decrease costs and introduce new functionalities and thus innovate. If these need to be offered on a regulated basis, the network differentiation incentive is removed.

(continue here if necessary)

Question 50: Will the virtualisation of network infrastructures and services have a role to play in the provision of pan-European services?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

Thanks to virtualization, service delivery could be facilitated; from a single point one will be able to provision data centers wherever they are in Europe. Equipment mutualisation would also constitute an advantage.

The impact of virtualization on the provision of pan-European services should depend on market demand and commercial negotiations. The process should be market-driven.

This move should be allowed to happen naturally and no regulation will be necessary.

(continue here if necessary)

Question 51: What is the relevant timeframe you foresee by when the biggest impact of virtualisation will be reached?

- 5 years
- 5-10 years
- > 10 years

Please explain your response and provide examples.

Few small applications already exist or are planned, notably in the domain of MVNE and Business. Nevertheless, this trend represents a sort of revolution in the industry organization as well as in the standardization processes and a lot of elements of the eco-system will have to be changed or to be reinvented.

Still there remain questions about the finalization of these new products and their implementation. There will be also a migration process to be set up - with the assumption that virtualization will be mainly conducted, at least at the beginning, with new services.

(continue here if necessary)

Appropriate interoperability of electronic communications services throughout the EU is critical to ensure freedom of choice for end users and achieve the Digital Single Market. Standardisation is likely to become a prominent issue in the move towards software defined networks (SDN) and network functionality virtualisation (NFV), whose implementation relies on the definition of open network interfaces. In ultra-high definition television (UHDTV) interoperability issues may emerge if industry agreement is not reached on standards across the whole value chain, from film production to the end user's screen. Account needs to be taken of the trend over the last 15 years towards the multiplication of global industry-led fora and consortia involved in the development of common technical specifications for ICT and their implementation, e.g. through certification schemes. This has resulted in a situation which, if not addressed, could lead to an increased fragmentation of Europe, as one can observe at the moment in the area of wholesale access products. The Commission has encouraged the use of a standard for mobile TV from 2008 and (from 2006), for access to unbundled local loops, interconnection, caller location, quality of service for voice telephony and for digital radio. The Commission competence to make the implementation of certain standards and/or specifications mandatory has not been used so far, but the existence of such a competence could in principle help to foster voluntary industry consensus on the use of standards.

Question 52: Will the current voluntary and market-driven approach in standardisation remain valid and efficient enough to cope with the future needs of stakeholders in 2020 and beyond, while taking into account the community interest, including of EU citizens?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

The current voluntary and market-driven approach in standardization remains valid to cope with the future needs of stakeholders. Standardization should not be an instrument for market design on political grounds.

It is probable that today's standardization approach is not efficient enough to deal with potential new bottlenecks given by de-facto standards of one or few suppliers. For major ICT market players it is easier to define own standards or to cooperate with few strong partners than to be incorporated in multi-stakeholder processes.

In this respect, regulatory authorities should support the reinforcement of coordination processes within the industry, so that standard, open and interoperable solutions can be developed fast enough to match the innovation speed of large players pushing their proprietary solutions.

(continue here if necessary)

Question 53: Will regulatory safeguards as provided under the regulatory framework for electronic communications (in particular the competences to encourage and ultimately to mandate the use of standards) still be needed in the future to preserve service interoperability across the EU and improve the freedom of choice of end users in addition to the general purpose EU legislative mechanisms on ICT standardisation in place?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

We believe that, with the accelerated technological development, agreements in the industry should be encouraged. See answer to the previous question 53.

(continue here if necessary)

Achieving better end-to-end quality of service would allow for more innovation on the application layer (e.g. more widespread use of cloud computing, eHealth, telepresence etc.), with potentially very significant economic and social benefits. Greater consistency in the design of access and interconnection products may facilitate this process. Furthermore, the issue of service interoperability with assured quality level between different networks will also have to be considered if pan-European services with specific quality requirements are to be provided on Europe's still fragmented networks, in particular services with real-time needs.

Question 54: Is there a need for common access and interconnection products that can operate across the EU with a view to foster the emergence of high-quality connectivity services, including at pan-European level?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

We believe that there is no scope for imposing additional common regulated high-quality wholesale products at EU level, for the following reasons:

- There is an ample variety of network solutions, competitive situations and local conditions. The key is to make them work well at national level. Adding layers of “harmonised” products would be very costly as we are not starting from a blank page. Instead, the most appropriate measures fit for local/national circumstances should be preferred, while respecting the principle that only one access level should be regulated (only one access product);
- Regulated pan-European access products would tend to neglect the specificities of the local markets (geographic conditions, local technologies, competitive situations) and thus be less appealing for operators in comparison with specific deals on a commercial basis (where not national network operators but rather international aggregators are best suited to tailor specific offering to specific clients’ needs);
- It is likely that harmonization of services would put pressure on harmonizing their prices even if this would not be justified in light of the competitive conditions in national access markets;
- There is no bottleneck which would justify regulating access to the entire European footprint of local network operators. The footprint is replicable by combining local access (which is available often at regulated terms in addition to existing commercial wholesale offerings), and aggregation of international transport (which is a competitive market, thus also being available at competitive conditions);
- Common access products with a certain degree of harmonization are already available -Bitstream Access and VULA are technically akin. Those products are usually also available at competitive rates as well as in form of regulated wholesale offerings.

(continue here if necessary)

Question 55: How can service interoperability with end-to-end assured quality level between networks be best guaranteed for the development of services with specific needs in the Digital Single Market? Please explain.

The issue of interoperability with end-to-end assured quality level between networks should be left to commercial agreements between operators. The framework should acknowledge the ability to co-operate in order to establish interoperability standards and coordinate research and development projects.

(continue here if necessary)

c) Addressing "challenge areas" to deliver the desired connectivity levels

In certain areas, primarily rural or semi-rural areas, private investments might not be expected on the basis of current regulatory incentives, due to long-run cost structures and low and long-term returns on investment. Where the SMP analysis leads NRAs to finding national markets and to the imposition of nation-wide remedies, this may lead to sub-optimal incentives to invest at regional or local level, particularly in areas characterised by natural monopoly (e.g. in less densely populated areas) and where public funding may not be available. In these so-called "challenge areas" there is a need to reassess sector-specific access regulation. This could include measures focusing more on "competition for the market", i.e. rewarding/providing incentives to the first mover towards very high capacity network provision that might not otherwise be provided, while safeguarding effective competition and end-user interests.

From the perspective of incentivising the roll-out of NGA networks to such challenge areas, it is also necessary to consider the appropriateness and need of a regulatory approach to co-investment and wholesale-only models (see Annexes for more background).

Question 56: Should access regulation aim at addressing network coverage needs in all geographic areas?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

If so, which alternative regulatory models should be considered to give greater security to investments in areas unlikely to be served by the market under current regulatory conditions, with the overall aim of promoting the fullest possible coverage of new and enhanced infrastructures, such as NGA networks, across the EU and how should such challenge areas be defined by NRAs (e.g. classic market definition with additional criteria, State Aid like mapping exercise, other)?

Not necessarily, as it should be considered as a public policy issue. Nevertheless, it is important to identify what are the sources of the investment gaps and in which way regulation could have an influence on them. In this regard, we believe that regulatory action should be focused on:

a) Primarily making Europe an attractive place to invest private money. Providing better return prospects and allowing operators to differentiate amongst themselves and compete to extend their coverage and services should be the overarching principles to overcome this challenge in Europe. In this regard, Europe is in the urgent need to review its regulatory framework, simplifying access regulation in order to boost investment in broadband networks. This should be the priority;

b) Limiting the role of public funding exclusively to address the specific reasons of a market failure, i.e. for example lack of sufficient demand, lack of skills, high costs, elements hampering the investment process, i.e. in-building wires or other elements in low density areas, etc. without which investment would not have taken place. In these cases, it is of the utmost importance to ensure that public support takes place in a competitive neutral manner, i.e. avoiding at all cost distorting competition amongst market players and crowding out private investments.

Finally, we believe it is crucial not to pick up winners and losers by selecting particular business models or players.

(continue here if necessary)

Question 57: Is there a need for regulatory measures and/or incentives to better secure the benefits of investing in challenging areas for the first mover, and should this be conditional on the type of network improvements that have been undertaken?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and what these measures/incentives could be (e.g. exclusive protection subject to reasonable access terms for a limited period of time, other). Please see also question 130.

Consistently with the answer to the question above, we believe that the first priority should be to improve the prospect of investing in all the areas, without complex regulatory solutions. Regulation should remain technology-neutral, and not favour specific technologies.

We encourage the effort to find alternative solutions for public funding to promote network investments in areas where private investments is not expected. However, we see no need for a new parallel sector-specific regulatory framework for such purposes. Indeed, competition-law-based and State Aid Law-based assessment already exist.

Any call for public funding for the deployment of NGA in so-called “challenging areas” (rural or semi-rural areas where private investments might not be expected), should be based on rules that are at least as restrictive as state aid rules. This implies inter alia that the call shall be based on two prerequisites:

- 1) Policy makers must ensure that transparent and competitive procedures are in place;
- 2) The cooperation with the private sector to ensure efficiency is a must in order to avoid duplication of networks and deliver good business experiences.

Focusing demand-side subsidies on challenging areas would in many cases be more appropriate, as it stimulates private investment by improving the potential of the business case.

(continue here if necessary)

Question 58: Should any such regulatory measures and/or incentives to secure the first-mover investment benefit be subject to conditions in the interest of service competition (e.g. reasonable wholesale access requests)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

There has to be a proper balance between incentives for infrastructure investments and service competition. Generally, classical service-based competition produces negative incentives to invest. As promotion of investment should be a priority in the upcoming regulatory framework, the incentive to invest in infrastructure should be paramount and thus override the interests of mere service competition.

Therefore, regulated wholesale access to share fixed access infrastructures under fair and reasonable terms should be limited to situations where, in the absence of satisfactory voluntary wholesale arrangements, regulators identify relevant Key Network Inputs. Other operators may then have the opportunity to share the investment risks and afterwards the investment benefit. In such cases the first mover can reach commercial agreements for sharing part of the access infrastructure. Those not sharing the investment risk should not be eligible to benefit from the investment.

(continue here if necessary)

Question 59: Should specific measures be devised to prevent strategic overbuild of new NGA or very high capacity NGA networks? If so what are possible regulatory means to do so, and under what conditions as to safeguarding of competition and end-user interests?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Deployment of high-speed broadband networks that contribute to the future needs of the European digital economy and society is politically desired. The rollout should be left to the market, even if this results in “overbuild”.

Regulatory intervention could lead to artificially inefficient outcomes. In fact, the term “strategic overbuild” is very difficult to define and subject to many interpretations. It could even be difficult to distinguish it from an infrastructure competition environment. In principle, regulation should not inhibit investment. In fact prohibiting competitive infrastructure deployment where private entities would be inclined and capable of doing so (be it proactively or reactively) would come down to granting a regulated infrastructure monopoly by blocking additional entry. This seems to be in conflict with the basic freedoms of the Treaty.

(continue here if necessary)

Question 60: Can the following investment models contribute to foster investment incentives and promote deployment of NGA or very high capacity NGA networks in challenge areas:

	strongly agree	agree	disagree	strongly disagree	do not know
a) Co-investment models	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Wholesale-only models	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

If so, what would be the most important features of such models, and how can they be accommodated by the regulatory framework without compromising other objectives? Please explain your responses.

We welcome a positive regulatory stance towards co-investments. Co-investment models can be effective to foster investment and healthy infrastructure-based competition scenarios. Co-investment can happen on commercial terms and on voluntary basis if the framework does not put obstacles, and access regulation does not favor business models with little investment.

Wholesale-only models necessarily lead to competition in services scenarios that are hardly compatible with the promotion of investment. Wholesale-only models lead to a reduction of the investment incentives as they remove the advantages of vertical integration.

(continue here if necessary)

Question 61: Should regulatory requirements regarding access to NGA or high-capacity NGA networks be made lighter if the network owner sought co-investment on reasonable terms at the time of the roll-out or the upgrade?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your responses. If your response is positive, is it contingent on being applied in a challenge area / natural monopoly area, or would you apply such an approach more generally to SMP access regulation?

In our opinion, what is really relevant is that regulation does not put obstacles to co-investment and facilitate players to reach agreements. Commercial negotiations should be the default solution for access agreements and NRAs should not interfere when parties reach commercial agreements. The principle of minimum intervention should be followed.

(continue here if necessary)

Question 62: Do you consider that wholesale-only network operators have stronger incentives and opportunities to develop new NGA or very high-capacity NGA networks to serve long-term needs?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

See answer to Q. 60.

(continue here if necessary)

Question 63: If your response to question 62 is positive, should there be regulatory incentives for voluntary structural or functional separation of existing vertically integrated SMP operators?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response, in particular what kind of regulatory incentives could be considered (e.g. in terms of wholesale access terms).

We firmly believe that if a priority objective is to foster investments on new NGA networks, policies should be aimed to simplify and reduce the regulatory burden, giving more leeway to commercial forces. Intrusive regulatory measures, such as Structural/Functional separation, should not be promoted, as they have major drawbacks. For example:

- There are intrusive remedies that demand a very strong justification from the legal point of view (in particular in the case of the structural separation). Its introduction will be followed by conflicts, uncertainties and delays;
- There are significant inefficiencies associated with the loss of vertical integration for the separated operator and the associated complexities;
- They discourage efficient investment in networks and innovative services;
- They have high associated implementation costs.

(continue here if necessary)

3.4. Spectrum management and wireless connectivity

While technical harmonisation of the use of radio spectrum for EU-wide allocations has progressed significantly based on the 2002 Radio Spectrum Decision (RSD), the designation of (additional) spectrum to a (new) application or technology in the EU still requires several steps (first in the European Conference of Postal and Telecommunications Administrations (CEPT), then in the Radio Spectrum Committee) before the Commission can ensure legal certainty in the EU. This iterative process may be particularly burdensome, in terms of costs and delays in "time to market", for innovative new uses, but can also weigh on the ability of existing spectrum users such as wireless broadband providers to expand capacity to meet burgeoning market demand. See also section 3.7.3 below.

In addition, even where globally standardised technologies with universally accepted benefits for users and business (e.g. LTE) do have access to harmonised spectrum, the terms under which the individual authorisations to use spectrum are granted remain widely fragmented, in particular in terms of timing, licence durations and assignment conditions. This may be due not only to objective differences in national circumstances but also to diverging objectives or approaches.

This situation may impede investment, innovation and rapid availability of spectrum for network deployment, broadband capacity needs or new and innovative uses, and prevent the establishment of economically advantageous wireless connectivity at EU scale for new digital services and applications - such as the Internet of Things, connected vehicles or other connectivity-enabled products. Moreover, in particular the exponential demand for spectrum for wireless broadband may require the facilitation of a rapid deployment of denser networks and a more flexible and efficient access and use of spectrum.

In addition, the growing spectrum needs for wireless connectivity are constrained by lack of vacant spectrum and by the high price associated with re-allocating spectrum to new uses, in terms of cost, delays and the occasional need to switch off incumbent users. To satisfy growing demand, greater efficiency and innovation in spectrum use are crucial. Mechanisms such as sharing, trading or leasing therefore deserves more attention, including understanding why they have been used only to a limited extent so far and how to enable an increasing number of users to share simultaneous rights of access to a specific frequency band in a pro-competitive manner (for more details, see [COM\(2012\)478final](#) on promoting the shared use of radio spectrum resources in the internal market).

3.4.1. Evaluation of the current rules on spectrum management

The first set of questions aim at providing input for the evaluation of the functioning of the current regulatory framework.

Question 64: The regulatory principles and policy objectives applicable to spectrum allocation, assignment and use in the EU are based on the regulatory framework for electronic communications (ECRF), the Radio Spectrum Decision 676/2002/EC (RSD) and the 2012 Radio Spectrum Policy Programme (RSPP). To what extent has the fact that electronic communications and other spectrum users are addressed in different legislative instruments (ECRF, RSPP) impeded their effective interpretation and/or implementation?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

It is true that a large number of different legislative instruments can create issues in their understanding and interpretation. However, the contrary could provide flexibility to regulators to change the use of spectrum according to national or European needs. In any case, any instruments should be clear and provide legal certainty in order to avoid misinterpretations.

(continue here if necessary)

In 2012 the EU adopted its first Radio Spectrum Policy Programme (RSPP) aiming at developing a strategic planning and harmonisation of the use of spectrum to ensure the functioning of the internal market in the EU in all policy areas involving the use of spectrum, also beyond electronic communications. See [Commission's report](#) of 22 April 2014 with regard to its application for more details.

Question 65: Do you see the need for better coordination of EU spectrum policies beyond ECS to maximise the benefits of spectrum use throughout the economy?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Many emerging services (e.g. Audiovisual, IoT/M2M, Transport) rely on electronic communications services provided by network operators. However, if some specific policy areas/services cannot utilise ECS provided by network operators or already harmonised license-exempt spectrum, there should be a common EU spectrum approach for such policy areas/services. This could ensure efficient use and simplify any potential changes of use.

(continue here if necessary)

Question 66: Which of the following policy areas require a more active common approach to EU spectrum policy to benefit from economies of scale?

	strongly agree	agree	disagree	strongly disagree	do not know
a) Transport	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Audiovisual	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Energy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) R&D	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
e) Satellite	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Internet of Things / M2M	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please specify or explain your response.

ETNO believes that Europe would benefit from better coordination. In addition, it is very important that service and technology neutrality are respected regardless of the final service provided.

Many of the aforementioned policy areas, such as Transport, Energy and IoT/M2M, can utilise electronic communications services provided by network operators for interference-free communication.

In the light of this, we believe that it is more relevant to provide for the efficient use of spectrum resources rather than allocating spectrum separately for each policy area. If this was the case, these policy areas would not need dedicated spectrum in any of the Member States and the approach would be common in the EU. Such approach would allow similar implementation of the service across the whole EU.

M2M/IoT services, including energy and transport, are in varying phases of development and can take different shapes. Therefore, there is not yet a common understanding of what M2M services really are. ETNO believes that these policy areas require a more active common approach to EU spectrum policy to benefit from economies of scale.

Satellite policy should benefit from a common approach in order to avoid interference with other systems, decrease coordination requirements and promote efficient spectrum use in the EU.

A common policy for R&D may be beneficial. As an example, there are EU-level research efforts on 5G, but Member States do not seem to agree on any spectrum bands below 25 GHz, even to be studied, for 5G feasibility. It should be added that any common policy should not prevent innovation, which also national R&D trials can foster.

Regarding audiovisual policy, in all Member States on-demand content consumption has increased rapidly also over mobile networks, and is expected to continue increasing. When it comes to broadcasting audiovisual content, different Member States have different needs due to the availability and popularity of different platforms used for broadcasting. Member States which broadcast content mostly on other platforms than DTT, shall be allowed in the future to use the spectrum (470-694 MHz) for wireless ECS (e.g. supplemental downlink). Furthermore, new technical developments may enable more flexible and efficient terrestrial distribution of audiovisual content. Therefore an active common approach to EU audiovisual spectrum policy is needed, yet allowing Member States to benefit from such technical developments.

(continue here if necessary)

Question 67: Do you consider that the currently applicable regime for coordinating spectrum policy approaches in the EU has contributed to ensuring harmonised conditions with regard to the availability and efficient use of spectrum necessary for the establishment and functioning of the internal market in electronic communications?

- significantly
- moderately
- little
- not at all
- do not know

Please specify or explain your response.

ETNO believes that the currently applicable regime has contributed to harmonising the technical usage conditions in particular for ECN frequency bands. However, the major problem in EU28 is regulatory fragmentation regarding spectrum award procedures and licensing conditions. This situation needs to be changed not to further reduce the importance of European players in the global mobile environment.

The following spectrum assignment conditions should be aligned with particular priority in order to overcome the existing fragmentation of spectrum regulation in the 28 EU member states:

- An objective, transparent and non-discriminatory treatment of existing as well as potential new mobile operators, especially in spectrum awarding procedures;
- Avoidance of excessive spectrum fees supporting the industry potential to invest in infrastructure and innovation;
- Alignment of awarding time tables for additional spectrum for mobile services;
- Implementation of a system of increased minimum license durations (e.g. 20+ years) or change to a model of indefinite mobile licenses (perpetual licensing like in the UK);
- Least restrictive spectrum usage conditions including enhanced flexibility regarding trading and sharing of spectrum resources.

ETNO believes that the recent refarming of the 800 MHz in Europe is an example of the impact/result of the current fragmentation that should not be replicated. Freeing this spectrum for mobile broadband took place at very different points in time depending on each Member State and with different usage and licensing conditions. Many EU Member States claimed derogations from the timeline set in the RSPP decision and the award conditions deviated considerably.

(continue here if necessary)

Question 68: Do you consider that the currently applicable regime for granting spectrum usage rights based on general or individual authorisations and setting out spectrum assignment conditions has been effective in:

	significantly	moderately	little	not at all	do not know
a) Providing market operators with sufficient transparency and regulatory predictability?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Ensuring an appropriate balance in terms of administrative burden?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Promoting competition in the provision of electronic communications networks and services?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Contributing to the development of the internal market?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) Promoting the interests of the citizens of the EU?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) Ensuring an effective and efficient use of spectrum?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your response.

ETNO believes that when granting spectrum usage rights to new spectrum bands (e.g. 800 and 700 MHz), the deadline - not schedule - for the release of the bands should be harmonised in such a way that uncertainty and unnecessary delays are minimised. Those Member States which are able to proceed faster than the deadline should be allowed to do so.

Regarding competition, as well as ensuring effective and efficient use of spectrum, fair and equal provisions should be mandated instead of subsidising (or requiring the existing operators to subsidise) the new entrants. An example of a fair mean, which may be used in spectrum auctions, is to use spectrum caps to prevent one operator to acquire most of the spectrum in the band.

Regarding question (c) ("Promoting competition in the provision of electronic communications networks and services"), until now the variation in remedies and competition measures imposed through spectrum policy has resulted in fragmentation across the EU, hampering innovation and investments. Additionally, it should be noted that competition law should not be mixed up with spectrum assignments, as is currently the case. They should have separate objectives: a competitive market and efficient assignments, respectively. Preferring new players in already competitive markets, e.g. by spectrum reservations, is not the right instrument and it is counter-productive since competitive markets have their own dynamics to establish the optimum amount of players. Favouring new players in assignment procedures hampers existing players to efficiently utilise spectrum and results in artificial scarcity.

(continue here if necessary)

Question 69: To what extent have selection processes for limiting the number of rights of use been coherently applied by authorities in charge in the Member States and only where strictly needed?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

ETNO believes that the selection processes for limiting the number of rights of use, including objectives and methodologies, differ substantially from country to country. Countries facing similar circumstances are following very different paths. While ETNO acknowledges that there is not a “one-size-fits-all” strategy, it believes that there is merit in pursuing a harmonised approach throughout the EU.

(continue here if necessary)

Question 70: What type of spectrum assignment process has proven most effective for assigning spectrum for wireless broadband, having regard to the objectives listed in question 68?

- Licence exemption/general authorisation ('Wi-Fi bands')
- Comparative administrative licensing ('beauty contests')
- Auctions
- Hybrid models
- Other

Please explain your response.

ETNO is of the opinion that auctions are the assignment process that offers the highest degree of fairness and efficiency. Mobile networks need to be operated on an exclusive basis to enable Quality of Service and to secure an efficient use of spectrum. Although licence-exemption/general authorization has worked for WiFi and SRD, it is not a suitable approach for commercial mobile networks. Furthermore, alignment of awarding process and timetables should be done through objective, transparent and non-discriminatory treatment of existing and new mobile operators. A method to foster fair competition in the auctions is to set spectrum caps, which prevents an operator to acquire most of the spectrum.

(continue here if necessary)

Question 71: To what extent does the lack of coordination across Member States regarding the current methods to select spectrum right holders create obstacles to or difficulties for the development of electronic communications?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

ETNO believes that the variety of spectrum award and auction formats in Member States create some difficulties for the development of a sound electronic communications market. Generally, best practices should be considered and potentially harmonised, while also noting that there may be local differences.

Lack of coordination in assignment methods can result in heterogeneity driven by regulation. The assignment procedure can impact market outcomes. The results could vary from price-based competition in some countries to quality-based competition in others, with better coverage. This divergence can hinder the creation of a level playing field.

Efforts should therefore be made to harmonize award procedures, thus levelling the playing field, enhancing legal certainty and enabling economies of scale.

