



Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

laying down measures to complete the European single market for electronic communications and to achieve a Connected Continent

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure,

Whereas:

Europe has to tap all sources of growth to exit the crisis, create jobs and regain its competitiveness. The 2013 Spring European Council stressed the importance of the digital single market for growth and called for concrete measures ahead of its October meeting to establish a single market in Information and Communications Technology as early as possible. This initiative is a direct response to that call and will help achieving Europe 2020 Strategy's aims of restoring smart growth and job creation in the Union by completing and adapting the existing EU Regulatory Framework for Electronic Communications in order to establish a single market for electronic communications.

The Digital Agenda for Europe (DAE), one of the flagship initiatives of Europe 2020 Strategy, has already recognised the role of ICT and network connectivity as an indispensable basis for the development of our economies and society. To let Europe reap benefits of digital transformation, the EU needs a dynamic single market in electronic communications for all sectors and across all of Europe. Such a truly single communications market is the backbone of an innovative and 'smart' digital economy and a foundation of the digital single market.

In a seamless digital single market the freedom to provide electronic communications networks and services to every customer in the Union and the right for each end-user to choose the best offer available on the market should be ensured and should not be hindered by the legacy fragmentation of markets along national borders. The current

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OJ C , , p. .

² OJ C , , p. .

regulatory framework for electronic communications does not fully address such fragmentation, with national, rather than Europe-wide general authorisation regimes, national spectrum assignment schemes, differences of access products available for electronic communications providers in different Member States, and different sets of sector-specific consumer rules applicable. The EU rules in many cases merely define a baseline, and are often implemented in diverging ways in each Member State.

A truly single market for electronic communications, once established, will promote competition, investment and innovation in new and enhanced networks and services by fostering market integration and cross-border service offerings. It will thus help achieving the ambitious high-speed broadband targets set out in the DAE. The growing availability of digital infrastructures and services will in turn increase consumer choice and quality of service, and contribute to territorial and social cohesion, as well as facilitate mobility across the EU. Finally the establishment of a true single market for electronic communications may affect the geographical scope of markets, for the purposes of both sector-specific regulation based on competition principles and the application of competition law itself.

The benefits arising from a single market for electronic communications will extend to the wider digital eco-system including EU equipment manufacturers, content and application providers and the wider economy, including sectors such as banking, automobile, logistics, retail, energy, transport, who rely on connectivity to enhance their productivity through, for example, ubiquitous cloud applications, connected objects and possibilities for integrated service provision for different parts of the company. Public administrations and general services such as in particular the health sector will also benefit from a wider availability of e-government and e-health services. The provision of connectivity through electronic communications networks and services is of such importance to the wider economy and society, as a general purpose technology, that unjustified sector-specific burdens, whether regulatory, fiscal, planning-related or otherwise, should be avoided.

This Regulation should ensure the completion of the single market through action on three broad, inter-related axes. First, it should ensure the freedom to provide electronic communications services and networks across borders, building on the concept of a European Passport to put in place the conditions for much greater consistency and predictability in the content and implementation of sector-specific regulation throughout the Union. Second, it is necessary to enable access on much more convergent terms and conditions to essential inputs for the provision of electronic communications networks and services, both for wireless broadband communications, for which both licensed and unlicensed spectrum is key, and for fixed line connectivity. Third, in the interests of aligning business conditions and of building the digital confidence of citizens, this Regulation should harmonise rules on the protection of end-users, especially consumers, ranging from non-discrimination to contractual information to termination and switching, in addition to rules on access to online content, applications and services and on traffic management which not only protect end-users but simultaneously guarantee the continued functioning of the Internet ecosystem as an engine of innovation. In addition, further reforms in the field of roaming should give end-users the confidence to stay connected when they travel in the Union, and should become over time a driver of convergent pricing and other conditions in the Union.

The measures provided for in this Regulation should therefore complement the existing EU Regulatory Framework and the applicable national legislations adopted in conformity with Union law, by providing specific rights and obligations for both electronic communications providers and end-users, by making consequential amendments to the existing Directives in order to secure greater convergence as well as some substantive changes consistent with a more competitive Single Market, and by coordinating the definition of certain inputs at European level with a view to enable the provision of electronic communications services across national borders.

The measures foreseen in this Regulation respect the principle of technological neutrality, that is to say that they neither impose nor discriminate in favor of the use of a particular type of technology.

A European Passport defining the legal framework applicable to an electronic communications operator providing services across Member States is the least onerous regime ensuring the effectiveness of the freedom to provide electronic communications services and networks in the whole Union. There should not be any need to file multiple notifications in each Member State where services are provided, with only a declaratory notification to be filed with the competent regulatory authorities in the home Member State in order to ensure transparency for the identification of the provider and of its organisation and activities across the Union. The European passport should apply to any undertaking that provides or intends to provide electronic communications services and networks in more than one Member State, in order to ensure that such a European electronic communications provider is entitled to enjoy the rights attached to the freedom to provide electronic communications services and networks in accordance with this Regulation in any Member State.

The provision of electronic communications services or networks across borders may take different forms, depending on several factors such as the kind of network or services provided, the degree of physical infrastructures needed or the subscriber base in the different Member States. The mere request of access or interconnection in one Member State does not entail *per se* the provision of services in that Member State pursuant to Article 3(1) of Directive 2002/19/EC. The declared intention to engage in the cross-border provision of electronic communications services or operation of an electronic communications network should be supported by evidence of the substantiated and immediate intention of the provider to direct its operations to other Member States. Such evidence could include negotiation of access agreements to networks in a given Member State or availability of an internet site in the language or currency of the targeted Member State.

Irrespective of the different modalities chosen by the provider for the operation of electronic communications networks or the provision of electronic communications services across borders, the regulatory regime applicable to a European undertaking providing electronic communications services and network should be neutral *vis-à-vis* the commercial choices concerning the organisation of functions and activities across Member States. Therefore, regardless of the corporate structure of the provider, the home Member State of a European electronic communications provider should in principle be considered to be the one where the strategic decisions concerning the provision of electronic communications networks or services are taken, provided it also represents a non-negligible part of the overall commercial activities in this domain. Where this is not the case, the Member State where the most significant commercial activities take place in the field of electronic communications networks

and services should be considered to be the home Member State. It should be ensured that the means of identifying the home Member State lead to stable results, such as an indicator based on the turnover of existing operators over a multi-year period, including that of each merging entity in the event of consolidation, and confirmed over a reasonable period, while in the case of newly established operators the initial choice should be consistent with the effective centre of gravity of activities over a period of time. Finally, where joint control of a provider is held by two electronic communications providers with their main establishments in different Member States, any notification filed by the parent company should take into account the decision of the subsidiary as for the relevant home jurisdiction among those of the parents for the purpose of this Regulation.

In accordance with Directive 2002/20/EC the general authorisation pursuant to EU Passport cannot be made subject in the Member States concerned to conditions which are already applicable by virtue of other existing national law which is not specific to the electronic communications sector.

Where Member States require contribution to the universal service and to the regulatory costs of the competent national regulatory authorities, the criteria and procedures for apportioning contributions should be proportionate and non-discriminatory with regard to European electronic communications providers, in order not to hinder cross-border market entry; therefore individual undertakings' contributions should take into account the contributor's market share in terms of turnover realised in the relevant Member State and should be subject to the application of a *de minimis* threshold.

This Regulation envisages an allocation of regulatory and supervisory competences between the home and any host Member State of European electronic communications providers which minimises the restrictions and favours a coordinated supervision and regulation. In order to ensure a consistent and coordinated regulation of an European electronic communications provider, the sector-specific requirements subject to full harmonisation pursuant to this Regulation and in the Roaming Regulation should in principle be applied by the competent national regulatory authorities in the home Member State to all services provided across the Union, such as with regard to supervision and compliance with the rules concerning transparency, contracts, traffic management, freedom of Internet access and end-users' rights in the single digital market. Moreover, only the competent national regulatory authority in the home Member State should be entitled to restrict the freedom to provide electronic communications services and networks in the Union or in part thereof by withdrawing or suspending the general authorisation, without prejudice to the powers of each concerned Member State concerning rights of use and interim measures. On the other hand, where national regulatory conditions apply to European electronic communications providers in accordance with this Regulation, the competent national regulatory authority in each concerned Member State where services or networks are provided should continue to ensure implementation and supervision of those conditions applicable in its territory in accordance with the powers and procedures provided for in the Framework Directive and the Specific Directives.

Some sector-specific conditions, such as conditions concerning access to or security and integrity of networks or access to emergency services, are strongly linked to the place and conditions where such network is located or the service is provided. Therefore, European electronic communications provider may be subject to conditions applicable to electronic communications providers in conformity with

Union law in the Member States where it operates, to the extent that this Regulation does not provide otherwise. However, in order to ensure that in similar circumstances there is no discrimination in the treatment of any European electronic communications provider and with a view to ensure consistent regulatory practice in the Single Market, in particular as regards measures falling within the scope of Articles 12, 15 or 16 of Directive 2002/21/EC (Framework Directive), or Articles 5 or 8 of Directive 2002/19/EC (Access Directive), it is necessary to ensure that the imposition of remedies on operators in accordance with the regulation applicable in the different Member States concerned does not discriminate, *de iure* or *de facto*, *vis-à-vis* cross-border providers and ensures equal treatment by the different Member States in objectively equivalent situations in order to enable more integrated multi-territorial operations. Furthermore, there should be specific procedures at European level for the review of draft remedies decisions in such cases, in order to avoid unjustified divergences in remedies applicable to European electronic communications providers in different Member States.

Finally, it is to be expected that intensified competition in a single market will lead to a reduction over time in sector-specific regulation based on market analysis. Indeed, one of the results of completing the Single Market should be the normalisation of competitive conditions, with *ex post* application of competition law increasingly being seen as sufficient to ensure market functioning. In order to ensure legal clarity and predictability of regulatory approaches across borders, clear and binding criteria should be provided on how to assess whether a given market justifies the imposition of *ex-ante* regulatory obligations, by reference to the durability of bottlenecks and the prospects of competition, in particular infrastructure-based competition based on efficient investment. This should underpin successive reviews of the list of markets susceptible to *ex ante* regulation and help national regulators to focus their efforts where competition is not yet effective and to do so in a convergent manner.

In the interests of regulatory predictability, key elements of evolving decisional practice under the current Framework should also be reflected in the legislation. These should include provisions reflecting the importance, for the analysis of wholesale access markets and in particular of price controls on such access to NGA networks, of the relationship between competitive constraints from alternative infrastructures, effective guarantees of non-discriminatory access, and the level of competition in terms of price and quality at retail level. Indeed, in the presence of two NGA networks, the market conditions are generally considered competitive enough to be able to evolve towards the provision of ultra-fast services. [Footnote: EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks, OJ 2013, C25, p. 1] The establishment of a European virtual broadband access product under this Regulation with equivalent functionalities, in terms of access to fixed NGA networks, to passive infrastructure access should also be reflected in the assessment by NRAs of the proportionality of alternative access remedies to the NGA networks of SMP operators.

Spectrum is a public good and an essential resource for the internal market for mobile, wireless broadband and satellite communications in the Union. Wireless broadband communications contribute to the Digital Agenda for Europe and in particular to the aim of securing access to broadband at a speed of no less than 30 Mbps by 2020 for all Union citizens and at providing the Union with the highest possible broadband speed and capacity, as set by Article 3(c) of the Radio Spectrum Policy Programme (RSPP). However, the Union has fallen behind other major global regions - North

America, Africa and parts of Asia - in terms of the roll-out and penetration of the latest generation of wireless broadband technologies that are necessary to achieve those policy goals. The piecemeal process of authorising and making available the 800 MHz band for wireless broadband communications, with over half of the Member States failing to do so by the deadline laid down in the RSPP, is eloquent testimony to the urgency of action even within the term of the current RSPP.

The application of various national policies creates inconsistencies and fragmentation of the internal market which hamper the roll-out of EU-wide services and the completion of the internal market for wireless broadband communications. It could in particular set unequal conditions for access to such services, hamper competition between undertakings originating in different Member States and stifle investments in more advanced networks and technologies and the emergence of innovative services, thereby depriving citizens and businesses of ubiquitous integrated high-quality services and wireless broadband operators of increased efficiency gains from large-scale more integrated operations. Therefore, action at Union level regarding certain aspects of spectrum assignment should accompany the development of wide integrated coverage of advanced wireless broadband communications services throughout the Union. At the same time, Member States retain the right to adopt measures to organise their spectrum for public order, public security purposes and defence.

Electronic communications services providers including mobile operators or consortia of operators should be able to collectively organise the efficient and affordable coverage of a vast part of the Union's territory to the long-term benefit of end users, and therefore use spectrum across several Member States with similar conditions, procedures, costs, timing, duration and obligations in harmonised bands. Users or groups of users could simultaneously acquire usage rights in several or all Member States and benefit from complementary spectrum packages, such as a combination of lower and higher frequencies for coverage of densely and less densely populated areas, to provide integrated services over large areas or over the whole Union territory. Initiatives in favour of greater coordination and consistency would also enhance the optimal use of spectrum resources and the general consistency and predictability of the network investment environment. Such predictability would also be greatly favoured by a clear policy in favour of long-term duration, if not the indefinite character, of rights of use related to spectrum, linked in its turn to clear conditions for the transfer, lease or sharing of part of all of the spectrum subject to such an individual right of use.

In line with the principle of subsidiarity and proportionality and without prejudice to the primary competence of Member States including to manage spectrum and set fees and charges, better coordination and consistency of authorisation conditions should therefore be achieved at least for the bands which have been harmonised for wireless fixed, nomadic and mobile broadband communications, including bands identified at ITU level for International Mobile Telecommunications (IMT) Advanced systems as well as bands used for radio local access networks such as 2.4 GHz and 5 GHz. This should also extend to bands that may be harmonised in the near future for wireless broadband communications, as envisaged in Article 3(b) of the RSPP and in the RSPG Opinion on Strategic challenges facing Europe in addressing the growing spectrum demand for wireless broadband adopted on 13 June 2013, such as the 700 MHz, 1.5 GHz and 3.8-4.2 GHz bands; it could also build on the future results of the spectrum inventory pursuant to Article 9 of the RSPP. Conditions should also be put

in place to synchronise the future cycles of reassignment or renewal of individual rights of use of spectrum which have already been granted in bands harmonised for wireless broadband communications, accompanied if necessary by arrangements for the extension on stable terms of rights which may expire before a future synchronised cycle at Union level can begin.

Consistency of the different national spectrum assignment procedures would be favoured by more explicit legislative guidance on the criteria relevant to the timing of authorisation procedures; authorisation duration; fees and administrative charges and their payment modalities; capacity and coverage obligations; definition of the range of spectrum subject to an authorisation process; organisation and size of spectrum blocks, bandwidth and channels, the content of multi-band selection procedures; the need to respect objective threshold requirements for imposing conditions designed to promote effective competition, such as the limitation of the amount of spectrum accessible by an individual operator, reservations for new entrants or access conditions for service providers; conditions for the tradability of rights of use, in whole or in part, including sharing conditions, which ensure flexible and liquid markets.

Investments in rapid roll-out of infrastructure and new technology could be encouraged, and pass-on of the attendant cost advantages could promote widespread take-up and high wireless data consumption by end users, if Member States ensure that the burden of fees collected for the granting of rights to use spectrum remains reasonable and tied to optimal spectrum management, and is structured to achieve a balance between upfront payments and payments spread over the duration of the rights.

