OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
To: Delegations
No. prev. doc.: 10237/1/18 REV 1
Subject: Proposal for a Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (Recast) - Outcome of proceedings

Following the decision to move the amendment to the TSM regulation to the BEREC regulation, delegations will find in annex I the final compromise text of the Electronic Communications Code and in annex II the amendment to the BEREC regulation as agreed by COREPER during its meeting on 29 June 2018. Annex II includes the amendment proposed by the Commission.
ANNEX

Proposal for a
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
establishing the European Electronic Communications Code
(Recast)
(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 their reasoned opinions,

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:

¹ OJ C , p.
² OJ C , p.

(2) The functioning of the five directives which are part of the existing regulatory framework for electronic communications networks and services (Directive 2002/19/EC, Directive 2002/20/EC, Directive 2002/21/EC, Directive 2002/22/EC and Directive 2002/21/EC) is subject to periodic review by the Commission, with a view, in particular, to determining the need for modification in the light of technological and market developments.

(3) In the Digital Single Market strategy, the Commission outlined that the review of the telecoms framework will focus on measures that aim at incentivising investment in high-speed broadband networks, bring a more consistent single market approach to spectrum policy and management, deliver conditions for a true single market by tackling regulatory fragmentation, ensure effective protection of consumers, a level playing field for all market players and consistent application of the rules, as well as provide a more effective regulatory institutional framework.

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(4) This Directive is part of a "Regulatory Fitness" exercise the scope of which includes four of the Directives (Framework, Authorisation, Access and Universal Service Directive) and a Regulation (BEREC Regulation*). Each of the Directives currently contains measures applicable to providers of electronic communications networks and of electronic communications services, consistently with the regulatory history of the sector under which undertakings were vertically integrated i.e. active in both the provision of networks and of services. The review offers an occasion to recast the four directives in order to simplify the current structure, with a view to reinforcing its coherence and accessibility, consistently with the REFIT objective. It offers also the possibility to adapt the structure to the new market reality, where the provision of communications services is not any more necessarily bundled to the provision of a network. As provided in the Interinstitutional Agreement of 28 November 2001 on a more structured use of the recasting technique for legal acts, recasting consists in the adoption of a new legal act which incorporates in a single text both the substantive amendments which it makes to an earlier act and the unchanged provisions of that act. The proposal for recasting deals with the substantive amendments which it makes to an earlier act, and on a secondary level, it includes the codification of the unchanged provisions of the earlier act with those substantive amendments.

(5) *This* Directive should create a legal framework to ensure the freedom to provide electronic communications networks and services, subject only to the conditions laid down in this Directive and to any restrictions in conformity with Article 52 (1) of the Treaty, in particular measures regarding public policy, public security and public health, *and with Article 52(1) of the Charter of Fundamental Rights of the European Union* (‘the Charter’).

(6) The provisions of this Directive are without prejudice to the possibility for each Member State to take the necessary measures justified on grounds set out in Articles 87 and 45 of the Treaty on the Functioning of the European Union, to ensure the protection of its essential security interests, to safeguard public policy and public security, and to permit the investigation, detection and prosecution of criminal offences, *taking into account that any limitation to the exercise of the rights and freedoms recognised by the Charter, in particular in Articles 7, 8 and 11, such as limitations regarding the processing of data, are to be provided for by law, respect the essence of those rights and freedoms recognised by the Charter and be subject to the principle of proportionality, in accordance with Article 52(1) of the Charter.*
(7) The convergence of the telecommunications, media and information technology sectors means that all electronic communications networks and services should be covered to the extent possible by a single European Electronic Communications Code established by a single Directive, with the exception of matters better dealt with through directly applicable rules established through regulations. It is necessary to separate the regulation of electronic communications networks and services from the regulation of content. This Code does not therefore cover the content of services delivered over electronic communications networks using electronic communications services, such as broadcasting content, financial services and certain information society services, and is therefore without prejudice to measures taken at Union or national level in respect of such services, in compliance with Union law, in order to promote cultural and linguistic diversity and to ensure the defence of media pluralism. The content of television programmes is covered by Directive 2010/13/EU of the European Parliament and of the Council. The regulation of audiovisual policy and content aims at achieving general interest objectives, such as freedom of expression, media pluralism, impartiality, cultural and linguistic diversity, social inclusion, consumer protection and the protection of minors. The separation between the regulation of electronic communications and the regulation of content does not prejudice the taking into account of the links existing between them, in particular in order to guarantee media pluralism, cultural diversity and consumer protection. Within the limits of their competences, competent authorities should contribute to ensuring the implementation of policies aimed at the promotion of these objectives.