(continue here if necessary)

Question 72: To what extent does the lack of coordination across Member States regarding the current system for setting out spectrum assignment conditions create obstacles or difficulties for the development of electronic communications?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

Best practices should be followed. Different Member States may rely on different spectrum assignment conditions to reflect the different local needs. However, the identified best practices should be followed, e.g. licence durations should be sufficiently long or indefinite; leasing and trading should be permitted; spectrum usage fees should be clear from the outset; the level of exclusivity granted to licensees should be high; sharing with other spectrum uses should be voluntary; competition remedies should not be embedded in the license.

(continue here if necessary)

3.4.2. Review of spectrum management rules

The Commission seeks the views of all stakeholders as to the need for greater predictability and consistency in the way radio spectrum use is governed in Europe and whether this could require a revision of the regulatory framework for electronic communications, in particular the Framework and Authorisation Directives, which set fundamental principles and certain operational requirements for spectrum allocation and assignment, as well as the current institutional arrangements for spectrum strategy in the Digital Single Market.

Taking into account the identification of remaining or new obstacles to the efficient use of spectrum, the further development of electronic communications, investments and the development of wireless innovation, it is appropriate to consider whether more coordination or additional measures are needed at EU level, to ensure a future-proof framework which maximises the economic benefits of spectrum use, by providing investment predictability, facilitating business decision-making, driving competition and meeting the future connectivity needs in Europe.

a) Principles and objectives of radio spectrum management in the Digital Single Market

Question 73: Would more consistency in spectrum management across Europe increase legal certainty and the overall value of spectrum in the Digital Single Market?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

Spectrum management should be harmonised both in terms of general principles and objectives, and in terms of specific issues, e.g. setting the deadlines in the EU to repurpose spectrum bands where a harmonized approach is mandated (e.g. 800 and 700 MHz). However, specific obligations such as coverage conditions shall be left to Member States to decide. Further harmonisation of spectrum management policy will provide consistency and predictability in the EU.

(continue here if necessary)

Question 74: Is it necessary to remove barriers to access to harmonised spectrum across the EU in order to foster economies of scale for wireless innovations and to promote competition and investment?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that barriers to access to harmonised spectrum across the EU should be removed in order to increase the amount of harmonised spectrum available for wireless broadband and to fulfil the future spectrum demand of mobile services.

(continue here if necessary)

Question 75: Do you see benefits in integrating the objectives and principles relating to spectrum management for both electronic communications services (ECS) and other spectrum users in a single legislative instrument (see question 65 above)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

A single legislative instrument that integrates the objectives and principles related to spectrum management for both electronic communications services (ECS) and other spectrum uses would increase consistency, regulatory flexibility and would result in better efficiency of spectrum use.

(continue here if necessary)

b) Granting individual spectrum usage rights for wireless electronic communications (ECS spectrum)

Provided that it fulfils the very general rules and criteria set by the EU regulatory framework, the process of granting spectrum usage rights – or assignment - is managed today at national level and in various ways across Member States, as the national authorities in charge may be ministries, national regulatory or other authorities or a combination of these, and subject mainly to national considerations. Under the Authorisation Directive, where it is necessary to grant individual rights of use, such rights should be granted upon request; a selection process is only allowed where a Member State considers that the number of rights has to be limited.

Question 76: To what extent does the spectrum assignment process in Member States determine the mobile markets and the competitive landscape for mobile electronic communications, including wireless broadband, such as the number and type of operators in the market and their economic models?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response and provide examples of the impact.

ETNO believes that some efforts towards the harmonisation of award procedures should be made in order to enhance legal certainty. Furthermore, the assignment process should be made objective, transparent and non-discriminatory.

(continue here if necessary)

Question 77: Could greater coordination of methods for granting spectrum usage rights and of selection processes achieve greater consistency in the Union, thereby removing barriers to entry and promoting further competition and investment?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that auctions are the best and fairest method to grant spectrum use rights for wireless broadband, and this method is already widely used in the EU. The identification of best practices should be considered in the detailed planning to grant spectrum. The time plan for granting spectrum should be clearly set, and market actors should get information in good time to be able to prepare. Some methods such as spectrum caps may be used to foster competition as they prevent an operator to acquire most of the spectrum. Furthermore, timing of repurposing spectrum should be aligned within the EU to minimise cross-border coordination, as well as delays and uncertainty.

(continue here if necessary)

Question 78: Could more consistent spectrum assignment processes throughout the Union, based on greater harmonisation of the choice of selection or award methods on the basis of experience and best practice:

	strongly agree	agree	disagree	strongly disagree	do not know
a) ease the process for national administrations?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) increase the predictability and planning sought by investors?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your response and provide examples of the impact.

ETNO believes that efforts towards award procedures which are fair and predictable should be made in the EU. The planning at NRAs level, as well as at operators level, may become easier if it is possible to select a suitable pre-defined method. Also, such pre-defined method could prevent long-lasting auctions caused by bad auction planning.

(continue here if necessary)

Question 79: Do you see benefits of greater coordination with regard to the elements of the spectrum assignment processes (listed in the table below) and if so, what would be the appropriate level of such coordination:

A: General Approximation: *setting only common or harmonised general objectives and principles, leaving the definition of exact criteria and solutions to Member States.*

B: Partial harmonisation: *setting out common or harmonised general objectives and principles, as well as specific solutions for some of the items below (to be indicated) while leaving room for additional national conditions.*

C: Full harmonisation: *setting out common objectives, principles and specific solutions for specific bands or types of wireless communications, with no room for national exceptions or additional conditions (e.g. definition of identical criteria and conditions for all Member States, creation of a common authorisation format or single common or totally synchronised selection process as used for mobile satellite systems).*

Please tick the relevant boxes in the table below. If you consider that none of these assignment parameters would benefit from greater coordination, please explain your response.

	This issue should not be covered by the Review: National measures adopted are sufficient, no need for legal certainty at EU level.	<i>A - General Approximation</i>	<i>B- Partial harmonisation</i>	<i>C - Full harmonisation</i>
Determination of need for selection process	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Level of transparency to the market regarding the selection process and conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Determination of selection process type (auction, beauty contest, first come first served, hybrid model)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Objectives pursued by the selection process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
The appropriateness of an ex ante competition assessment	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The national authority which is responsible for the ex-ante competition assessment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The need for specific measures (spectrum caps/floors, new entrant spectrum reservation)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Selection timetable	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Timing of advanced information to market participants.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Frequencies covered, packaging of lots	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Spectrum valuation and pricing, fees, charges.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Payment modalities.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Enforcement and ex post auction assessment and enforcement.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please explain your response(s).

(continue here if necessary)

c) Spectrum assignment conditions for wireless electronic communications (ECS spectrum)

As is the case with regard to the process for granting spectrum usage rights, assignment conditions attached to such rights are set at national level pursuant to national circumstances. Also these conditions (e.g. coverage conditions, duration of the licenses, or renewal conditions and timing) have the potential to impact the competition structure of the markets, market entry, the deployment of mobile networks and the development of the market for mobile services in general. It is therefore necessary to explore how to best define spectrum assignment conditions with a view to enhance consistency and legal predictability in the EU while leaving sufficient flexibility to Member States to adjust according to their specific national needs.

Question 80: Is there a need for more consistent assignment criteria and conditions between Member States, in particular with regard to those criteria and conditions which have the greatest economic significance for investment predictability and business decision-making, for driving competition and for achieving the future connectivity needs in the EU?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples of the impact.

It is important to have assignment criteria and conditions that enable predictability and business decision-making. This is particularly important for those criteria and conditions that have the greatest economic impact on investment predictability and business decision-making. ETNO believes that the duration of licenses, the timing of repurposing of the spectrum and the spectrum fees should be consistent between Member States. However, some of the conditions need local considerations, e.g. coverage requirements.

(continue here if necessary)

Question 81: What spectrum assignment conditions (among those listed in the table below or others) have the greatest economic significance for investment predictability and business decision-making, for driving competition and for promoting the Single Market, in respect of electronic communications?

The following spectrum assignment conditions should be aligned in Europe with highest priority in order to overcome the existing fragmentation of spectrum regulation in the 28 EU member states:

- An objective, transparent and non-discriminatory treatment of existing as well as potential new mobile operators, especially in spectrum awarding procedures;
- Avoidance of excessive spectrum fees supporting the industry potential to invest in infrastructure and innovations;
- Alignment of awarding time tables for additional spectrum for mobile services;
- Implementation of a system of increased minimum license durations (e.g. 20+ years) or change to a model of indefinite mobile licenses (perpetual licensing like in the UK);
- Least restrictive spectrum usage conditions including enhanced flexibility regarding trading and sharing of spectrum resources.

(continue here if necessary)

Question 82: For which of the following assignment conditions (listed in the table below) would you see benefits of greater coordination or harmonisation and what would be the appropriate level of such coordination or harmonisation:

A: General Approximation: *setting only common or harmonised general objectives and principles, leaving the definition of exact criteria and solutions to Member States.*

B: Partial harmonisation: *setting out common or harmonised general objectives and principles, as well as specific solutions for some of the items below (to be indicated) while leaving room for additional national conditions.*

C: Full harmonisation: *setting out common objectives, principles and specific solutions for specific bands or types of wireless communications, with no room for national exceptions or additional conditions (e.g. definition of identical criteria and conditions for all Member States, creation of a common authorisation format or single common or totally synchronised selection process as used for mobile satellite systems).*

Please tick the relevant boxes in the table below. If you consider that none of these assignment parameters would benefit from greater coordination, please explain your response.

	This issue should not be covered by the Review: National measures adopted are sufficient, no need for legal certainty at EU level.	A - General Approximation	B- Partial harmonisation	C - Full harmonisation
Licence duration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Prior notice, timing and conditions of renewal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Possibility to trade or lease assigned spectrum, and related conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Coverage obligations	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Necessity of wholesale access conditions (e.g. MVNO)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limits under technology neutrality principles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Requirements on technical performance characteristics	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Extent of services allowed and limits to service neutrality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Possibility to share and pool assigned spectrum or mobile network as a whole	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
In general, any condition covered by the Annex to the Authorisation Directive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<i>'Use it or lose it'</i> clause	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Refarming conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Please explain your response(s).

Many of these assignment conditions work already quite well in many Member States. However, best practices could help in countries where there are specific problems. Regarding license durations and timing in terms of deadlines - not schedules - of awarding spectrum there are benefits to synchronise them within Europe. This is particularly true when there are changes in the use of the spectrum band and the changes could be applied at the same time in the neighbouring countries.

Regarding trading and leasing, ETNO believes that there should be the possibility to trade/lease assigned spectrum, on a voluntary basis and on commercial terms and conditions. However, some recommendations/general guidelines should facilitate the trading and leasing.

(continue here if necessary)

d) Pan-EU or regional licences or selection processes, cross-border services

Currently the process for assigning spectrum and the granting of licences both fall within the competence of Member States and are organised and granted at national level. The organisation of such processes or the creation of rights across Member States appear apt to favour the emergence of cross-border services and operators and facilitate entry into new markets, thereby promoting competition and fostering the single market.

Question 83: Are there situations where regional selection processes involving a group of Member States, either combining national or providing pluri-national licences, for example for regions straddling several Member States which share similar characteristics in terms of economic or electronic communications development, could bring more value and a better development of electronic communications?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO has identified only satellite selection processes where a regional selection process involving a group of Member States would bring more value and better development of electronic communications.

(continue here if necessary)

Question 84: In which market circumstances would pan-EU spectrum selection processes and/or usage rights contribute to the development of electronic communications services in light of public-policy objectives in respect of coverage, choice, accessibility and take-up of high-performance wireless connectivity? Please give and explain your response.

ETNO does not envisage advantages from pan-EU selection processes for ECS terrestrial networks. Pan-EU-selection processes could be advantageous for regional applications covering all of Europe such as the European Aviation Network and the MSS selection process in 2008.

(continue here if necessary)

e) More flexible availability and shared access to spectrum

All radio equipment (e.g. both for ECS and non-ECS wireless applications) depends on reliable access to spectrum. In the EU, spectrum usage rights can be based on a non-exclusive general authorisation or on individual authorisations (e.g. spectrum licences). General authorisations are however the rule and individual rights are the exception under Article 5.1 of the Authorisation Directive. In order to ensure that spectrum is exploited to the fullest extent possible, it is necessary to harness more flexible use of spectrum to increase the availability and efficient use of spectrum. Further flexibility can be achieved in particular through: increasing market-based solutions to repurpose spectrum such as tradability and leasing of spectrum as well as shared access to spectrum such as using white spaces, spectrum pooling and infrastructure sharing. This requires engaging mutual responsibility of users over acceptable limits of interference and appropriate mitigation strategies. It is also important to provide legal certainty on applicable rules and conditions of shared access, on enforcement procedures as well as to be transparent about compatibility assumptions and protection rights. This is in particular the case as regards spectrum licensing formats (e.g. licence-exempt spectrum, licensed shared access). The shared use of spectrum should enhance competition from additional users and in particular should not create undue competitive advantages for current or future right-holders or result in unjustified restrictions of competition. In principle, beneficial sharing opportunities (BSO) can be identified, in both licensed and licence-exempt frequency bands, wherever the combined net socio-economic benefit of multiple applications sharing a band is greater than the net socio-economic benefit of a single application, taking into account additional costs resulting from shared use (see [Commission Communication on promoting the shared use of radio spectrum resources in the internal market](#) (COM/2012/0478 final)).

Question 85: Will a more flexible and/or shared access to spectrum be needed to meet the future demand for spectrum?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Flexible and shared access will enable efficient use of spectrum provided that it is done on a voluntary basis. However, reliable and reasonably-priced technical solutions should be available to enable interference-free, flexible and/or shared use.

(continue here if necessary)

Question 86: Will shared access to spectrum on the basis of general authorisation be necessary for:

	strongly agree	agree	disagree	strongly disagree	do not know
a) The availability of sufficient wireless backhaul capacity?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) The development of the Internet of Things?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) The development of M2M applications?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other, please specify and explain your response and provide examples.

ETNO believes that exclusive spectrum is required to provide certain network quality characteristics. IoT/M2M services can use ECS provided by network operators. ECS provided by operators in exclusive spectrum enables coordinated, interference-free connections in a spectrum efficient manner.

Use of license-exempt spectrum should only be an exception, e.g. at the starting phase of a new service. However, when the amount of devices increases, better coordination of connections is needed in order to avoid interference. It should also be noted that many of the services (such as health and transport-related ones) require guaranteed connections. Such guarantees cannot be given in license-exempt spectrum.

Wireless backhaul connections are in many areas a very critical part of the communication chain, and therefore the links should not use license-exempt spectrum.

(continue here if necessary)

Question 87: Is there a need to better protect the use of spectrum for applications that rely on shared use of spectrum (such as Wi-Fi or short range devices), including in regard to out of band emissions?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Current regulatory provisions developed by CEPT in cooperation with the European Commission are sufficient to ensure an appropriate protection of all the applications concerned.

(continue here if necessary)

Question 88: Is there a need for a common approach amongst Member States for documenting sharing conditions/rules and for granting shared spectrum access authorisations in the Digital Single Market?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

(continue here if necessary)

Question 89: Could a more flexible use of spectrum be achieved through any of the following:

	strongly agree	agree	disagree	strongly disagree	do not know
a) Tradability and lease of spectrum	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Use of white spaces	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Infrastructure sharing, including spectrum pooling	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Incentive auctions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

If other, please specify and explain your responses. If yes, should any of these measures be further promoted from a regulatory point of view and how?

Spectrum trading and leasing are already allowed in many countries, but flexibility should be enhanced. As network investments are very expensive and the payback time is not short, any of the means that would facilitate more efficient spectrum usage should be undertaken on a voluntary basis and without regulation of the commercial conditions. This should be taken into account when promoting these approaches further. Furthermore when using these approaches, the availability of globally harmonised spectrum bands in Europe should be increased and not decreased or fragmented.

Regarding white spaces, it should be noted that they have limitations. Therefore, currently flexible use of spectrum through them cannot be achieved. However in the future, if there are technical solutions available to tackle interferences, white spaces should be used.

(continue here if necessary)

Question 90: So far, mechanisms such as trading and leasing of spectrum have been used only to a limited extent in the EU. Under what market and regulatory circumstances, would these mechanisms be more attractive for spectrum users? Please give your response and provide examples.

ETNO believes that the trading and leasing of spectrum have been used only to a limited extent in the EU. It is very difficult to trade spectrum in order to change its use. Therefore, the most efficient trading, where the spectrum needed is the highest, is excluded. Additionally, transactions in the secondary market between similar users (for example between MNOs) have generally been done implicitly as part of mergers and acquisitions.

Spectrum leasing and trading shall be explicitly allowed and based on a voluntary principle (no obligatory terms) without regulation of the commercial conditions. Possibly some incentives for trading/leasing/sharing could be offered to make it more attractive. Some recommendations/general guidelines might facilitate the trading and leasing. In addition, the network investments for providing electronic communications services are very expensive, and therefore the lease period should be long.

(continue here if necessary)

Spectrum refarming refers to the process of changing or redistributing the allowed uses of spectrum for the sake of a more flexible access and an efficient use of spectrum. Specific regulatory requirements already apply in case of changes to or withdrawal of spectrum usage rights so as to protect right holders and competition. The question arises whether additional provisions should be considered to further facilitate spectrum management. For example where rights with long-term or undefined duration are at stake, specific withdrawal or amendment conditions and/or procedures in case of non-use or highly inefficient or non-intensive use of the band could be considered, such as 'use-or-lose it' clauses, with a view to rapidly cope with technological and market developments while adequately protecting right holders. Since refarming determines the availability of spectrum for applying new technologies and offering new services across the EU, the need for a certain level of coordination of such measures should be considered.

Question 91: Should spectrum refarming be further facilitated in the future? If so, is there a need to adopt measures to:

	strongly agree	agree	disagree	strongly disagree	do not know
a) further protect existing right holders	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) further support prospective spectrum users	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) maximise flexibility in spectrum management	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) allow new incentivising methods	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) further protect competition	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) clarify compensation conditions	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) apply 'use it or lose it' clauses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses. Please indicate any specific criteria which you would regard as an important component of co-ordinated measures (e.g. in the case of *'use it or lose it'* types of triggering conditions)

In general, refarming opportunities should be improved to enhance the upgrading of networks. In this context, a prolongation of license durations would increase incentives for spectrum refarming.

It is important that in spectrum refarming efforts (e.g. 700 and 800 MHz) clear deadlines for refarming are set in order to minimise unnecessary delays and uncertainty and cross-border coordination issues. However, if Member States are able to proceed further they shall be allowed to do so.

(continue here if necessary)

Question 92: Should the withdrawal or significant modification of rights by public authorities be excluded where the application of service or technology neutrality principles and/or the trading and leasing mechanisms are sufficient to ensure spectrum refarming?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Stability fosters investments and any threat to it would endanger the incentive of operators to invest. As long as service or technology neutrality principles are applied and trading and leasing mechanisms are in place, withdrawal or significant modification of rights by public authorities should not be made.

(continue here if necessary)

g) The impact of network technologies developments

The telecoms review offers also an opportunity to assess the regulatory framework's capacity to cope with the electronic communications sector's fast-moving technological environment, and in particular to identify regulatory areas which could require adaptations in order to keep up with the main trends in network technologies, operations and market developments. Against this background, it is necessary to already anticipate these developments taking into consideration relevant time horizon(s) matching the technology's life cycles, from research and development to the roll-out of infrastructure, extending beyond 2020.

One of the most important trends in the network environment over the next decade is likely to be that of fixed-wireless convergence, crystallised by the commercial deployment of 5G networks which should be initiated by 2020. 5G will enable operators to cope with rapidly increasing data traffic, thanks to denser/smaller cells and even greater offloading to, for instance, fixed networks via Wi-Fi links. Furthermore, the benefits of 5G are expected to go beyond traditional ECS and to play a key role in other sectors of the economy, by enabling machine-to-machine communications (M2M) and the Internet of things, as well as connectivity needs for transport management and road safety (in-vehicle emergency calls).

From a user's perspective, fixed-wireless convergence means the seamless delivery of services, e.g. telephony, data, digital content, regardless of whether they are delivered via fixed or mobile networks, including the possibility to switch between the two while a service is active. One implication is that the convergence will not be limited to the commercial provision (e.g. service packages) but will also affect network and service operations.

From a network perspective, denser wireless networks will depend on increasing numbers of fixed back-haul links. Wireless network densification could benefit from available under-utilised radio spectrum at higher frequencies (licensed or licence-exempt) as well as from the deployment of small cells including RLAN and low-power small area wireless access points. This deployment could be specified at EU level and the requirements for use in different local contexts could be limited to general authorisations without additional restrictions from individual planning or other permits.

Question 93: In light of the increasing demand for mobile services in urban areas and the resulting densification of networks, do you foresee any obstacles in the roll-out of the corresponding infrastructure such as access points for small cells?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

A growing number of sites and antennas will further foster the debate on EMC and related health risks which could reduce the availability of appropriate sites. Another obstacle is the current regime to get administrative approvals for antenna licensing.

Urban small cells are low-powered radio access nodes that operate, according to the output power, in licensed and unlicensed spectrum that have a range from 10 meters up to 1 or 2 kilometers. Small cells typically provide extra coverage and capacity to serve multiple users. Enabling the rollout of small cells to enhance competition and reduce network congestion is an important step to boost investments.

Small cells have to comply with the same safety limits that are applied to other wireless equipment such as mobile phones and macro-cell base stations for wide-area coverage. These are based on guidelines for human exposure to electromagnetic energy issued by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and other relevant regulatory authorities.

In case of arbitrary exposure limits, the same constraints apply to macro-cells and to small-cells and can restrict deployment in a number of ways:

- Reduced flexibility in network deployment;
- Reduced coverage for consumers.

ETNO recommends that harmonised technical guidance for EMF compliance of small cells should be developed based on simple criteria, such as product transmitted power, installation height or product Specific Absorption Rate (SAR) requirements, based on IEC62232. Where these simplified criteria are met, the operator of the equipment should not be required to submit EMF compliance declarations to authorities in advance of deployment.

(continue here if necessary)

Question 94: Should the deployment, connection or operation of unobtrusive small-area wireless access points be possible under a general authorisation regime, without undue restrictions through individual town planning permits or in any other way, whenever such use is in compliance with a harmonised technical characteristics for the design, deployment and operation of such equipment?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO believes that “small area access points” might be either Wi-Fi hotspots operating under license-exempt conditions or small cells operating in exclusive mobile spectrum. This distinction should be maintained. Deployment conditions should be similar, without undue restrictions through individual town planning etc.

(continue here if necessary)

Question 95: Should end-users be entitled to share the access to their Wi-Fi connection with others, as a key prerequisite for the sustainable deployment of denser small cell networks in licence-exempt bands?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

Security and privacy issues may be a problem if the user of the access point cannot be identified.

(continue here if necessary)

Question 96: Should the deployment of commercial/municipal Wi-Fi networks in public premises (e.g. public transportation, hospitals, public administrations) be facilitated and if so, in what way?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO does not believe that municipalities should deploy their own networks in public premises. The provision of electronic communication services should be based on commercial networks as the deployment of commercial/municipal Wi-Fi networks would crowd out private investment.

(continue here if necessary)

Question 97: Is there a need for more unlicensed spectrum for M2M applications?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO believes that there is already sufficient unlicensed spectrum for M2M applications to develop and therefore there is no need of further unlicensed spectrum. There are M2M applications that already use mobile networks. Licensed spectrum and systems enable better coordination of connections, and thus guarantee interference-free and reliable M2M communication, as well as efficient use of spectrum. This is important when the amount of M2M devices and connections explodes.

(continue here if necessary)

h) Mobile communication networks

Question 98: Improved mobile communications networks could to a certain extent ensure public protection and disaster relief (PPDR) communications, as well as safety systems for utilities and intelligent transport services (ITS) for road and rail (as reported in a 2014 [study](#)). Would you consider it appropriate to include in the licence conditions for spectrum (or for certain spectrum bands), or otherwise to impose on (certain) mobile network operators, obligations in terms of quality of service, resilience of network infrastructure and hardening to enable such dual use of commercial mobile networks?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO believes that PPDR communications should be provided by mobile broadband networks in a voluntary basis. Obligations related to critical networks are variable over time and the static approach in spectrum licenses does not reflect this dynamic.