The alignment of the timing of assignments of newly harmonised spectrum for wireless broadband communications, and of the duration of the rights so assigned, is especially apt in order to promote the roll-out of advanced networks and services under predictable and consistent conditions throughout the Union, and to support the achievement of scale effects in related industries such as for network equipment and terminal devices. Such industries could in turn take into account, to a greater extent than has recently been the case, European spectrum policy. A harmonisation procedure for the timetables for assignment and minimum duration of rights of use in such bands should therefore be established, as well as upstream arrangements to monitor and ensure timely compliance. This harmonisation procedure should extend in time to existing rights of use. While minimum durations and reassignment or reassignment cycles should be sufficiently long to provide stable investment conditions, the envisaged measures should not be a barrier to the grant of rights of indefinite duration.

As regards the other main substantive conditions which may be attached to rights of use of spectrum for wireless broadband, the convergent application by individual Member States of the criteria to be set down in this Regulation would be favoured by a coordination mechanism whereby the Commission and the competent authorities of the other Member States have an opportunity to comment in advance of the authorisation procedure by a given Member State and whereby the Commission has an opportunity, taking into account the views of the Member States, to forestall implementation of any proposal which appears to be non-compliant with Union law.

Complementary wireless access systems known as radio local access networks (RLAN), in particular publicly accessible RLAN access points, increasingly allow access to the Internet for end-users and allow mobile traffic off-loading by mobile operators.

RLAN is a wireless broadband technology that benefits from harmonised spectrum resources, in the 2.4 GHz and the 5 GHz bands, which is freely accessible by anyone using compliant equipment without requiring an individual authorisation; this has allowed widespread deployment of interoperable RLAN-capable devices and access points. Most RLAN access points are so far used by private users as a local wireless extension of their fixed broadband subscription. However, the availability of a large number of such access points, particularly in densely populated areas, could maximise wireless data capacity through frequency re-use and create a cost-effective complementary wireless broadband infrastructure accessible to other end-users. This justifies the removal of unnecessary restrictions to the deployment and interlinkage of RLAN access points, in particular by fixed backhaul operators or public authorities such as municipalities. Public authorities or providers of public services increasingly use RLAN access points in their premises for their own purpose, for example for use by their personnel, to better facilitate cost-effective on-site access by citizens to eGovernment services or to support provision of smart public services with real-time information. Such bodies could also provide access to such access points for the public in general as an ancillary service to services offered to the public on such premises, and should be enabled to do so in conformity with competition and public procurement rules.

The making available of local access to electronic communications networks within or around a private property or a limited public area as an ancillary service to another activity that is not dependant on such an access, such as RLAN hotspots made available to customers of other commercial activities, should not qualify such a provider as an electronic communications provider.

The availability of high-speed wireless broadband to the public and the promotion of spectral efficiency should be facilitated through measures to define at Union level technical characteristics of unobtrusive small-area wireless access points, justifying general authorisation of deployments without individual planning or other permits.

Considering the general obligation of loyal cooperation of Member States, Member States should ensure that their internal organisation of spectrum use does not prevent other Member States from using the spectrum to which they are entitled, or from implementing their obligations where spectrum usage has been harmonised at EU level. Building on the existing activities of the RSPG, a coordination mechanism is necessary to ensure that each Member State has equitable access to spectrum and that the outcomes of coordination are consistent and enforceable. Such mechanism should be without prejudice to the existing possibility for the Commission to adopt technical implementing measures pursuant to Decision No 676/2002/EC to ensure the timely and appropriate coordinated organisation of spectrum between several or all Member States.

Experience in the implementation of the Union's regulatory framework indicates that existing provisions requiring the consistent application of regulatory measures together with the goal of contributing to the development of the internal market have not created sufficient incentives to design access products on the basis of harmonised standards and processes, in particular in relation to fixed networks. When operating in different Member States, operators have difficulties in finding access inputs with the right quality and network and service interoperability levels, and when they are available, such inputs exhibit different technical features. This increases costs and constitutes an obstacle to the provision of services across national borders.

The integration of the single market for electronic communications would be accelerated through establishment of a framework to define certain key virtual products, which are particularly important for providers of electronic communication services to provide cross-border services and to adopt a pan-Union strategy in an increasingly all-IP environment, in accordance with key parameters and minimum characteristics.

In this context, operators, as undertakings that provide or are authorised to provide a public communications network or an associated facility in accordance with Directive 2002/19/EC, should be considered to include providers of any network that is offered to third parties by way of a commercial offer, whether or not the network in question is closed or connected to other networks, but should be considered to exclude closed networks that are built by undertakings for self-supply only.

The operational needs served by various virtual products should be addressed. As regards virtual broadband access products, these should be made available where an operator with significant market power has been required under the terms of the Framework Directive and the Access Directive to provide access on regulated terms at a specific access point in its network. On the one hand, efficient cross-border entry should be facilitated by the definition of harmonised products that require limited investment from the access seeker, so that a punctual and ad hoc solution to provide services across Member State borders is available to access seekers that want to provide such services to their end customers effectively, without delay and with a predictable and sufficient quality. Such products should be made available in accordance with harmonised parameters that allow integrated technical offers across borders, thus lowering barriers to entry into markets of other Member States, including in order to provide services to business customers with sites in multiple countries. The duration of the obligations to make these harmonised products available should also be sufficient to allow access seekers and providers to take into account medium and long term investment considerations.

On the other hand, sophisticated virtual access products that require greater investment by access seeker and allow them greater levels of control and differentiation, particularly by providing access at a more local level, are key to creating the conditions for sustainable competition across the internal market over the longer term, so that the provision of these key next generation products should also be harmonised to facilitate cross-border investment. Such virtual broadband access products should be designed to have equivalent functionalities to physical unbundling, in order to broaden the range of potential proportionate remedies available to national regulatory authorities under the Access directive.

The absence of connectivity products with assured service quality that enable communication paths across network domains and across network borders, within Member States as well as across the Internal Market, hinders the development of applications that rely on access to other networks, thus limiting technological innovation and competitive offers within the internal market. A harmonised approach to the design and availability of these products is therefore necessary, based on reasonable terms including, where requested, the possibility of cross-supply by the electronic communications undertakings concerned.

Disparities in the national implementation of sector-specific end-user protection rules create significant barriers to the single digital market, affecting end-users and providers of electronic communications to the public. Those disparities increase compliance costs in particular to the providers wishing to offer services across Member States.

Fragmentation also undermines consumer confidence in the internal market. In order to achieve the Union's objectives through the removal of internal market barriers, it is necessary to replace existing, divergent national legal measures. Both end-users and providers should be able to rely on a single harmonised set of rules (Chapter 3 and 4 of this Regulation) which create a high common level of end-user protection. Such harmonisation at a high level of end-user protection should not prevent providers of electronic communications to the public from offering end-users contractual arrangements which go beyond that level of protection.

At the same time, this Regulation is without prejudice to the level of protection for consumer interests, as established by Union acts other than this Regulation and acts amended by this Regulation, and national legislation implementing them.

Where provisions in Chapters 3 and 4 of this Regulation refer to end-users, such provisions should apply not only to consumers but also to other end-users, primarily micro enterprises. Where appropriate, end-users other than consumers should be able to agree, by individual contract, to different conditions.

The completion of the single market for electronic communications also requires the removal of barriers for end-users to acquire electronic communications services across the Union. Public authorities should therefore not raise or maintain obstacles to the cross-border purchase of such services. Providers of electronic communications to the public should not discriminate against end-users on the basis of their nationality or Member State of residence. Differentiation should, however, be possible on the basis of objective and demonstrable differences in cost, price elasticity and other parameters.

Very significant price differences continue to prevail between, on the one hand, voice calls and SMS communications within a Member State and, on the other hand, between one Member State and another. While there are substantial variations between countries, operators and tariff packages, and between mobile and fixed services, this continues to affect more vulnerable customer groups and to pose barriers to seamless communication within the Union. In fact, retail price differences are observed despite a very significant reduction, and convergence in absolute terms, of termination rates in the different Member States, and low prices on transit markets. Moreover, the transition to an "all-IP" electronic communications environment should bring additional cost reductions. In a Single Market, such underlying cost differences should ultimately be negligible and this should in due course be reflected in retail prices. Providers of electronic communications to the public should therefore justify any such differences by reference to additional costs, which can be demonstrated in aggregate for such communications in the Union. This should include an allowance for a reasonable margin relative to such aggregate additional costs, bearing in mind related price elasticity and the current contribution of this service category to covering the overall fixed costs of electronic communications networks and services.

Bundles comprising electronic communications and other services such as linear broadcasting have become increasingly widespread and are an important element of competition. In order to enable end-users to compare effectively all available offers and to choose the most suitable, the provisions of this Regulation on end-user rights, transparency, quality of service, internet access and traffic management, contract information and termination, and switching should apply to all elements of such a bundle.

The Internet has developed over the past decades as an open platform for innovation with low access barriers for end-users, content and application providers and Internet service

providers. It is paramount to maintain this openness to foster growth and innovation and the accessibility of information to the benefit of citizens and businesses. The Union's regulatory framework as adopted in 2009 comprises the objective of promoting the ability of end-users to access and distribute information or run applications and services of their choice. Recently, however, BEREC's report on traffic management practices published in May 2012 documented that a significant number of end-users are affected by traffic management practices which block or slow down specific applications. These tendencies require clear rules at the Union level to maintain the open Internet and to avoid fragmentation of the single market through individual Member States' measures.

In an open Internet, providers of electronic communications to the public should, within contractually agreed limits on data volumes and speeds, not block, slow down or degrade specific services or service classes except for a limited number of reasons, namely an explicit legal order, threats to the network integrity and security, protection against unsolicited communications and exceptional network congestion. Volume-based tariffs are compatible with an open Internet as they allow end-users to choose the tariff corresponding to their normal data consumption while enabling providers of electronic communications to the public to better adapt the network capacities to the expected data volumes. It is essential that end-users are fully informed before agreeing to any data volume, speed or other general quality characteristics, that they can continuously monitor their consumption and easily acquire extensions to the available data volumes if desired.

There is also end-user demand for services and applications with an enhanced quality of service offered by providers of electronic communications to the public or content and applications providers. Such services, which require an enhanced level of assured service quality, comprise inter alia broadcasting via Internet Protocol (IP-TV), voice over Internet Protocol (VoIP), video-conferencing and certain health applications. In addition, there is demand on the part of content and service providers, for flexible quality of service including lower levels of priority for traffic which is not time-sensitive. The possibility for service providers who are not consumers to negotiate such flexible service quality levels is crucial for the development of new services such as machine-to-machine (M2M) communications. At the same time such flexibility arrangements allow providers of electronic communications to the public to better balance traffic and prevent network congestion.

This Regulation should establish the freedom of the various actors to pursue these different activities without unjustified restrictions either by public authorities or by providers of electronic communications to the public, taking as an essential foundation the aforementioned freedom of end users to access and distribute information or run applications and services of their choice.

National regulatory authorities have an essential role in ensuring the effective ability of end-users to exercise this freedom. To this end national regulatory authorities should monitor closely and ensure that traffic management measures are transparent and proportionate and that specific services or applications or classes thereof are not blocked, slowed down or otherwise degraded, save for the legitimate reasons foreseen in this Regulation. National regulatory authority should be empowered to impose non-discriminatory minimum quality of service requirements on all or individual providers of electronic communications to the public if this is necessary to

prevent the general degradation of the quality of service, *inter alia* of Internet access services which are available outside specific quality agreements,.

The measures to ensure better transparency on prices, tariffs, terms and conditions, and quality of service parameters including those specific to the provision of Internet access services, increase the ability of end-users to optimise their selection of providers and thus benefit fully from competition.

End-users should be adequately informed of the price and the type of service offered before they purchase a service, including immediately prior to connection of the call. This is necessary in particular when a call to a specific number or service is subject to particular pricing conditions, such as applies for example for calls to special rate or premium rate services. End-users should also be informed if a free-phone number is subject to additional charges.

Providers of electronic communications to the public should ensure that their customers are adequately informed *inter alia* as to whether or not access to emergency services is provided and of any limitation on service (such as a limitation on the provision of caller location information or the routing of emergency calls), quality of service parameters, the choice of services and products designed for disabled consumers, and, where requested, public interest information related to unlawful activities and protection against risks to personal security, privacy and data. The details of such information should be specific to the Member States where the service is provided. This information should also be provided in a clear and transparent manner in contracts, and in the event of any change, for example in billing information.

Availability of comparable information on products and services is paramount to the ability of end-users to make an independent evaluation of offers. Experience shows that availability of reliable and comparable information, for instance by means of online comparison tools supplied by the national regulatory authorities or accredited third parties, increases end-user confidence in use of services and enhances the willingness to exercise their choice.

In order to avoid bill shocks, end-users should be able, upon request, to define maximum financial limits for the charges related to their usage of call services and Internet access services. This facility should be available free of charge, with an appropriate notification, in a media format that can be consulted again subsequently, such as for example an SMS message, an e-mail or a pop-up window on the computer, when this limit is being approached. Upon reaching the maximum limit, end-users should no longer receive or be charged for those services unless they specifically request the continued provision in accordance with the conditions set out in the notification. However, taking into account the importance of maintaining the access to Internet in view of ensuring end-users' participation in social and economic activities, a minimum level of service agreed by the end-user and specified in advance in the contract may still be available to the end-user even if the financial limit is exceeded. These transparency measures should not preclude providers of electronic communications to the public from offering their customers other safeguarding facilities which help them to predict and control their expenditure.

Contracts are an important tool for end-users to ensure a high level of transparency of information and legal security. In addition to the provisions of this Regulation, the requirements of existing Union consumer protection legislation relating to contracts should apply to end-user transactions relating to electronic networks and services. Specifically, end-users should enjoy a high level of legal certainty in respect of their

contractual relations with their service provider, such that the contractual terms, conditions, quality of service, condition for termination of the contract and the service, switching and portability of numbers, compensation measures and dispute resolution are specified in their contracts.

With respect to terminal equipment, the contracts should specify any restrictions imposed by the provider on the use of the equipment, such as for example by way of 'SIM-locking' mobile devices, and any charges due on termination of the contract, whether before or on the agreed expiry date, including any cost recovery and unlocking procedure with respect to terminal equipment or promotional offers.

Experience from Member States has shown that long contractual periods as well as automatic tacit extensions of contracts constitute significant obstacles to changing a provider. It is thus desirable that end-users are able to withdraw, without penalties, from the contract after six months from its conclusion. In this instance, end-users may be requested to compensate their providers for the residual value of subsidized terminal equipment or the pro rata tempore value of any other promotions. Contracts that have been tacitly extended should be subject to termination with a one-month notice period.

Any significant changes to the contractual conditions imposed by providers of electronic communications services to the public to the detriment of the end-user, for example those related to charges, tariffs, data volume limitations, data speeds and similar, , should be considered as giving rise to the right of the end-user to terminate the contract without penalty.

In order to take full advantage of the competitive environment, end-users should be able to make informed choices and switch providers when it is in their interests. It is essential that switching is a simple and easy process that requires minimum input on the part of the end-user. End-users should therefore be able to switch without being hindered by legal, technical or procedural obstacles, including contractual conditions and charges. Number portability is a key facilitator of consumer choice and effective competition and should be implemented with the minimum delay, so that the number is functionally activated within one working day from concluding an agreement to port a number. Settlement of outstanding bills should not be a condition for validation of a porting request.