(8) This Directive does not affect the application to radio equipment of Directive 2014/53/EU, but does cover car radio, consumer radio and consumer digital television equipment.
In order to allow national regulatory and/or other competent authorities to meet the objectives set out in this Directive, in particular concerning end-to-end interoperability, the scope of the Directive should cover certain aspects of radio equipment as defined in Directive 2014/53/EU of the European Parliament and of the Council and consumer equipment used for digital television, in order to facilitate access for disabled end-users with disabilities. It is important for regulators and/or other competent authorities to encourage network operators and equipment manufacturers to cooperate in order to facilitate access by disabled end-users with disabilities to electronic communications services. The non-exclusive use of spectrum for the self-use of radio terminal equipment, although not related to an economic activity, should also be subject to this directive in order to guarantee a coordinated approach with regard to their authorisation regime.

Certain electronic communications services under this Directive could also fulfil the definition of ‘information society service’ in Article 1 of Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services. The provisions governing Information Society Services apply to those electronic communications services to the extent that there are not more specific provisions applicable to electronic communications services in this Directive or in other Union acts. However, electronic communications services such as voice telephony, messaging services and electronic mail services are covered by this Directive. The same undertaking, for example an Internet service provider, can offer both an electronic communications service, such as access to the Internet, and services not covered under this Directive, such as the provision of web-based and not communications-related content.
(11) The same undertaking, for example a cable operator, can offer both an electronic communications service, such as the conveyance of television signals, and services not covered under this Directive, such as the commercialisation of an offer of sound or television broadcasting content services, and therefore additional obligations can be imposed on this undertaking in relation to its activity as a content provider or distributor, according to provisions other than those of this Directive, without prejudice to the list of conditions laid in Annex I to this Directive.