(continue here if necessary)

3.5. Sector-specific regulation for communications services

Over-the-top (OTT) services are increasingly seen by end-users as substitutes for traditional ECS used for interpersonal communications, such as voice telephony and SMS. Such OTT services, however, are not subject to the same regulatory regime. As a consequence, the issue of a level playing field has been raised, with some stakeholders calling for a re-evaluation of the existing provisions, with a view to ensuring that wherever the activities of providers of competing services give rise to similar public-policy concerns, they would have the same obligations and rights (i.e. end-users' protection, interconnection, numbering, etc.). At the same time, the existence of a wider range of choices for end-users may put in question continued utility of certain regulatory obligations. Therefore, it is important to evaluate whether the scope of the regulatory framework should be revised in order to create a level regulatory playing field that modernises the safeguards for end-users, incentivises investment and innovation, and boosts demand for communications services.

Technological and commercial innovations may require a modernisation of the provisions of the applicable regulatory framework, for instance those on end-user protection. In addition, it is important to consider the potential regulatory impacts of the most important trends that will drive the telecommunications sector's transformation over the medium to long term, such as for example the take-up of IP-based services offered by digital service platforms, the development of machine-to-machine (M2M) communications or the challenges for the European emergency number 112 and there is a need to evaluate the relevant framework provisions in that respect.

In addition, the scope and appropriateness of the provisions on 'must carry' and electronic programme guides is assessed in the last part of this section.

3.5.1. Evaluation of the current sector specific regulation for electronic communications services

The first set of questions aim at providing input for the evaluation of the functioning of the current regulatory framework.

The current sector-specific rules for end-user protection as regards the access and use of electronic communications networks and services were last reviewed in 2009 and complement horizontally applicable (i.e. cross-sector) EU consumer protection law. For the purpose of this public consultation these are the most relevant legal instruments:

- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive) as amended by Directive 2009/140/EC (Better Regulation Directive) (scope of the framework and definitions).
- Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) as amended by Directive 2009/136/EC (Citizens Rights Directive) (provisions on end-users mainly in its chapter IV).
- Certain provisions in other Directives apply also to electronic communications services (such as interconnection and interoperability pursuant to the Access Directive). Directive 2002/58/EC (ePrivacy Directive) as amended by Directive 2009/136/EC (Citizens Rights Directive) also contains certain end-user rights, whose content and substance are not specifically the object of this consultation. However, these rights may be relevant for the questions on the scope of sector-specific regulation for communications services.

The Commission proposal for a Telecoms Single Market Regulation of September 2013 (also known as Connected Continent) contained several end-user protection and empowerment measures. On 30 June 2015, the European Parliament and the Council reached a political agreement on the Regulation. The agreed text covers only a subset of the proposals related to Internet Access Services (IAS) and roaming while other end-users rights contained in the Commission proposal have not been included.

The purpose of the following questions is to evaluate whether the current sector-specific rules, mostly end-user provisions, have proven useful and whether they may have become obsolete, need to be adapted or amended by new provisions.

Question 99: To what extent has the current regulatory framework for electronic communications, as last amended in 2009, contributed to effectively achieving the goal of ensuring a high level of consumer protection in the electronic communications sector across the EU?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response and indicate the provisions which have contributed the most/less to this goal.

The EU regulatory framework for electronic communications has so far granted a high level of consumer protection, but only for these particular services. Consumers currently do not benefit from the same level of protection for comparable services. Moreover, gaps, overlaps and inconsistencies have emerged over the years and consumers benefit from increased choice, which make the sector rules no longer fit for purpose. We can thereby affirm that the current regulatory framework for electronic communications has only moderately achieved its goal and that current consumer protection rules applied to telecom operators lack effectiveness (compare ETNO's detailed response to Q. 4 and 5):

- Many strict rules which are currently applied to telecom operators even appear to not meet consumers' actual needs. These rules are not proportionate anymore and should be repealed. This applies to sector-specific rules which are simultaneously covered by horizontal legislation, generally designed to provide an effective protection for consumers.
- At the same time, it has become more and more clear that some rules have not kept pace with the technology developments and changed user habits and, thus, are not fit for purpose any more.
- Apart from that, the simultaneous application of very different set of rules to digital services does not sufficiently ensure consistent protection standards that consumers can rely on.
- Moreover, an increase of competition due to new providers in the market - telecom operators as well as OTTs - has increased consumer choice, further questioning the justification for prescriptive and sector specific regulation.

Additionally, we are facing a major problem of enforceability of the European legislation to non-European players which negatively impacts effectiveness of legislation.

All of these factors need to be considered when assessing the current framework's effectiveness regarding consumer protection and when defining a new future-proof holistic legislation for the digital economy (see ETNO's response to Q. 8).

(continue here if necessary)

Question 100: Are there any provisions which constitute a particular administrative or operational burden? If so, please explain why and provide a quantitative estimate of additional burden.

ETNO believes that a broad and profound assessment is required, that should be based on following high-level principles. They should form the basis for an efficient and future-proof framework in the digital market (including ECS, IAS, ISS, AVMS):

A horizontal framework needs to be based on several high-level principles, and move from currently applied ex-ante regulation of telecom operators' services to proportionate ex-post instruments, that effectively ensure consistent protection standards and fair competition across the digital market wherever necessary.

1. Level Playing Field: same rules need to be applied to services that are similar from end-users' point of view - technology-neutral, irrespective of the provider or of the business model.

2. Same regulatory principles for the whole digital market: A future principles-based regulation applied to, inter alia, telecom operators' services should be consistent with the principles applied to any other area of the converging digital market, to ensure consistent protection standards.

3. Specific rules only where indispensable: Some specific service characteristics can still deserve specific rules - applied selectively and in a proportionate way, and only where clearly indispensable. This includes to preserve established standards that end-users rely on and are highly valued. In regard to telecom operators' communication services this refer to e.g. the use of numbering resources, enabling e.g. any-to-any connectivity, or end-to-end quality, that ensures reliable emergency services. While any service providers needs to have the possibility to offer quality services, providers of such quality standards must not be overly burdened, considering that they particularly contribute to consumers' and public benefit. Another example in regard to telecom operators are some specific obligations that are attached to internet access service. In principle, also proven issues linked to other services may be addressed through adequate means (see e.g. response to questions 104 and 113).

4. Ensure efficient and future-proof protection standards: Reassess in detail which rules currently applied to services are still required, delete outdated rules, adjust to new risks & finally apply updated rules consistently in the digital market. In principle, wherever a currently lighter protection standard is continuously applied, this rule should be applied to all service providers.

5. Proportionate geographic harmonization: EU-wide harmonisation of efficient consumer protection standards is favourable in order to facilitate cross-border commerce, but it must be implemented in a proportionate way.

Considering these high-level principles, an updated legislation requires to go beyond the mere modification of only those rules that prove to be

a high burden. A new holistic framework is required, in line with the above described high-level principles, including the swift removal of any rule that does not meet these principles.

Examples of provisions that constitute a particular burden are provided in answer to Q. 101. In regard to costs imposed on telecom operators, please refer to the responses to Q. 5 and 6.

(continue here if necessary)

Question 101: As regards sector-specific end-user rights provisions, have you identified sector-specific end-user rights provisions in the current framework which are not relevant and should in your view be repealed (deleted) because they are wholly or substantially covered by general EU consumer protection law?

- yes
- no
- do not know

If your answer is yes, should also all corresponding sector specific rules on the national level be repealed (deleted)?

- yes
- no
- do not know

Please specify the provision(s) and provide an explanation.

- There are numerous sector-specific rules only applied to telecom operators, in parallel to lighter horizontal rules applied to services provided by other undertakings (examples follow below, based on the Universal Service Directive and ePrivacy Directive). As a pragmatic first step, any sector-specific regulation needs to be swiftly removed in all areas that are also covered by horizontal rules. However, it is equally important that also the current horizontal framework is re-assessed (compare ETNO's response to Q.s 99 and 100).
- ETNO firmly believes that a future-proof framework cannot be based on a sector-specific regulation for telecom operators, and horizontal rules that also apply to all other services in the digital market. A profound review, both, of sector-specific as well as horizontal service regulation is needed: Reassess in detail which rules are still required, delete outdated rules, adjust to new risks & finally apply updated rules consistently in the digital market.

- This does not contradict that specific rules can be applied to some services' special characteristics. However, this should be done selectively and in a proportionate way, and only where clearly indispensable. This applies to a subset of communication services, internet access services for end-users and equally applies to other digital services (as further detailed in the responses to Q. 104, 110, 111 in regard to ECS and IAS).

- The result of the profound re-assessment should be proportionate end-user protection standards across the digital market, which open space for more investment, fair competition and more benefit for EU citizens.

When assessing the current sector-specific and horizontal rules, account should be taken of the fact that many specific rules are either no longer demanded or can be equally well delivered on a voluntary basis in a competitive market. With reference to the Universal Service Directive and ePrivacy Directive, we list the following examples of stricter requirements imposed upon telecom operators:

- Transparency: Standardized information to be published, provided before and within contract, and after contract conclusion, e.g. for cost control and on contract duration.
- Technical cost control measures: Regarding technical tools that support consumers to control expenses, e.g. through spending caps and warning signals.
- Contract duration and termination: Providing for each service at least one contract with minimum duration time of no more than 12 months. Apart from that, contractual information is much more prescriptive compared to horizontal rules and telecom operators' flexibility to modify services is strictly limited.
- Services for disabled: All telecom operators can be required to provide specific services, ensure choice and specific terminals for disabled end-users, where the dynamic and innovative market already delivers efficient solutions, providing a variety of offerings that may replace the earlier dedicated system (as further detailed in Q. 150 and 155). Dedicated telecom operators may be particularly obliged.
- Collecting and processing customer data: Very prescriptive rules about how and when ECS providers are allowed to collect and use customer-traffic and location data.

As elaborated in ETNO's response to Q. 4, fragmentation of service regulation across member states appears as an obstacle to the development of a truly internal market. Equally, ETNO believes that a future-proof legislation on services needs to be horizontal, covering all services for end-users in the digital market. Consequently, this implies that current inconsistent sets of sector-specific rules on national levels need to be repealed. An updated, geographically harmonized set of rules needs to be applied to all services.

(continue here if necessary)

Question 102: As regards sector-specific end-user rights provisions, have you identified existing sector-specific end-user rights provisions in the current framework which need to be adapted or amended?

For each provision you mention, please give reasons for its relevance (problems in the application; commercial or technological changes, including those which resolve the initial concern; new challenges for end-users; other, please specify):

- In principle, all rules need to be re-assessed to ensure that proportionate and effective rules are applied to services, relying on a horizontal framework for all services. This does not contradict to selectively apply specific rules to some services' special characteristics, where clearly required (see response to Q. 100).

- For details on specific rules and current sector-specific regulation please refer to ETNO's subsequent responses, e.g. to Q. 104 and 113.

(continue here if necessary)

Question 103: The regulatory framework has among its policy objectives and regulatory principles ensuring that users, including disabled users, elderly users, and users with special social needs, derive maximum benefit in terms of choice, price and quality (Article 8 of the Framework Directive). With respect to disabled users, the Universal Service Directive contains specific requirements under the universal service obligation (Article 7) and regarding the equivalence in access and choice (Article 23a).

To what extent has the current regulatory framework been effective in achieving the goal of providing equivalent access to persons with disabilities in terms of choice, price and quality?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response and illustrate with examples.

If you identified any shortcomings, how could the effectiveness of the provisions be improved and what would be the related benefits and costs?

- ETNO believes that the future regime should rely more on the market which already provides services tailored to certain end-user needs. Respective end-users increasingly find effective and more efficient solutions provided not only by telcos but by other players, in absence of regulatory requirements applicable for them. Only an approach of shared responsibility across the digital market can ensure efficient and proportionate solutions for disabled end-users to achieve the public objectives as set out in Art. 7, 8 and 23a (see response to Q. 4). Self-regulatory tools can be considered as an efficient solution if anything is necessary beyond what market delivers.
- In case public interventions are deemed necessary, and considering that these obligations are not commercially beneficial, the financing should be borne by public funds. If any contribution is required from the sector all players in the digital market should take over responsibility and contribute according to their resources.

(continue here if necessary)

Question 104: Number portability is part of the numbering resource management and also an important tool to remove barriers to switching. It thereby facilitates end-users' choice and change of providers and stimulates competition. To what extent do the current provisions on number portability as established in Article 30 of the Universal Service Directive allow for their efficient implementation?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your answer and specify any problems you may have encountered (delays, disruption, loss of service, cost for end-users, slamming (telephone service changed without subscriber's consent), burden for operators, etc.).

- Number portability has proven to be an effective tool to reduce switching barriers and, thus, minimizes network and lock-in effects for consumers in regard to telecom operators' communication services.
- This has to be considered in the light of the fact that implementation and operations associated to the number portability processes are very complex and expensive for telecom operators. All of these challenges are being effectively managed by telecom operators in order to comply with the legal obligations.
- In the broader context, number portability has to be considered jointly with any-to-any connectivity, which describes interoperability of communication services. Any-to-any connectivity is a prerequisite for reasonable number portability: Number portability is not meaningful without any-to-any-connectivity of competing services. Therefore, number portability has to be considered in the broader context of this obligation (see ETNO's response to Q. 124).
- Number portability is one element of the highly valued characteristics of communication services provided by telecom operators, in addition to any-to-any-connectivity based on phone numbers, and end-to-end-quality (see ETNO's response to Q. 100 and 113). In this context, ETNO considers number portability as a specific rule which can be preserved within an updated legislative framework for current communication services closely linked to the use of phone numbers and any-to-any-connectivity. However, as described above, communication service providers who offer portability must not be overly burdened, considering that they particularly contribute to consumers' benefit.
- While number portability and any-to-any-connectivity have proven to become a public value that should be preserved, it must not be forgotten that these rules aim at reducing large service providers' potential network and lock-in effects for consumers.
- More recently, the market faced the emergence of communication services based on best-effort, which do not need to ensure interoperability with other providers and portability of their identifiers. Accordingly, these providers have the opportunity to build large customer basis and impose network and lock-in effects to consumers. In some cases this can lead to adverse effects on competition and consumer's choice (due to switching barriers). To ensure consistent standards across the digital market, in areas where such effects have clearly proven to become a significant issue, adequate and swiftly applicable ex post instruments to reduce network and lock-in effects must be applied in a proportionate manner. Considering this great inconsistency in rules applied to various competing communication services, the principle of proportionality appears to be even more essential in the application of rules which are currently only imposed on telecom operators. Specific rules in regard to number portability applied to communication services that ensure any-to-any-connectivity must become as light-touch as possible.

(continue here if necessary)

Question 105: To what extent do you consider the scope and requirements established in Article 26 of the Universal Service Directive still relevant in order to ensure an effective access to emergency services?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response, and indicate possible areas for amendments.

- Reliable emergency call functionality is publicly perceived as valuable feature of telecom operators' communication services and as such a significantly important offering. The obligation is linked to high reliability of the connection and, thus, depends on end-to-end quality as currently ensured via PSTN and, in future, through managed IP-based communication services. This includes both ends of the communication, the calling and the receiving party. Also, emergency call functionality is linked to the provisioning of numbers. Therefore, it appears as closely linked to the above mentioned quality standards (see ETNO's responses to Q. 104, on number portability, Q. 103 on emergency call functionality. and Q. 113 on end-to-end quality).

- In this context, ETNO considers emergency call functionality as a specific rule applied to communication services with end-to-end quality and numbers, which shall be preserved (in line with response to Q. 100).

- According to the principle "same service, same rule" and the importance of end-users' view, best effort communication services that lack end-to-end quality and phone numbers and, thus, cannot provide reliable emergency call functionality, need to be required to clearly inform users about the limitations of services.

- Light touch rules within an update framework must take account of the different intrinsic characteristics of the new technologies "all IP", and therefore must be identified solutions that are sustainable and viable through new technologies.

- As for the accuracy of the mobile location, it is considered necessary that the obligation takes into account the ability of mobile network technologies available in the networks of the various Member States. Any additional requirement related to the increase of the accuracy of mobile location-based solutions must be based on GNSS / GPS systems. The responsibility of the location based on GPS systems should be attributed specifically to manufacturers of terminals, so that they can contribute to the provision of a reliable location.

(continue here if necessary)

The objectives of the regulatory framework include ensuring the integrity and security of public communications networks (Article 8, paragraph 4(c) and (f)). Specific rules are provided for in order to ensure that operators take appropriate technical and organisational measures to appropriately manage the risk posed to security of networks and services (Article 13a and Article 13b of the Framework Directive). In view of recent security incidents and revelations concerning spying activities it is therefore necessary to reflect on whether the current rules are still sufficient to achieve the security objectives or whether they need to be reviewed.

Question 106: Do you consider that the rules on integrity and security of networks and services (Articles 13 and 13a of the Framework Directive) have been effective in achieving their objectives?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Current rules are adequate to achieve the objective of ensuring the integrity and security of public communications networks. Therefore, we consider that there is no need either to change Framework Directive provisions or to define additional ones.

In fact, it is important to remark that we are facing a very dynamic field of activity in which the risk and threats continuously change where new security risks continuously emerge. The combination of Article 13a and the future NIS directive should provide the appropriate level of security considering both electronic communications services and Internet services that are key to deliver a safe IT ecosystem to citizens and companies.

Security incidents and revelations concerning spying activities that impact the secrecy of communications and the privacy of European citizens do not question the effectiveness of Article 13 mechanism addressed to ECS or the future NIS Directive addressed to Digital Service Platforms (Internet Enablers) and Critical Infrastructures. The exceptional breaches to the legal interception procedures of communications motivated by national security incidents should always be kept out of the scope of this regulation, which is aimed to manage the risk posed to the integrity and security of networks and services.

We believe that incident reporting scheme required by Art.13 of Framework Directive provides transparency to society and allows learning from incidents in order to systematically improve the security in the networks and services, contributing to discussions at policy level on

strategic measures to improve the security, in particular those incidents that carry out risk and vulnerability assessments in the electronic communications sector. Equally, the proposed NIS Directive, if digital service providers are maintained within its scope of application, is a very important step towards an enhanced level of cybersecurity as well as towards a level playing field.

We also note that notification requirements need to be flexible enough to ensure that it is not counterproductive to the aim of enhancing consumer trust. Reporting should never be an objective itself but rather a way to enhance confidence in the online environment.

Beyond legal obligations, most telecom operators have implemented comprehensive measures and programs to minimize security threats. In addition, telecom operators have a number of self-developed initiatives like the Cyber Emergency Response teams (CERT) and the Forum of Incident Response and Security Teams (FIRST) that contribute to improve the security. This makes additional provisions unnecessary.

However, an improvement on the coordination of existing initiatives is required from stakeholders. It is crucial that Member States continue to rely upon and improve multilateral cooperation mechanisms to face cyber threats and to engage in public-private cooperation activities at various levels with the shared objective to mitigate jointly large-scale cybersecurity incidents which complement the bilateral and regional relations they have with trusted partners.

In conclusion, other than making additional regulatory provisions we suggest to improve existing mechanisms to make them more effective.

(continue here if necessary)

Question 107: Do you consider that there is a need to improve provisions referred to in the previous question to make sure that they are in line with modern technology and security threats?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

As indicated above (Q. 106) the approach of current regulation is adequate. Again, if the future NIS Directive's broad scope of application - including digital service providers - is maintained, this is an example of the needed improvement to adapt to modern technology and new security threats coming from other actors in the value chain. Furthermore, the private-public coordination should be reinforced to ensure an affective and agile response to cybersecurity threats.

(continue here if necessary)

3.5.2. Review of the sector specific regulation for communications services

a) Future scope of sector-specific regulation for communications services

The EU regulatory framework on electronic communications services and networks emerged in the context of full liberalisation in the 1990s. At that time voice communications were the focus of attention and distinct from online services. The framework contains provisions for the regulation of both networks and electronic communications services. Services such as so-called over-the-top services (OTTs), providing communications (voice, messaging) and/or other services, do not usually fall within the scope of the current EU regulatory framework's rules on ECS or those on network regulation because these services do not themselves include conveyance of signals. Therefore the regulatory regimes which are currently applied to OTTs or comparable services, on the one hand, and electronic communications service and networks, on the other hand, differ considerably. The present section examines whether the scope of the regulatory framework should be adapted in this respect in order to ensure a level-playing field for players to the extent that they provide competing services and the manner in which this could be done.

Question 108: Do you consider that there is still a need for sector-specific regulation of communications services in the EU?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

- In principle, the review of the framework should give the opportunity to move rules relating to communication services from a sector specific framework to European horizontal law regardless of the provider or the technology used, in order to ensure the same level of consumer protection and the level playing field between providers. This must be based on a profound re-assessment of all current rules (as further detailed in the responses to Q. 100 to Q. 102).

- An updated horizontal framework must not rule out that special characteristics of services may require specific rules. While, in principle, consistent standards should be applied to all services equally, specific rules need to be strictly limited and focus only on the respective characteristics.

For example, rules that are currently only applied to a subset of communication services to ensure end-to-end quality, which enables reliable emergency services or and any-to-any-connectivity based on E.164 numbers, may be maintained. These quality standards are highly valued by end-users and should be preserved. At the same time, these providers of quality services must not be overly burdened, in comparison to other competing providers that do not equally contribute to these public benefits (see response to Q. 104). In regard to internet access services for end-users, please compare response to Q. 113. In principle, also proven issues linked to other services may be addressed through adequate means.

(continue here if necessary)

Question 109: As regards the current definition of electronic communications services (ECS):

	strongly agree	agree	disagree	strongly disagree	do not know
a) Do you consider that the current definition of electronic communications services should be reviewed?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) If the current definition of ECS is reviewed, do you consider that the "conveyance of signals" should continue to remain a necessary element of the definition of electronic communications services subject to sector-specific regulation?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c) If the current definition of ECS is reviewed, do you consider that "transmission services in networks used for broadcasting" should continue to be considered as ECS?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

The current definition of ECS is not fit for purpose. Due to the convergence of electronic markets there is a strong need to review current terms and definitions of all provided services. The above mentioned required new consistent and horizontal legal framework needs to be encompassing / addressing not only services which are currently defined as communication services, but also audiovisual media services, internet society services and platforms (See response to Q. 102). Regarding communication services, a future-proof definition needs to be consumer-centric. As confirmed by a recent ETNO survey (https://etno.eu/datas/publications/studies/ComRes_ETNO_Final%20Report_LATEST%20FOR%20PUBLICATION.pdf), as long as consumers perceive these services as functional substitutes, then these services are competing on the same field and a consistent regulation is required to properly guarantee consumers' rights. Very often, users cannot clearly distinguish ECS, as provided by telecom operators, from ISS with communication functionalities, provided by OTTs, anymore. ETNO maintains that all services provided by OTTs or telecom operators which are perceived to be similar from the end-users point of view, should be subject to the same horizontal protection rules. Specific rules for selected special characteristics of some communication services, should apply irrespective from the nature of the provider but based on the end-user perceptions.

As described in the first paragraph, technical criteria such as "conveyance of signals" is irrelevant. To define whether a specific consumer protection standard should apply, only consumers' perception, need and demand shall be considered.

(continue here if necessary)

Question 110: If the current definition of ECS is reviewed, do you consider that the definition of services subject to sector-specific regulation should take into account the question whether a service is:

	strongly agree	agree	disagree	strongly disagree	do not know
a) managed or subject to best-efforts online provision only?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Remunerated through monetary payment (directly or as part of a bundle)?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Remunerated by other means (advertising supported, provision of data by users, etc.)?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your responses.

ETNO is of the opinion that in principle, sector-specific regulation of services is no longer necessary and, instead, an updated horizontal framework shall apply to all services (see response to Q.100 to Q.103). Within an updated horizontal legislation the above mentioned criteria (a), (b) and (c) need to be considered as follows:

a) Managed communication services enable end-to-end quality, which is the basis for e.g. reliable emergency call functionality. This special characteristic of some communication services is closely linked to phone numbers and any-to-any-connectivity. To preserve these quality standards, proportionate and effective rules should be applied to managed services. These specific rules should be limited to address these selected characteristics and preserve them, e.g. in regard to end-end-quality and any-to-any-connectivity based on E.164 numbers (compare responses to Q. 100, 104, 108 and 115).

b) and c) The definition of communication services should include all commercial services with business models that charge consumers in one form or another - including remuneration or any form of consideration such as monetary payments or the submission of personal data for the purpose of monetization, e.g. on the other market side for the purpose of displaying personalized advertisement.