In view of providing support for the provision of one-stop-shops and to facilitate a seamless switching experience for the end-users, the switching process should be led by the receiving provider of electronic communications to the public which initiates the necessary sequence of steps to complete the switch. The transferring provider of electronic communications to the public should not delay or hamper the switching process. Automated processes should be used as widely as possible, to the extent technically feasible. Availability of transparent, accurate and timely information on switching, before and during the process, as well as immediately after, increases end-users' confidence in switching and fosters their willingness to engage actively in the competitive process.

Contracts with transferring providers of electronic communications to the public should be cancelled automatically after switching, so that end-users do not have to take additional steps to contact their previous provider. It is important to ensure that when switching to a new provider, consumers using pre-paid services retain the financial amounts that have not been spent.

It is important that end-users experience continuity when changing important identifiers such as email addresses. To this end, and to ensure that email communications are not lost, end-users should be provided with a possibility to opt for an email forwarding facility offered by the transferring Internet access service provider in cases where the end-user has an email address provided by the transferring provider.

Competent national authorities may prescribe the global processes of porting numbers and switching, taking into account technological development and the need to ensure a swift, efficient and consumer-friendly switching process. Experience has shown that there is a risk of end-users being switched to another provider without their consent or being subject to abuse or delays during the switching process. Member States should be able to impose proportionate measures regarding the switching process including appropriate sanctions that are necessary to minimise such risks, and to ensure that end-users are adequately protected throughout the switching process, including by setting automatic compensation mechanism for end-users in such instances. Member States may *inter alia* extend the availability of number portability facility to machine-to-machine communications.

The EU mobile communications market remains fragmented. None of the mobile network operators present in the market has networks in all EU Member States. As a consequence, in order to provide mobile communications services to their domestic customers travelling within the Union, roaming providers have to purchase wholesale roaming services from operators in a visited Member State. These wholesale charges constitute an important impediment to providing roaming services at price levels corresponding to domestic mobile services. Therefore further measures should be adopted to facilitate lowering these charges. Commercial or technical agreements among roaming providers which allow a virtual extension of their network coverage across the EU provide a means to internalise wholesale costs. In order to incentivise the formation of such alliances, which should be fully compliant with EU competition law, and where it is ensured that the resulting cost reductions are passed on to roaming customers, certain regulatory obligations laid down in Regulation (EC) No 531/2012 should be adapted. In particular, when members of roaming alliances offer to their customers by default roaming tariffs at the level of domestic tariffs, the obligation of domestic providers to enable their customers to access voice, SMS and data roaming services of any alternative roaming provider should not apply to such providers. In order to safeguard potential investments made by alternative roaming providers taking advantage of the separate sale of roaming, a transitional period should apply when an alternative roaming provider has already been granted access to a domestic provider's customers.

Roaming alliances can allow a mobile operator to treat roaming by its domestic customers on the networks of alliance partners as being to a significant degree equivalent to providing services to such customers on its own networks, with consequential effects on its retail pricing for such virtual on-net coverage across the EU. Such an arrangement at the wholesale level could allow the development of new roaming products and therefore increase choice and competition at retail level.

Regulated wholesale charges continue to play an important role in particular for alternative roaming providers. The wholesale cost of providing roaming service should leave a reasonable margin in relation to retail tariffs allowing roaming providers the freedom to compete by differentiating their offerings and adapting their pricing structures to market conditions and consumer preferences. Whilst the regulatory safeguards which apply to Union-wide roaming services at wholesale level by virtue of Regulation

(EC) No 531/2012 aim to provide a reasonable reflection of the underlying costs involved in the provision of the service a forward-looking consideration should be given to the evolution of relevant cost drivers, such as regulated mobile termination rates and traffic volumes. While cost elements differ somewhat across the Union, utmost account should be given to the most recent and accurate estimates based on methods outlined in the Commission Recommendation on the regulatory treatment of fixed and mobile termination rates in the EU. At the same time when setting wholesale charges it is appropriate to take as a benchmark the mature technologies prevailing on the market, rather than the cost profile of next-generation technologies which are not yet widespread and which, even if highly cost-efficient, are far from being amortised. On the other hand, the effect of the spreading of largely fixed costs over greatly expanding traffic volumes, in particular for data, should be taken into account. The regulated wholesale charges should therefore be revised and accordingly adapted to ensure the smooth functioning of the internal market by allowing competition to develop. In addition, the increasing data roaming traffic volumes open up other ways of trading data roaming traffic. Instead of wholesale trading based on a unit, bulk capacity trading may provide further efficiencies and flexibility. Such commercial arrangements should be encouraged.

The Digital Agenda for Europe and Regulation No 531/2012 establish the policy objective that the difference between roaming and domestic tariffs should approach zero. In practical terms, this requires that consumers falling into any of the broad observable categories of domestic consumption should be in a position to confidently replicate their domestic consumption pattern while travelling within the Union, without additional costs relative to those incurred in a domestic setting. The diversity of retail tariff plans and packages available to customers in domestic mobile markets across the EU accommodates varying user demands associated with a competitive market. Such flexibility in domestic markets should also be reflected in the intra-Union roaming environment, while bearing in mind that the need of roaming providers for wholesale inputs from independent network operators in different Member States may still justify the imposition of limits by reference to reasonable use if domestic tariffs are applied to such roaming consumption by members of a roaming alliance.

While it is in the first place for roaming alliance members to assess themselves the reasonable character of any allowances granted under their retail packages for roaming purposes, National regulatory authorities should supervise the application by roaming providers of such reasonable use limits and ensure that they are specifically defined by reference to detailed quantified information in the contracts in terms which are clear and transparent to customers. They should also monitor whether roaming conditions under various contract types are indeed reasonable having regard to the type of usage pattern addressed by the retail package in question and the evolution of expectations as regards in particular wireless data consumption. In so doing, national regulatory authorities should take utmost account of relevant guidance from BEREC. In its guidance, BEREC should identify various usage patterns substantiated by the underlying voice, data and SMS usage trends at the EU level. BEREC should have regard to the evolution of pricing and consumption patterns in the Member States, to the degree of convergence of domestic price levels across the Union, to the evolution of wholesale roaming rates for unbalanced traffic between roaming alliance members, to the effective network coverage of an alliance and its effect on the wholesale cost base of any given alliance member, and to the objective that consumers falling into any of the broad observable categories of

domestic consumption should be in a position to confidently replicate their domestic consumption pattern while travelling within the Union.

In order to ensure consistency between the objective and the measures needed to complete the single market for electronic communications pursuant to this Regulation and some specific existing provisions of the Framework Directive on electronic communications services and networks and based on key elements of evolving decisional practice, the Specific Directives and the Roaming Regulation should be amended. This includes the introduction of strengthened powers of the Commission in order to ensure consistency of market remedies imposed on European electronic communications providers holding substantial market power in the context of the current consultation mechanism, a reinforcement of the policy objectives and regulatory principles in Article 8 of the Framework Directive, harmonisation of the criteria adopted in assessing the definition and competitiveness of relevant markets, the introduction of European access products in the remedies available to national regulatory authorities in the context of market regulation, the adaptation of national notification systems in view of the EU passport as well as the repeal of provisions on minimum harmonisation of end-users rights provided in the Universal Service Directive made redundant by the full harmonisation provided in this Regulation.

Moreover, it is necessary to build upon the experience to date with BEREC by providing additional stability for its strategic leadership. In addition, the work of completion of the single market pursuant to this Regulation will further increase the calls made upon BEREC to contribute to shaping technical and policy orientations. Therefore, provision should be made for a professional Chairman with a three-years renewable mandate.

Competent national regulatory authorities should be able to take effective action to monitor and secure compliance with the provisions of this Regulation, including the power to impose effective financial or administrative penalties in the event of any breach thereof.

In order to take account of market and technical developments, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of adapting the Annexes. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing-up delegated acts, should ensure a simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and

In order to ensure uniform conditions for the implementation of this regulation, in particular in relation to the harmonisation and coordination of authorisation of spectrum, characteristics of small-area wireless access points, more detailed technical and methodological rules concerning European virtual access products and the safeguarding of Internet access and of reasonable traffic management and quality of service, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No182/2011 of the European Parliament and of the Council laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers.

The Commission may always seek BEREC's opinion in accordance with Regulation 1211/2009, when it considers it necessary for the implementation of the provisions of this Regulation.

HAVE ADOPTED THIS REGULATION:

Article 1 – Objective and scope

1. This Regulation aims at completing a European single market for electronic communications where:

- providers of electronic communications services and networks have the right, the ability and the incentive to develop, extend and operate their networks and to provide services irrespective of where that undertaking is established or its customers are situated in the Union,
- citizens and businesses have the right and the opportunity to access a competitive provision of secure and reliable electronic communications services irrespective of where they are provided from in the Union, without being hampered by cross-border restrictions or unjustified additional costs.

2. This Regulation aims at unleashing the growth potential of a single market for electronic communications to the benefit of the entire economy of the Union.

In accordance with Articles 8 Paragraph 3 and 8a of the Framework Directive, this Regulation pursues in particular the policy objective and regulatory principle of securing simplified and convergent regulatory conditions regarding key administrative and commercial parameters, which take into due account the needs:

- (a) to promote sustainable competition and the global competitiveness of the Union;
- (b) to favour efficient investment and innovation in new and enhanced infrastructures which reach throughout the Union;
- (c) to facilitate innovative service provision and
- (d) to ensure the availability and highly efficient use of both licensed and unlicensed spectrum for wireless broadband services in support of innovation, investment, jobs and end-user benefits.

This Regulation equally aims at increasing consumer choice and quality of network access and of service and at facilitating mobility across the Union, and both social and territorial inclusion, in order to meet the growing needs of both citizens and businesses.

3. In order to attain the foregoing objectives, this regulation establishes the necessary rules, in particular,

- an EU passport for European electronic communications providers;
- the further convergence of regulatory conditions as regards remedies imposed by national regulatory authorities on European electronic communications providers;
- the harmonised provision of wholesale products for broadband consisting of wholesale virtual access and assured service quality connectivity;
- the achievement of a European wireless space, through a coordinated European framework for the assignment of harmonised spectrum for wireless broadband communications services;
- the achievement of a European consumer space through harmonisation of rules relative to the rights of end-users and the promotion of effective competition in retail markets;
- the elimination of surcharges for international and roaming traffic not justified by underlying costs.

4. This Regulation does not establish additional rules on private international law nor does it deal with the jurisdiction of Courts.

Article 2 – Definitions

For the purposes of this Regulation, the definitions set out in Directives 2002/21/EC, 2002/20/EC, 2002/19/EC, 2002/22/EC and 2002/77/EC shall apply.

The following definitions shall also apply for the purposes of this Regulation:

(1) "European electronic communications provider" means an undertaking established in the Union providing or intending to provide electronic communications networks or services, whether directly or by means of one or more subsidiaries, directed to more than one Member State and that cannot be considered a subsidiary of another electronic communications provider;

(2) "provider of electronic communications to the public" means an undertaking providing public electronic communications networks or publicly available electronic communications services;

(3) "subsidiary" means an undertaking in which another undertaking directly or indirectly:

(i) has the power to exercise more than half the voting rights, or

(ii) has the power to appoint more than half the members of the supervisory board, board of management or bodies legally representing the undertaking, or

(iii) has the right to manage the undertaking's affairs;

In the event that two or more electronic communications providers providing services in different Member States respectively hold, directly or indirectly, any of the foregoing powers or rights in an undertaking, such an undertaking shall indicate the relevant home Member State among those of the parent companies that shall accordingly notify it, for the purpose of this Regulation

(4) "EU passport" means the legal framework applicable to a European electronic communications provider in the whole Union in accordance with this Regulation;

(5) "home Member State" means the Member State where the European electronic communications provider has its main establishment.

(6) "main establishment" means the place of establishment in the Member State where the main decisions are taken as to the investments in and conduct of the provision of electronic communications services or networks in the Union, provided that at least [15%] of the turnover stemming from the provision of electronic communications services and networks in the Union over the previous five years is realised in that Member State. If less than [15%] of such turnover is realised in the Member State where the main decisions are taken, the main establishment is deemed to be located in the Member State where the greatest amount of the turnover over the previous five years has been realised.

In the interests of stability, here the main establishment of a provider of European electronic communications provider has been identified in accordance with the first sub-paragraph and notified pursuant to Article 4 and its turnover evolves in such a way that its place of main establishment would be relocated to another Member State, such a change of main establishment shall only be deemed to occur and shall only be notified if the change in the proportion of turnover realised in the different Member States is confirmed over the two subsequent years.

In the case of undertakings which have provided electronic communications networks and services in the Union for less than five years, the main establishment shall be deemed to be the place of establishment where the main decisions are taken and shall be reviewed once information relating to the first five years of operation is available.

(7) "host Member State" means any Member State different from the home Member State where a European electronic communications provider provides electronic communications networks or services;

(8) "virtual broadband access means a type of wholesale access to broadband networks that consists of a virtual access link to the customer premises over any access network architecture, excluding physical unbundling, together with a transmission service to a defined set of points of handover, and including specific network elements, specific network functionalities and ancillary IT systems;

(9) "Assured service quality (ASQ) connectivity product" means a product that is made available at the IP exchange, which enables customers to set up an IP communication link between a point of interconnection and one or several fixed network termination points, and enables defined levels of end to end network performance for the provision of specific services to end users on the basis of the delivery of a specified guaranteed quality of service, based on specified parameters;

(10) "small-area wireless access point" means a low power wireless network access equipment of small size operating within a small range, which may or may not be part of a public terrestrial mobile communications network, and be equipped with one or more low visual impact antennas, which allows wireless access to the public to electronic communications networks regardless of the underlying network topology;

(11) "receiving provider of electronic communications to the public" means the provider of electronic communications to the public to which the telephone number or service is transferred;

(12) "transferring provider of electronic communications to the public" means the provider of electronic communications to the public from which a telephone number or service is transferred;

(13) "radio local access network" (RLAN) means a low power wireless access system, operating within a small range, with a low risk of interference to other such systems deployed in close proximity by other users, using on a non-exclusive basis spectrum for which the conditions of availability and efficient use are harmonised for such use pursuant to the Radio Spectrum Decision or Article 114 of the TFEU, such as the available 2.4 GHz and 5 GHz bands.

Chapter 1 – EU Passport

Article 3 – Freedom to provide electronic communications across the Union

1. Every European electronic communications provider has the right to provide electronic communications networks and services in the whole European Union and to exercise the rights linked to the provision of such networks and services in each Member State where it operates pursuant to a EU passport. The EU Passport is based on the general authorisation in the home Member State and subject only to the transmission of a notification to the competent regulatory authority in the home Member State in accordance with Article 4.

2. The European electronic communications provider shall comply with the conditions applicable pursuant to this Regulation and Regulation No. 531/2012 throughout the Union. It shall comply with national legislation implementing the Directive 2002/21/EC and the Specific Directives in each Member States concerned unless otherwise provided in this Regulation.

3. Any European electronic communications provider may be subject to the payment of administrative charges pursuant to Article 12 of Directive 2002/20/EC in accordance with national legislation that is applicable in the host Member State only if the European electronic communications provider has an annual turnover in that Member State above 1% of the total national electronic communications turnover. In levying these charges only the turnover in the concerned Member State shall be taken into account.