(12) The regulatory framework should cover the use of radio spectrum by all electronic communications networks, including the emerging self-use of radio spectrum by new types of networks consisting exclusively of autonomous systems of mobile radio equipment that is connected via wireless links without a central management or centralised network operator, and not necessarily within the exercise of any specific economic activity. In the developing fifth generation mobile wireless communications environment, such networks are likely to develop in particular outside buildings and on the roads, for transport, energy, R&D, eHealth, public protection and disaster relief, Internet of Things, machine-to-machine and connected cars. As a result, the application by Member States, based on Article 7 of Directive 2014/53/EU, of additional national requirements regarding the putting into service or use of such radio equipment, or both, in relation to the effective and efficient use of spectrum and avoidance of harmful interference should reflect the principles of the internal market.
The requirements concerning the capabilities of electronic communications networks are constantly increasing. While in the past the focus was mainly on growing bandwidth available overall and to each individual user, other parameters like latency, availability and reliability are becoming increasingly important. The current response towards this demand is bringing optical fibre closer and closer to the user and future 'very high capacity networks' will require performance parameters which are equivalent to what a network based on optical fibre elements at least up to the distribution point at the serving location can deliver. This corresponds in the fixed-line connection case to network performance equivalent to what is achievable by an optical fibre installation up to a multi-dwelling building, considered as the serving location, and in the mobile wireless connection case to network performance similar to what is achievable based on an optical fibre installation up to the base station, considered as the serving location. Variations in end-users' experience which are due to the different characteristics of the medium by which the network ultimately connects with the network termination point should not be taken into account for the purposes of establishing whether or not a wireless network could be considered as providing similar network performance. In accordance with the principle of technological neutrality, other technologies and transmission media should not be excluded, where they compare with this baseline scenario in terms of their capabilities. The roll-out of such 'very high capacity networks' will further increase the capabilities of networks and pave the way for the roll-out of future mobile wireless network generations based on enhanced air interfaces and a more densified network architecture.
(14) Definitions need to be adjusted so as to conform to the principle of technology neutrality and
to keep pace with technological development **including new forms of network management**
**for example through software emulated or software defined networks**. Technological and
market evolution has brought networks to move to internet protocol technology, and enabled
end-users to choose between a range of competing voice service providers. Therefore, the
term 'publicly available telephone service', exclusively used in Directive 2002/22/EC and
widely perceived as referring to traditional analogue telephone services should be replaced by
the more current and technological neutral term 'voice communications'. **Conditions for the**
provision of a service should be separated from the actual definitional elements of a voice
communications service, i.e. an electronic communications service made available to the
public for originating and receiving, directly or indirectly, national or national and
international calls through a number or numbers in a national or international telephone
numbering plan, whether such a service is based on circuit switching or packet switching
technology. It is the nature of such a service that it is bidirectional, enabling both the parties to
communicate. A service which does not fulfil all these conditions, such as for example a
‘click-through’ application on a customer service website, is not such a service. Voice
communications services also include means of communication specifically intended for
disabled end-users **with disabilities** using text relay or total conversation services.
The services used for communications purposes, and the technical means of their delivery, have evolved considerably. End-users increasingly substitute traditional voice telephony, text messages (SMS) and electronic mail conveyance services by functionally equivalent online services such as Voice over IP, messaging services and web-based e-mail services. In order to ensure that end-users and their rights are effectively and equally protected when using functionally equivalent services, a future-oriented definition of electronic communications services should not be purely based on technical parameters but rather build on a functional approach. The scope of necessary regulation should be appropriate to achieve its public interest objectives. While "conveyance of signals" remains an important parameter for determining the services falling into the scope of this Directive, the definition should cover also other services that enable communication. From an end-user's perspective it is not relevant whether a provider conveys signals itself or whether the communication is delivered via an internet access service. The amended definition of electronic communications services should therefore contain three types of services which may partly overlap, that is to say internet access services according to the definition in Article 2(2) of Regulation (EU) 2015/2120, interpersonal communications services as defined in this Directive, and services consisting wholly or mainly in the conveyance of signals. The definition of electronic communications service should eliminate ambiguities observed in the implementation of the previous definition and allow a calibrated provision-by-provision application of the specific rights and obligations contained in the framework to the different types of services. The processing of personal data by electronic communications services, whether as remuneration or otherwise, must be in compliance with Directive 95/46/EC which will be replaced by Regulation (EU) 2016/679 (General Data Protection Regulation) on 25 May 2018.\footnote{Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation); OJ L 119, 4.5.2016, p. 1}
In order to fall within the scope of the definition of electronic communications service, a service needs to be provided normally in exchange for remuneration. In the digital economy, market participants increasingly consider information about users as having a monetary value. Electronic communications services are often supplied to the end-user not only against counter-performance other than money, but increasingly and in particular against the provision of, for instance, by giving access to personal data or other data. The concept of remuneration should therefore encompass situations where the provider of a service requests and the end-user knowingly actively provides personal data as defined in Article 4(1) of Regulation (EU) 2016/679 or other data directly or indirectly to the provider. It should also encompass situations where the end-user allows access to, provider collects information without the end-user actively supplying it, such as personal data, including the IP address, or other automatically generated information, such as information collected and transmitted by a cookie. In line with the jurisprudence of the Court of Justice of the European Union on Article 57 TFEU, remuneration exists within the meaning of the Treaty also if the service provider is paid by a third party and not by the service recipient. The concept of remuneration should therefore also encompass situations where the end-user is exposed to advertisements as a condition for gaining access to the service, or situations where the service provider monetises personal data it has collected

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Interpersonal communications services are services that enable interpersonal and interactive exchange of information, covering services like traditional voice calls between two individuals but also all types of emails, messaging services, or group chats. Interpersonal communications services only cover communications between a finite, that is to say not potentially unlimited, number of natural persons which is determined by the sender of the communication. Communications involving legal persons should be within the scope of the definition where natural persons act on behalf of those legal persons or are involved at least on one side of the communication. Interactive communication entails that the service allows the recipient of the information to respond. Services which do not meet those requirements, such as linear broadcasting, video on demand, websites, social networks, blogs, or exchange of information between machines, should not be considered as interpersonal communications services. Under exceptional circumstances, a service should not be considered as an interpersonal communications service if the interpersonal and interactive communication facility is a minor and purely ancillary feature to another service and for objective technical reasons cannot be used without that principal service, and its integration is not a means to circumvent the applicability of the rules governing electronic communications services. As elements of an exemption from the definition the terms 'minor' and 'ancillary' should be interpreted narrowly and from an objective end-user's perspective. An interpersonal communications feature could be considered as minor where its objective utility for an end-user is very limited and where it is in reality merely used by end-users. An example for such an exception from the definition of interpersonal communications services could be, in principle, a communication channel in online games, depending on the features of the communication facility of the service.
(18) Interpersonal communications services using numbers from a national and international telephone numbering plan connect with the public (packet or circuit) switched telephone network publicly assigned numbering resources. Those number-based interpersonal communications services comprise both services to which end-users numbers are assigned for the purpose of ensuring end-to-end connectivity and services enabling end-users to reach persons to whom such numbers have been assigned. The mere use of a number as an identifier should not be considered equivalent to the use of a number to connect with the public switched telephone network, publicly assigned numbers and should therefore, in itself, not be considered sufficient to qualify a service as a number-based interpersonal communications service. Number-independent interpersonal communications services should be subject only to obligations, where public interests require applying specific regulatory obligations to all types of interpersonal communications services, regardless of whether they use numbers for the provision of their service. It is justified to treat number-based interpersonal communications services differently, as they participate in and hence also benefit from a publicly assured interoperable ecosystem.