Rules applied to commercial services - including commercial communication services - should not discriminate specific business models. Current sector-specific regulation includes all ECS and IAS

provided by telecom operators, irrespective if these services are charging or entirely for free. Horizontal consumer protection rules applied to other providers are mostly limited to commercial services that remunerate monetary payments. Services that are being remunerated e.g. by the submission of personal data do not have to comply with the respective rules. Consumers cannot rely on protection standards applied to other commercial services and, most often, are not even aware that they give up their privacy and are being “charged”. Providers of such services benefit from less compliance costs and benefit from supposedly being “for free”.

Services which are provided entirely for free to consumers (non-commercial and no remuneration by end-users, such as submission of personal data) may be considered as communication services. However, it has to be noted that most consumer rules included in the current horizontal and sector-specific legislation are not reasonably applicable. This has to apply equally to all non-commercial services, irrespective of the provider. Today telecom operators’ communication services have to comply with all sector-specific rules, even if provided entirely for free.

Collecting personal data solely for the purpose of service delivery (if service delivery is technically not possible without submission of personal data) or due to legal obligations (e.g. registration) does not have to be considered as remuneration or any form of consideration and, thus, does not prove the commercial purpose of a service.

(continue here if necessary)

The internet access service (IAS) sets up the end-user's connection to the internet and many communications services as well as a host of other services are provided via this IAS. It could be argued that sector-specific rules only need to apply to the IAS but not to other communications services, and that general consumer protection rules will be sufficient to protect end-users in their communication activities.

Question 111: If sector-specific service regulation is maintained, do you consider that it should be limited to the IAS?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

• ETNO believes that an updated framework requires consistency that end-users can rely on. Consistency is best ensured through the application of horizontal rules. Complementary to this and as described in the high-level principles of a future-proof framework, specific rules are applicable if indispensable (see response to Q. 100). Therefore, in principle, horizontal rules should be applicable to IAS and the new framework should foresee specific rules in a proportionate and light touch way only where justified to tackle potential issues in regard to specific characteristics. This may refer to IAS' role as gatekeepers and related topics like non-discrimination or neutrality (see response to Q. 113).

• ETNO would like to point out that besides IAS, also other services have become crucial gate-keepers for end-users, e.g. enabling access to information, content or other services (see ETNO's response to Q.4). These services are currently, if at all, covered by less strict horizontal consumer protection rules or competition law. Accordingly, further tightening of rules applied only to IAS appears highly non-proportionate.

(continue here if necessary)

Question 112: If a distinction is made between IAS and other communications services, do you agree in principle that the definition of IAS in the draft Telecoms Single Market legislative text could be used for this purpose, namely "*a publicly available electronic communications service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used.*"

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Generally, ETNO agrees with the definition of IAS as included in the Telecom Single Market legislation. However a small but crucial modification (see below) would be required in case the ECS definition is removed and access services shall be clearly distinguished from communication services: “a publicly available digital service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used”. (I.e.: by replacing "electronic communications" for "digital")

In addition, to ensure consistency and avoid redundancy in regard to rules applied to IAS, please. Also the rules applied to IAS should be re-assessed in light of horizontal rules (see the response to Q. 111).

(continue here if necessary)

Question 113: Which sector-specific (end-user and other) provisions should apply to IAS? Please indicate these provisions (if already present in the current framework) or describe the content of such rights and obligations, and explain your response and the measures you suggest.

- ETNO believes that the review should be the opportunity to re-assess the obligations applied to all digital services. While some current obligations for IAS appear to be continuously indispensable in regard to a specific characteristic, others like in the universal service directive clearly deserve an update (as further explained below) in light of market and technologies evolutions.
- Also IAS regulation should be consistent with the horizontal rules applied to other digital services. In other words similar requirements may be required for any other digital services. (see response to Q. 111; compare responses to Q. 100 and Q. 108 on the required horizontal approach).
- Specific consumer protection rules that are relevant for inter alia selected characteristics of IAS, - and which may in principle also applicable to other services, - are partly included in the Telecom Single Market Regulation:
 - Obligations on non-discrimination and neutrality where IAS has a gate-keeping functionality
 - Transparency on quality of service
 - Obligations that ensure a smooth switching process

(continue here if necessary)

Question 114: In relation to IAS, is there a need for any further end-user rights in addition to those included in the provisionally agreed Telecoms Single Market Regulation? In case you strongly agree or agree, what should be the level of harmonisation?

	strongly agree	agree	disagree	strongly disagree	Full harmonisation	Minimum harmonisation
(i) Contractual information (e.g. related to quality parameter other than speed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Transparency measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Independent price and quality comparison tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Control of consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) Contract duration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vi) Measures facilitating switching (receiving operator-led process;						

<p>protection of end-users throughout the switching process, compensation in case of delay and abuse in the switching process)</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>(vii) Measures to guarantee the effectiveness of end-user rights (in particular contract termination and switching) in relation to bundles of services</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>(viii) Measures eliminating restrictions and discrimination based on nationality or place of residence</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please provide a brief explanation for each of your responses.

ETNO believes that, in relation to IAS, there is no need for any further end-user rights that even go beyond those included in the recently adopted Telecom Single Market Regulation, which also addresses the needs of the Open Internet (see response to Q. 113). In addition, it should be reminded that IAS are also subject to the Universal Service Directive and to the Consumers' Rights Directive. Apart from consistent rules for IAS, also cross border harmonization is required, however, has to lead to proportionate rules for all:

- Current rules applied to IAS and ECS are already much stricter compared to other standards in the digital market. However, it is not reasonable that consumers require very specific or a higher degree of consumer protection standards in regard to either ECS or IAS - but consumers need to rely on consistent standards across the digital market.
- Even if IAS are an enablers for consumers to enter the internet and use other services, there is no automatic need for stricter rules compared to horizontal obligations, e.g. in regard to information requirements. Besides this, a new future-proof framework needs to acknowledge that also other services have become crucial enablers for consumers, serving as gatekeepers in the digital market. These services, if at all, are currently covered by less strict horizontal legislation.
- Considering this, the above listed obligations appear already by today restrictive and, considering the asymmetry towards horizontal legislation, non-proportionate. A further tightening of rules would even increase this non-proportionality and burdens for service providers.
- Beyond consistent consumer protection standards across different digital services, consistency is also required cross-border - in terms of geographic full harmonisation. This can facilitate cross-border offerings and builds trust of consumers that use services offered in other EU member states. While full harmonization need to ensure effective consumer protection standards, these harmonized rules must be proportionate, not imposing disruptive costs for industry.

(continue here if necessary)

Question 115: Do you think that traditional electronic communications services (such as voice or video telephony, SMS/text messages, e-mails operated by telecoms providers, other services) can be functionally substituted by OTT services or platforms with communication elements (e.g. internet telephony services, web messaging services, webmail services, social media platforms, other)?

	strongly agree	agree	disagree	strongly disagree	do not know
Voice telephony	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video telephony	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sms/text messages	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e-mails provided by telecom operators	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other traditional telecommunications services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain each of your responses and provide examples of such OTT services.

- In principle, many consumers consider telecom operators' and OTTs' communication services as functional substitutes. This is particularly evident regarding messaging services and emails, where increase of OTT messaging and the stagnation of decrease of SMS usage illustrate consumers' substitution habits. Regarding emailing, other providers than telecom providers are market leaders, while consumers are often not even aware if the email provider is a telecom operator or not. Also with regard to voice services, many consumers consider OTTs' communication services as functional substitutes, even if less than with regard to messaging. As a general rule, functional substitution appears strong where consumers do not value traditional communication services' specific characteristics, which are any-to-any-connectivity based on phone numbers and end-to-end quality (managed services), which ensures reliable connection and emergency call functionality. These characteristic appear as public value which require to be preserved, while regulatory burdens imposed on these providers of quality services must be as light-touch as possible (compare ETNO's detailed response to Q. 102).

- Apart from the obvious differences of quality services, in general most consumers appear to not appreciate the more strict regulation of telecom operators' services. E.g. ComRes' survey "The digital consumer survey", commissioned by ETNO, showed that majority of consumers were not aware of many differences in protection levels granted by telecom operators compared to OTTs' internet-based services. Accordingly, many of the stricter rules such as on data protection or transparency applied to telecom operators' services are hardly valued by consumers and, thus, do not appear as positive differentiator for telecom operators.

- The convergence of communication services, perceived by end-users, is illustrated in the recent study produced by The Boston Consulting Group "Five Priorities for Achieving Europe's Digital Single Market", The Boston Consulting Group, October 2015:
"the volume of Internet-based voice services in Europe is growing at more than 20 percent a year and is expected to lead to a 21 billion revenue loss for European telcos, or 7 percent of their total, by 2018. OTT messaging is growing even faster - more than 30 percent a year - and is projected to result in a 10 billion revenue loss for telcos by 2018 in eight European countries alone (Germany, France, the UK, Italy, Spain, the Netherlands, Belgium and Portugal). Part of the growth in OTT voice and messaging stems from consumers substituting these services for traditional telephone calls and text messages and part of the growth represents additional usage. Services such as Whatsapp voice calling and FaceTime audio are expected to accelerate both substitution and new usage".

(continue here if necessary)

Question 116: Should **all** communications services (mainly provided over the IAS) which are functionally substitutable to existing ECS fall under a new common definition for such communications services (which would be different from that of IAS and from the current definition of ECS)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

- In principle and as explained in ETNO's response to question 102, functional substitutes should fall under the same term to ensure that same services are subject to same - but lighter - rules. Accordingly, communication services should have to comply with the same remaining obligations, ensuring the same protection standards (see response to e.g. Q. 101).

- This does not contradict that specific rules can be applied to some communication services' special characteristics. However, this should be done very selectively and in a proportionate way, where clearly required. This applies to a subset of communication services, as described in ETNO's responses to the Q. 110 and 115.

(continue here if necessary)

Question 117: What should be the essential elements of a functional definition of communications services? Please explain your response.

- A future-proof definition of communication services needs to be technology-agnostic, reflecting consumers' perception and using habits. Therefore, a definition needs to encompass any services or functionality that allow communication between individuals. The rationale for regulating of communications between individuals does not apply to the vast majority of services where machines are involved.
- A recent survey by ComRes demonstrates that many consumers perceive communication services of telecom operators and OTTs as substitutes. Accordingly, consumers expect consistent consumers' rights.
- A holistic definition of communication services must not rule out that some communication services that show special characteristics, which require specific rules (since they appear as quality standards, which needs to be preserved - see ETNO's response to Q.102). However, this difference in treatment with limited scope must not constitute that such communication services generally fall under a different set of rules.

(continue here if necessary)

Question 118: Which types of communications services, possibly including services currently not subject to sector-specific rules, should be encompassed by such a definition? Please explain your response.

See ETNO's response to Q. 117 copied below:

- A future-proof definition of communication services needs to be technology-agnostic, reflecting consumers' perception and using habits. Therefore, a definition needs to encompass any services or functionality that allow communication between individuals. The rationale for regulating of communications between individuals does not apply to the vast majority of services where machines are involved.
- A recent survey by ComRes demonstrates that many consumers perceive communication services of telecom operators and OTTs as substitutes. Accordingly, consumers expect consistent consumers' rights.
- A holistic definition of communication services must not rule out that some communication services that show special characteristics, which require specific rules (since they appear as quality standards, which needs to be preserved - see ETNO's response to Q.102). However, this difference in treatment with limited scope must not constitute that such communication services generally fall under a different set of rules.

(continue here if necessary)

Question 119: Should a definition of communications services include (several answers possible):

- one-to-one communications between persons
- interactive communications between several persons (e.g. via social media)
- communications between persons and machines (e.g. confirmation received by emails or SMS)
- communications between machines (e.g. M2M, IoT, eCalls)?

Please explain your response.

See ETNO's response to Q.117. In addition, it should be recognized that communication with and between machines is in many ways different from traditional communication between individuals. Although no definition of M2M/IoT services has yet been adopted it should be recognised that many parts of the communication regulation may not be relevant nor fit for purpose for M2M/IoT. In our view M2M/IoT-services should therefore be considered outside of the scope of the definition of communication services provided to end-users for the purposes of this consultation.

(continue here if necessary)

Question 120: Which sector-specific provisions (end-user and other, such as requirements for reasonable interconnection, or on integrity and security) should apply to communications services as newly defined in the light of your responses to the previous questions? Please indicate these provisions (in the current framework) or describe the content of such future rights and obligations, and explain your response.

- ETNO is of the opinion that in principle there is no need for sector-specific regulation of services anymore and, instead, an updated horizontal framework shall apply to all services, including communication services (see responses to Q. 100 and 102) .
- This does not contradict that specific rules can be applied to some communication services' special characteristics. However, this should be done very selectively and in a proportionate way, where clearly required. This applies to a subset of communication services which ensure end-to-end quality and any-to-any connectivity based on phone numbers, as described in more details ETNO's responses to the Q.s 110 and 115.
- Regarding the mentioned "interconnection", ETNO stresses that interconnection of networks needs to be considered separately from any-to-any-connectivity of communication services, once networks have completely switched to IP. An obligation to interconnect networks - applied to network providers -is a prerequisite for communication services' any-to-any-connectivity. However, interconnection of networks does not automatically lead to any-to-any-connectivity of communication services (accordingly, most OTT services lack any-to-any-connectivity with other services).
- Integrity and security obligations need to be applied consistently to all services, in an appropriate way, across the whole value chain.

(continue here if necessary)

Question 121: In light of the broad choice of communications services which have become available, is it still justified that providers of communications services as newly defined would be potentially subject to the exceptional ex-ante regulatory regime based on markets and significant market power identified in accordance with competition principles?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Regarding the competitive communication service landscape, an ex-ante regulatory regime based upon SMP test is not justified any longer for services. A general framework must ensure a common set of rules that is harmonized and is valid for all market players, including OTTs, in order to level the playing field for all competitors. A horizontal framework needs to be based on several high-level principles, and move from currently applied ex-ante regulation of telecom operators' services to proportionate ex-post instruments, that effectively ensure consistent protection standards and fair competition across the digital market wherever necessary (see responses to Q. 100-102).

(continue here if necessary)

Question 122: Do the markets for termination of calls to numbers allocated in accordance with a numbering plan have characteristics (e.g. application of wholesale termination charges rather than peer exchange or bill & keep) that are likely to continue to justify ex ante regulation in the period up to and beyond 2020?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

- Depending on the type of service, mechanisms like peering and B&K are significant in the case of interconnection at the level of IP connectivity and therefore they are only typical in regard to the public Internet. This means that there is no global interoperability between the communication services that are provided to end-users, since the APPs used in the terminals are proprietary and not interoperable between them.
- In the case of interconnection among individual public communications services (voice, messaging, etc.), it has always to be discriminated the type of service in order to associate the appropriate level of quality and continuity of the service, and also the allocation of resources. It follows that the appropriate remuneration for all actors involved in the supply chain of each different public service for communications and digital content has also to be ensured at the interconnection, ignoring the current instrumental claims of OTTs that are currently outside the framework regulation, and consume resources and capabilities of the networks of other entities.
- From the regulatory point of view only symmetrical regulations on interconnection prices should normally be applied in the future, taking into account the different volumes of traffic generated and the burden on different networks. In the first instance free trade negotiation should be allowed for the economic environment connected with the interconnection, which is in the interest of all market players. Only in cases of distortions of competition it should be allied ex-post regulation with a possible intervention of the reference NRA.

(continue here if necessary)

Question 123: Should providers of communications services as newly defined benefit from a general authorisation, without any attendant notification formalities, as is the case for information society service providers under the eCommerce Directive?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

- If authorization rules are continuously relevant in a new horizontal framework for all services, the respective rules need to reflect the convergence of services and apply in principle to all service providers that target EU customers. This applies irrespectively of whether the provider is a telecom operator or another player and these rules should not be burdensome.
- However, this also needs to reflect the specific rules in regard to services that provide phone numbers and end-to-end-quality (see on specific role of communication services that provide numbers and end-to-end quality responses to Q.110 and 104).

(continue here if necessary)

Question 124: Should all services covered by a new definition of communications services benefit from rights currently attached to the status of ECS provider (e.g. access to numbering resources for their own services, interoperability and interconnection)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

It has to be noted that these above mentioned “rights” are obligations imposed on telecom operators. For example, interoperability of communication services (any-to-any-connectivity) has aimed at reducing large service providers’ potential network and lock-in effects imposed on consumers and increasing their switching barriers. Irrespective of this regulations’ initial intention, the results of the regulation are characteristics of communication services that are highly valued by consumers. In order to preserve such quality standards, an updated regulatory framework that covers all services needs to set the right conditions, e.g. to avoid dilution of end-to-end quality. Specific rules applied to some communication services’ special characteristics need to be applied selectively and in a proportionate way, and only where clearly indispensable (see responses to Q. 100 and 115).

ETNO’s response to this question depends on the assumed “new definition of communications services”. The following response assumes that an

updated definition covers all services that are perceived as communication services from the end-users' perspective (based on ETNO's response to Q.117):

- Firstly, considering that IP-services are delivered completely independent from the network, interconnection of networks has to be considered separately from any-to-any-connectivity of services. Interconnection rights should be balanced with network investment via asymmetric interconnection fees if costs are substantial asymmetric. There is no rationale why providers of best-effort services (over the top, without network capacities) should be granted right to interconnect to network providers, receiving termination fees. Besides this, such interconnection dilutes end-to-end quality (see response to Q. 115, 120).

- Secondly, to preserve the above described quality standards such as any-to-any-connectivity, it has to be considered that end-to-end quality can only be ensured between providers that manage their services. With an increasing number of best-effort providers that interconnect to QoS services, end-to-end quality gets diluted. Consumers could not trust any more that when using a managed communication services that the connection relies on end-to-end quality. Therefore, and if the above mentioned characteristics shall be preserved, managed and best-effort communication services need to stay separate, not being interconnected (see response to Q. 110).

- Thirdly, other service providers, which do not ensure interoperability and portability of identifiers, have the opportunity to build large customer basis and impose network and lock-in effects to consumers. This can lead to adverse effects on competition and consumer's choice. To ensure consistent standards across the digital market, in areas where such effects have proven to become a significant issue, adequate means to reduce network and lock-in effects must be applied in a proportionate manner.

- Finally, although many end-users highly value any-to-any connectivity and end-to-end quality of legacy communication services, consumers are most often not aware of other more strict protection standards applied only to telecom operators. Accordingly, an application of different rules to functional substitutes in terms of e.g. transparency or data protection, appears neither required nor proportionate. More important is the application of consistent, effective and proportionate consumer protection rules.

(continue here if necessary)

Question 125: In relation to **communications services other than IAS**, is there a need for any further end-user rights? In case you strongly agree or agree, what should be the level of harmonisation?

	strongly agree	agree	disagree	strongly disagree	Full harmonisation	Minimum harmonisation
(i) Contractual information (e.g. related to quality parameter other than speed)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Transparency measures	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Independent price and quality comparison tools	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Control of consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) Contract duration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vi) Measures facilitating switching (receiving operator-led process; protection of end-users throughout the switching process, compensation in case of delay and abuse in the switching process)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vii) Measures to guarantee the effectiveness of end-user rights (in particular						

contract termination and switching) in relation to bundles of services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(viii) Measures eliminating restrictions and discrimination based on nationality or place of residence	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please provide a brief explanation for each of your responses.

- Strict rules applied to telecom operators' IAS and ECS already lead to many obligations in regard to consumer protection standards, partly being outdated or overly strict. Other communication services have to comply with less numerous obligations. Considering this, any further rules applied to ECS or IAS would be clearly inappropriate and not required.
- Instead, as described above, an updated future-proof framework needs to re-assess all sector-specific and horizontal rules. Only clearly required rules should be included in a horizontal framework, defined in a light-touch and proportionate way.
- According to this approach, communication service providers that benefit by today from an overall light-touch legislation, may be obliged to follow some new rules. This refers to, e.g., new obligations regarding equal rules for all commercial services with business models that require remuneration of end-users (see ETNO's response to Q. 110) or selected new transparency obligations (see ETNO's response to Q.100). Apart from that, an updated legislative framework needs to provide appropriate horizontal tools to lower switching barriers in regard to selected service providers, if there has been identified a significant issue (see ETNO's response to Q. 102).
- Beyond consistent consumer protection standards across different digital services, consistency is also required cross-border - in terms of geographic full harmonisation. This can facilitate cross-border offerings and builds trust of consumers that use services offered in other EU member states. While full harmonization need to ensure effective consumer protection standards, these harmonized rules must be proportionate, not imposing disruptive costs for industry.

(continue here if necessary)

Question 126: Does the particular nature or importance of voice services for end-users still require specific rules?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

All communication services, including voice, should be covered by horizontal legislation. While, in principle consistent standards should be applied to all services equally, specific rules for selected special characteristics of some service are possible if clearly required (see ETNO's response to Q. 100 to 102).

(continue here if necessary)

Question 127: Are there any other communications services showing specific features or risks related to their usage which would require or justify specific end-user protection or other rules?

- As described above, specific rules should only be applied selectively, including specific rules applied to communication services (see responses to the Q.s 100 to 102 and 110)
- Currently, ETNO does not foresee the need of specific further rules applied to only communication services.

(continue here if necessary)

Question 128: Should any obligations related to access to emergency services (112) or to quality of service requirements apply to all providers of communications services in the same way, irrespective of whether they are provided as managed services or subject to best-effort (Internet access services)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

In principle, the same obligations (if applicable) should affect any provider of communications services that delivers similar (substitutable from the point of view of users) voice service. However, reliable emergency call functionality cannot be provided by any service. Services that can provide these public valued functionality must not be overly burdened.

- Providing high quality standards such as end-to-end quality requires the management of services (see response to Q. 110). This is the prerequisite of reliable emergency call functionality. The latter also requires to provide phone numbers, which is linked to provisioning of any-to-any-connectivity. Ensuring this set of interdependent rules within a “regime of quality services” requires a significant effort for service providers. From the end-users point of view, these quality standards are highly valued. Best-effort communication services can for technical reasons not ensure an equally reliable connection and most often these services do not provide phone numbers which allow emergency calls and any-to-any connectivity with other providers.

- ETNO believes that any provider should have the freedom to either provide communication services based on best-effort or on end-to-end quality. However, any provider which decides to provide communication services based on end-to-end quality and phone numbers, would automatically fall under all respective obligations, including emergency call functionality, transparency etc. Providers of best-effort services need to provide transparency on the lack of these standards towards consumers.

- Rules applied to providers of quality standards should be as light-touch as possible, to not impose inappropriate burdens on those providers that contribute to consumers benefit. Costs related to the provisioning of emergency call functionality should first of all be publicly funded. At least, these costs which are currently only burdened by telecom operators need to be shared among the various service providers in the digital market.

(continue here if necessary)

b) Adaptation of provisions to new challenges

Question 129: Do you consider that there are new or emerging sector-specific end-user protection issues (resulting inter alia from technological or commercial developments) which need to be addressed?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If your response is positive, please indicate the areas where you see a need for enhanced sector-specific end-user protection and whether such issues should be addressed at EU or at Member States level.

- In principle, any future obligations needs to be light touch and proportionate. This includes that rules only address - evidence based - real issues (see responses to the Q.100 and 125). If there are any new rules indispensable to address new risks, this has to be done evidence-based and in a proportionate, light touch way.
- This may refer to areas as described in ETNO's response to Q. 104, if significant downside on competition and consumers have been identified. Also, an updated framework needs to be based on an updated understanding of remunerations, in order to ensure consistent protection standards across the digital market (see response to Q.104).

(continue here if necessary)

It has been argued that a longer contract duration in certain geographic areas (e.g. challenging rural areas, as discussed in section 3.3.2 (c) above), where there is no strong business case for investments in very high capacity broadband networks, would diminish the risk for first-moving providers and thereby increase the likelihood of such investments. This might in particular be the case where a network investor in a challenging area proceeds on the basis of commitments by a sufficient number of end-users to give reasonable prospects of a return on investment (demand aggregation).

Question 130: Do you consider that derogations should be possible, in challenging areas, from the generally applicable maximum contract duration (currently 24 months pursuant to Article 30 USD) in order to diminish the risk of providers who are the first movers investing in very high capacity networks in such areas?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response; in particular describe how such areas could be defined and how any such derogation could be implemented.

- In general, ETNO does not support that consumers are forced to conclude contracts with long minimum duration times. Equally, ETNO believes that a regulation of minimum duration times is not required if consumers have sufficient choice between different contracts. Consumers should have the freedom to pick a contract with longer minimum duration times, if this includes specific benefits for the consumers. Regarding the internet access or communication service markets, consumers have a broad choice to choose. Therefore, ETNO believes that sector specific rules related to contract duration are not required anymore. They should be removed and replaced by the use of horizontal rules.
- In regard to challenging areas, we believe that the first priority would be to improve the prospects of investing in all the areas. That said, for challenging areas, or very costly connections, longer contract duration could be one supportive element in the overall context of a positive framework that favours investments.