4. Any European electronic communications provider may be subject to the contributions imposed to share the net cost of universal service obligations pursuant to Article 13 of Directive 2002/22/EC in accordance the legislation that is applicable in the host Member State only if the European electronic communications provider has an annual turnover in that Member State above 5% of the total national electronic communications turnover.

5. In accordance with Article 8(5)(b) of the Framework Directive, and without prejudice to the procedure established by Articles 7 and 7a of the Framework Directive, a European electronic communications provider shall be entitled to equal treatment by the competent national regulatory authorities of different Member States in objectively equivalent situations. European electronic communications providers and other undertakings providing electronic communications networks and services in the same Member State shall be entitled to equal treatment by the competent national regulatory authority in objectively equivalent situations.

6. Without prejudice to Article 21 of Directive 2002/21/EC, in the event of a dispute between undertakings involving a European electronic communications provider regarding obligations applicable under Directive 2002/21/EC, the Specific Directives, Regulation No. 531/2012 or this Regulation in a host Member State, the European electronic communications provider may request that the dispute also be considered by the competent regulatory authority in the home Member State that may deliver an opinion with a view to ensure the development of consistent regulatory practices. In such a case the competent national regulatory authority in the host Member State shall take into utmost account the opinion in deciding the dispute.

7. Every European electronic communications provider who has the right to provide electronic communications networks and services, at the date of entry into force of this Regulation, in more than one Member States in accordance with national legislation laying down measures in accordance with Union law shall be entitled to provide its services and networks in accordance with Paragraph 1 and shall comply with the notification provided for in Article 4 [by 1 January 2016].

Article 4 - Notification of European electronic communications providers

1. A European electronic communications provider shall submit a notification in accordance with this Regulation only to the competent national regulatory authority of the home Member State.

2. The notification shall contain only a declaration of the provision or the intention to commence the provision of electronic communications networks and services with the following information necessary for the identification of the provider in the Union: the declaration as regards the intention to provide services, the name of the company, a registration number in the Union, the address of the main establishment, a contact person, a

short description of the networks or services provided or intended to be provided, including the identification of the home Member State in accordance with Article 2 and any other concerned host Member State where the services and the networks are provided or intended to be provided directly or by subsidiaries and, in the latter case, the name, address, registration number and contact point of any subsidiary concerned and the respective operating areas. The notification shall be provided in the language or languages applicable in the home Member State and in any host Member State.

3. Any modification to the information communicated pursuant to Paragraph 2 shall be made available to the competent authority of the home Member State within 1 month following the change. Any lack of compliance with the notification requirement laid down in this Article shall entail a breach of the common conditions applicable to the European electronic communications provider in the home Member State.

4. The competent authority of the home Member State shall forward to the competent national regulatory authorities in the concerned host Member States and to the BEREC Office within [1 week] following the communication received pursuant to Paragraph 2 and any modification thereof.

5. At the request of a European electronic communications provider, the competent national regulatory authority of the home Member State shall issue a declaration according to Article 9 of the Authorisation Directive, confirming that the undertaking has submitted a notification and specifying that it is subject to the EU Passport.

6. In the event that one or more competent national authorities in different Member States considers that the identification of the home Member State in a notification made pursuant to paragraph 2 or any modification thereof does not comply with this Regulation or does not correspond any more to the place of the main establishment pursuant to Article 2(6), it shall refer the issue to the Commission, substantiating the grounds on which it bases its assessment. A copy of the referral shall be communicated to BEREC Office for information. The Commission, having given the relevant European electronic communications provider and the competent national regulatory authority of the disputed home Member State the opportunity to express their position, shall take a Decision to determine the home Member State within 3 months following the referral l.

Article 5 – Implementation and enforcement of harmonised conditions applicable to European electronic communications providers

1. The competent national regulatory authority in the home Member State shall apply the provisions of and ensure compliance with the conditions provided for in Chapter 3 of this Regulation as from [1 January 2016] and in Regulation No. 531/2012/EU in both the home and any host Member State.

2. Where the competent authority of a home Member State ascertains that a European electronic communications provider is not complying with the conditions applicable pursuant to Paragraph 1 in any Member State, this authority shall require the European electronic communications provider to put an end to that irregular situation, in accordance with national legislation of the home Member State applicable to electronic communications providers adopted in conformity with Union law [and with Article 10(2) and 10(3) of Directive 2002/20/EC in particular]. They shall inform the competent authorities of each host Member State concerned.

3. At the request of the home Member State, the competent authority of the host Member State shall require a European electronic communications provider to provide information

necessary for ensuring the effective supervision by the home Member State of compliance with the conditions applicable pursuant to Paragraph 1. . The competent authorities shall take the most appropriate measures in order to ensure compliance with the request of the home Member State.

4. The competent authority in a host Member State shall transmit to the competent authority in the home Member State any relevant information for ensuring compliance with the conditions applicable pursuant to Paragraph 1 by the home Member State.

5. The competent authority in the host Member State may request the competent authority in the home Member State to take appropriate measures in accordance with Paragraph 2 or, as the case may be, Article 6 in order to ensure compliance with the conditions applicable in accordance with Paragraph 1.

6. Until a final decision on a request pursuant to Paragraph 5 is adopted by the competent authorities in the home Member State, the competent authority in the host Member State may take urgent interim measures only where it has evidence of a breach of the conditions applicable pursuant to Paragraph 1 that represents an immediate and serious threat to the interests of those to whom services are provided. By way of derogation from Article 10(6) of Directive 2002/20/EC, such measures may be valid until the adoption of a final decision by the competent authority in the home Member State on the request submitted pursuant to Paragraph 5.

The Commission, BEREC and the competent authorities of the home Member State and other Member States concerned shall be informed of the interim measure adopted at the earliest opportunity.

Article 6 – Suspension and withdrawal of rights of European electronic communications providers

1. Without prejudice to measures concerning suspension or withdrawal of rights of use for spectrum and/or numbers granted by any concerned Member State and interim measures adopted pursuant to Article 5 Paragraph 6, only the competent authority of the home Member State may prevent an undertaking from continuing to provide electronic communications networks and services in the whole Union or part thereof in accordance with Article 10(5) of Directive 2002/20/EC.

2. In cases of serious or repeated breaches of the conditions applicable in a host Member State pursuant to Article 3, where measures aimed at ensuring compliance referred to in Article 10(3) of Directive 2002/20/EC and adopted by the competent national regulatory authority in such Member State have failed, it shall inform the competent national regulatory authority in the home Member State with a view to adoption by the latter of the measures provided for in Paragraph 1.

3. Where it considers taking a decision pursuant to paragraph 1 either of its own motion or at the request of the competent national regulatory authority of a host Member State, the competent national regulatory authority in the home Member State shall notify its proposal to the competent authorities of any host Member State concerned by the withdrawal or the suspension, which shall be entitled to deliver its opinion within one month.

4. Taking into utmost account any opinion of the concerned [host] Member States, the competent national regulatory authority of the home Member State shall take the final decision and communicate it to the Commission, BEREC and the competent authorities of the host Member States within one week after its adoption.

5. Where the competent authority of the home Member State has decided to suspend or withdraw the general authorisation of a European electronic communications provider pursuant to paragraph 1, the competent authorities of the host Member State shall take appropriate measures to prevent the European electronic communications provider concerned from further providing services or networks within its territory.

Article 7 – Coordination of enforcement measures

1. In the performance of its tasks under Articles 5 and 6, the competent regulatory authority of the home Member State shall be empowered and obliged to take supervisory or enforcement measures with the same diligence in respect of an electronic communications service or network provided in another Member State or which has caused damage in another Member State as if the facts related to the home Member State.

2. The Member States shall ensure that within their territories it is possible to serve the legal documents necessary for measures pursuant to Articles 5 and 6 on European electronic communications providers.

Chapter 2 – European inputs

Section 1 - Coordination of use of spectrum within the single market

Article 8 – Spectrum use for wireless broadband communications

1. This section shall apply to radio frequencies for which the conditions of the availability and efficient use for wireless broadband communications have been harmonised pursuant to Decision 676/2002/EC or to Article 114 of the Treaty on the Functioning of the European Union.

2. Competent national authorities for spectrum shall contribute to the development of a wireless space where investment and competitive conditions for high-speed wireless broadband communications converge and which enables planning and provision of integrated multi-territorial networks and services and economies of scale, thereby fostering innovation, economic growth and the long-term benefit of end users.

In the application of Articles 8, 8a(1) and (2), 9, 9a and 9b of Directive 2002/21/EC and of Articles 5 to 8, 12, 13 and 14 Directive 2002/20/EC, and having regard to Articles 2 and 3 of Decision No 243/2012/EU, competent national authorities shall refrain from applying procedures or imposing conditions for the use of spectrum which may unduly impede European electronic communications providers from providing integrated electronic communications services and networks in several Member States or throughout the Union.

3. When establishing authorisation conditions and procedures for granting rights of use for radio frequencies, competent national authorities shall respect the principle of non-discrimination, including between existing and potential operators and between European electronic communications providers and other undertakings.

4. Competent national authorities shall have regard to the following criteria when establishing authorisation conditions and procedures for granting rights of use for radio frequencies and shall seek to reconcile them where necessary:

- (i) The general interest in the most efficient use and effective management of spectrum;
- (ii) The interest of end-users and the general interest in economically efficient long-term investment and innovation in wireless networks and services.

(iii) The interest of European electronic communications providers in predictable and comparable conditions to enable the planning of network investments and services on a multi-territorial basis and the achievement of scale economies;

(iv) The general interest in an objective assessment of the need to impose additional conditions in favour of or to the detriment of certain operators;

(v) The interest of end-users and the general interest in effective competition;

(vi) The interest of end-users and the general interest in the wide territorial coverage of high-speed wireless broadband networks and in a high level of penetration and consumption of related services.

5. Pursuant to paragraphs 2 to 4, competent national authorities shall in particular contribute to the development of the single market in the following respects:

(a) Competent national authorities shall apply the least onerous authorisation system possible, on the basis of objective, transparent, non-discriminatory and proportionate criteria, in order to promote efficiency, flexibility and comparable conditions throughout the Union for integrated multi-territorial investments and operations by European electronic communications providers;

(b) Competent national authorities shall take into account the following considerations when determining the amount and type of spectrum to be assigned in a given procedure:

- the technical characteristics of different available bands,
- the possible combination in a single procedure of complementary bands; and
- the interests of European electronic communications providers seeking to serve the Union market or a significant part thereof in obtaining or completing coherent portfolios of spectrum rights of use;

(c) Competent national authorities shall ensure that any minimum or maximum amount of radio spectrum, which is defined in respect of a right of use in a given band or in a combination of complementary bands, is compatible with:

- the most efficient use of the spectrum, taking into account the characteristics of the band or bands concerned;
- efficient network investment;
- a coherent and rapid development of services over the largest territory possible in the Union; and
- is justified by objective requirements to maintain or secure effective competition in cases where maximum amounts are defined.

(d) Competent national authorities shall determine the fees to be paid for spectrum rights of use, if any, by reference to the need to encourage efficient use and effective management of the radio frequencies in question. In so doing, they shall ensure that any such fees:

- appropriately reflect the social and economic value of the spectrum, including beneficial externalities;
- avoid under-utilisation and foster investment in the capacity, coverage and quality of networks and services;
- avoid discrimination and ensure equality of opportunity between operators, including between existing and potential operators;

- achieve an optimal distribution between immediate and periodic fee payments, having regard in particular to the need to incentivise rapid network roll-out and spectrum utilisation;
- are justified, in the case of differentiated fees, by objective requirements to maintain or achieve effective competition;

(e) National competent authorities shall consider the need to establish, in conformity with competition rules, appropriate compensation or incentive payments to or by existing users or spectrum usage right holders, *inter alia* through incorporation in the bidding system or fixed amount for rights of use, with a view to the timely freeing up or sharing of sufficient harmonised spectrum in cost-efficient bands for high-capacity wireless broadband services;

(f) National competent authorities shall limit any territorial coverage obligations to what is necessary and proportionate to achieve the underlying objective determined at national level. In so doing, they shall take into account:

- any pre-existing coverage of the national territory by the relevant services, or by comparable services;
- the minimisation of the number of operators potentially subject to such obligations;
- the possibility of burden sharing and reciprocity among various operators, including with providers of comparable services;
- the need to avoid the creation of unwarranted discrimination between operators,
- the investments required to achieve such coverage and the need to reflect these in the applicable fees; and
- the technical suitability of the relevant bands for efficient provision of wide territorial coverage;

(g) National competent authorities shall subject any decision on the imposition of special measures to promote effective competition, and in particular those foreseen in Article 5 of Decision No. 243/2012/EC (the RSPP), to an objective, forward-looking assessment, taking into account available benchmarks, of

- whether or not effective competition is likely to be maintained or achieved in the absence of such measures, and
- the likely effect of such temporary measures on existing and future investments by market operators;

(h) Competent national authorities shall determine conditions under which undertakings may transfer or lease part or all of their individual rights to use radio frequencies to other undertakings, including the sharing of such frequencies, in accordance with Article 9b of Directive 2002/21/EC, subject to competition rules. Such conditions shall:

- optimise efficient spectrum use;
- enable the exploitation of beneficial sharing opportunities;
- reconcile the interests of existing and potential right-holders; and
- create greater liquidity in access to spectrum.

(i) Competent national authorities shall authorise the sharing of passive and active infrastructure and the joint roll-out of infrastructure for wireless broadband communications, subject to such proportionate and non-discriminatory requirements as may be imposed pursuant to Article 12 of Directive 2002/21/EC or by competition rules. In so doing, they shall take into account:

- the state of infrastructure-based competition and any additional service-based competition; and
- the respective requirements of efficient spectrum use; choice and quality of service for end users; and technological innovation.

(j) Competent national authorities shall consider the need to fix appropriate minimum technology performance levels for different bands in accordance with Article 6(3) of Decision No 243/2012/EU (the RSPP) with a view to improving spectral efficiency. In so doing, and without prejudice to measures adopted under the Radio Spectrum Decision, they shall:

- have regard to the cycles of technology development and of renewal of terminal equipment; and
- apply the principle of technology neutrality to achieve the specified performance level, in accordance with Article 9 of the Framework Directive.

(k) Where technical conditions have been harmonised under the Radio Spectrum Decision and where such conditions make it possible to use spectrum under a general authorisation regime, competent national authorities shall avoid, the imposition of any additional restrictive usage condition and shall prevent any alternative use which would impede the effective application and enjoyment of such harmonised regime.

(l) Competent national authorities shall establish authorisation conditions whereby an individual authorisation may be revoked or cancelled in case of persistent failure to use the relevant spectrum, subject to compensation in case the failure to use the spectrum is for reasons beyond the control of the operator, and is objectively justified.

6. This section is without prejudice to the right of Member States to impose fees to ensure the optimal use of spectrum resources in accordance with Article 13 of Directive 2002/20/EC and to organise and use their spectrum for public order and public security purposes and for defence in conformity with Union and International law.

7. In the exercise of powers conferred in this section, the Commission shall take utmost account of any relevant opinion issued by the Radio Spectrum Policy Group (RSPG) established by Commission Decision 2002/622/EC of 26 July 2002.