(19) The network termination point represents a boundary for regulatory purposes between the regulatory framework for electronic communications networks and services and the regulation of telecommunication terminal equipment. Defining the location of the network termination point is the responsibility of the national regulatory authority. In the light of the practice of national regulatory authorities, and given the variety of fixed and wireless topologies, the Body of European Regulators for Electronic Communications (‘BEREC’) should, in close cooperation with the Commission, adopt guidelines on how to identify the network termination point, in accordance with this Directive, in various concrete circumstances.
Technical developments make it possible for end-users to access emergency services not only by voice calls but also by other interpersonal communications services. The concept of emergency communication should therefore cover all those interpersonal communications services that allow such emergency services access. It builds on the emergency system elements already enshrined in Union legislation, namely 'Public Safety Answering Point' (‘PSAP’) and 'most appropriate PSAP'\(^{14}\), and on 'emergency services'\(^{15}\).

National regulatory and other competent authorities should have a harmonised set of objectives and principles to underpin their work, and should, where necessary, coordinate their actions with the authorities of other Member States and with BEREC in carrying out their tasks under this regulatory framework.

The activities of competent authorities established under this Directive contribute to the fulfilment of broader policies in the areas of culture, employment, the environment, social cohesion and town and country planning.

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\(^{15}\) As defined in Regulation (EU) 2015/758.
In order to translate the political aims of the Digital Single Market strategy into regulatory terms, the framework should, in addition to the existing three primary objectives of promoting competition, internal market and end-user interests, pursue an additional connectivity objective, articulated in terms of outcomes: widespread access to and take-up of very high capacity fixed and mobile connectivity networks for all Union citizens and businesses on the basis of reasonable price and choice, enabled by effective and fair competition, by open innovation, by efficient use of spectrum, by common rules and predictable regulatory approaches in the internal market and by the necessary sector-specific rules to safeguard the interests of citizens. For the Member States, the national regulatory authorities and other competent authorities and the stakeholders, that connectivity objective translates on the one hand into aiming for the highest capacity networks and services economically sustainable in a given area, and on the other hand into pursuing territorial cohesion, in the sense of convergence in capacity available in different areas.

Progress towards the achievement of the general objectives of this Directive should be supported by a robust system of continuous assessment and benchmarking of Member States with respect to the availability of very high capacity connectivity in all major socio-economic drivers such as schools, transport hubs and major providers of public services, and highly digitized business, uninterrupted 5G coverage for urban areas and major terrestrial transport paths and the availability of electronic communications networks which are capable of providing at least 100 Mbps, and which are promptly upgradeable to gigabit speeds, to all households in each Member State. To that end, the Commission should continue monitoring the performance of Member State, including, by way of an example, indexes that summarise relevant indicators on Europe’s digital performance and track the evolution of EU Member States in digital competitiveness, such as the Digital Economy and Society Index, and when necessary, establish new methods and new objective, concrete and quantifiable criteria for benchmarking the effectiveness of Member States.
(24) The principle that Member States should apply EU law in a technologically neutral fashion, that is to say that a national regulatory or other competent authority neither imposes nor discriminates in favour of the use of a particular type of technology, does not preclude the taking of proportionate steps to promote certain specific services where this is justified in order to attain the objectives of the regulatory framework, for example digital television as a means for increasing spectrum efficiency. Furthermore, it does not preclude taking into account that certain transmission media have physical characteristics and architectural features that can be superior in terms of quality of service, capacity, maintenance cost, energy efficiency, management flexibility, reliability, robustness and scalability, and ultimately in terms of performance, which can be reflected in actions taken in view of pursuing the various regulatory objectives.