(continue here if necessary)

Question 131: Should the scope of the number portability regime be adapted to new technology and market developments and apply also to elements other than telephone numbers which may be obstacles to the switching of providers of communications services, for instance to allow moving content stored by end-users with communications service providers?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. Would your answer be affected by the question whether the scope of application of any such obligations would extend beyond providers of electronic communications services as currently defined, e.g. also to providers of online inter personal communications services, or to online service providers do not provide communications services (e.g. cloud-based services, online intermediaries)?

Portability of numbers and identifiers:

- The specific rules on portability of numbers for managed communication services should be kept, considered in the scope of a new horizontal framework.
- Number portability appears as valued quality standard, applied to providers of end-to-end quality. A future horizontal framework should preserve this standard in a proportionate way (see ETNO's response to Q. 102). Number portability is closely linked to the obligations on any-to-any-connectivity: There is no reasonable number portability without any-to-any connectivity and both targeting a reduction of network and lock-in effects.
- Best-effort providers currently cannot ensure neither end-to-end quality nor any-to-any connectivity, based on phone numbers. Accordingly, ETNO believes that best-effort services should not be obliged to provide number portability. If best-effort services (that cannot provide as reliable connections as managed services) provide phone numbers this leads to a dilution of end-to-end quality, when interconnected with quality services. This appears as major issue.
- Best-effort communication services simply need to inform their customers about any restriction of this service (e.g. no end-to-end quality, no emergency call functionality, no portability of identifiers)
- Apart from transparency obligation, in areas where best-effort services impose high switching barriers on customers which have proven to become a significant issue, adequate means to reduce network and lock-in effects must be applied in a proportionate manner (see ETNO's response to Q. 104).

Data portability:

- The current draft GDPR already includes a provision on data portability and no parallel discussion in the scope of this consultation is required.
- Any rule that specifically aims at only communication services is neither necessary, nor proportionate. Considering that portability aims at reducing lock-in and network effects, telecom operators are already sufficiently addressed through number portability obligations - switching barriers have already been effectively reduced.
- If such a rule is applied, it should target only services and data which impose a strong network and lock-in effect. Only in these cases, such obligations may have a positive impact in regard to lowering switching barriers and, thus, increasing competition and consumer choice.
- Any collateral damage or unintended side effects through the upcoming rules within the GDPR needs to be avoided.

(continue here if necessary)

Question 132: Is there a need to adapt the current rules on change of provider (switching) in view of the increasing importance of bundled offers consisting of (i) several communications services or (ii) a combination of communications services and other services?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

If yes, what amendments should be envisaged? Please specify.

- First of all, in a digital market based on IP, any rules on switching first of all refer to the IAS. IP services are delivered independently of the network, being only interlinked in case of QoS.

- Regarding obligations for switching the internet access, it has to be considered that IAS markets are competitive and other providers of digital services are not regulated at all, including bundled services (e.g. no obligation to provide single play offerings, comparable to telecom operators). Further burdening of telecom operators would increase this inconsistent regulatory standard in the digital market. This is neither required nor proportionate.

(continue here if necessary)

Question 133: The current sector-specific end-user provisions are based on the principle of minimum harmonisation. This approach provides Member States more flexibility and allows them to maintain or adopt more protective measures. But it also leads to a fragmented level of end-user protection across the EU and additional complications for the cross-border provision of services. The Consumer Rights Directive of 2011[1] therefore adopted a full harmonisation approach. Should any (maintained, amended or new) sector-specific end-user provisions aim at:

- minimum harmonisation
- full harmonisation
- minimum harmonisation at a very high level
- do not know

Please explain your response.

- Beyond consistent consumer protection standards across different digital services, consistency is also required cross-border. This facilitates cross-border service provisioning and builds trust of consumers that use services offered in other EU member states.
- A full harmonization approach needs to ensure effective consumer protection at proportionate costs for industry. This means, that each rule needs thorough assessment and only applied to all market players if really required (evidence based). This ensures that disruptive new consumer protection obligations are avoided.

(continue here if necessary)

c) European emergency number 112 and harmonised numbers for harmonised services of social value (116 numbers)

Continuous technological change and market developments, in particular regarding voice over Internet Protocol (VoIP) based on digital service platforms associated with a broadening range of connected devices, are raising an increasing number of technical and regulatory challenges on the possibility for EU citizens to access the 112 emergency number in the future. The annual reports on the implementation of 112 provisions have constantly shown a dissatisfactory state of play, such as low awareness of the 112 number, caller location accuracy levels that reach the emergency services well below the current technological possibilities offered by next generation access and Global Navigation Satellite Systems and access for disabled end-users heavily relying on 112 SMS.

Question 134: In your view, is it important to ensure access to 112 from all connected devices at the end-user's disposal and from any newly defined communications services, including in a private corporate network environment?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

Providing reliable emergency call functionality depends on the management of communication services. Best-effort communication services cannot ensure this reliability. Providers of emergency call

functionalities should not be further burdened, e.g. by including new requirements related to private corporate network environments.

- ETNO considers that the current status is satisfactory, however, ETNO would like to note that the EC appears to underestimate the complexity and the costs associated, imposed on the public operators, on national governments and on the related organizations operating territorially.
- The use of GNSS / GPS for the mobile location is a possible solution but often it is not insurable under any conditions, it has limitations related to terminals and requires prior standardization of terminals and mobile networks.
- The use of SMS platforms is inherently scarcely reliable, especially in the case of high volumes of messages in emergency conditions.
- In regard to VoIP platforms, platforms of public telephone operators, which are standardized by ETSI / 3GPP, should be distinguished from those of global providers' "Internet-based" platforms, often of "application-based" type, which are proprietary and not interoperable.
- Public networks in VoIP technology are evolving for fixed and mobile services according to the specifications of 3GPP / ETSI, based on IMS, which is the standardized mode of provision of emergency services on a global basis. We believe that regulatory intervention on the emergency services, including the location, should be based on these standards and, when necessary, the EC should intervene directly with specific requirements for fixed and mobile services that ETSI / 3GPP will develop. In fact today there are significant differences between the 3GPP specifications and the requirements of EC on emergency services, also in relation to the growing role of the smartphones.
- The solutions for the emergency services, including the location, for the global Internet-based telephone providers and virtual ones, including best-effort service providers, are being developed by ETSI TC NTECH through the EC mandate M / 493. However, of the current regulatory framework foresees no obligation for best-effort communication service providers to offer emergency services, accordingly reflected in the rules on authorization . The definition of a common technical standard that includes such providers is not reasonable possible (see response to Q. 105) and would be extremely complex. The responsibilities and the costs tend to be too unbalanced on the existing licensed operators, also with unreasonable demands that impact the solutions available at national level for the emergency services.
- With regard to the impact on devices, we believe it should be always considered that the emergency services are directed exclusively to end users "human" and, therefore, do not need to be extended to all connected devices. Only the case of the eCall, the service can be considered to fall within an environment of automatic / manual service, but it is still a telephone service and for the protection of citizens. They must be distinguished from the emergency services, the commercial services of "secure call" for different uses of safety and security of persons and property, alarm systems, etc. In the end we do not consider that there are specific needs for further regulatory action, in addition to the existing requirements on public eCall.

(continue here if necessary)

- The subject of the provision of emergency services in the environment of private "corporate" networks, then through terminals, fixed or wireless, connected to physical or virtual PBXs, needs clarification. The private network is by definition outside the control of public authorized operators or providers and also of OTTs. Only the company "corporate" itself, which has authorized the establishment and provision of a private network, has the knowledge of the private network itself and, therefore, is able to comply with any future obligation of access to public emergency services . The technical solutions for private networks are proprietary inside the private networks, and only on the access to the public network it is insurable the standardization of functionalities and technical protocols.
- At present a corporate network has a public access to public emergency services, which then handles internally according to its own choices of internal security; consequently there is not a real lack of provision. In case of different regulatory choices, the responsibility will fall on corporate networks themselves, which should be explicitly included in the obligations to provide access to emergency services. It would also be necessary to verify the feasibility of a specific standardization of corporate networks themselves. Ultimately we believe that these obligations are extremely complex and not feasible in practice considering the variety of technical solutions and existing providers of corporate networks.
- Instead, if we maintain as today the requirement of access to emergency services only on the access to the public networks, by the corporate networks, it would then be appropriate to define common criteria for the regulations that ensure the proper provision of emergency services, in terms of strict association between each access of the corporate network with the public network and the geographic area covered by the emergency services.

Question 135: Would it be appropriate, having regard to the division of responsibility in the Union regarding civil protection, for the EU electronic communications framework to regulate not only the means of connection to emergency services, but also the performance criteria of those services (e.g. the data processing capabilities and minimum performance levels of the Public Safety Answering Points)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

- Emergency call functionality is perceived as highly valuable by consumers, and, accordingly, these quality standards need to be preserved in a new future-proof legislation. Specific rules applied to managed communication services - to provide reliable emergency call functionality - must not impose any further burdens on these providers, but ensure light-touch obligations.
- On the contrary, it is very important to give the right relevance to all actors of the emergency service value chain. Indeed, the availability and efficiency of the 112 service equally depends from the level of compliance and quality of network operators on one side and of Public Administrations on the other. The ability of PSAP to gather and manage data from the network operators to deliver the service should be considered as a pre-requisite and not run in parallel (if not even a posteriori). In the case of e-call, obligations and related timelines should be made mandatory for Public Administrations (PSAP) to ensure an harmonized implementation of obligations on both sides of the service provisional chain.
- Costs related to the provisioning of emergency call functionality should first of all be publicly funded. At least, these burdens which are currently only borne by telecom operators need to be shared among the various service providers in the digital market.

(continue here if necessary)

116 is a range of easy-to-remember and free-of-charge phone numbers to assist citizens in need throughout Europe. Based on the Commission decision on reserving the national numbering range beginning with '116' for harmonised numbers for harmonised services of social value (2007/116/EC) and its subsequent amendments, the European Commission has reserved five short numbers with a single format 116 + 3 digits for helplines that should be accessible to everyone in Europe. The decision was based on the provisions of the regulatory framework on the harmonisation of numbers to promote pan-European services. In 2009, the co-legislators reinforced the 116 provisions by introducing requirements on Member States with regards to promotion and access, enshrined in Article 27a of the Universal Service Directive.

On its website, the Commission regularly publishes a report on the state of implementation of 116 numbers. So far only two of the five short numbers have been well taken up (116000 missing children hotline is operational in 27, and 116 111 child helpline in 23 Member States).

In 2011 and 2012, the Commission carried out a Eurobarometer surveys to assess the level of awareness in the Member States. The survey showed the widespread absence of awareness of these services. The survey showed strong support expressed by citizens across the European Union for such services, but also the absence of awareness of these numbers.

Question 136: In your opinion have the provisions related to harmonised numbers for harmonised services of social value proven to have EU-level added value, and should they be maintained at the EU level?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

• We consider demonstrated by the facts that pan-European services of social interest with harmonized numbers have not risen a significant interest in Europe and in the citizens, since they are most appropriate initiatives of similar type at national or local level. Possibly the European Commission may encourage national governments to the provision of services harmonized in the content but unique numbers are not needed at EU level. Furthermore, the identification of unique numbers in all national numbering plans is complex and indirect costs fall on operators without an interest at the level of citizenship.

• The European Commission should be more concrete in its assessments, eliminating this harmonization of numbers in the EU. If the European Commission intends to use a single harmonized number in EU for a specific social service, it should provide a prior consultation phase to ensure the effective interest of the various stakeholders and the market. The choice of unique numbers should use only non-geographic global numbers defined by ITU-T, eventually asking for the allocation of new ones; this ensures uniqueness and minimal impacts on operators, as well as fast delivery times.

(continue here if necessary)

d) Future needs for machine-to-machine communications (M2M)

M2M refers to the automated transmission of data between mechanical or electronic devices equipped with sensors and metering capabilities. It represents one of the fastest growing segments of the telecom market with a widening range of large-scale applications, e.g. in the areas of automotive, health, smart cities, etc. Its rapid uptake is likely to raise critical issues in the area of numbering, and in particular the risk of national mobile number exhaustion, the extra-territorial use of national numbers, the diversity of national numbering regulatory requirements, or the lock-in of SIM cards with the connectivity provider.

Question 137: Under the current framework, only undertakings providing electronic communications networks or services may be granted rights of use for numbers under the general authorisation. These numbers are however not available to other undertakings using on (very) large scale electronic communications services as an ancillary component to their products and services (e.g. connected objects). Is the scope of assignees of rights of use of numbers still relevant?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO believes that revisiting the rights of use would not be desirable.

In regard to end-users interests, please see the response to Q. 104, which highlights the value of any-to-any connectivity, based on phone numbers and reliable connections (end-to-end-quality). Services based on M2M/ IoT usually do not focus on end-users and, thus, require different treatment.

It is difficult to envisage a setting where M2M/IoT-user (non-authorized providers) would be able to fulfil the legal and regulatory requirements associated to the use of public numbers; in fact the "user" always has to purchase a public service by an operator or provider. Rules for sustainable, efficient, global and interoperable use of public numbers have been defined over the years between the operators and international and national Administrations, and changes to these should be avoided.

On the issue of M2M services, many analysis have been made by international and European bodies (such as EC, BEREC, CEPT ECC WG NaN, ITU-T SG2) and many positions are available of different parties. The EC should refer to these relevant insights.

M2M services are a plurality of commercial services that include

multiple components of networks and electronic communications services, wider than the role played by public fixed and mobile networks; only a correct understanding of the provision chain enables a proportionate regulatory analysis that may support their development.

Even for M2M services, the need for numbering resources of national and international public plans should be well justified in each case. For E.164 numbers there are no significant needs of future numbers for M2M, as in the majority of cases M2M services use a data connection and the Internet access service, which do not require the use of E.164 public numbers. Current national and global E.164 resources are available via undertakings providing electronic communications networks or services. The scope of assignees of rights of use of numbers still relevant.

In the case of E.212 identifiers that are used as the unique identity of user subscription to a mobile service, then as the SIM identity, their use is justifiable only if it is provided a public mobile service for technical reasons and, therefore, only by authorized mobile operators. Additionally, and considering the increasing migration of all services to IP, providers of managed services (as basis for reliable connectivity and any-to-any-connectivity) should grant a right to get phone numbers (see response to Q. 104). No other party national or international has the need for such numbering resources, given that they would not be able to use them, if not through an agreement with a mobile public operator, even in the case of use for roaming. E.212 should be used only for technical reasons, and not for commercial reasons. It is not confirmed that the allocation of E.212 is an appropriate solution to switch to another mobile network provider. Other solutions are being investigated and developed at the same time. A harmonized European approach for the allocation of E.212 identifiers should be investigated.

The use of extra-territorial public numbers has been the subject of investigations. But still a harmonized approach of the regulators for extra territorial use of E.164 and E.212 numbers is to be put in place given the international context e.g. M2M services.

Finally, since extending the capacity of public numbers has significant operational and technical impact, it is necessary to continue to apply specific common rules at international level for the management of national and international numbering plans, assigning resources where there is actually a demonstrated need by authorized parties to provide a public communications service. This ensures interoperability of such numbers in Europe and at international level between public networks.

We believe that the principles and guidelines in the current regulatory framework and in ITU-T for the definition and use of public numbering should be preserved, rejecting instrumental pushes by OTTs outside the regulatory regime.

The legal framework for services should address in a coherent manner these aspects of identification and authentication of M2M networks.

(continue here if necessary)

Question 138: Should the electronic communications framework address in a coherent manner other aspects of identification and authentication of M2M networks, i.e. not only numbering but also IP addressing and cognitive identifiers?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

We do not believe that the regulatory framework should regulate IP addressing schemes or other identifiers at the application level. These are issues pertaining to the international technical standardization.

(continue here if necessary)

Question 139: In the face of the above issues, are national numbering plans a suitable way of administering numbers for Machine-to-machine (M2M) communications services of pan-European or global scale?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If your response is negative, would you consider a European attribution system for M2M communications to have adequate geographic scope?

ETNO sees that national numbering plans are sufficient and suitable for pan-European and global scale. They are already widely adopted for this use.

M2M-market is global by nature and introducing European numbering scheme would not cater to the needs of this market. Considering the sufficient availability of national and international number resources, we see little value in such new European numbering scheme. On the contrary, such scheme could even disrupt scalability to the detriment of European consumers and businesses. The evolution of the E.164 numbering is under the responsibility of the ITU-T which is responsible for the recommendations on public numbering plans and identifiers. We see no need to create parallel European numbering spaces.

(continue here if necessary)

M2M applications are likely to drive demand for embedded SIM cards (eSIM) provisionable over-the-air (i.e. reprogrammable in order to authenticate the device with a different connectivity provider without physical change of the SIM) and eSIMs could also be used in end-user terminal equipment (handsets, tablets). The use of eSIMs may have implications on switching electronic communications service provider and the related rules.

Question 140: Will there be demand for SIM cards to be more easily provisionable over the air, for both M2M communications and end-users' own devices?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

We see demand for SIM cards provided over the air and the industry is defining appropriate technical solutions to meet this demand: first within GSMA (for mobile operators) and then inside the ETSI TC SCP, where common solutions are under definitions between different stakeholders, including devices and SIMs manufacturers.

(continue here if necessary)

Question 141: Should over-the-air provisioning of SIM cards be promoted by regulation?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If your response is positive, please indicate in which circumstances and by what means this should be promoted.

As noted in the response to Q. 140, industry is defining technical solutions for over-the-air provisioning of SIM's to seize the technological opportunities and efficiently respond to market demand. We believe regulatory intervention would disrupt this process.

(continue here if necessary)

e) Scope of 'must carry' and Electronic Programme Guide provisions[1]

If broadcast content is considered relevant inter alia for pluralism, freedom of speech or cultural diversity, 'must carry' obligations ensuring the transmission of specified TV and radio channels can be imposed on providers of broadcast networks (e.g. cable TV or terrestrial TV networks).[2] Similar obligations cannot be imposed on platforms which provide TV services over the open Internet (such as e.g. Netflix, Magine). Furthermore, traditional TV and radio channels represent a declining share of audiovisual consumption patterns and relevant content can also be presented in videos, audio- and text files provided over the Internet and viewed on devices other than a TV set (e.g. smartphones, laptops, PCs).

Member States can also influence the scope and determine the order of TV channel listings in electronic programme guides in TV sets (electronic programme guides, EPG). Some stakeholders have suggested to extend these navigation facilities, e.g. to a general 'findability' facility which would make it easier for end users to find any particular item of relevant content via Internet access.

[1] Similar issues have been raised in the context of media regulation, see the [consultation document](#) pp 18-29. Further information on the consultation is provided [here](#)

[2] The obligations may include the transmission of services specifically designed to enable appropriate access by disabled users.

Question 142: Regarding digital content considered relevant for general interest objectives such as pluralism, freedom of speech or cultural diversity typically provided by public services broadcasters, but also by some designated private broadcasters and potentially by other sources, please indicate whether you have experienced (several answers possible):

- cases where availability of such content could be (or risks to be) prevented or restricted
- cases where finding such content could be (or risks to be) made unreasonably burdensome for viewers
- cases where finding and enjoying such content could be (or risks to be) unreasonably burdensome for disabled viewers
- cases where such content is only available in a form which is modified or compromised by a third party beyond the control and without the consent of the broadcaster/source

Please explain your response and provide concrete examples

There is an increasing trend, particularly where the content provider is vertically integrated, to grant the exclusivity for the distribution of the public interest content to one player only. This makes content generally less available and forces the consumer that wishes to access that content to subscribe to multiple services (in particular in case of valuable premium and sports content).

(continue here if necessary)

Question 143: Is there a need to adapt or change the provisions on:

	yes	no
'Must carry'	<input type="radio"/>	<input type="radio"/>
Electronic Programme Guides (EPG)	<input type="radio"/>	<input type="radio"/>

Please explain your response.

As already stated in the ETNO reply to the AVMS refit consultation (which we refer to for further details), ETNO believes that there is no need to expand the scope of existing access regulation in view of media convergence. The existing must-carry regime was once designed to suit a rather local, analogue TV world, but appears poorly adapted to the current TV situation.

The existing must-carry regime needs to be reassessed in the light of an increasingly global, digitised audiovisual market that has little in common with the analogue world it was once tailored to suit. In fact, we believe that convergence will lead to a greater service offer:

traditional broadcasters may start providing linear or non-linear TV services over the Internet (as if they were OTTs), OTT players will also start providing linear or non-linear TV services (“Netflix-type”), and traditional distributors may re-distribute their signals on a broadband circuit in addition to a TV circuit.

In this context, increasing access obligations seems over-conservative, and particularly so at a point in time when most stakeholders recognise that the traditional telecoms regulation should be reduced rather than extended. Instead, ETNO believes that regulators should first create a level playing field by promoting competition and subjecting all comparable services to the same regulatory obligations, particularly concerning “gate keepers”. Concretely, the rules could be rearranged in a service-oriented manner in situations where new market players exercise similar or equivalent functions as providers of a hardware-based platform but are not subject to the applicable rules.

Consumers today are generally much more capable of identifying, retrieving and accessing their content of choice than ever before. ETNO believes that transparency, non-discrimination and empowerment of users – bearing in mind to preserve their autonomy of choice – are key success factors. Therefore, the EU framework should clarify that there is no need, also at Member State level, to follow an overly-prescriptive – or even paternalistic – approach by adopting additional obligations on findability.

(continue here if necessary)

3.6. The universal service regime

With the opening of the telecommunications market to competition there was a need to provide safeguards for those circumstances where competitive market forces alone would not satisfactorily meet the needs of end-users, in particular the case where they lived in areas which were difficult or costly to serve, or who had low incomes or disabilities.

The three basic characteristics of the current universal service concept relate to availability, affordability and accessibility, while minimising market distortions. The scope of universal service as determined at EU level includes: (i) access at a fixed location comprising: a connection to a public communications network enabling voice and data communications services at data rates sufficient to permit functional internet access, and access to publicly available telephone services (PATS); (ii) a comprehensive directory; (iii) comprehensive directory enquiry service; (iv) availability of public payphones. Furthermore, Articles 7 and 9 of the Universal Service Directive contain additional elements which may be a part of the universal service obligation(s), namely measures for disabled users and affordability of tariffs.

The current rules do not explicitly mandate the provision of a broadband connection within the scope of universal service at EU level. However, Member States have the flexibility to do so in light of their national circumstances. So far, a few Member States (Belgium, Croatia, Finland, Malta, Spain, Sweden and, only for disabled end-users, Latvia) have decided to include broadband connections within the scope of universal service (from 144kbps up to 1 and 4 Mbps).

The universal service regime provides for the following means to finance the universal service obligations: (a) a public fund, (b) a fund to which providers of electronic communications networks and services are required to contribute, or (c) a combination of both.

The EU has developed other policy tools outside the universal service regime in order to address the needs of users, in particular as regards the deployment of broadband and access to digital services. For instance the Directive 2014/61/EU on measures to reduce the cost of deploying high-speed electronic communications networks; promotion of and usage of public funding from Structural Funds or from the Connecting Europe Facility; promotion of stability of prices for regulated wholesale access to SMP copper networks, and pricing flexibility for non-discriminatory regulated access to SMP NGA networks; advocacy of broadband coverage requirements in less densely populated areas as part of the spectrum assignment conditions; and adoption of the EU state aid rules to support the deployment of broadband networks in areas where there is a market failure.

3.6.1. Evaluation of the current rules on universal service

The first set of questions aim at providing input for the evaluation of the functioning of the current regulatory framework.

Question 144: To what extent has the current universal service regime, both as defined at EU level and implemented at national level, been effective in ensuring:

	significantly	moderately	little	not at all	do not know
a) the availability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) affordability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) and accessibility of electronic communications services to all EU citizens?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your response.

The universal service regime has demonstrated little effectiveness in ensuring availability, affordability and accessibility of electronic communications services to all EU citizens. These objectives have been largely and more satisfactorily met by the market.

You can find below detailed reasoning explaining the response:

The universal service regime has lost its effectiveness over time. Whereas it could have been necessary right after the liberalisation of the market, the goals of availability, accessibility and affordability have been largely met by the market over the past years.

Member States with a tradition of universal service obligations recognise that the market increasingly fulfils the relevant needs, with no further need for the designation of one or more operators.