Article 9- Harmonisation of certain authorisation conditions relative to wireless broadband communications

1. In line with Article 8 paragraph 1, in order to enable the synchronised availability of wireless services within the Union and create a predictable investment environment, competent national authorities shall establish coordinated timetables for the granting or reassignment of spectrum usage rights or for their renewal under the terms of existing rights. Authorisation periods or renewal cycles shall be set well in advance of the relevant procedure. Such timetables, periods and renewal cycles shall take account of the effective possibility to release any relevant new spectrum bands harmonised for wireless broadband communications and of the period for amortisation of related investments under competitive conditions. Without prejudice to the terms of measures adopted pursuant to paragraphs 2 and 6, the competent national authorities shall implement this Article as soon as possible as regards any given harmonised band subject to this section and at the latest by 2025 for all such bands.

2. In order to ensure a coherent implementation of the above obligations, the Commission may adopt implementing acts in accordance with the examination procedure referred to in Article 28 in order to:

- harmonise, on the basis of a common timetable for the Union as a whole, or of timetables appropriate to the circumstances of different categories of Member States, the date or dates by which individual rights of use for a harmonised band, or a combination of complementary harmonised bands, shall be granted and actual use of the spectrum shall be allowed for exclusive or shared provision of wireless broadband communications throughout the Union;
- guarantee a minimum duration for the rights granted in the harmonised bands and/or, in the case of rights which are not indefinite in character, a synchronised expiry or renewal date for the Union as a whole; and
- define the date of termination of any existing use other than wireless broadband communications, or, in the case of rights of indefinite duration, the date by which the use defined by such right shall be modified, so as to allow the provision of wireless broadband communications, to the extent permitted under Article 9 paragraphs 3 and 4 of Directive 2002/21/EC as well as ITU rules and other relevant international agreements.

3. In the application of this Article, the Commission shall have regard to:

- the objectives, principles and criteria set out in Article 8 and in the Union legislative acts referred to therein;
- objective variations across the Union in the needs of European electronic communications providers;
- the interests of existing spectrum users;
- the take-up, development and investment cycles of particular technologies; and
- end user demand for high-capacity wireless broadband communications.

In determining whether or not to establish distinct timetables for different categories of Member States which have not already granted individual rights of use and allowed actual use of the harmonised band in question, the Commission shall have due regard to any submissions made by Member States regarding the way spectrum rights have been historically granted, the possible need to vacate the band in question, the effects on competition or geographical or technical constraints, taking into account the effect on the internal market. The Commission shall ensure that implementation is not unduly deferred and that there will not be undue differences in the competitive or regulatory situations between Member States.

4. Paragraph 2 shall not affect the freedom of Member States, in advance of the harmonisation of timetable(s) pursuant to this Article, to grant rights of use and to allow actual use of the harmonised bands.

Actions by competent national authorities pursuant to this paragraph shall not frustrate the potential definition by the Commission of a guaranteed minimum duration of such rights or of a synchronised expiry or renewal cycle for the Union as a whole. Such authorities shall in particular put beneficiaries of rights of use on notice of the possible effects of future harmonisation measures. This sub-paragraph shall not apply to the grant of rights of indefinite duration.

5. For the harmonised bands subject to a common timetable, Member States shall provide timely and sufficiently detailed information on assignment plans to the Commission. The Commission may define the modalities for the provision of such information in implementing acts pursuant to this Article.

Where the Commission considers, upon reviewing such detailed plans provided by a Member State, that it is objectively unlikely that the Member State in question will be able to comply with the timetable applicable to it pursuant to an implementing act adopted under this Article,

the Commission may by decision require that Member State to adapt its plans in an appropriate way to ensure such compliance.

6. In conjunction with the exercise of its powers pursuant to paragraph 2, the Commission may also adopt implementing acts in accordance with Article 27 in order to harmonise the date of expiry or renewal of individual rights to use spectrum in harmonised bands which were valid at the time of entry into force of this Regulation. The Commission shall seek to adopt such measures well in advance of the date of expiry or renewal of such rights in any of the Member States, in order to enhance predictability. In so doing, the Commission shall seek to synchronise throughout the Union the date for renewal or reassignment of rights of use for such bands with the date of renewal or reassignment of other bands harmonised by implementing measures adopted in accordance with paragraph 2.

This paragraph shall not apply to existing rights of indefinite duration.

Where implementing acts pursuant to this paragraph define a harmonised date for renewal or reassignment of spectrum which falls after the date of expiry or renewal of any existing individual rights of use of such spectrum in any of the Member States, the competent national authorities shall extend such existing rights until the harmonised date on the basis of a continuation of the previously applicable substantive authorisation conditions, including any applicable periodic fees.

7. This Article is without prejudice to Article 14 of Directive 2002/20/EC.

Article 10 – Coordination of authorisation procedures and conditions for the use of spectrum for wireless broadband in the internal market

1. Where a national competent authority intends to subject the use of spectrum to a general authorisation or to grant individual rights of use of spectrum pursuant to Article 5 of Directive 2002/20/EC, or to amend rights and obligations pursuant to Article 14 of that Directive, it shall, upon completion of the public consultation referred to in Article 6 of the Framework Directive, make accessible its draft measure, together with the justification thereof, simultaneously to the Commission and the competent authorities for spectrum of the other Member States, and inform the Commission and the competent authorities of the other Member States thereof.

The national competent authority shall provide to the Commission and the competent authorities of the other Member States sufficient information on all relevant matters, and in particular on the extent to which the draft measure would establish:

- the type of authorisation process;
- the timing of the authorisation process;
- the duration of rights and authorisations;
- the type and amount of spectrum to be authorised, as a whole or to any given undertaking;
- the amount and structure of fees to be paid;
- compensation or incentives regarding the vacation or sharing of spectrum by existing users;
- coverage obligations;
- wholesale access, national or regional roaming requirements;
- the reservation of spectrum for certain types of operators, or the exclusion of certain types of operators;
- conditions relative to the assignment, transfer or accumulation of rights of use;

- the possibility to use spectrum on a shared basis;
- infrastructure sharing;
- minimum technology performance levels; or
- restrictions envisaged pursuant to articles 9.3 and 9.4 of the Framework Directive; or
- a revocation or withdrawal of one or several authorisations or rights to use spectrum or a non-minor amendment of rights or conditions attaching to such authorisations or rights.

2. In reviewing the draft measure made accessible in accordance with this Article, the Commission shall have regard to:

- the objectives, principles and criteria set out in Article 8 and in the Union legislative acts referred to therein;
- coherence with recent, pending or planned authorisation procedures in other Member States, and possible effects on trade between Member States;
- objective variations across the Union in the needs of European electronic communications providers;
- the interests of existing spectrum users;
- the take-up, development and investment cycles of particular technologies; and
- end user demand for high-capacity wireless broadband communications.

3. Competent national authorities and the Commission may make comments to the competent authority concerned within a period of two months which cannot be extended.

If, within this period, the Commission notifies the competent authority that the draft measure would create a barrier to the internal market or that it has serious doubts as to its compatibility with Union law, the draft measure shall not be adopted for a further period of two months. The Commission shall inform the national authorities of its reservations in such a case.

4. Within the additional two-month period referred to in paragraph 3, the Commission, and the competent authority concerned shall cooperate closely to identify the most appropriate and effective measure in the light of the criteria referred to in paragraph 2, whilst taking due account of the views of market participants and the need to ensure the development of consistent regulatory practice.

5. At any stage during the procedure, the competent authority may:

- (a) amend or withdraw its draft measure taking utmost account of the Commission's notification referred to in paragraph 3; or
- (b) maintain its draft measure.

6. Having considered any further explanations provided by the competent authority concerned, the Commission may, within the two-month period referred to in paragraph 3, present a draft decision to the Communications Committee requiring the competent authority concerned to withdraw the draft measure. The draft decision shall be accompanied by a detailed and objective analysis of why the Commission considers that the draft measure should not be adopted as notified, together where necessary with specific proposals for amending the draft measure.

7. Where the Commission has not presented a draft decision to the Communications Committee within two months, or takes a decision to lift its reservations in relation to the draft measure, the competent authority concerned may adopt the draft measure. The Commission

may decide to lift its reservations at any stage, including after the submission of a draft decision to the Communications Committee.

8. The Commission shall adopt any decision requiring the competent authority to withdraw its draft measure in accordance with the examination procedure referred to in Article 27. Save where more time is necessary to comply with the additional deadlines foreseen in Article 5, paragraphs 3 and 4, of Regulation No 182/2011, or with the requirements of Article 6 of that Regulation, the Commission shall adopt such a decision within four months from the notification to the competent authority that the draft measure would create a barrier to the internal market or that it has serious doubts as to its compatibility with Union law. The competent authority concerned shall not adopt the draft measure during the relevant periods under this paragraph.

In the case of a negative opinion from the Committee, the Commission shall lift its reservations in relation to the draft measure.

9. Where the Commission has adopted a decision in accordance with paragraph 8, the competent authority shall amend or withdraw the draft measure accordingly within six months of the date of the Commission's decision. When the draft measure is amended, the competent authority shall undertake a public consultation in accordance with Article 6 of Directive 2002/21/EC or Article 7 of Directive 2002/20/EC, and shall make the amended draft measure accessible to the Commission in accordance with paragraph 1.

10. The competent authority concerned shall take the utmost account of comments of competent authorities of the other Member States and the Commission and may, except in cases covered by the first sub-paragraph of paragraph 8 and by paragraph 9, adopt the resulting draft measure and where it does so, shall communicate it to the Commission.

Article 11 – Access to radio local access networks

1. National competent authorities shall allow the provision of private and public access through radio local access networks to the network of a provider of electronic communications to the public as well as the use of spectrum harmonised for the purpose of such provision, without sector-specific conditions and in any case subject only to general authorisation.

2. National competent authorities shall not prevent providers of electronic communications to the public from agreeing with end users, including consumers, to allow access for the public to the networks of such providers, through radio local access network, which may be located at such end user's premises, subject to compliance with the general authorisation conditions.

3. Providers of electronic communications to the public shall not unilaterally restrict the right of end users to accede with their terminal equipment to radio local access networks of their choice provided by third parties.

4. Providers of electronic communications to the public shall not unilaterally restrict the right of end users to allow access by third parties to the networks of such providers through radio local access networks of such end users, including on the basis of initiatives which federate and make reciprocally or more generally accessible the radio local access networks of different end users.

5. Competent national authorities shall not restrict the right of end users to allow access by third parties to the radio local area networks of such end users, including on the basis of initiatives which federate and make reciprocally or more generally accessible the radio local access networks of different end users.

6. An undertaking, public authority or consumer shall not be deemed to be a provider of electronic communications to the public solely by virtue of the provision of public access to radio local access networks, where such provision is not commercial in character, or is merely ancillary to another commercial activity or public service which is not dependent on the conveyance of signals on such networks.

7. Without prejudice to competition and procurement rules, national competent authorities shall not restrict:

- the provision to citizens by public authorities of access to radio local access networks on or in the immediate vicinity of premises occupied by such public authorities, as an ancillary activity to the public services provided on such premises;

- initiatives by non-governmental organisations or public authorities, based on the principle of solidarity and in the general interest, to federate and make reciprocally or more generally accessible the radio local access networks of different end users, including, where applicable, the radio local access networks to which public access is provided by public authorities on or around their premises.

Article 12 –Deployment and operation of small-area wireless access points

1. The Commission may, by means of an implementing act adopted pursuant to Article 27 of this Regulation, define product, deployment and operating characteristics for small-area wireless access points, compliance with which shall ensure their unobtrusive character and shall entitle a person or undertaking using such equipment to the benefit of the least restrictive regulatory regime in accordance with paragraph 2.

The Commission shall define such product, deployment and operating characteristics of small-area wireless access points by reference to the maximum size, power, electromagnetic characteristics, as well as the generally unobtrusive character, of the equipment when in use.

The characteristics defined by the Commission shall include compliance with the essential requirements of Directive 1999/5/EC.

2. In order to ensure the efficient use of spectrum and to facilitate for all citizens in the Union affordable and efficient access to high-speed wireless broadband services, national competent authorities shall allow the deployment, connection and operation of small-area wireless access points under a regime of general authorisation and shall not require individual town planning permits, provided such use is in compliance with implementing measures adopted pursuant to paragraph 1.

3. 4. Upon a duly substantiated application, the Commission may grant to the competent authority of a Member State a specific transitional derogation for the application of paragraph 2, provided that it does not unduly defer such implementation in that Member State or affect the completion of the internal market for wireless broadband communications or for access to small-area wireless access points.

Article 13 – Cooperation in Spectrum Coordination among Member States

Without prejudice to their obligations under relevant international agreements including ITU Radio Regulations, competent national authorities shall ensure that the use of spectrum is organised on their territory in such a way as not to impede any other Member State from authorising and allowing the actual use of a specific band in accordance with a harmonisation measure adopted pursuant to Decision No 676/2002/EC, to this Regulation or to Article 114 of the Treaty on the Functioning of the European Union.

Member States shall take all appropriate spectrum allocation or assignment actions necessary and shall cooperate with each other in the cross-border coordination of the use of spectrum in such a way as not to impede any other Member State from having equitable access to spectrum or from implementing its obligations under a spectrum harmonisation measure adopted pursuant to Decision No 676/2002/EC, to this Regulation or to Article 114 of the Treaty on the Functioning of the European Union.

Any concerned Member State may invite the Radio Spectrum Policy Group to use its good offices to assist it and any other Member State in complying with this Article.

The Commission may adopt implementing measures in accordance with Article 27 in order to ensure the timely and appropriate coordinated organisation of spectrum between several or all Member States, in particular to ensure equitable access to spectrum among Member States and the consistency and enforceability of coordinated solutions.

Section 2 – European virtual access products

Article 14 – European virtual broadband access product

1. Offers of virtual broadband access products imposed in accordance with Article 8 and 12 of Directive 2002/19/EC shall be deemed to be European virtual broadband access products if they cumulatively meet the following criteria:

- (1) supply in accordance with the parameters and functionality listed in one or more of the Offers listed in [Annex I];

ability to be offered as a high quality product anywhere in the Union;

maximum degree of network and service interoperability and non-discriminatory network management between operators consistently with network topology;

capacity to serve end-users on competitive terms;

cost-effectiveness, taking into account the capacity to be implemented on existing and newly built networks and to co-exist with other access products that may be provided on the same network infrastructure;

operational effectiveness, in particular in respect of limiting to the extent possible implementation obstacles and deployment costs for virtual broadband access providers and virtual broadband access seekers;

ensuring that the rules on protection of privacy, personal data, security and integrity of networks and transparency required by Directive 2002/21/EC and the Specific Directives are respected.

2. The Commission shall be empowered to adopt delegated acts in accordance with Article 26 in order to adapt Annex I in light of market and technological developments, so as to continue to meet the criteria listed in paragraph 1.

Article 15 – Assured service quality (ASQ) connectivity product

1. Any operator shall have the right to provide a European ASQ connectivity product as defined in paragraph 4 upon request.

2. Upon specific written request of an undertaking authorised to provide electronic communications services, any operator shall meet all reasonable requests to provide a European ASQ connectivity product as defined in paragraph 4. Any refusal to supply shall be

based on objective criteria. The operator shall state the reasons for any refusal within one month from the written request. It shall be an acceptable ground of refusal that the party requesting the supply of a European ASQ connectivity product is unable or unwilling to also make available within the Union or in third countries a European ASQ connectivity product to the requested party on reasonable terms, if the latter so requests.

3. Where supply is refused or agreement on specific terms and conditions, including price, has not been reached within two months from the written request for access, either party is entitled to refer the issue to the relevant national regulatory authority pursuant to Article 20 of Directive 2002/21/EC, and where applicable, in accordance with Article 3(6) of this Regulation.