(25) Both efficient investment and competition should be encouraged in tandem, in order to increase economic growth, innovation and consumer choice.

(26) Competition can best be fostered through an economically efficient level of investment in new and existing infrastructure, complemented by regulation, wherever necessary, to achieve effective competition in retail services. An efficient level of infrastructure-based competition is the extent of infrastructure duplication at which investors can reasonably be expected to make a fair return based on reasonable expectations about the evolution of market shares.

(27) It is necessary to give appropriate incentives for investment in new very high capacity networks that will support innovation in content-rich Internet services and strengthen the international competitiveness of the European Union. Such networks have enormous potential to deliver benefits to consumers and businesses across the European Union. It is therefore vital to promote sustainable investment in the development of these new networks, while safeguarding competition, as bottlenecks and barriers to entry remain at the infrastructure level, and boosting consumer choice through regulatory predictability and consistency.
(28) The aim is progressively to reduce *ex ante* sector-specific rules as competition in the markets develops and, ultimately, for electronic communications to be governed by competition law only. Considering that the markets for electronic communications have shown strong competitive dynamics in recent years, it is essential that *ex ante* regulatory obligations are only imposed where there is no effective and sustainable competition on the markets concerned. The **objective of ex ante regulatory intervention is to produce benefits for end-users by making retail markets effectively competitive on a sustainable basis. To that end, national regulatory authorities should take into account the interests of consumers and end-users, irrespectively of the market in which the regulatory obligations are imposed, and consider whether an obligation imposed on a wholesale market also has the effect of promoting the interests of consumers and other end-users on a retail market not identified as susceptible to *ex ante* regulation.** Obligations at wholesale level should be imposed where otherwise one or more retail markets are not likely to become effectively competitive in the absence of those obligations. It is likely that national regulatory authorities will gradually, through the process of market analysis, be able to find retail markets to be competitive even in the absence of wholesale regulation, especially taking into account expected improvements in innovation and competition. In such a case, the national regulatory authority should conclude that regulation is no longer needed at wholesale level, and assess the corresponding relevant wholesale market with a view to withdrawing *ex ante* regulation. In doing so, it should take into account any leverage effects between wholesale and related retail markets which may require the removal of barriers to entry at the infrastructure level in order to ensure long-term competition at the retail level.
Electronic communications are becoming essential for an increasing number of sectors. The Internet of Things is an illustration of how the radio signal conveyance underpinning electronic communications continues to evolve and shape societal and business reality. To derive the greatest benefit from those developments, the introduction and accommodation of new wireless communications technologies and applications in spectrum management is essential. As other technologies and applications relying on spectrum are equally subject to growing demand, and can be enhanced by integration of or combination with electronic communications, spectrum management should adopt, where appropriate, a cross-sectorial approach to improve spectrum usage efficiency.

Strategic planning, coordination and, where appropriate, harmonisation at Union level can help ensure that spectrum users derive the full benefits of the internal market and that Union interests can be effectively defended globally. For these purposes, where appropriate, legislative multiannual radio spectrum policy programmes may be adopted, with the first one defined by Decision No 243/2012/EU of the European Parliament and of the Council, setting out policy orientations and objectives for the strategic planning and harmonisation of the use of radio spectrum in the Union. These policy orientations and objectives may refer to the availability and efficient use of radio spectrum necessary for the establishment and functioning of the internal market, in accordance with this Directive.

National borders are increasingly irrelevant in determining optimal radio spectrum use. Undue fragmentation amongst national policies result in increased costs and lost market opportunities for spectrum users. It may slow down innovation to the detriment of the internal market and prejudice to consumers and the economy as a whole.

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(32) The spectrum management provisions of this Directive should be consistent with the work of international and regional organisations dealing with radio spectrum management, such as the International Telecommunications Union (ITU) and the European Conference of Postal and Telecommunications Administrations (CEPT), so as to ensure the efficient management of and harmonisation of the use of spectrum across the Union and between the Member States and other members of the ITU.