The quality parameters defined in the annexes have increasingly lost their relevance: firstly because they are limited by nature, as they apply to universal service operators only and not to other providers; and secondly because parameters have meanwhile been re-defined under horizontal consumer protection rules.

In light of these reasons, the universal service regime has lost its effectiveness in ensuring the availability of universal services. It has been implemented in a few countries only, with different specificities, and the results of such application have been modest. In many cases, obligations were maintained without a timely assessment of their need and effectiveness in the light of market evolution.

Moreover, where obligations have been imposed, they have led to numerous

litigation cases, including numerous cases brought before the Court of Justice. The majority of such cases were justified by the excessively complex provisions regarding financing and net-cost calculation. The decisions made in this respect when the USO system was designed have cost substantial resources to the operators involved, as well as to the related Member States.

The universal service regime has been little effective in providing availability and affordability. The concerned services have quickly become outdated and overtaken by new services. These objectives have been mostly fulfilled by technological progress, market dynamics, and the development of mobile telephony over the past 15 years. USO has been implemented in some countries only and where the results of such progress have been modest.

Some final considerations regarding the three mentioned parameters are as follows:

a) Availability: as of today, every demand for local access within closed development is satisfied. New housing areas are covered by at least one network operator, besides mobile coverage, with no need to apply universal service rules to the universal service provider.

b) Affordability: prices for local access with the same service level have been dramatically decreasing over the last 20 years. Thanks to the increasing competitiveness of European telecommunication markets, including for mobile services, it has become superfluous to preserve tools for regulatory intervention on retail prices. Socially excluded customers are better addressed by national social systems.

c) Accessibility of electronic communications services: for all services, today customers can widely choose between offers of different providers including substituting services. Therefore, universal service rules to address this issue have become obsolete.

(continue here if necessary)

Question 145: From your experience, is the current universal service regime, both as defined at EU level and implemented at national level, efficient taking into account administrative and regulatory costs and the (positive and negative) effects produced?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response, and indicate if you have suggestions for improvement.

An assessment of the administrative and regulatory costs of the Universal Service Obligation (USO) in comparison to the effects produced leads to the conclusion that the USO is not efficient at all.

You can find below detailed reasoning explaining the response:

The little effectiveness of the USO underlined in the answer to Q. 144 is more than counterbalanced by: high administrative and regulatory costs, including litigation costs; legal uncertainty stemming from the right to a correct compensation which is at the basis of the European provisions.

More specifically, operators can be designated before they have any certainty as to future compensations. The varying interpretations of the notion of "net-costs" and of its calculation have led to huge frustration amongst designated operators and to a continuous need for clarification by the Courts. Sometimes legal cases related to net costs calculations take several years to conclude. And even in cases where cost compensations have not been an issue, the USO has led to regulatory costs inter alia because it has prevented the withdrawal of obsolete services no longer demanded by the market.

ETNO shares the main objectives of USO: to provide a safety net where the market does not deliver services indispensable for being part of a modern digitalized society and to prevent social exclusion.

However, these goals should not anymore be pursued through a specific service that will be rapidly outdated or through a merely supply-side policy, with obligations imposed on providers of electronic communications networks and services. These goals should instead be considered as political objectives for Member States to be fulfilled with an efficient combination of supply-side and demand-side policies, to be funded by society as a whole through public funding.

(continue here if necessary)

Question 146: Has the universal service regime been an efficient policy tool to ensure that end-users are safeguarded from the risk of social exclusion?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

The universal service regime has not proven an efficient policy tool to ensure that end-users are safeguarded from the risk of social exclusion.

In fact, the current universal service regime is grounded on an obsolete, PSTN voice-centric, monopolistic world and thus ignores the rapid development of market and services. It focuses on supply-side measures and, as such, it is not effective in addressing problems related to demand gaps. For example, in France a potentially significant number of customers may benefit from subsidized subscriptions. However, albeit offered, only some customers use the mechanism.

Additionally, as mentioned in Q. 144, market forces have largely evolved since the USO was designed. The market has been providing a great variety of offers responding to the USO objectives, overcoming the need to foresee such obligations.

(continue here if necessary)

Question 147: Is the current universal service regime coherent with other provisions and underlying principles of the EU telecom regulatory framework and other EU policies (such as state aid)?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

The current universal service regime is not coherent with other provisions and underlying principles of the EU telecom regulatory framework and other EU policies. This is due to the fact that the regime is obsolete, does not adequately meet the principles of proportionality and adequacy and introduces important market distortions.

You can find below detailed reasoning explaining the response:

As already mentioned, the universal service regime has become obsolete. It was designed at the time of the liberalization of the sector. Now, in light of the increased competitiveness of the sector and of other important market changes, it is not adequate anymore.

The current regime does not take into account that the market has evolved to deliver on its own almost all the US objectives. It is therefore highly questionable that the regime meets the proportionality and adequacy criteria, which any EU legislation should respect.

The regime has also introduced relevant market distortions, imposing a financial burden only on one or some operators.

Grounded on the designation of one or more operator(s), the universal service regime is not consistent with the competition-based model underlying EU electronic communications markets.

The fact that the designated operator relies on uncertain contributions from other operators without the assurance of a fair compensation distorts its competitive position. Moreover, the existence of financial transfers between competing operators undermines competition and fairness, which is a key principle in the framework of state aid. Hence, the US regime is generally inconsistent with the other provisions of the regulatory framework. It is more linked to the former regime of public monopoly rather than to today's competitive market situation.

As a final consideration, it should be noted that using public funds to extend basic broadband coverage to the final underserved areas or areas currently not served is much more efficient than using public funds to make network upgrades in areas already served.

(continue here if necessary)

Question 148: To what extent have the current rules regarding universal service obligations contributed to EU policy objectives and the interest of the citizens of the EU, in particular citizens at risk of economic and social exclusion?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

The universal service regime has not proven an efficient policy tool to ensure that end-users are safeguarded from the risk of social exclusion.

In fact, the current universal service regime is grounded on an obsolete, PSTN voice-centric, monopolistic world and thus ignores the rapid development of market and services. It focuses on supply-side measures and, as such, it is not effective in addressing problems related to demand gaps. For example, in France a potentially significant number of customers may benefit from subsidized subscriptions. However, albeit offered, only some customers use the mechanism.

Additionally, as mentioned in Q. 144, market forces have largely evolved since the USO was designed. The market has been providing a great variety of offers responding to the USO objectives, overcoming the need to foresee such obligations.

(continue here if necessary)

3.6.2. Review of the universal service rules

a) Universal service regime

Question 149: Will a universal service regime still be needed in the future to ensure that a minimum set of electronic communications services are made available to all users at an affordable price at a fixed location?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO disagrees that a universal service regime will still be needed in the future. The dramatic changes occurred in the competitive market scenario of EU telecommunications markets, as well as the lack of effectiveness and fairness of the USO financing regime, are the main reasons behind this answer.

As stated above, ETNO shares the main objectives of USO, but believes that the way in which these objectives are pursued should drastically change.

You can find below detailed reasoning explaining the response:

The universal service regime was shaped in a context of incipient market liberalization. However, market conditions have drastically evolved since then, with more competition and choice available to consumers and end-users.

Market forces have multiplied and are now delivering most of the USO, as also highlighted by the European Commission in its latest Digital Agenda Scoreboard for 2014. In addition, due to the drawbacks of the universal service regime (calculation of "net costs" and assessment of the unfair character of the proven burden, with the related legal uncertainty), the USO financing mechanism should be fundamentally revised.

This review of the telecoms framework should therefore be the opportunity to reconsider obligations, measures and instruments which are no longer relevant.

Whereas the USO's mechanism should be deleted in its current obsolete form, in the modern world basic access to the Internet will be key for inclusive participation in the society. Therefore, the concept of a political objective for Member States of universal access to Internet Access Services could be kept in the regulatory framework. Member States would then have to use the right tools to ensure this obligation:

- Creating an investment-friendly regulatory framework incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of non-profitable areas;
- Supporting coverage in non-profitable areas via public subsidies;
- Guaranteeing the benefit of a competitive retail market to all customers, including those of non-profitable areas;
- Using demand-side instruments, such as affordability schemes (e.g. vouchers), digital literacy programs and other types of social policies aimed at fostering service penetration and usage amongst relatively disadvantaged groups of citizens.

With USO becoming a political objective for Member States to fulfill, public funding, and not operators' resources, should be used to finance

the related costs. The cost of USO should not anymore be supported by the designated operator - in the case where it is concluded that its burden is not unfair - or by only some actors in the electronic communications sector. As the Universal Service is a social goal that benefits the entire society, it is logical that society as a whole finances it through public funding.

(continue here if necessary)

Question 150: Does universal service have a role in future in the sectorial context of electronic communications in order to provide a safety net for disabled end-users, as opposed to being left to general law?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response, in particular what should be the elements which should be considered.

It is important that citizens with special needs, notably disabled citizens, can communicate at the same level as other citizens.

Technological innovations and new services have made this much easier. In general, the variety of offerings already existing on the market may replace earlier dedicated systems (e.g. text-telephony being replaced by chat, messenger services, Skype-type of services, video telephony etc.).

However, if the market does not deliver, it may be appropriate to impose obligations on the relevant public authorities and NRAs to safeguard the interests of disabled users. This can be done through tenders for relevant specific measures. (See response to Q. 155).

(continue here if necessary)

b) Scope of universal service

Technological and market evolution has brought networks to move to internet protocol technology, and consumers to choose between a range of competing voice service providers. 36% of Europeans use voice over IP applications from a connected device to make cheaper or free phone calls (see "[Special Eurobarometer 414](#)").

At the same time, mobile telephony services are widely available and the tendency for fixed-to-mobile substitution is increasing. While there are still some localised problems with mobile "not spots" even for basic 2G services such as voice telephony, widespread availability and reasonable affordability of mobile telephony significantly reduce the need for a separate access to PATS at a fixed location.

Question 151: Do you consider the current universal service scope adequate in the light of latest as well as expected future market, technological and social developments?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

In ETNO's view, the scope of the USO is completely outdated. This is shown by several reports, including a consumer survey that ComRes carried out for ETNO in September 2015 (available at this link: <http://ow.ly/S2VAq>).

The fact that the USO scope is outdated, however, should not call for any undue extensions to new measures, but for a change to a more effective and efficient US policy composed of a mix of supply-side and demand-side tools. The political objective of universality of access such as availability of services necessary for social inclusion can be better met by other means rather than the current USO mechanism.

You can find below detailed reasoning explaining the response:

The universal service regime was shaped in a context of incipient market liberalization. Market conditions have drastically evolved since then, with more competition and choice available to consumers and end-users.

Market forces have multiplied and are now delivering most of the USO, as also highlighted by the European Commission in its latest Digital Agenda Scoreboard for 2014.

Today, the scope of the USO is completely outdated. ETNO's consumer survey carried out by ComRes in September 2015 clearly shows that public payphones and printed directories are no more necessary to take part in social life. In some countries, these obligations have meanwhile been lifted.

The universal service regime does not call for any undue extensions to new components, but for a change to a more effective and efficient US policy composed of a mix of supply-side and demand-side tools. The political objective of universality of access such as availability of services necessary for social inclusion can be better met by other means rather than the current USO mechanism.

The USO's mechanism should be deleted in its current obsolete form. If basic access to the Internet is a determinant condition for an inclusive participation in society and thus a political objective of universal access to Internet Access Services is kept in the regulatory framework, Member states should then comply with this obligation by:

- Creating an investment-friendly regulatory framework incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of non-profitable areas;
- Supporting coverage in non-profitable areas via public subsidies;
- Guaranteeing the benefit of a competitive retail market to all customers, including those of non-profitable areas;
- Using demand-side instruments, such as affordability schemes (e.g. vouchers), digital literacy programs and other types of social policies aimed at fostering service penetration and usage amongst relatively disadvantaged groups of citizens.

(continue here if necessary)

Question 152: In the light of recent and expected future technological and market developments, is the requirement for the provision of telephony services at a fixed location necessary?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

What reassurances are needed that for example VoIP or mobile telephony can provide reliability, quality and security on par with such services? Please explain your response.

ETNO strongly disagrees that the requirement for the provision of telephony services at a fixed location is still necessary. The expansion and penetration of mobile telephony and the level of functionality requested by the framework to VoIP services constitute sufficient guarantees.

You can find below detailed reasoning explaining the response:

It seems clear that the designation of universal service providers for telephony services at a fixed location is no longer neither necessary nor adequate for the purpose of preventing social exclusion in societies progressively being transformed by the Internet and the digital economy.

Mobile telephony already provides ubiquitous voice services and is considered as an alternative/a complement for telephony services at a fixed location.

The framework provides guarantees for the quality of Internet Access Services, which implies that VoIP will be functional. As far as pure VoIP is concerned, it should be noted that there is no comparable obligation to those applied to voice telephony as those services are currently out of the scope of the framework.

(continue here if necessary)

The market trends over the last years show an increasing shift of EU consumers from fixed voice telephony to mobile-only. It can be expected that the anticipated full fixed-mobile network convergence facilitated by the advent of 5G mobile networks by 2020 will further amplify that trend.

In this context, it could be worth exploring whether the provision of access to a network connection should be delivered at a fixed location (i.e. the end-user's primary location or residence) as under the current Universal Service Directive, or whether it could be more relevant to focus on individual end-users. The universal service objective could in such a case shift to provide connectivity to a network at all locations.

Question 153: In light of future market and technology developments and user expectations, would you consider that the provision of connection to a network under the universal service should be targeted towards providing connectivity to end-users anywhere rather than to households/at primary location?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response, also by reference to alternative tools such as coverage requirements in spectrum licences. What could be the possible implications in terms of likely designated universal service operators, the costs, the impact on private investments and on other regulatory measures?

ETNO understands the question as: should universal service obligations imply allowing citizens to be connected on the move, wherever they are?

If this interpretation is correct, this seems to be a non-issue as mobile coverage is close to 100% even in sparsely populated areas. This is why ETNO strongly disagrees with the question.

Furthermore, there are options, if necessary, to include coverage requirements in licenses. The stationary provision is sufficient to ensure that citizens are able to take part in social life. An extension of this obligation would impose undue costs on private companies. Besides, public authorities are already providing connectivity in public areas such as schools, libraries, public gardens, roads, railroads, sometimes entire cities, etc. This should also be taken into account.

The responsibility to achieve this form of universal access should be of Member States, which should be liable for providing universal service vis-à-vis the Union.

However, before moving towards such an extension under the regime of universal service, a key issue should be addressed: the fact that today operators can be designated without any perspective at the time of this designation as to their right to compensation. Moving towards such a far-reaching concept of universal service without having solved this issue first would be inconsistent.

(continue here if necessary)

Recent surveys show a declining usage of some of the services under the current universal service obligations, in particular with regard to public payphones, directory enquiry services and phone directories (see "E-Communications and Telecom Single Market Household Survey" (2014),; for phone directories see "[E-Communications Household Survey Report](#)" (2010), Special Eurobarometer 335). At the same time, it can be observed that many Member States have relaxed their universal service obligations related to these services. Some Member States have never imposed universal service obligations in this respect. In general, comprehensive directories and comprehensive directory services are often deemed to be satisfactorily delivered by the market without the need for a public intervention, while public payphones are often considered of declining significance due to widespread availability of comparable services such as mobile telephony, for example.

Question 154: Given the latest and expected future market and regulatory developments related to provision of the following services, is it justified to maintain them in the scope of universal service?

	strongly agree	agree	disagree	strongly disagree	do not know
a) public payphones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
b) comprehensive directories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c) comprehensive directory enquiry services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please explain your response.

Regarding all three services mentioned, ETNO strongly disagrees that they should be maintained in the scope of universal service.

ETNO's consumer survey carried out by ComReS in September 2015 clearly shows that public payphones and printed directories are not necessary anymore to take part in social life. In some countries, these obligations have meanwhile been lifted. Other existing data further support this position.

You can find below detailed reasoning explaining the response:

USO were shaped in a context of incipient market liberalization. However, market conditions have drastically evolved since then, with more competition and choice available to consumers. Market forces are now delivering most of the USO, as also highlighted by the European Commission in its latest Digital Agenda Scoreboard for 2014.

In the study "Universal service obligations and public payphone use: Is regulation still necessary in the era of mobile telephony " (available at:

<http://www.sciencedirect.com/science/article/pii/S0308596115000531>) the author, Maude Hasbi, concludes that removing public payphone from the scope of USO would have a relatively low welfare cost (in terms of reduced usage).

Indeed, the impact on the usage of users with low incomes would be low. The study also shows that people mostly using public payphones are already equipped with a mobile phone. Moreover, in countries imposing public payphone obligations, the usage isn't more developed than in other countries. The obsolescence of these obligations is also demonstrated by the decision of those Member States who initially imposed such obligations to withdraw or lighten them (e.g. Belgium, Denmark, Finland, France, Netherlands, and Sweden).

Given the present possibilities offered by the market to have information on other fixed telephony users, it would be plainly unfair to allow Member States to continue designating an operator and by doing so distorting its market position and that of its competitors.

In a world progressively being transformed by the Internet and the digital economy, basic Internet Access Service will be the determinant service for an inclusive participation in the society.

(continue here if necessary)

Article 7 of the Universal Service Directive on specific accessibility and affordability measures for disabled end-users related to network connection and PATS gives a clear preference to similar (not mandatory) measures being taken under Article 23a of the Universal Service Directive, where requirements enabling access and choice for disabled end-users can be imposed on a much wider scope of undertakings (all undertakings providing electronic communications services as opposed to only those with a universal service obligation).

Question 155: Would it be reasonable to require mandatory measures for disabled end-users to be imposed on all undertakings providing electronic communications services (strengthening Article 23a of the Universal Service Directive) as opposed to only those with a universal service obligation (Article 7 of the Universal Service Directive)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO disagrees with the proposal.

In this domain, a number of country-specific services for disabled end-users have been extremely costly to establish. Moreover, they have quickly been surpassed by market-led services (e.g. text-telephony by messenger services and other standard chat-services).

A better way of safeguarding the interest of disabled end-users could be to envisage joint cooperation measures between public authorities and NRAs. The specific measures that would be deemed necessary could then be tendered for by the NRAs and the expenses would be borne by public funding as in the case of other services for disabled end-users. Such a model is already being used in Sweden.

(continue here if necessary)

In order to boost digital inclusion and reduce the digital divide, the question arises whether to extend or to focus the scope of universal service obligations to provision of very high-speed broadband networks to public areas and places of specific public interest such as for example schools, universities, libraries, education centres, digital community centres, research hubs and health care centres, provided private and other public investments will not deliver. Such places are at the forefront of the development of the digital society, enabling the development of digital skills and boosting research and education in general.

Most of these could also function as public internet access centres (PIAC), which can offer internet access to the public, on a full-time or part-time basis (ITU [definition](#)). Such centres could help to familiarise citizens who have few digital skills and competences or little exposure to online services and applications with the benefits of connectivity. Positive effects could thus be expected in building skills, interest, and demand among less digitally aware segments of the population, as well as in giving citizens access to high-capacity connectivity on an occasional or (in the case of schools in particular) on a systematic basis.

Question 156: Should universal service play a role in future to help realising public interest objectives (such as very high-capacity connectivity for schools, public buildings such as libraries, and university/research hubs)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If yes, what kind of solutions would be the most suitable (i.e. hotspots, fixed internet access)? And should such internet services in PIAC be offered free of charge to all users?

As stated above, ETNO shares the main objectives of USO, but believes that the way in which these objectives are pursued should drastically change. Therefore, we strongly disagree with the above-mentioned proposal.

You can find below detailed reasoning explaining the response:

While ETNO fully endorses the political objectives underlying this proposal, we believe that these should fall under the direct responsibility of the Member States and not be addressed through possible extensions of the current USO scope.

It should be noted that demand of public services plays a crucial role in incentivizing broadband investment and increasing coverage. Therefore, the pursuit of the societal objectives addressed by this question can be better achieved with market mechanisms. Public authorities should support the demand for electronic communications services by launching public tenders for the connectivity of public places and the development of digital points of access.

Whereas the current USO's mechanism should be deleted in its current obsolete form, an obligation of universal access to Internet Access Services imposed on Member States could be kept in the regulatory framework.

Member states should then comply with this obligation by:

- Creating an investment-friendly regulatory framework incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of non-profitable areas;
- Supporting coverage in non-profitable areas via public subsidies;
- Guaranteeing the benefit of a competitive retail market to all customers, including those of non-profitable areas;
- Using demand-side instruments, such as affordability schemes (e.g. vouchers), digital literacy programs and other types of social policies aimed at fostering service penetration and usage amongst relatively disadvantaged groups of citizens.

Extending the current scope of USO to new obligations would be counterproductive for the sector and thus for its investment; it would only increase the current legal uncertainty and regulatory burden, mostly related to the uncertainty on the funding mechanisms.

(continue here if necessary)

c) Provision of broadband connectivity and access to Internet service to all end-users

Access to the Internet through a broadband connection has become an essential service over which a number of specific services are being used by a majority of consumers. On average, 75% of Europeans use Internet, either via fixed or wireless means. New developing services, such as digital media content, cloud computing, Internet of Things, eHealth or eGovernment are becoming crucial for EU citizens and businesses to actively participate in the digital society. It can be reasonably expected that in future, the role of broadband as an enabler of access to services becomes even more prominent.

By 2014, basic broadband has been made available to all in the EU, when considering all major technologies (xDSL, Cable, Fibre to the Premises, WiMax, HSPA, LTE and Satellite). Fixed and fixed-wireless terrestrial technologies covered 96.9% of EU homes in 2014. However, coverage in rural areas is substantially lower for fixed technologies (89.6%) ([See Digital Agenda Scoreboard](#)).

Broadband take-up has increased considerably in past years. 78.3% of EU households had a broadband connection in 2014, however the number of connected households in rural areas is substantially lower. Fixed broadband penetration (by households) rose to 69.9% and mobile broadband was used by 72% per 100 inhabitants.

In view of rapid deployment of 4G in recent years, and further deployment of fixed networks in parallel (in rural and sparsely populated areas facilitated by available public funding or through territorial coverage requirements in spectrum licences or national legislation), it is likely that the 30 Mbps DAE broadband target will largely be met by 2020 through a combination of fixed and mobile technologies.

However, even assuming a very broad deployment of 4G, some areas, including extremely low density areas and places with very difficult geographical conditions (such as mountain valleys, islands, or other peripheral areas) are likely to remain not covered with networks providing 30 Mbps connectivity.

Question 157: Do you see reasons for or against explicitly including access to a broadband network connection allowing functional Internet access within the scope of universal service at EU level?

- For including
- Against including
- both

Please explain your response, in particular what would be the possible implications for the economy and society.

ETNO believes that a basic/functional Internet Access Service (IAS) will be a key service for an inclusive participation in the society. However, we do believe that this political goal should not be implemented through an extension of the current universal regime. The universal service mechanism is not a sound instrument to achieve this goal.

You can find below detailed reasoning explaining the response:

As previously mentioned, ETNO believes that a basic/functional IAS will be a key service for an inclusive participation in society. However, while we agree with the political goal of ensuring broadband connectivity for all, we strongly believe that the universal service mechanism is not the right instrument to achieve it.

The current system has shown substantial drawbacks and should therefore not be maintained as it is, but rather be replaced, in case of proven market failure, by a more efficient mix of other tools.

If universal service were to be an obligation imposed on Member States, IAS would be the only service to be covered by the US Directive. IAS is defined in the recently adopted "Telecoms Single Market" Regulation. Regarding what a "functional" IAS could be so as to comply with the universal service policy goal, as we will develop in Q. 158 & 159, the notion of "functional" is to be assessed in terms of "use of certain services". This looks more efficient than relying on a concept of "broadband" that is very broad and not defined.

(continue here if necessary)

Question 158: If included in the universal service, how should the broadband connection be defined in a manner that would allow sufficient flexibility to cope with different Member State situations? Or should it be defined in a way that enables end-users to use certain categories of services (i) used by the majority of end-users or (ii) considered as essential for the participation in the digital economy and society?

- By requiring a minimum download/upload speed
- By enabling the use of certain services
- By speed AND service use
- Other parameters

Please explain your response.

ETNO believes that the definition of a “functional Internet Access Service (IAS)” should be made by looking at the specific categories of service that it should enable, and not at other parameters.

You can find below detailed reasoning explaining the response:

As explained in Q. 157, the key issue at stake is to assess what a “functional” IAS would be and not what “broadband” would be. If included in the US, “functional” IAS should be defined in a way that enables end-users to use certain categories of services. The question to be answered is therefore “what services should a customer access in order to avoid social exclusion?”