4. Offers of connectivity products shall be deemed to be European ASQ connectivity products if they cumulatively meet the following criteria:

- (h) supply in accordance with the parameters listed in [Annex II];
- (i) ability to be offered as a high quality product anywhere in the Union;
- (j) enabling service providers to meet the needs of their end-users;
- (k) cost-effectiveness, taking into account existing solutions that may be provided on the same networks;
- (l) operational effectiveness, in particular in respect of limiting to the extent possible implementation obstacles and deployment costs for customers; and
- (m) ensuring that the rules on protection of privacy, personal data, security and integrity of networks and transparency required by the Directive 2002/21/EC and the Specific Directives are respected.

5. The Commission shall be empowered to adopt delegated acts in accordance with Article 26 in order to adapt Annex II in light of market and technological developments, so as to continue to meet the criteria listed in paragraph 4.

Article 16 – European measures relating to European access products

1. The Commission shall adopt by [1 January 2016] implementing measures in accordance with Article 27 laying down more detailed technical and methodological rules for the implementation of European virtual broadband access product within the meaning of Article 14 and of Annex I.1, in accordance with the criteria and parameters specified therein and in order to ensure the equivalence of the functionality of such a virtual wholesale access product to next-generation networks with that of a physical unbundled access product.

2. After having consulted BEREC, the Commission may adopt implementing measures in accordance with Article 27 laying down more detailed technical and methodological rules for the implementation of the other European products referred to in Article 14 and in Article 15, in accordance with the respective criteria laid down therein and with the respective parameters specified in Annex I and / or II, as applicable.

Chapter 3–Rights of end-users

Article 17 – No restriction or discrimination

1. End-users shall not be restricted by public authorities in using public electronic communications networks or publicly available electronic communications services provided by an undertaking established in another Member State.
2. Providers of electronic communications to the public in a given Member State shall not apply any discriminatory requirements or conditions of access or use, including charges and tariffs, to end-users based on the end-user's nationality or place of residence unless providers can demonstrate that differences are directly justified by objective criteria.
3. Providers of electronic communications to the public shall not apply different charges within the same tariff to an end-user for electronic communications services other than regulated roaming services as between communications originating and terminating in the same Member State and communications originating in one Member State and terminating in another Member State, unless different charges are objectively justified by and reasonably proportionate to aggregate additional costs.

Article 18 - Cross-border dispute resolution

1. The out-of-court procedures set up in accordance with Article 34 (1) of the Universal Service Directive shall also apply to disputes related to contracts between consumers and providers of electronic communications to the public which are established in another Member State. Other end-users may request that those procedures also apply to them.
2. The out-of-court procedures in the Member State of the end-user's residence shall apply unless otherwise agreed by an end-user who is not a consumer.
3. The dispute settlement bodies and the national regulatory authorities in all Member States involved in a cross-border dispute shall cooperate closely and expeditiously in solving it.

Article 19- Bundled offers

In case of a service bundle comprising at least a connection to an electronic communications network or one electronic communications service, the provisions of Chapters 3 and 4 of this Regulation shall apply to all elements of the bundle

Article 20 - Quality of service, freedom to provide and avail of open internet access and reasonable traffic management

1. End-users shall be free to access and distribute information and content, run applications and use services of their choice.

In pursuit of the foregoing freedom, end-users shall be free to agree on data volumes, speeds and general quality characteristics with providers of electronic communications to the public and, in accordance with any such agreements relative to data volumes, to avail of any offers by providers of content, applications and services, including offers with defined quality of service. To the same end, providers of content, applications and services and providers of electronic communications to the public shall be free to agree with each other on the treatment of the related data volumes or on the transmission of traffic with a defined quality of service.

The exercise of these freedoms shall not be restricted by national competent authorities, or, as regards the freedom laid down for end-users, by providers of electronic communications to

the public, save in accordance with the provisions of this Regulation, the Directives and other provisions of Union law.

End users shall be facilitated in the exercise of these freedoms by the provision of complete information in accordance with Article 21, paragraphs 1 and 4, and Article 22, paragraph 2, of this Regulation.

2. Within the limits of any contracted data volumes or speeds, providers of electronic communications to the public shall not restrict the foregoing freedoms by employing traffic management practices solely or primarily to block, slow down or otherwise degrade specific services or applications, or specific classes thereof, unless, and only to the extent that, such restrictions are necessary to:

a) implement a legislative provision or a court order;

b) preserve the integrity and security of the network, services provided via this network, and the end-users' terminals;

c) prevent the transmission of unsolicited communications to end-users who have given their prior consent to such restrictive measures ;

d) minimise the effects of exceptional congestion provided that equivalent types of traffic are treated equally.

3. National regulatory authorities shall closely monitor and ensure the effective ability of end-users to exercise the freedoms defined in paragraph 1, the compliance with paragraph 2, and the transparency and proportionality of traffic management practices in general. In order to prevent the general degradation of quality of service for Internet access services or for certain types of traffic, or to safeguard the ability of end-users to access and distribute content or information or to run applications and services of their choice, national regulatory authorities shall have the power to impose minimum non-discriminatory quality of service requirements on providers of electronic communications to the public.

National regulatory authorities shall provide the Commission, in good time before imposing any such requirements, with a summary of the grounds for action, the envisaged requirements and the proposed course of action. This information shall also be made available to BEREC. The Commission may, having examined such information, make comments or recommendations thereupon, in particular to ensure that the envisaged requirements do not adversely affect the functioning of the internal market. The envisaged requirements shall not be implemented during a period of two months from the receipt of complete information by the Commission unless otherwise agreed between the Commission and the national regulatory authority, or the Commission has informed the national regulatory authority of a shortened examination period, or the Commission has made comments or recommendations. National regulatory authorities shall take the utmost account of the Commission's comments or recommendations when deciding on the requirements and shall inform the Commission [and BEREC] of the implemented requirements.

4. The Commission may, by means of an implementing act adopted pursuant to Article 27 of this Regulation, define uniform conditions for the implementation of the obligations of national competent authorities under this Article.

Article 21- Transparency and publication of information

1. Providers of electronic communications to the public shall publish transparent, comparable, adequate and up-to-date information on:

- a) their name and head office address
- b) for each tariff the scope of the services offered and the relevant quality of service parameters, the applicable prices (for consumers including taxes) and any applicable charges (access, usage, maintenance and any additional charges), as well as costs with respect to terminal equipment,
- c) applicable tariff information to end-users regarding any number or service subject to particular pricing conditions, such information shall also be provided immediately prior to connecting the call;
- d) their compensation and refund policy, including specific details of any compensation or refund scheme
- e) available facilities to safeguard bill transparency and monitor the level of consumption
- f) quality of their services,
- g), with respect to their Internet access services:
- actually available data speed for download and upload in the end-user's Member State of residence, including speed ranges, speed averages and peak-hour speed;
 - the level of applicable data volume limitations, if any, the prices for increasing the available data volume on an ad hoc or lasting basis, the available data speed after full consumption of the applicable data volume, if limited, and how end-users can at any moment monitor the current level of their consumption;
 - a comprehensible explanation as to how any data volume limitation, the actually available speed and other quality parameters, and the simultaneous use of services with an enhanced quality of service, may practically impact the use of applications and services;
 - information on any procedures put in place by the provider to measure and shape traffic so as to avoid congestion of a network or the filling or overfilling of a network link, and on how those procedures could impact on service quality;
- h) measures taken to ensure equivalence in access for disabled end-users, including regularly updated information on details of products and services designed for them.
- i) their standard contract terms and conditions, including any minimum contractual period, the conditions for and any charges due on termination of a contract, the procedures and direct charges related to switching and portability of numbers and other identifiers, and compensation arrangements for delay or abuse of switching
- j) access to emergency services and caller location information for all services offered, any limitations on the provision of emergency services under Article 26 of Directive 2002/22/EC, and any changes thereto,
- k) available dispute settlement mechanisms, including those developed by the provider of electronic communications to the public,
- l) end-user right to determine whether or not to include their personal data in a directory, and of the types of data concerned, in accordance with Article 12 of Directive 2002/58/EC ;

m) rights as regards universal service, including, where appropriate, the facilities and services mentioned in Annex I of the Universal Service Directive.

Such information shall be published in a clear, comprehensive and easily accessible form in the language of the Member State where the service is offered, and be updated regularly. The information shall, on request, be supplied to the relevant national regulatory authorities in advance of its publication. Any differentiation between consumers and other end-users has to be made explicit.

2. National regulatory authorities shall specify, inter alia, the quality of service parameters to be measured and the content, form and manner of the information to be published, including possible quality certification mechanisms, in order to ensure that end-users, including disabled end-users, have access to comprehensive, comparable, reliable and user-friendly information. The parameters, definitions and measurements methods shall be communicated to the Commission and BEREC. Where appropriate, the parameters, definitions and measurement methods set out in Annex III of the Directive 2002/22/EC shall be used.

3. National regulatory authorities shall encourage the provision of comparable information to enable end-users to make an independent evaluation of the actual performance of their electronic communications network access and services and the cost of alternative usage patterns, for instance by means of interactive guides or similar techniques. National regulatory authorities shall accredit comparison providers on the basis of objective, transparent and proportionate criteria. Where accredited comparison facilities are not available on the market free of charge or at a reasonable price, national regulatory authorities shall make such guides or techniques available themselves or through third parties. Third parties shall have a right to use, free of charge, the information published by providers of electronic communications to the public for the purposes of selling or making available such interactive guides or comparison tools or similar techniques.

4. Providers of electronic communications to the public shall offer end-users the opportunity to opt, free of charge, for a facility which provides information on the accumulated consumption of different electronic communications services expressed in the currency in which the end-user is billed. Such a facility shall guarantee that, without the end-user's consent, the accumulated expenditure over a specified period of use does not exceed a specified financial limit set by the end-user.

5. Providers of electronic communications to the public shall ensure that an appropriate notification is sent to the end-user when the consumption of services has reached 80% of the financial limit set. The notification shall indicate the procedure to be followed to continue the provision of those services. The provider shall cease to provide and to charge the end-user for the specified services if the financial limit would otherwise be exceeded, unless and until the end-user requests the continued or renewed provision of those services. Unless otherwise agreed by the end-user, a minimum agreed level of service shall still be available for Internet access.

6. Providers of electronic communications to the public shall distribute public interest information free of charge to end-users, where appropriate, by the same means as those ordinarily used by them in their communications with end-users. In such a case, that information shall be provided by the relevant public authorities to the providers of electronic communications to the public in a standardised format and shall, inter alia, cover the following topics:

(a) the most common uses of electronic communications services to engage in unlawful activities or to disseminate harmful content, particularly where it may prejudice respect for the rights and freedoms of others, including infringements of copyright and related rights, and their legal consequences; and

(b) the means of protection against risks to personal security, privacy and personal data when using electronic communications services.

Article 22- Contracts

1. End-users subscribing to services providing connection to a public electronic communications network or publicly available electronic communications services, have a right to a contract with the undertaking providing such connection or services. Unless otherwise agreed by an end-user who is not a consumer, providers of electronic communications to the public shall provide in contracts, and update regularly, in a clear, comprehensive and easily accessible manner and in the languages of the end-user's Member State of residence, at least the following information:

(a) the identity, address and contact information of the undertaking;

(b) the services provided, including in particular,

— whether and in which Member States access to emergency services and caller location information is being provided, any limitations on the provision of emergency services under Article 26 of Directive 2002/22/EC, and any changes thereto,

— the minimum service quality levels offered, namely the time for the initial connection and, where appropriate, other quality of service parameters,

— the types of maintenance service offered and customer support services provided, as well as the means of contacting these services,

— any restrictions imposed by the provider on the use of terminal equipment supplied, including the information on unlocking the terminal equipment and charges involved;

(c) where an obligation exists under Article 25 of Directive 2002/22/EC, the end-users' options as to whether or not to include their personal data in a directory, and the data concerned;

(d) details of prices and tariffs (for consumers including taxes), the means by which up-to-date information on all applicable tariffs and maintenance charges is made available, payment methods offered and any differences in costs due to payment method, and details of bill transparency safeguards;

(e) the duration of the contract and the conditions for renewal and termination of services and of the contract applied in accordance with this Regulation, including:

— any minimum usage or duration required to benefit from promotional terms,

— any charges related to switching and portability of numbers and other identifiers, including compensation arrangements for delay or abuse of switching,

— any charges due on termination of the contract, including any cost recovery with respect to terminal equipment (on the basis of customary accounting principles for depreciation) and other promotional advantages (on a pro tempore rata basis),

(f) any compensation and the refund arrangements, including an explicit reference to statutory rights of the end-user, which apply if contracted service quality levels are not met;

(g) for disabled end-users, details of products and services designed for them;

(h) the means of initiating procedures for the settlement of disputes, including cross-border disputes, in accordance with Article 34 of Directive 2002/22/EC and Article 18 of this Regulation;

(i) the type of action that might be taken by the undertaking in reaction to security or integrity incidents or threats and vulnerabilities.

2. In addition to paragraph 1, providers of electronic communications to the public shall provide end-users, unless otherwise agreed by an end-user who is not a consumer, at least the following information with respect to their Internet access services:

- the level of applicable data volume limitations, if any, the prices for increasing the available data volume on an ad hoc or lasting basis, the available data speed after full consumption of the applicable data volume, if limited, and how end-users can at any moment monitor the current level of their consumption;

- the actually available data speed for download and upload at the main location of the end-user, including actual speed ranges, speed averages and peak-hour speed;

- other quality parameters, at least latency (average delay), jitter (delay variation) and packet loss;

— information on any procedures put in place by the undertaking to measure and shape traffic so as to avoid congestion of a network/filling or overfilling a network link, and information on how those procedures could impact on service quality,

- and a comprehensible explanation as to how any volume limitation, the actually available speed and other quality parameters, and the simultaneous use of services with an enhanced quality of service, may practically impact the use of applications and services.

3. The details of the information requirements under paragraph 2 shall be ensured by national regulatory authorities.

4. The contract shall also include, upon request by the relevant public authorities, any information provided by these authorities for this purpose on the use of electronic communications networks and services to engage in unlawful activities or to disseminate harmful content, and on the means of protection against risks to personal security, privacy and personal data, referred to in Article 21(5) of this Regulation and relevant to the service provided.

Article 23 - Contract termination

1. Contracts concluded between consumers and providers of electronic communications to the public shall not mandate an initial commitment period that exceeds 24 months. Providers of electronic communications to the public shall offer end-users the possibility to subscribe to a contract with a maximum duration of 12 months.

2. Irrespective of the initial contract period consumers, and other end-users unless they have otherwise agreed, shall have the right to terminate a contract with a one-month notice period, where six months or more have elapsed since conclusion of the contract. In such cases, no compensation shall be due other than for the residual value of subsidised equipment bundled with the contract at the moment of the contract conclusion and a pro rata tempore reimbursement for any other promotions. Any restriction on the usage of terminal equipment on other networks shall be lifted, free of charge, by the provider at the latest upon payment of such compensation.

3. If contract periods may be extended tacitly, the provider of electronic communications to the public shall inform the end-user in due time so that the end-user has at least one month to oppose to a tacit extension. In case the end-user does not oppose, the contract shall be transformed into a permanent contract which can be terminated with a one-month notice.
4. End-users have the right to terminate their contract without penalty upon notice of modification to the contractual conditions proposed by the provider of electronic communications to the public save where the proposed modifications are exclusively to the benefit of the end-user. Providers shall give end-users adequate notice, not shorter than one month, of any such modification, and shall inform them at the same time of their right to terminate, without penalty, their contract if they do not accept the new conditions.
5. Any significant and non-temporary discrepancy between the advertised and actual performance regarding speed or other quality parameters shall be considered as non-conformity of performance for the purpose of determining the end-user remedies in accordance with national law.
6. The subscription to additional services provided by the same provider of electronic communications to the public shall not re-start the initial contract period unless the price of the additional service(s) significantly exceeds that of the initial services or such additional services are offered at a special promotional price linked to the renewal of the existing contract.
7. Conditions and procedures for contract termination shall not act as a disincentive against changing service provider.

Chapter 4 – Facilitating change of providers

Article 24- Switching and portability of numbers

1. All end-users with numbers from a national telephone numbering plan who so request can retain their number(s) independently of the provider of electronic communications to the public providing the service in accordance with the provisions of Part C of Annex I the Universal Service Directive, provided it is an electronic communications provider in the Member State to which the national numbering plan relates or is a European electronic communications provider which has notified to the competent home Member State regulatory authority the fact that it provides or intends to provide such services in the Member State to which the national numbering plan relates. The right to port shall be immediate.
2. Pricing between operators and/or service providers related to the provision of number portability shall be cost-oriented, and direct charges to end-users, if any, shall not act as a disincentive for end-users against changing service provider.
3. Porting of numbers and their subsequent activation shall be carried out within the shortest possible time. End-users who have concluded an agreement to port a number to a new undertaking shall have that number activated within one working day from the conclusion of such agreement and loss of service during the process of porting, if any, shall not exceed one working day.
4. The receiving provider of electronic communications to the public shall lead the switching process. End-users shall receive adequate information on switching, before and during the switching process, and also immediately after it is concluded. End-users shall not be switched to another provider against their will.

5. The contracts with transferring providers of electronic communications to the public shall be terminated automatically after the conclusion of the switch. Transferring providers of electronic communications to the public shall transfer any remaining credit to those consumers using pre-paid services.

6. Providers of electronic communications to the public which delay or abuse switching, including by not making information necessary for porting available in a timely manner, shall be obliged to compensate end-users being exposed to such delay or abuse.

7. In cases where an end-user switching to a new provider of Internet access services has an email address provided by the transferring provider, the latter shall, upon request by the end-user, forward to any email address indicated by the end-user, free of charge, all email communications addressed to the end-user's previous email address for a period of 12 months. This email forwarding service shall include an automatic response message to all email senders alerting them about the end-user's new email address. The end-user shall have the option to request that the new email address is not disclosed in the automatic response message.

Following the initial 12 months period, the transferring provider of electronic communications to the public shall provide the end-user with an option to extend the period for the provision of email forwarding at a charge. The transferring provider of electronic communications to the public shall not allocate the end-users' initial email address to another end-user before a period of [2 years] following contract termination, and in any case during the period for which the email forwarding has been extended.

8. Without prejudice to paragraphs 1 to 7, competent national authorities may establish the global processes of switching and/or porting, including provision of appropriate sanctions on undertakings and compensations for end-users, taking into account end-user interests including necessary end-user protection throughout the switching process and the need to ensure efficiency of such process.

Chapter 5 – Organisational provisions

Article 25 - Penalties

Any competent national regulatory authority shall impose the penalties laid down by national law in conformity with Article 21a of Directive 2002/21/EC also in case of an infringement of the conditions applicable to electronic communications services and network providers pursuant to this Regulation or pursuant to national provisions adopted in accordance with this Regulation.

With regard to European electronic communications providers, penalties shall be imposed in accordance with Chapter 2 regarding the respective competences of competent national regulatory authorities in the home and host Member States.

Article 26 – Delegation of powers

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The delegation of power referred to in Articles 14(2) and 15(5) shall be conferred on the Commission for an indeterminate period of time from the [date entry into force of the Regulation]

3. The delegation of power referred to in Articles 14(2) and 15(5) may be revoked at any time by the European Parliament or by the Council. A decision of revocation shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

5. A delegated act adopted pursuant to Articles 14(2) and 15(5) shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of 2 months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by 2 months at the initiative of the European Parliament or the Council.

Article 27 – Implementing acts

Where reference is made to this Article, Article 5 of Regulation (EU) No 182/2011 shall apply. In this regard the Commission shall be assisted by the Communications Committee established pursuant to Article 22(1) of Directive 2002/20/EC.

Article 28 – Amendments to Directive 2002/19/EC

1. The first paragraph of Article 2 shall be amended as follows:

"For the purposes of this Directive the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) and in Article [2] of Regulation [XX/2014] shall apply".

2. Article 9 shall be amended as follows:

Paragraph 4 shall be amended as follows

Notwithstanding paragraph 3, where an operator has obligations under Article 12 concerning wholesale network infrastructure access, national regulatory authorities shall ensure the publication of a reference offer containing at least the elements set out in Annex II, or at least the parameters set out in Annex I.1 of Regulation [XXXX/2014] where imposing wholesale virtual access on next generation networks offering equivalent functionalities to wholesale network infrastructure access.

the following Paragraph 4a shall be inserted:

4a. Notwithstanding paragraph 3, where an operator has obligations under Article 12 to provide a European virtual broadband access product as defined in Article 14 of Regulation [XXX/2014], national regulatory authorities shall ensure the publication of a reference offer containing at least the elements set out in Annex I of Regulation [XXX/2014], referring to one of the Offers, as applicable.

3. Article 12 shall be amended as follows:

the following sub-paragraph shall be inserted at the end of 12(2):

In assessing the proportionality of possible imposition of obligations pursuant to paragraph 1 in respect of next-generation networks, national regulatory authorities shall assess the proportionality of imposing a non-physical or virtual wholesale input offering equivalent functionalities, and in particular a European virtual broadband access product within the meaning of Article 14 and of Annex I.1 of Regulation [XXX/2014] and as further defined in

Commission implementing measures pursuant to Article 16(1) of that Regulation, as an alternative to a passive wholesale input such as physical unbundled access to the local loop or the sub-loop. In so doing, the national regulatory authorities should have regard to the existing investments by access-seekers in one or the other form of wholesale access and to the amortisation period for such investments.

Article 12(4), (5) and (6) shall be inserted:

4. Notwithstanding paragraph 3 and the timing of the analysis of relevant markets in accordance with Article 16(6) of Directive 2002/21/EC (Framework Directive), a national regulatory authority which has imposed on an operator in accordance with the provisions of this Article an obligation to provide physical unbundled wholesale access to a next-generation network shall consider whether it would be proportionate to impose instead an obligation to supply access inputs that meet the criteria of a European virtual broadband access product with equivalent functionalities as defined in Article 14 and Annex I.1 of that Regulation and as further defined in such implementing measure, in particular in the presence of infrastructure competition. Such obligation shall be subject to the application of the procedure in Articles 6 and 7 of the Framework Directive.

5. Notwithstanding paragraphs 3 and 4, where a national regulatory authority has imposed or intends to impose on an operator in accordance with the provisions of this Article an obligation to provide virtual broadband access as defined in Regulation [XXX/2014], that national regulatory authority shall instead impose an obligation to supply one or more corresponding access inputs that meet the criteria of a European virtual broadband access product as defined in Article 14 and in Annex I of that Regulation. National regulatory authorities shall impose such obligation irrespective of the timing of the analysis of relevant markets in accordance with Article 16(6) of Directive 2002/21/EC (Framework Directive). Such obligation shall be subject to the application of the procedure in Articles 6 and 7 of the Framework Directive and shall be included in an adopted measure. Where a national regulatory authority has imposed or intends to impose virtual broadband access obligations but considers in accordance with the provisions of the Regulatory Framework that European virtual broadband access products, whether corresponding to one or more of the Offers in [Annex I] of Regulation [XXX/2014], are not appropriate in the specific circumstances, it shall provide a reasoned explanation in a draft measure in accordance with the procedure in Articles 6 and 7 of Directive 2002/21/EC (Framework Directive). It may refer in particular to the needs of access seekers that have already invested in accordance with the conditions of other virtual access products, for whom a transitional period may be necessary.

6. By derogation from Article 16(3) of Directive 2002/21/EC (Framework Directive), a national regulatory authority shall not impose a mandatory period of notice before withdrawing a previously imposed obligation to offer a European virtual broadband access product that meets the criteria set out in [Annex I.2] of Regulation [XXX/2014], if the operator concerned voluntarily commits to make such product available at the request of third parties on fair reasonable terms for a further period of [3] years.

4. The first paragraph of Article 13 is amended as follows:

*A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and/or access, in situations where a market analysis indicates that a lack of effective competition means that the operator concerned might sustain prices at an excessively high level, or apply a price squeeze, to the detriment of end-users. **In determining whether to impose or maintain price controls on next generation networks,***

national regulatory authorities shall have regard in particular to the effectiveness of protection against discrimination, to the state of infrastructure-based competition from other fixed line or wireless networks, and to the effects of such competition on the prices, choice and quality of access products offered at retail level and on the evolution of market conditions towards provision of competing next generation networks. To encourage investments by the operator, including in next generation networks, national regulatory authorities shall take into account the investment made by the operator and allow him, in the event that the imposition of price control is deemed necessary to reach the objectives of Article 8 of the Framework Directive, a reasonable rate of return on adequate capital employed, taking into account any risks specific to a particular new network investment project.

Article 29 – Amendments to Directive 2002/20/EC

1. The first paragraph of Article 2 of Directive 2002/20/EC shall be amended as follows:

"1. For the purposes of this Directive the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) and in Article 2 of Regulation [XX/2014] shall apply."

2. Article 3(2) second subparagraph of Directive 2002/20/EC is repealed.

3. The following Article 3(4) shall be inserted

"4. European electronic communications providers shall be subject only to notification requirements applicable pursuant to Regulation [xx/2014]. The BEREC Office shall maintain a publicly accessible registry of notifications made pursuant to this Regulation."

Article 30 – Amendments to Directive 2002/21/EC

1. Article 7a of Directive 2002/21/EC shall be amended as follows:

The first sub-paragraph shall be amended as follows:

"Where an intended measure covered by Article 7(3) aims at imposing, amending or withdrawing an obligation on an operator in application of Article 16 in conjunction with Article 5 and Articles 9 to 13 of Directive 2002/19/EC (Access Directive), and Article 17 of Directive 2002/22/EC (Universal Service Directive), the Commission may, within the period of one month provided for by Article 7(3) of this Directive, notify the national regulatory authority concerned and BEREC of its reasons for considering that the draft measure would create a barrier to the single market or its serious doubts as to its compatibility with Community law, including that the draft measure manifestly fails take utmost account of a Recommendation adopted pursuant to Article 19(1). In such a case, the draft measure shall not be adopted for a further three months following the Commission's notification."

Paragraph 2 shall be amended as follows:

"Within the three month period referred to in paragraph 1, the Commission, BEREC and the national regulatory authority concerned shall cooperate closely to identify the most appropriate and effective measure in the light of the objectives laid down in Article 8, whilst taking due account of the views of market participants and the need to ensure the development of consistent regulatory practice. When the intended measure aims at imposing, amending or withdrawing an obligation on a European electronic communications provider within the meaning of Regulation [XXX/2014] in a host Member State, the national regulatory authority of the home Member State shall also participate in the cooperation process."

The following sub-paragraph shall be inserted between (a) and (b) of Paragraph 5:

"(aa) take a decision requiring the national regulatory authority concerned to withdraw the draft measure, together with specific proposals for amending the draft measure, when the intended measure aims at imposing, amending or withdrawing an obligation on a European electronic communications provider within the meaning of Regulation [XXX/2014]."

The following sub-paragraph shall be added at the end of Paragraph 6:

The provisions of Article 7(6) shall apply in the cases where the Commission takes a decision in accordance with paragraph 5(aa).

2. Article 8 shall be amended as follows:

The following sub-paragraph shall be inserted between sub-paragraphs (b) and (d) of Paragraph 3:

(c) pursuing the objectives laid down in Article 1 of Regulation No [XXX/2014].

The following sub-paragraph shall be inserted at the end of Paragraph 4:

(h) facilitating the upgrading and roll-out of high-capacity fixed line and wireless networks capable of catering for evolving end-user demand for enhanced quality of service.

3. Article 15 shall be amended as follows:

The following sub-paragraphs shall be inserted between the first and second sub-paragraphs of Paragraph 1:

In assessing whether a given market has characteristics which may justify the imposition of ex-ante regulatory obligations, and therefore has to be included in the Recommendation, and having regard in particular to the need of European electronic communications providers for convergent regulation throughout the Union and to the need to promote efficient investment and innovation in the interests of end users and the general interest, the Commission shall consider all relevant competitive constraints in order to determine whether, as a general matter in the Union or a significant part thereof, the following three criteria are cumulatively met:

(a) the presence of high and non-transitory structural, legal or regulatory barriers to entry;

(b) the market structure does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based and other competition behind the barriers to entry;

(c) competition law alone is insufficient to adequately address the market failure(s) concerned.

The following sub-paragraph shall be inserted at the end of Paragraph 3:

National authorities shall verify whether the three criteria set out in Paragraph 1 are cumulatively met before concluding in a draft measure that:

a) a given market that is not identified in the Recommendation as having the characteristics justifying the imposition of regulatory obligations, qualifies as such in the specific national circumstances; or

b) a market identified in the Recommendation as having the characteristics which may justify the imposition of ex-ante regulatory obligations does not require regulation in the specific national circumstances.

4. The first paragraph of Article 16 shall be amended as follows:

National regulatory authorities shall carry out an analysis of the relevant markets taking into account the markets identified in the Recommendation, and taking the utmost account of the Guidelines. National regulatory authorities shall take into account all relevant competitive constraints, irrespective of whether the networks, services or applications which impose such constraints are electronic communications networks or electronic communications services. Member States shall ensure that this analysis is carried out, where appropriate, in collaboration with the national competition authorities.

5. The first paragraph of Article 19 shall be amended as follows:

*Without prejudice to Article 9 of this Directive and Articles 6 and 8 of Directive 2002/20/EC (Authorisation Directive), where the Commission finds that divergences in the implementation by the national regulatory authorities of the regulatory tasks specified in this Directive, ~~and~~ the Specific Directives **and Regulation No [XX/2014]** may create a barrier to the internal market, the Commission may, taking the utmost account of the opinion of BEREC, issue a recommendation or a decision on the harmonised application of the provisions in this Directive, ~~and~~ the Specific Directives **and Regulation No [XX/2014]** in order to further the achievement of the objectives set out in Article 8.*

Article 31 – Amendments to Directive 2002/22/EC

1. Articles 1 paragraph 3 first sentence, 20, 21, 22, 30 and 34 paragraph 3 of Directive 2002/22/EC shall be repealed with effect from 1 January 2016.
2. Member States shall maintain in force until 1 January 2016 all implementation measures transposing the provisions referred to in paragraph 1.

Article 32 – Transposition of the amendments to the Directive 2002/21/EC and the Specific Directives

1. With the exception of Articles 28(4) and 31(1), Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with the amendments of Directive 2002/21/EC and the Specific Directives provided for in this Regulation by [1 January 2016]. They shall forthwith communicate to the Commission the text of those measures. When Member States adopt these measures, they shall contain a reference to this Regulation or be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.
2. Member States shall communicate to the Commission the text of the provisions of national law which they adopt in the field governed by this Regulation and of any subsequent amendments to those provisions.