Universal service should not be defined in terms of speed. In fact, following an approach based on categories of services has the upside of avoiding predicting technical solutions.

Policy-makers should avoid any type of assessment based on the average speed used by a majority (as it had been discussed in the EU public debate on the reform of the USO, in 2013) or on the application of a percentage over those broadband connections speeds used by this majority.

A reasoning based on speeds used by the majority does not offer a concrete and feasible solution to what is to be considered as a basic determinant of social inclusion. Such reasoning does not allow to effectively take into account the real cost of providing the service and in particular the cost for the remaining small percentage of the population. This small “last” percentage is the segment that has the highest cost to be provided with broadband connections.

(continue here if necessary)

Question 159: If broadband connection were to be included in the universal service regime and defined "by services used", what would be such 'essential' minimum online Internet services? (more than one answer is possible)

- Sending/receiving E-mails
- Voice communication over the internet
- Access to information (online news; information about goods and services)
- General Web browsing
- cloud services
- E-Government
- Internet banking
- E-health
- E-learning
- E-Commerce/ online shopping
- Social Networking
- Maps and transport
- Streaming music/internet radio
- Streaming video/video on demand
- Other Multimedia
- Gaming
- Assistive tools for persons with disabilities
- Other

Please explain your response.

As explained in Q. 157, the key question is to assess what a "functional" IAS would be and not what "broadband" would be.

In defining the criteria for "functional" IAS, emphasis has to be placed on the criterion of social exclusion. The question to be answered is therefore "what services should a customer access in order to avoid social exclusion?" Services such as web browsing, social media and messaging services, access to basic e-government, e-banking may be considered as essential for the standard citizen.

At the same time, any decision on the range and type of services to be included should carefully and duly take into account the costs of the provision of such services.

(continue here if necessary)

Question 160: Can it be ensured that broadband under universal service obligations is provided in a cost-effective manner causing the least market distortions, on a forward looking basis?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO strongly disagrees. Under the current regime, it is impossible to ensure that broadband under universal service obligations is provided in a cost-effective manner causing the least market distortions.

Also for this reason, the universal service regime should be substituted by a system fully financed by public funding.

You can find below detailed reasoning explaining the response:

The current regime allows Member States to designate an operator to offer a service, with quality and affordability requirements that are imposed only on this operator, without a prior and serious assessment of the need for such market intervention.

The operator is designated to comply with a strict regime, putting its profits under pressure and giving rise to additional costs. Moreover, this operator has no certainty at the time of its designation of a fair compensation for the extra requirements.

As the logic of the universal service is to address a market failure, such market failure must be first correctly identified. When a market failure is identified, it must be assessed whether the failure is of a nature to justify a market intervention by means of designation of an operator. Then an impact assessment with a cost/benefit analysis should be run, considering all the tools available for intervention. As a final step, the proportionality of the approach chosen must be proved.

In this perspective, public funding is the only instrument which offers sufficient guarantee of a serious balance of the interests at stake.

As far as the identification of market failure is concerned, consistency should be ensured with all existing state aid policies and guidelines.

It is likely that areas of market failure will correspond to the ones eligible for state aids, say "white areas" where no commercial offers are available.

Whereas the current USO's mechanism should be deleted in its current obsolete form, an obligation of universal access to Internet Access Services imposed on Member States could be kept in the regulatory framework.

Member states should then comply with this obligation by:

- Creating an investment-friendly regulatory framework incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of non-profitable areas;
- Supporting coverage in non-profitable areas via public subsidies.

Should the USO mechanism be completely revised, becoming a political objective for Member States, Member States should then apply fair market mechanisms and public subsidies to reach universal broadband coverage goals, as detailed in the answers to other questions of this section.

(continue here if necessary)

Question 161: Is the inclusion of broadband in universal service likely to have a disruptive impact on commercial broadband investment plans and usage of other policy tools to drive broadband deployment?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If your response is positive, what could be the appropriate protective mechanisms against such crowding out effects?

ETNO strongly believes that the inclusion of broadband in universal service is likely to have a disruptive impact on commercial broadband investment plans.

The cost of the inclusion of broadband as a societal goal should be borne by the society as a whole through public funding.

You can find below detailed reasoning explaining the response:

If the inclusion of broadband in universal service were to be imposed under the current regime, this would be highly disruptive. Broadband inclusion in USO would disrupt the competitive model on which broadband markets are based. It could also lead to unpredictable financial transfers. At the minimum, it would put at stake not only private investments but also existing public funding schemes.

As explained in previous answers, the cost of the inclusion of broadband as a societal goal should be borne by the society as a whole through public funding.

(continue here if necessary)

Question 162: Considering the disruptive effects that universal service obligations may have on the market, should other public policy tools (state aid, demand promotion measures) be used to foster broadband deployment, either as an alternative or as a complement to universal service obligations?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO strongly agrees.

As previously indicated, in case of market failure, we consider that any political objectives would be better achieved by other means than the current universal service regime.

Alternatives to the purely supply-side policy and sector-based funding should be supported, such as demand-side incentives and public funding as far as they are "timely", "proportionate" and "non-discriminatory". See also the previous answer for more details.

(continue here if necessary)

f) Financing of universal service

Increasing broadband connectivity provides benefits not only to the electronic communications sector, but also to online service and content providers as well as users and the society as a whole, as broadband is an enabling technology that facilitates the use of a wide range of online services by citizens and businesses.

A possible inclusion of broadband services within the scope of universal service is likely to increase the cost of providing the universal service. At the same time, the inclusion of broadband would certainly expand the number and range of beneficiaries of a universal service – all providers of online content, applications and services potentially benefit from the business opportunity presented by ubiquitous very high-capacity connectivity. The same is true of individual end-users, who are increasingly "prosumers", generating large amounts of online material available to a wide audience.

Taking into account the need to close the digital divide, one question to be addressed is whether a future funding mechanism should be administered, as now, at national level, or should be administered at EU level in order to permit contributions to be distributed across Member States.

Question 163: What is the most appropriate and equitable way of financing the universal service, in particular in light of a possibility to include broadband into universal service scope, taking into account all those who benefit from its provision?

- public funding
- electronic communications sector
- providers of online content, applications and services
- all end-users (e.g. by an extra charge on their monthly invoice)
- a combination of public funding and industry funding
- other sectors

Please explain your response.

ETNO strongly believes that public funding is the only appropriate and equitable way of financing, both in general and particularly in light of a possibility to include broadband into the universal service scope.

The costs of USO should not anymore be supported by the electronic communications sector. As Universal Service benefits the entire society, it is logical that it is supported by society as a whole through public funding.

You can find below detailed reasoning explaining the response:

Public funding should be preferred to private funding to finance the costs of USO. As explained in previous answers, universal service should be seen as a general societal objective and should accordingly be a societal responsibility.

Policy makers should bear in mind that the scope of USO should be defined narrowly to ensure it remains only a safety net flanking a vibrant, market-driven communications sector. Therefore, costs can be expected to be limited. Public funding is the best guarantee that Member States find a correct balance of the needs against the cost. The costs of USO should not anymore be supported by the electronic communications sector. As Universal Service benefits the entire society, it is logical that it is supported by society as a whole through public funding.

By contrast, if private financing was to be kept, it should directly involve all the players of the Internet value chain (such as providers of online content, applications and services). The uncertainty as to the right to compensation should in any case be eliminated. Any operator that is designated to bear extra costs to comply with the requirements should have an unconditional right for compensation.

The appropriate cost-methodology should be redefined in order to guarantee that the extra financial means devoted by this operator to fulfil the extra requirements are being correctly compensated.

(continue here if necessary)

Question 164: As regards individual contributions by relevant undertakings, how should they be calculated?

- fixed fee per contributor
- volume-based fee
- transaction-based fee
- market share
- revenue share
- other

Please explain your response.

Any sector-based form of contribution should be abandoned as this system has led to numerous litigation cases and has proven inefficient and unfair, as mentioned in many of the answers within this section. A tax-based system for public funding applicable on a non-discriminatory basis and without any exemptions should be put in place.

It should also be noted that, should an undertaking-based form of contribution remain in place, the relevant undertakings involved should be all the relevant players of the Internet value chain, and not only ISPs.

(continue here if necessary)

Question 165: As regards individual contributions by relevant undertakings:

	strongly agree	agree	disagree	strongly disagree	do not know
a) Should there be any minimum/maximum contribution?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
b) Should certain small market players/certain groups of end-users be excluded from contributions in order to safeguard against undue financial burden?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Please explain your response.

ETNO strongly disagrees.

Any sector-based form of contribution should be abandoned as this system has led to numerous litigation cases and has proven inefficient and unfair, as mentioned in many of the answers within this section. A tax-based system for public funding applicable on a non-discriminatory basis and without any exemptions should be put in place.

(continue here if necessary)

Question 166: In view of helping to close the digital divide across the EU, could a new universal service funding mechanism set at EU level and made up of contributions from across Member States be considered an appropriate tool to facilitate sharing of the costs involved?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. Does your response depend on the source of the contributions (public general budget; electronic communications sector; providers of content, applications and services; all end-users)?

ETNO strongly disagrees with the proposal outlined in the question. In fact, establishing a EU-level universal service funding mechanism would risk imposing an additional layer of regulatory burden without any added value.

On the contrary, a public funding system based on general taxation (not sector-based) should replace the current system for financing the USO. This would be the most efficient and fair way to finance the universal service regime.

Such public funding mechanism should be set by each Member State on the basis of harmonized rules.

At the EU level there are already other funding instruments that can be used to close the digital divide such as structural and cohesion funds, the Connecting Europe Facility and other investment funds.

(continue here if necessary)

3.7. Institutional set-up and governance

Whilst the lack of consistency in the regulatory approach taken at national level is not solely attributable to the regulatory set-up in the EU, it has become apparent over the past years, that it is – to a degree at least – the result of the institutional set-up (see Study on [How to Build a Ubiquitous EU Digital Society](#)) and the way the various institutional players (i.e. mainly the NRAs, the Body of European Regulators, i.e. BEREC, and the European Commission) interact and can influence the regulatory outcome (see Annex IV for more background).

Diverging regulatory conditions in the individual national markets can have a profound effect on cross-border trade and, thus, on the development of a Single Market in electronic communications and may significantly distort competition across the EU. Significant divergences by the individual institutional actors in the pursuit of existing regulatory principles and regarding how the objectives of the regulatory framework are implemented across the EU can create considerable obstacles to cross-border trade and market entry; Therefore, whilst consistency across the EU is not a primary goal in itself, it is necessary to address concrete obstacles arising from divergence. For example, on the fixed side, only a few operators are offering pan-European services to multi-national corporations (see Annex III for more background).

In addition, in particular the benefits of wireless innovation can only be realised if Member States and the European Commission cooperate efficiently and effectively, based on a spectrum governance framework that is aimed at ensuring economies of scale for wireless equipment and coherent spectrum usage conditions throughout the Digital Single Market for users.

3.7.1. Evaluation of the current institutional set up and governance structure

The first set of questions aim at providing input for the evaluation of the functioning of the current regulatory framework.

Question 167: Are the current rules regarding the political independence of the NRAs, as set out following the 2009 review in Article 3(3a) of the Framework Directive, complete and clear enough and have they been effective in attaining the objective of ensuring that in the exercise of its tasks, a national regulatory authority is protected against external intervention or political pressure liable to jeopardise its independent assessment of matters coming before it?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response. If possible, please specify what improvements, if any, could be envisaged to reinforce the political independence of the NRAs

(continue here if necessary)

Question 168: In your view, has the current EU consultation process under Article 7/7a of the Framework Directive been effective in achieving a consistent application of the EU rules for market regulation in the electronic communications sector?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

(continue here if necessary)

Question 169: To what extent has BEREC efficiently achieved its main objective, i.e. contributing to the development and better functioning of the internal market for electronic communications networks and services by aiming to ensure a consistent application of the EU regulatory framework for electronic communications?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

(continue here if necessary)

Question 170: To what extent have the current rules on resolving disputes between undertakings by the NRAs, as set out in Articles 20 and 21 of the Framework Directive, been efficient in their outcome?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

(continue here if necessary)

Question 171: In your view, to what extent is there a sufficient degree of coherence in the application of the regulatory framework by the various institutional players (NRAs, BEREC, the European Commission) to ensure the fulfilment of the policy objectives established in Article 8 of the Framework Directive?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response (in doing so, please set out in which areas increased consistency would bring improved outcomes and would help fostering the single market for electronic communications).

(continue here if necessary)

Question 172: In your opinion, would a common EU approach (i.e. a more prescriptive EU framework which would further foster regulatory harmonization) add value in addressing the differences in the regulatory approach chosen by NRAs for individual markets in similar circumstances?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response. When doing so please set out what you consider to be the main variables, whether there are any justifications for such differences, where you see areas with less consistency and how you consider the EU governance process may influence the outcome.

(continue here if necessary)

Question 173: Do you consider that there are areas, in which the current requirement to undergo an EU consultation process pursuant to Article 7 of the Framework Directive does no longer add value with regards to furthering the Single Market for electronic communications?

- yes
- no
- do not know

Please explain your response.

(continue here if necessary)

Question 174: To what extent has the Radio Spectrum Policy Group (RSPG) efficiently achieved its role of assisting and advising the Commission on radio spectrum policy issues, on coordination of policy approaches, on the preparation of RSPPs and on harmonised conditions with regard to the availability and efficient use of spectrum?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response and provide areas for improvement as appropriate.

ETNO believes that the RSPG has done a good job according to its current scope. The effectiveness of the body could be improved if RSPG would participate actively in the European harmonisation of spectrum award procedures, timing of availability as well as licensing conditions for mobile broadband radio applications in the EU.

(continue here if necessary)

Question 175: To what extent has the current governance for spectrum efficiently and effectively contributed to the provision of electronic communication services across the EU?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

ETNO believes that the current governance model has delivered effectively in relation to its mandate on harmonisation, to cross-border co-ordination and in providing a rough roadmap for spectrum to be made available for use in Member States. It should however be emphasised that there is scope to do more in harmonising the conditions of use of such spectrum as well as in laying out a more stringent timeline for the availability of bands in Europe.

(continue here if necessary)

3.7.2. Overall institutional set-up and the role of BEREC

a) The role of BEREC and its set-up

The EU regulatory framework has been designed with flexibility in mind in order to allow national regulatory authorities to take account of national circumstances. However, the Commission has repeatedly pointed out (in particular, the Commission Staff Working Document "[A Digital Single Market Strategy for Europe - Analysis and Evidence](#)" of 6 May 2015) that many differences in the national regulatory approaches cannot be sufficiently explained by varying national circumstances.

The Body of European Regulators for Electronic Communications (BEREC) was established by [Regulation \(EC\) No 1211/2009](#), as part of the review of the telecoms framework. According to its mandate, BEREC shall contribute to the development and better functioning of the internal market for electronic communications networks and services. It should do so by aiming to ensure a consistent application of the EU regulatory framework.

The experience so far suggests that the procedural and institutional set-up currently in place appears to be ill equipped to ensure a more consistent approach in similar circumstances. In particular, with regards to imposing remedies, the balance between achieving harmonisation in a flexible framework appears to be tilted in favour of flexibility neglecting needs for consistency.

For example, whilst remedies are imposed on operators by NRAs at the national level, the Commission and BEREC almost exclusively input through non-binding instruments in order to attempt to achieve EU-wide regulatory consistency on this level. In the past, this "soft law" approach has led to significant differences in some areas, clearly proving to be an obstacle for the development of a Single Market.

The question arises whether BEREC has achieved and, in its current two-tier governance structure, can achieve its main objective of ensuring consistency amongst its members in the application of best practice telecoms regulation. BEREC, as one of the key stakeholders at European level, has been faced with some criticism. According to the study on "[How to Build a Ubiquitous EU Digital Society](#)", in its current governance structure, BEREC is primarily motivated by a desire for self-determination, and that it delivers verdicts based on a 'lowest common denominator', or prioritises flexibility over consistency in the Single Market.

Besides, in July 2012, the European Parliament, the Council and the European Commission endorsed a Joint Statement on decentralised agencies, which included a range of principles within the so-called Common Approach. The Common Approach aims at making EU agencies more coherent, effective and accountable and addresses a number of key issues: the role and position of the agencies in the EU's institutional landscape, the creation, structure and operation of these agencies, funding, budgetary, supervision and management issues, etc. The Common Approach is meant to serve as political blueprint for guiding both the establishment and review of EU agencies.

Question 176: Do you consider that the current institutional set-up at EU level should be revised in order better to ensure legal certainty and accountability?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. In doing so, please consider the Common Approach on decentralised agencies and indicate whether in your view there are examples of institutional arrangements in other sectors which could serve as a model for the electronic communications sector.

Please express also your views as to how to ensure that BEREC has greater medium-term strategic direction and can devise positions which pursue the common EU interest, going beyond a lowest common denominator approach.

As a general remark, ETNO believes that the overall institutional set-up should be significantly streamlined, to be consistent with the new competitive environment that requires a significant reduction of regulatory intervention, and increased regulatory certainty and predictability. The set-up, as well as the overall framework review,

should also take into account the profound changes occurring in the whole digital ecosystem at large.

The new institutional set-up should be targeted towards the reaching of the following, crucial, policy goals:

- o A radical simplification of wholesale access regulation, with the emphasis on infrastructure competition as a key driver of innovation and investment. A regulatory system which can allow adequate return on investment in NGA networks is needed, ensuring a level playing field between competing infrastructures. Ex-ante regulation should be removed as much as possible in favour of a greater reliance on ex-post regulatory oversight.

- o A more efficient spectrum management framework, which meets the spectrum requirements determined by the predicted explosion of mobile data traffic;

- o A consistent and proportionate set of equitable rules, applied to all services in the digital market, particularly with regard to consumer protection;

- o A competition and regulatory perspective which safeguards and promotes innovation and investments;

- o A more consistent and predictable regulatory framework within the EU.

Below, a set of concrete and specific remarks in line with the broader vision underlined above:

As far as network access regulation is concerned, the current framework has provided an excessively complex regulatory setting, with high implementation costs, both in the area of network access and consumer protection. Overregulation has had a negative impact on operators' costs and commercial flexibility and ultimately on citizens. The new framework should promote regulatory simplification and legal predictability, and any institutional set-up should be targeted at ensuring these goals.

A clear example of overregulation is that market definitions have often been designed with the idea to regulate specific wholesale services.

Regarding efficiency, we highlight that regulation has led to huge inefficiencies and compliance costs, overburdening operators.

To avoid this, we believe that NRAs should envisage thorough impact assessments of their proposed decisions, focusing in particular on the impact of such decisions on investment incentives.

NRAs have normally not followed a rigorous impact assessment methodology, taking into account costs and benefits with a prospective approach. They have tended to impose the full set of wholesale access obligations stemming from the "ladder of investment" theory. As a consequence, many overregulation errors (false positives) occur and subsist. The revocation of unwarranted access obligations is very rare even in cases where data shows that they are ineffective and irrelevant.

See for instance how Carrier Selection and Wholesale Line Rental were maintained in Portugal in 2014 (despite the fact that these account for less than 1% of traffic and customers) or the situation in Belgium, where Wholesale Line Rental and multicast was imposed without any take-up.

With such impact assessments, the NRAs should check if the considered decision on access conditions is beneficial bearing in mind a triple objective: (i) incentivizing network investments and innovation, (ii) safeguarding sustainable competition, and (iii) fostering consumers' interests.

More in general, we underline that access and interconnection should not continue to be regulated ex-ante as has been done until now. In fact, ex-ante regulation was meant to take place only for a transitional period of time. Instead, regulation has been steadily extended since the beginning of liberalization.

A clear mindshift from the current system is needed. It is necessary to decrease intervention, complexity and bureaucracy, and provide companies with more freedom to invest, innovate, and profit from their investment efforts. The future regime should take into consideration the current progresses in the field of voluntary access, e.g. joint network investments and network sharing as well as commercially-driven voluntary wholesale access offerings. It should move to a more market-driven approach, where commercial solutions for wholesale access take precedence over regulated outcomes.

Commercial negotiation should be the rule. However, if necessary, NRAs should remain competent to arbitrate between undertakings on the subject using dispute resolution powers. Therefore, an adequate institutional set up and procedures should be in place which give priority to voluntary access agreements.

(continue here if necessary)

Parties should be allowed to undertake commercial negotiations and only when these have failed NRAs should undertake a market analysis to define potential bottlenecks and impose eventually access remedies.

It is regrettable that the current framework has caused significant delays in delivering new technologies, such as vectoring, and network evolution. Regulation should be based on outcomes, and should aim at the fulfilment of consumers' connectivity needs. Consequently, the framework should preserve the principle of technological neutrality, as it is not the task of policy-makers to mandate specific technical solutions.

As a general principle, ETNO believes that regulatory intervention should be thoroughly justified. It should not to be taken for granted as

an ever-existing feature, particularly taking into account that it implies a very intrusive form of intervention. Thresholds for ex-ante regulatory intervention have to be high. The need for regulation must be very rigorously analyzed, taking duly into account existing voluntary agreements and, if applied, it should be on a transitory basis and be focused on the achievement of very specific objectives.

In addition to the principles outlined above, decisions on any possible regulation of access networks have to be made by national regulatory authorities taking into account several factors such as geographical conditions, technologies used to deploy the new NGAs, availability of ducts, etc. There are throughout Members States, a variety of national and local different characteristics.

The new institutional set-up should also be targeted at ensuring consistent rules across the whole digital service market, which includes a level playing field between competing alternative services.

The EU regulatory framework for electronic communications has so far imposed strict rules with regard to consumer protection, but only for electronic communications (ECS) and Internet Access Services (IAS). Consumers currently do not benefit from the same level of protection for comparable services and consistent standards across the service markets. Moreover, gaps, overlaps and inconsistencies have emerged over the years and consumers benefit from increased choice, which make the sector rules no longer fit for purpose.

We can thereby affirm that the current regulatory framework for electronic communications has only moderately achieved its goal and that current consumer protection rules applied to telecom operators lack effectiveness.

Many strict rules which are currently applied to telecom operators even appear not to meet consumers' actual needs. These rules are not proportionate anymore and should be repealed. This applies to sector-specific rules which are simultaneously covered by horizontal legislation, which is generally designed to provide an effective protection for consumers.

Apart from that, the simultaneous application of very different set of rules to digital services (where different authorities may be involved, such as the telecom NRAs, consumer protection agencies and others) does not sufficiently ensure consistent protection standards that consumers can rely on.

Moreover, an increase of competition due to new providers in the market - telecom operators as well as OTTs - has increased consumer choice, further questioning the justification for prescriptive and sector specific ex-ante regulation.

Effective enforcement of the new rules should be ensured. ETNO considers

a solution to ineffective enforcement of rules as a priority. Additionally, we are facing a major problem of enforceability of the European legislation to non-European players which negatively impacts effectiveness of legislation.

All of these factors need to be considered when assessing the current framework's effectiveness regarding consumer protection and when defining a new future-proof holistic legislation for the digital economy.

Regarding possible new competencies for regulators, ETNO agrees with a recent BEREC's proposals to extend the scope of information gathering to grant NRAs the power to request information from "all relevant parties, including OTTs". This corresponds with the European Commission's Recommendation on relevant product and service markets (2014), which explicitly recognizes that OTTs may be taken into consideration when analysing markets. But it also recalls that according to Art 15 of the Framework Directive, markets can be identified "within the electronic communications sector". Therefore, the Recommendation does not even seek to identify OTT-specific markets. Still, it is questionable if NRAs would have the ability to enforce such a provision, if OTTs refuse to comply with the requests, being OTTs not covered by the Framework.

Question 177: Do you consider that establishing an EU Agency with regulatory decision-making powers within a clear framework of rules could positively contribute to achieving regulatory harmonisation in the EU telecoms single market in any of the following areas:

	strongly agree	agree	disagree	strongly disagree	do not know
a) market regulation	<input type="radio"/>				
b) spectrum management in the EU	<input type="radio"/>				
c) end user protection	<input type="radio"/>				
d) other	<input type="radio"/>				

Please explain your response and specify if other.

(continue here if necessary)

Question 178: Should BEREC be given more executive tasks or binding powers in specific areas, for example numbering or addressing?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. In particular, please specify the tasks or powers you would consider appropriate to confer on BEREC.

The answer depends on the specific issue at hand.