Article 33 – Amendments to Regulation No 531/2012/EU

1. In Article 1, paragraph 1, the following third sub-paragraph is inserted:

"This Regulation shall apply exclusively to roaming services provided in the Union to end users whose domestic provider is a provider of electronic communications to the public in a Member State."

2. In Article 2, paragraph 2, the following subparagraph (r) is inserted:

"(r) "roaming alliance" means one or more commercial or technical agreements among roaming providers that allow the virtual extension of the home network coverage with the aim that each of its members can sustainably provide regulated

retail roaming services at the same price level as their respective domestic mobile communications services."

3. A new Article 4a is introduced:

"Article 4a

1. The members of a roaming alliance shall benefit from the provisions of this Article when the alliance has members in all Member States and when alliance members apply, by default and in all retail packages that include regulated roaming services, the applicable domestic service rate to both domestic services and regulated roaming services, as if the latter were consumed on the home network.

2. The consumption of regulated retail roaming services at the applicable domestic service rate may be limited by an alliance member by reference to a reasonable use criterion. An alliance member availing of this possibility shall publish, in accordance with Article XX(1)(b) of Regulation XXX/2014 [transparency], and include in its contracts, in accordance with Article XX(1)(d) of that Regulation [contracts], detailed quantified information on how such a reasonable use criterion is applied, by reference to the main pricing, volume or other parameters of the retail package in question.

By [31 December 2014], BEREC shall, after consulting stakeholders and in close cooperation with the Commission, lay down general guidelines for the application of reasonable use criteria in the contracts of roaming alliance members. BEREC shall have regard in particular to the evolution of pricing and consumption patterns in the Member States, to the degree of convergence of domestic price levels across the Union, to the evolution of wholesale roaming rates for unbalanced traffic between roaming alliance members, to the effective network coverage of an alliance and to the objective that consumers falling into any of the broad observable categories of domestic consumption should be in a position to confidently replicate their domestic consumption pattern while travelling within the Union.

The competent national regulatory authority shall monitor and supervise the reasonable use criteria that may be applied by alliance members, taking utmost account of the BEREC general guidelines, and shall ensure that unreasonable terms are not applied.

3. Individual end users of a roaming alliance member may, upon their own request, make a deliberate and explicit choice to renounce the benefit of the application to regulated roaming services of the applicable domestic service rate under a given retail package in return for other advantages offered by a roaming alliance member. The roaming alliance member shall remind such an end user of the nature of the roaming advantages which would thereby be lost. National regulatory authorities shall monitor in particular whether roaming alliance members engage in business practices which would amount to circumvention of the default regime.

4. Article 4 shall not apply to roaming providers that provide regulated retail roaming services through a roaming alliance in accordance with this Article. Where an alternative roaming provider has already been granted access to a domestic provider's customers and has already made necessary investments to serve those customers, there shall be a transitional period of 3 years before the

derogation from Article 4 can take effect. The transitional period is without prejudice to the need to respect any longer contractual period agreed with the alternative roaming provider.

5. Regulated retail roaming charges laid down in Articles 8, 10 and 13 shall not apply to roaming services offered through a roaming alliance to the extent that these are charged at the level of the applicable domestic service rate.

Where an alliance member applies different charges than the applicable domestic service rate for consumption of regulated roaming services going beyond reasonable use in accordance with paragraph 2, or where an individual end user explicitly renounces the benefit of domestic service rates for regulated roaming services in accordance with paragraph 3, the charges for such regulated roaming services shall not exceed the retail roaming charges laid down in Articles 8, 10 and 13.

6. Roaming providers shall negotiate in good faith the arrangements towards establishing a roaming alliance. By way of exception to paragraph 1, the members of a roaming alliance shall benefit from the provisions of this Article in the period between 1 July 2014 and 1 January 2016 when the alliance has members in at least [21] Member States representing [85%] of the population of the Union, provided that they comply with the other relevant terms of this Article, including the provision by default in all retail packages that include regulated roaming services of roaming services at domestic prices for reasonable use while travelling in all Member States.

After 1 January 2016, where undertakings have sought in good faith to establish a roaming alliance on the basis of fair and reasonable terms [allowing the substantial internalisation of the network costs of roaming provision] and have been unable to secure any member in one or more Member States, the members of such a roaming alliance shall benefit from the provisions of this Article provided they comply with the other conditions set out in the first sub-paragraph. In such cases, the alliance members shall continue to seek to establish reasonable terms for inclusion of a member from any unrepresented Member State.

7. The composition of roaming alliances, and any changes thereto that may occur from time to time, shall be notified to the BEREC Office."

4. Article 7, paragraphs 1 and 2 are replaced by the following:

"Article 7

Wholesale charges for the making of regulated roaming calls

1. The average wholesale charge that the visited network operator may levy on the customer's roaming provider for the provision of a regulated roaming call originating on that visited network, inclusive, inter alia, of origination, transit and termination costs, shall not exceed the limits set in paragraph 2.

2. The average wholesale charge referred to in paragraph 1 shall apply between any pair of operators and shall be calculated over a 12-month period or any such shorter period as may remain before the end of the period of application of a maximum average wholesale charge as provided for in this paragraph or before 30 June 2022. The maximum average wholesale charge shall not exceed EUR 0,10 on 1 July 2013 and shall decrease to EUR [0,03] on 1 July 2014 and shall, without prejudice to Article 19, remain at EUR [0,03] until 30 June 2022."

5. Article 8 is amended as follows:

Paragraph 2, first subparagraph is replaced by the following:

"2. With effect from 1 July 2013, the retail charge (excluding VAT) for a euro-voice tariff which a roaming provider may levy on its roaming customer for the provision of a regulated roaming call may vary for any roaming call but shall not exceed EUR 0,24 per minute for any call made or EUR 0,07 per minute for any call received. The maximum retail charge for calls made shall decrease to EUR 0,19 on 1 July 2014. As of 1 July 2014, roaming providers shall not levy any charge on their roaming customers for calls received, without prejudice to measures taken to prevent anomalous or fraudulent usage. Without prejudice to Article 19 those maximum retail charges for the euro-voice tariff shall remain valid until 30 June 2018."

Paragraph (2), third subparagraph is replaced by the following:

"Every roaming provider shall charge its roaming customers for the provision of any regulated roaming call to which a euro-voice tariff applies on a per-second basis."

6. Article 9, paragraph 1 is replaced by the following:

"With effect from 1 July 2013, the average wholesale charge that the visited network operator may levy for the provision of a regulated roaming SMS message originating on that visited network shall not exceed EUR 0,02 per SMS message. The maximum average wholesale charge shall decrease to EUR [0.01] on 1 July 2014 and shall, without prejudice to Article 19, remain at EUR [0,01] until 30 June 2022"

7. Article 10, paragraph 2 is replaced by the following:

"2. With effect from 1 July 2013, the retail charge (excluding VAT) for a euro-SMS tariff which a roaming provider may levy on its roaming customer for a regulated roaming SMS message sent by that roaming customer may vary for any regulated roaming SMS message but shall not exceed EUR 0,08. That maximum charge shall decrease to EUR 0,06 on 1 July 2014 and shall, without prejudice to Article 19, remain at EUR 0,06 until 30 June 2018."

8. Article 12, paragraph 1 is replaced by the following:

"1. With effect from 1 July 2013, the average wholesale charge that the visited network operator may levy on the roaming customer's home provider for the provision of regulated data roaming services by means of that visited network shall not exceed a safeguard limit of EUR 0,15 per megabyte of data transmitted. The safeguard limit shall decrease to EUR [0,015] per megabyte of data transmitted on 1 July 2014 and shall, without prejudice to Article 19, remain at EUR[0,015] per megabyte of data transmitted until 30 June 2022."

9. Article 13, paragraph (2), first sub-paragraph is replaced by the following:

"2. With effect from 1 July 2013, the retail charge (excluding VAT) of a euro-data tariff which a roaming provider may levy on its roaming customer for the provision of a regulated data roaming service shall not exceed EUR 0,45 per megabyte used. The maximum retail charge for data used shall decrease to EUR 0,20 per megabyte used on 1 July 2014 and shall, without prejudice to Article 19, remain at EUR 0,20 per megabyte used until 30 June 2018."

10. In Article 14, a new paragraph 1a is added:

"1a. When the consumption of regulated retail roaming services at the applicable domestic service rate is limited by reference to a reasonable use criterion in accordance with Article 4a(2), roaming providers shall alert roaming customers when the consumption of roaming calls and SMS messages has reached the reasonable use limit and at the same time shall provide roaming customers with basic personalised pricing information on the roaming charges applicable to making a voice call or sending an SMS message outside the domestic service rate or package in accordance with the second, fourth and fifth sub-paragraphs of paragraph (1)."

11. In Article 15, a new paragraph 2a is added:

"2a. When the consumption of regulated retail roaming services at the applicable domestic service rate is limited by reference to a reasonable use criterion in accordance with Article 4a(2), roaming providers shall alert roaming customers when the consumption of data roaming services has reached the reasonable use limit and at the same time shall provide roaming customers with basic personalized pricing information on the roaming charges applicable to data roaming outside the domestic service rate or package in accordance with paragraph (2). Paragraph 3 shall apply to data roaming services consumed outside the applicable domestic service rates or packages referred to in Article 4a(2)."

12. Article 16, paragraph 1, is replaced by the following:

"1. National regulatory authorities shall monitor and supervise compliance with this Regulation within their territory.

By way of exception to the first sub-paragraph, the national regulatory authority of the home Member State shall monitor and supervise compliance with this Regulation in the case of European electronic communications providers in accordance with Article 5 of Regulation No [XXX/2014]. "

13. Article 19 is amended as follows:

Paragraph 1, first sentence, is replaced by the following:

"The Commission shall review the functioning of this regulation and, after a public consultation, shall report to the European Parliament and the Council by 30 June 2017 at the latest. The Commission shall report by 30 June 2016 if by the end of 2015 it observes that there is no clear trend towards the achievement of the objectives of this Regulation throughout the Union, whether through the retail strategies of individual roaming providers, the development of the offers of alternative roaming providers or the formation of roaming alliances."

Paragraph 1, point (g) is replaced by the following:

"(g) the extent to which the implementation of the structural measures provided for in Articles 3 and 4 and of roaming alliances provided for in Article 4a has produced results in developing competition in the internal market for roaming services to the extent that there is no difference between roaming and domestic tariffs;"

A new paragraph 2a is added:

"2a. The Commission's review shall have regard in particular to the prevalence and pro-competitive effects of roaming alliances. The Commission shall consider the

question whether the substantial internalization by alliance members of the network costs of roaming has allowed the widespread and effective end of roaming retail surcharges, and whether maximum wholesale charges can thus be removed.

Article 34 – Amendments to Regulation No 1211/2009/EC

1. Article 1 paragraph 2 shall be amended as follows:

"BEREC shall act within the scope of Directive 2002/21/EC (Framework Directive) and Directives 2002/19/EC, 2002/20/EC, 2002/22/EC and 2002/58/EC (Specific Directives), and of **Regulation (EU) No 531/2012 and No XX/2014**"

2. Article 4 paragraph 4 is replaced by the following:

"4. The Board of Regulators shall elect its Chair , subject to the rules of procedure of BEREC. After election by the board of representatives but before appointment, the Chairperson-designate may be invited to make a statement before the relevant committee(s) of the European Parliament and answer Members' questions. The expenses and reasonable emoluments of the chairperson shall be paid from the budget of the BEREC Office. The term of office of the Chair shall be three years and may be renewed once.

The Board of Regulators shall also elect the Vice-Chair(s) from among its members, subject to the rules of procedure of BEREC. The Vice-Chair(s) shall automatically assume the duties of the Chair if the latter is not in a position to perform those duties. The term of office of the Vice Chair(s) shall be at least one year, and may be renewed in accordance with the rules of procedure of BEREC. If, however, a Vice-Chair's membership of the Board ends at any time during their term of office, their term of office shall automatically expire on that date."

Article 35 – Review clause

The Commission shall submit reports on the evaluation and review of this Regulation to the European Parliament and the Council at regular intervals. The first report shall be submitted no later than [xx] years after the entry into force of this Regulation. Subsequent reports shall be submitted every [xx] years thereafter. The Commission shall, if necessary, submit appropriate proposals with a view to amending this Regulation, and aligning other legal instruments[, taking account in particular of developments in information technology and of the state of progress in the information society. The reports shall be made public].

Article 36 – Entry into force

1. This Regulation shall enter into force on [20 days after publication].

2. It shall apply from [1 July 2014] save for the provisions of Chapter 3 and 4, which shall apply from 1 January 2016.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament

The President

For the Council

The President

ANNEX I

MINIMUM PARAMETERS OF EUROPEAN VIRTUAL BROADBAND ACCESS PRODUCTS

1. OFFER 1 - Fixed network wholesale access product offered over next generation networks at Layer 2 of the International Standards Organisation seven layer model for communications protocols ('Data Link Layer'), that offers equivalent functionalities to physical unbundling, with handover points at a level that is closer to the customer premises than the national or regional level.

Network elements and related information:

- a description of the network access to be provided, including technical characteristics (which shall include information on network configuration where necessary to make effective use of network access);
- the locations at which network access will be provided;
- any relevant technical standards for network access, including any usage restrictions and other security issues;
- technical specifications for the interface at handover points and network termination points (customer premises);
 - specifications of equipment to be used on the network; and
- details of interoperability tests.

Network functionalities:

- flexible allocation of VLANs based on common technical specification;
- service agnostic connectivity, enabling control of traffic speed and symmetry;
- security enabling;
- flexible choice of customer premises equipment (as long as technically possible); and
- multicast functionality.

Operational and business process:

- eligibility, ordering and provisioning;
- billing
- migration, moves and ceases; and
- repair and maintenance.

Ancillary IT Systems:

- Specifications for access to and use of ancillary IT systems for operational support systems, information systems and databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing, including their usage restrictions and procedures to access those services.

2. OFFER 2: Fixed network wholesale access product offered at Layer 3 of the International Standards Organisation seven layer model for communications protocols ('Network Layer'), at the IP level bit-stream level with handover points offering a higher degree of resource aggregation such as at national and/or regional level

Network elements and related information:

- the characteristics of the connection link provided at the handover points (in terms of speed, Quality of Service, etc.);
- a description of the broadband network connecting the customer premise to the handover points, in terms of backhaul and access network architectures;
- the location of the handover point(s); and
- the technical specifications for interfaces at handover points.

Network functionalities:

- ability to support different quality of service levels (e.g. QoS 1, 2 and 3) with regard to:
 - delay;
 - jitter;
 - packet loss; and
 - contention ratio.

Operational and business process:

- eligibility, ordering and provisioning;
- billing;
- migration, moves and ceases; and
- repair and maintenance.

Ancillary IT Systems:

Specifications for access to and use of ancillary IT systems for operational support systems, information systems and databases for pre-ordering, provisioning, ordering, maintenance and repair requests and billing, including their usage restrictions and procedures to access those services.

ANNEX II

MINIMUM PARAMETERS OF EUROPEAN ASQ CONNECTIVITY PRODUCTS

Network elements and related information

- A description of the connectivity product to be provided over a fixed network, including technical characteristics and adoption of any relevant standards.

Network functionalities:

- connectivity agreement ensuring end-to-end Quality of Service, based on common specified parameters that enable the provision of at least the following classes of services:

- voice and video calls;
- broadcast of audio-visual content; and
- data critical applications.