For example, regarding possible new competencies for regulators, ETNO agrees with a recent BEREC's proposals to extend the scope of information gathering to grant NRAs the power to request information from "all relevant parties, including OTTs". This corresponds with the European Commission's Recommendation on relevant product and service markets (2014), which explicitly recognizes that OTTs may be taken into consideration when analysing markets. But it also recalls that according to Art 15 of the Framework Directive markets can be identified "within the electronic communications sector". Therefore, the Recommendation does not even seek to identify OTT-specific markets. Still, it is questionable if NRAs would have the ability to enforce such a provision, if OTTs refuse to comply with the requests, being OTTs not covered by the Framework.

Regarding numbering and addressing issues, practice has shown that individual Regulatory Authorities in member countries have adequate expertise to deal with issues such numbering or addressing on a national basis. Whilst ETNO welcomes some coordination on numbering and addressing at European level such as the one undertaken by CEPT/ECC (with no autonomous enforcing role, with a role of EC advisor as for the frequencies), ETNO considers that there is no need for the time being to give BEREC more executive tasks or binding powers in the above-mentioned areas due to the particularities of each national numbering or addressing scheme.

(continue here if necessary)

Question 179: As regards the enforcement of EU communications sector-specific end-user rights, should the enforcement of EU communications sector-specific end-user rights at national level fall within the core competence of the independent national regulatory authorities for communications?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

The new institutional set-up should be targeted at ensuring consistent rules across the whole digital service market, which includes a level playing field between competing, alternative services.

The EU regulatory framework for electronic communications has so far imposed strict rules in regard to consumer protection, but only for electronic communications (ECS) and Internet Access Services (IAS). Consumers currently do not benefit from the same level of protection for comparable services and consistent standards across the service markets. Moreover, gaps, overlaps and inconsistencies have emerged over the years and consumers benefit from increased choice, which make the sector rules no longer fit for purpose.

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Moreover, an increase of competition due to new providers in the market - telecom operators as well as OTTs - has increased consumer choice, further questioning the justification for prescriptive and sector specific ex ante regulation.

Effective enforcement of the new rules should be ensured. ETNO considers a solution to ineffective enforcement of rules as a priority.

Additionally, we are facing a major problem of enforceability of the European legislation to non-European players which negatively impacts effectiveness of legislation.

All of these factors need to be considered when assessing the current framework's effectiveness regarding consumer protection and when defining a new future-proof holistic legislation for the digital economy.

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(continue here if necessary)

Question 180: As regards the enforcement of EU communications sector-specific end-user rights, should other national authorities (also) be competent for the enforcement of EU communications sector-specific end-user rights?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and specify which authorities and for which provisions.

See ETNO's response to Q. 179 copied below:

The new institutional set-up should be targeted at ensuring consistent rules across the whole digital service market, which includes a level playing field between competing, alternative services.

The EU regulatory framework for electronic communications has so far imposed strict rules in regard to consumer protection, but only for electronic communications (ECS) and Internet Access Services (IAS). Consumers currently do not benefit from the same level of protection for comparable services and consistent standards across the service markets. Moreover, gaps, overlaps and inconsistencies have emerged over the years and consumers benefit from increased choice, which make the sector rules no longer fit for purpose.

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Apart from that, the simultaneous application of very different set of rules to digital services (where different authorities may be involved, such as the telecom NRAs, consumer protection agencies and others) does not sufficiently ensure consistent protection standards that consumers can rely on.

Moreover, an increase of competition due to new providers in the market - telecom operators as well as OTTs - has increased consumer choice, further questioning the justification for prescriptive and sector specific ex ante regulation.

Effective enforcement of the new rules should be ensured. ETNO considers a solution in regard to ineffective enforcement of rules as a priority. Additionally, we are facing a major problem of enforceability of the European legislation to non-European players which negatively impacts effectiveness of legislation.

All of these factors need to be considered when assessing the current framework's effectiveness regarding consumer protection and when defining a new future-proof holistic legislation for the digital economy.

Regarding possible new competencies for regulators, ETNO agrees with a recent BEREC's proposals to extend the scope of information gathering to grant NRAs the power to request information from "all relevant parties, including OTTs". This corresponds with the European Commission's Recommendation on relevant product and service markets (2014), which explicitly recognizes that OTTs may be taken into consideration when analysing markets. But it also recalls that according to Art 15 of the Framework Directive, markets can be identified "within the electronic

communications sector". Therefore, the Recommendation does not even seek to identify OTT-specific markets. Still, it is questionable if NRAs would have the ability to enforce such a provision, if OTTs refuse to comply with the requests, being OTTs not covered by the Framework.

(continue here if necessary)

Question 181: As regards the enforcement of EU communications sector-specific end-user rights, does the degree of harmonisation of the EU communications sector-specific end-user rights (maximum/minimum harmonisation) play a role in your reply to the previous questions?

- yes, it is the most important factor
- yes, it is one of several factors considered
- no

Please explain your response.

(continue here if necessary)

Question 182: As regards the enforcement of EU communications sector-specific end-user rights, should the authority or authorities in charge of enforcement of EU communications sector-specific end-user rights at national level be able to cooperate among themselves to enforce EU communications sector-specific end-user rights cross-border in the EU (e.g. when consumers and providers are located in two different Member States, or when the same practices are encountered in several Member States)?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

(continue here if necessary)

Question 183: Have you identified any provision related to BEREC and the BEREC Office which in your opinion should be revised in terms of i) set-up (structure, composition, etc.), ii) mandate (objectives, roles, tasks, evaluation, etc.), iii) deliverables (powers, type of acts, content, timely delivery, etc.) and iv) functioning (procedures, working methods, internal rules, etc.)?

- yes
- no
- do not know

Please explain your response.

(continue here if necessary)

Question 184: Have you identified any provision in the regulatory framework (including the BEREC Regulation), which in your opinion should be revised in order to ensure that individual NRAs more systematically follow BEREC's opinions and guidance?

- yes
- no
- do not know

Please explain your response. If your answer is yes, please specify which provisions would benefit from a revision.

(continue here if necessary)

b) NRAs' independence, powers and accountability

The 2009 review of the regulatory framework aimed at strengthening the independence of the national regulatory authorities. In addition to independence from the regulated companies, safeguards aiming at ensuring political independence of the regulatory authorities were introduced.

Question 185: Have you identified any provision in the regulatory framework, which in your opinion should be revised as regards NRAs' independence and powers?

- yes
- no
- do not know

Please explain your response.

(continue here if necessary)

Question 186: Should the NRAs have a role in mapping areas of investment deficit, or infrastructure presence (including for State Aid purposes)?

- yes
- no
- do not know

Please explain your response.

(continue here if necessary)

Question 187: Should the provisions established in Article 3 of the Framework Directive be revised in order to adequately ensure that NRAs enjoy budgetary autonomy and adequate human and financial resources to carry out the tasks assigned to them?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

(continue here if necessary)

Question 188: Do the current rules on the accountability of the NRAs (i.e. Article 3(3a) of the Framework Directive on "supervision in accordance with national constitutional law" and Article 4 on the exercise of effective judicial control) strike the right balance between independence and accountability of NRAs?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response, and develop, if applicable, in which direction should this balance be altered, such as for example, by prescribing in more detail the scope of judicial review (minimum, maximum control), or how can the NRA accountability be reinforced while guaranteeing independence.

(continue here if necessary)

According to the EU Guidelines for the application of state aid rules in relation to the rapid deployment of broadband networks (January 2013), NRAs should have certain responsibilities with regard to the implementation of state aid decisions in the broadband markets. The Guidelines urge Member States to reserve an important role for the NRAs in the design and assessment of national projects. For instance, NRAs should be consulted as regards the identification of target areas, on access price and conditions and resolution of disputes. It calls on Member States to create appropriate legal bases for such involvement.

Question 189: Taking into account the current EU Guidelines on state aid, should any provision of the current regulatory framework for electronic communications be revised in order to improve the outcome of these processes?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

(continue here if necessary)

c) Market regulation: EU regulatory consultation process and harmonisation of regulatory conditions

There are two particular areas, market regulation and the management of scarce resources, in relation to which it is particularly appropriate to assess whether an increased consistency could contribute to further integration en route to a true Single Market. With regard to both areas, there may be various sub-themes, which could benefit more broadly from an institutional set-up that was geared more thoroughly towards ensuring consistency. For example, issues surrounding the independence and funding of NRAs, the constitutional set-up of BEREC, the design of the EU consolidation process under Article 7, the conditions applicable pursuant to the general authorisation regime or the rights of use for radio frequencies, the Commission's powers to adopt harmonisation measures under Article 19, standardisation, rights of way, numbering, spectrum management, naming and addressing to name but a few.

Concerning market regulation, one area, in relation to which a more consistent approach is particularly important, is the choice and design of access remedies. Unfortunately, it is especially in this area where there is the most notable divergence across the EU. Whilst competition still predominantly takes place at the national level, EU-wide consistency in designing access remedies is increasingly considered important, in particular by pan-European operators, in order to create a level playing field so as to provide opportunities for entry and competition across national markets whilst ensuring efficient investments and innovation, all in order to ensure the best outcomes for consumers and citizens in terms of product offerings, price, choice and value across an EU-wide Single Market. In addition to access remedies, fragmentation of other regulatory conditions (e.g. authorisation conditions) may also represent an obstacle to market entry and cross-border provision of services. The negative impact a fragmentation of conditions has on the provision of connectivity services has been widely reported by the BEREC consultation on the cross-border obstacles to business services and by various studies.

Question 190: Do you think that the current roles and responsibilities of the individual actors in the consultation process, in particular BEREC and the Commission, should be amended?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

(continue here if necessary)

Question 191: Do you consider that there are any ways in which the current EU consultation process could be streamlined in order to reduce the burden for all actors involved?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response (When doing so please set out what you consider to be the most burdensome parts of the current EU consultation process for the stakeholders involved and how the burden could be reduced).

(continue here if necessary)

Question 192: Are there any current conditions attached to the general authorisation for the provision of electronic communications services and networks (as listed in the Annex of the Authorisation Directive and/or specified at national level) which should be revised in order not to hinder the cross-border provision of electronic communications services and networks?

- yes
- no
- do not know

Please justify your response by indicating, if applicable, which kind of services are most affected.

(continue here if necessary)

Question 193: According to the national provisions as well as your experience, should national notification requirements under the general authorisation regime be revised in order to allow that they are fulfilled in practice by operators non-established in the country of provision of the service?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response if possible by indicating also which kind of obstacles, if any, occur.

(continue here if necessary)

Question 194: Under the general authorisation regime, an undertaking which intends to provide electronic communications networks and or services may be required to submit a notification whose content is limited to what is necessary for the identification of the provider. Based on your experience, would it generate added value if notification requirements were standardised at EU level (in a standard template) and if the notification on such a standard template was centralised at BEREC or equivalent level, without this being a prerequisite for commencement of activity?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

(continue here if necessary)

Question 195: To what extent have you experienced changes of financial and competitive conditions attached to rights of use having a significant impact on the structure of the market and/or the financial sustainability of the provision of services?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response by indicating, if applicable, specific examples of changes of market conditions and of related impacts.

(continue here if necessary)

Question 196: Are there regulatory obligations (including general conditions attached to the general authorisation or to rights of use as well as specific obligations imposed on operators) that would benefit from technical harmonisation at EU level, in order to reduce red tape in general, costs of cross-border provision and more generally to exploit economies of scale?

- yes
- no
- do not know

Please explain your response by indicating, if applicable, also which kind of regulatory obligations and/or services would benefit most from such harmonisation and, if available, any quantification of these benefits.

(continue here if necessary)

3.7.3. Efficient and effective Spectrum Governance in a Digital Single Market

With regard to the management of radio spectrum, as one of the most important scarce resources for the digital economy, the existing governance structures focus on the harmonisation of basic technical parameters, because the benefits of wireless innovation rely on the making available on the market and putting into service in the Union of radio equipment (governed by Directives 1999/5/EC and 2014/53/EU) and the use of such equipment throughout the Digital Single Market based on common allocation of spectrum by Member States and the technical harmonisation of the usage parameters under the Radio Spectrum Decision 676/2002/EC. However, with the exception of spectrum made available on a licence-exempt basis via a general authorisation (e.g. Wi-Fi, or other short range devices) spectrum users may not benefit from harmonised usage conditions, based on sufficient consistency of the timing of effective assignment or of associated conditions.

It is therefore necessary to investigate whether the current governance model in this area falls short of ensuring consistent assignment conditions throughout the Union as well as whether the current processes to making harmonise spectrum available throughout the Digital Single Market present a potential barrier for home-grown wireless innovation to reach the market in Europe. A common approach to best practices in spectrum management and governance would reduce the administrative burden at national level and at the same time increase the predictability sought by investors, while taking into account the principles of subsidiarity and proportionality and national ownership of the relevant assets.

Maximising spectrum-based economic benefits via economies of scale means more revenue for Member States – directly in fees and indirectly by increased added economic value; revenues, which would remain exclusively with Member States. A common and transparent fast-track procedure for undertaking technical compatibility and sharing studies might equally reduce the administrative burden at national level, and at the same time would also reduce the resources needed for stakeholders to gain access to spectrum for new applications or technologies.

a) Evaluation of the functioning of the current regulatory regime and processes.

Question 197: To what extent is the current applicable regime to define technical harmonisation parameters based on Commission Mandates to CEPT:

	significantly	moderately	little	not at all	do not know
a) Satisfactorily transparent in regard to the way the necessary technical studies are conducted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Efficient and timely in responding to technology developments and/or market demand?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) Effective in terms of providing legal certainty to operators throughout the EU?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) Successful to spur the benefits of wireless innovation in the EU?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain your response.

The CEPT process is well managed. The difficulties are often related to the very tight timeframe set to reply to EU mandates. Often the work is also delayed and influenced by some non-EU members (e.g. Russia has often different views on spectrum-related matters).

(continue here if necessary)

Question 198: How significant for your organisation are the resources needed to follow and contribute to the CEPT procedures in response to a Commission Mandate?

- very high
- high
- moderate
- do not know

Please explain your response, including how satisfactory you find the CEPT process in general from your organisation's point of view.

ETNO believes that CEPT process is already fully transparent and accessible to all kinds of stakeholders and industries. The great variety of issues covered in the different CEPT groups requires several competent resources dedicated to the CEPT work. Not all stakeholders have enough resources to contribute or follow all the relevant work.

(continue here if necessary)

Question 199: For SMEs, how do you view the current CEPT technical spectrum harmonisation process ? (several answers possible)

- efficient
- supportive of SME innovations
- a comparative advantage for the EU
- supportive to disruptive or innovative applications
- opaque
- cumbersome
- difficult to access for SMEs
- unsupportive to disruptive or innovative applications

Please explain your response and provide suggestions for improvement if any.

This question is for small and medium-sized enterprises therefore it will not be answered.

(continue here if necessary)

Question 200: Are specific measures necessary to ensure access of small and medium sized enterprises to harmonised spectrum?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO is of the opinion that no specific measures should be envisaged.

(continue here if necessary)

Question 201: Given the current upstream involvement of CEPT, ETSI and other stakeholders in the preparation of technical studies for future spectrum harmonisation measures, to what extent is it possible to protect commercial secrets of an innovative wireless application, when aiming at harmonised spectrum access in the EU?

- significantly
- moderately
- little
- not at all
- do not know

Please explain your response.

ETNO is of the opinion that the current upstream involvement of CEPT, ETSI and other stakeholders adequately protects the commercial secrets of innovative wireless applications.

(continue here if necessary)

Question 202: Do you see a need to accelerate or streamline the Radio Spectrum Committee/CEPT process, with a view to coping with rapid market and technological changes and improving "time to market" for wireless innovations in the EU?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response. If yes, please provide suggestions.

ETNO believes that the process described in Art. 4 of the RSD is working well. ETNO would nevertheless envisage a higher degree of involvement of the industry in the Radio Spectrum Committee.

(continue here if necessary)

b) Modernised Spectrum Governance for a Digital Single Market

Question 203: In order to serve the future wireless connectivity needs of the EU, would a common EU approach to governing spectrum access as a strategic resource in the Digital Single Market be necessary, while taking into account the principles of subsidiarity and proportionality and the character of spectrum as a national asset?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that the Commission should have a stronger role in enforcing harmonisation of the overall principles of spectrum award procedures and licensing conditions. Nevertheless, the Commission should not be directly involved in the administration of spectrum matters on a national scale.

We would like more harmonisation within the EU on a set of specific issues:

1) On objectives for spectrum allocation that could

- Help with pan-EU roadmap deadlines (not schedules) for the release of certain spectrum bands;
- give more transparency on all key aspects of spectrum management;
- advocate for auctions as the main process for allocation. It would maximise economic efficiency.

2) When it comes to allocation conditions (criteria for spectrum assignment), only these should be harmonised:

- license duration;
- timing of repurposing;
- conditions of renewal;
- enhanced flexibility regarding trading and sharing of spectrum resources.

(continue here if necessary)

Question 204: Do you see the need for more transparency in the preparatory steps before the Commission takes binding technical harmonisation decisions to ensure legal certainty for spectrum access in the EU, i.e before and after the Commission issues a Mandate to CEPT?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that the process described in Art. 4 of the RSD is working well. ETNO would nevertheless envisage a higher degree of involvement of the industry in the Radio Spectrum Committee.

(continue here if necessary)

Question 205: Do you agree that a common and transparent fast-track procedure for undertaking technical compatibility and sharing studies would be a benefit for both administrations and stakeholders?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that technical and sharing studies requires time, engagement and expertise, which have to be provided by experts from the industry and the administrations. The CEPT process for the studies is already working. In some cases a fast-track procedure may be beneficial to speed up the process, e.g. by setting up strict timelines in the mandates. However, the fast-track may delay some other work or compromise the objectivity of the results. The group of engaged parties with similar interests could perform the studies in a fast manner, but often there are also parties with opposite interests participating in the work.

(continue here if necessary)

Question 206: Would you see the benefits of supporting the current contribution-driven process with the services of independent full-time technical experts that could be called upon to perform technical studies as input to preparatory steps needed before the Commission can take binding technical harmonisation decisions?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO is of the opinion that dedicating resources under Commission's funding could be valuable but coordination with ECC work is required to avoid duplications and inconsistencies.

(continue here if necessary)

Question 207: Given the overall lack of vacant spectrum and the increasing need for all users to use spectrum efficiently, do you agree that NRA's responsible for spectrum management should monitor the actual usage of bands listed in their inventory of existing use?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO thinks that MNOs already make an efficient use of the spectrum assigned for the deployment of their network. Similar efficiency parameters should also be applied to others spectrum users.

(continue here if necessary)

Question 208: Can the Radio Spectrum Decision process, including the preparatory steps in CEPT, be accelerated and/or simplified, with a view to cope with the rapid market and technological changes?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that the process can be accelerated by combining activities or conducting them in parallel under the condition that the quality of the work and the stakeholders' participation is secured.

(continue here if necessary)

Question 209: Should Member States take a common approach when designing spectrum assignment procedures and conditions, with the aim to deliver the required regulatory predictability and consistency in the internal market while reflecting local market specificities?

- yes
- no
- do not know

if yes, how?

- On the basis of EU-level guidance (e.g. Commission recommendations, Commission implementing decisions, RSPG Guidelines, BEREC common positions, other)
- On the basis of peer-review discussions (e.g. between Member States authorities or NRAs grouped at EU level)
- Other

Please explain your response and provide examples.

ETNO is in favour of a EU-level approach in relation to the overall principles of assignment procedures. Regarding the conditions, only license duration, renewal principles, and timing for repurposing should be harmonised. For everything else, peer-level guidance would be sufficient.

ETNO believes that the details of the assignment procedures and conditions (e.g. coverage related requirements) are better dealt by the Member States with some form of peer review process and EU level guidance, particularly in the form of guidelines to be followed when analysing competition aspects of spectrum policy.

(continue here if necessary)

Question 210: What would be the most important features of an EU-level body, which could support and develop in particular peer-review based guidance on assignment procedures and conditions, in order to promote network coverage and wireless connectivity in the Digital Single Market?

- based on EU advisory group entrusted with some implementing competences (e.g. RSPG enhanced)
- based on EU-level governance procedures and financed by the Union budget (e.g. like the BEREC office)
- based on EU-level cooperation of national competent authorities (e.g. like BEREC)
- based on intergovernmental cooperation of national competent authorities inside and/or also outside the EU (e.g. like CEPT)
- other

Please explain your response and provide examples. Hybrid responses are also possible.

ETNO believes that the institutional set-up should be the one that most efficiently delivers the functional objectives set in the legislation.

(continue here if necessary)

Question 211: Do you see the need for binding guidance on certain aspects of assignment procedures and conditions to increase regulatory predictability and legal certainty for spectrum rights holders?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO believes that common guidance should increase predictability. Binding measures should be limited to: minimal limits to service and technology-neutrality, sufficiently long licence durations and voluntariness of sharing with other spectrum uses.

Regarding assignment procedures, EU shall mandate auctions. Regarding assignments conditions, only license duration, renewal principles, and timing for repurposing should be harmonised. For everything else, peer-level guidance would be sufficient.

(continue here if necessary)

Question 212: In view to the harmonisation or coordination of assignment conditions and/or procedural aspects, would you consider appropriate that the Commission exercise its power under Article 19 of the Framework Directive to issue recommendations?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

If agree, what would be the most appropriate EU level body to advise the Commission in this area, any of the existing ones (BEREC, RSPG, COCOM) or others newly created?

- RSPG
- BEREC
- COCOM
- Other

Please explain your response.

In our view, all three bodies (BEREC, RSPG and COCOM) could be involved. BEREC opinion is taken into account in the Art. 19.

(continue here if necessary)

Question 213: Do you consider that regarding certain key assignment parameters, a mechanism similar to that set by Article 4 of the Radio Spectrum Decision should be available, whereby common rules would be set in implementing measures by the Commission assisted by a committee of Member States representatives?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

ETNO is of the opinion that RSC should be able to harmonise licence minimum duration, notice periods, conditions for notice to be served, payment terms and whether trading should be allowed, or not.

(continue here if necessary)

Question 214: Should such powers also cover the question whether the assignment of a given band should be conducted on a national, regional or EU-wide basis?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response.

ETNO believes that such decisions are sufficiently important. Therefore the involvement of, at least, the Council, is required.

(continue here if necessary)

Question 215: Do you consider that, in addition to general EU-level guidance or rules on assignment, individual national authorities would benefit from consultations with the Commission and with their peers on all aspects of spectrum assignment procedures being prepared by them, and that this would favour the development of more efficient and convergent spectrum assignment proceedings across the EU?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

If you agree, when would be the best moment for such consultations?

- in advance of the public consultation
- in parallel to the public consultation
- shortly before launch of the procedure

Please explain your response.

(continue here if necessary)

Question 216: Given the potential cross-border implications of spectrum refarming decisions in Member States, do you consider that the outcomes of cross-border coordination efforts between Member States, such as those facilitated via the "good office" service of the Radio Spectrum Policy Group, should guarantee equitable access to harmonised radio spectrum among the relevant Member States and can be enforceable under Union law?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and provide examples.

In addition to cross-border coordination efforts within EU, it may be good to have support or better coordination for cross-border coordination efforts with non-EU countries.

(continue here if necessary)

c) Scope for co- and self-regulation

When reviewing the regulatory framework for electronic communications, it is important to examine whether there are areas which could benefit from self-regulation and co-regulation (see [Principles for better self-regulation and co-regulation](#)).

Question 217: Do you see a need to establish a greater role for co-regulation and self-regulation in areas of the current regulatory framework?

- strongly agree
- agree
- disagree
- strongly disagree
- do not know

Please explain your response and indicate the areas concerned.

(continue here if necessary)

Question 218: Do you have any further comments or suggestions on the future scope and/or content of possible rules in the sector? Please explain your response.

(continue here if necessary)

Useful links

DAE glossary (<https://ec.europa.eu/digital-agenda/en/glossary>)

Connectivity needs consultation

(<https://ec.europa.eu/digital-agenda/en/news/public-consultation-needs-internet-speed-and-quality-beyond-20>)

Background Documents

Annex I (/eusurvey/files/67c9df42-f4d6-4b7a-b9a7-c8f00fd49eff)

Annex II (/eusurvey/files/48b06e67-e76d-4171-bc2c-58fb2bd5804c)

Annex III (/eusurvey/files/4c8ef988-6e2c-4f3b-bf4d-e1d8294c39f4)

Annex IV (/eusurvey/files/3381b4f9-30a7-4ed9-8753-df791d50f326)

background%20document.pdf (/eusurvey/files/182117c3-c974-4e7e-9782-09ea77f77cdc)

Contact

✉ CNECT-telecom-review@ec.europa.eu