(33) In accordance with the principle of the separation of regulatory and operational functions, Member States should guarantee the independence of the national regulatory authority and other competent authorities with a view to ensuring the impartiality of their decisions. This requirement of independence is without prejudice to the institutional autonomy and constitutional obligations of the Member States or to the principle of neutrality with regard to the rules in Member States governing the system of property ownership laid down in Article 295 of the Treaty. National regulatory and other competent authorities should be in possession of all the necessary resources, in terms of staffing, expertise, and financial means, for the performance of their tasks.
(34) It is necessary to provide for a list of tasks that Member States may assign only to bodies which they designate as national regulatory authorities whose political independence and regulatory capacity is guaranteed, as opposed to other regulatory tasks which they can assign either to the national regulatory authorities or to other competent authorities. Hence, where this Directive provides that a Member State should assign a task to or empower a competent authority, the Member State can assign the task either to a national regulatory authority, or to another competent authority. Certain tasks pursuant to the Directive such as ex ante market regulation, including the imposition of obligations for access and interconnection, and the resolution of disputes between undertakings are tasks which should be undertaken only by national regulatory authorities, i.e. bodies which are independent both from the sector and from any external intervention of political pressure. Unless otherwise provided Member States may assign other regulatory tasks provided in this Directive either to the national regulatory authorities or to other competent authorities. In the course of transposition, Member States should promote stability of competences of the national regulatory authorities with regard to the attribution of tasks which resulted from the transposition of the 2009 electronic communications framework, in particular those related to market competition or market entry. Where such tasks are assigned to other competent authorities, they should seek to consult the national regulatory authorities before taking a decision. Pursuant to the principle of good cooperation, national regulatory authorities and other competent authorities should exchange information for exercise of their tasks.
This Directive does not include substantive provisions on either net neutrality or roaming, and is without prejudice to the allocation of competences to national regulatory authorities in Regulation (EU) 2120/2015\textsuperscript{17} and Regulation (EU) 531/2012\textsuperscript{18}. On the other hand, this Directive should provide, in addition, for national regulatory authorities to be competent for assessing and monitoring closely market access and competition issues which may affect the right of end-users to an open internet access.

(35) The independence of the national regulatory authorities was strengthened in the 2009 review in order to ensure a more effective application of the regulatory framework and to increase their authority and the predictability of their decisions. To this end, express provision had to be made in national law to ensure that, in the exercise of its tasks, a national regulatory authority is protected against external intervention or political pressure liable to jeopardise its independent assessment of matters coming before it. Such outside influence makes a national legislative body unsuited to act as a national regulatory authority under the regulatory framework. For that purpose, rules had to be laid down at the outset regarding the grounds for the dismissal of the head of the national regulatory authority in order to remove any reasonable doubt as to the neutrality of that body and its imperviousness to external factors. In order to avoid arbitrary dismissals, the dismissed member should have the right to request that the competent courts verify the existence of a valid reason to dismiss, among those foreseen in this Directive. Such dismissal should relate only to the personal or professional qualifications of the head or member. It is important that national regulatory authorities have their own budget allowing them, in particular, to recruit a sufficient number of qualified staff. In order to ensure transparency, this budget should be published annually. Within the limits of their budget, they should have autonomy in managing their resources, human and financial. In order to ensure impartiality, Member States who retain ownership of or control undertakings contributing to the budget of the national regulatory authority or other competent authorities through administrative charges should ensure that there is effective structural separation of activities associated with the exercise of ownership or control from the exercise of control over the budget.


\textsuperscript{18} Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union (recast).
(36) There is a need to further reinforce the independence of the national regulatory authorities to ensure the imperviousness of its head and members to external pressure, by providing minimum appointment qualifications, and a minimum duration for their mandate. Furthermore, the limitation of the possibility to renew more than once their mandate and the requirement for an appropriate rotation scheme for the board and the top management would address the risk of regulatory capture, ensure continuity, and enhance independence. Furthermore, to address the risk of regulatory capture, ensure continuity, and enhance independence, Member States should consider the limitation of the possibility to renew more than once their mandate of the head and/or Members of the Board and the setup requirement for an appropriate rotation scheme for the board and the top management would address the risk of regulatory capture, ensure continuity, and enhance independence. This could be arranged for instance by appointing the first members of the collegiate body for different periods, in order for their mandates, as well as that of their successors not to elapse at the same moment.

(37) National regulatory authorities should be accountable for and should be required to report on the way they are exercising their tasks. That obligation should normally take the form of an annual reporting obligation, rather than ad hoc reporting requests, which if disproportionate could limit their independence or hinder them in the exercise of their tasks. Indeed, according to recent case law19, extensive or unconditional reporting obligations may indirectly affect the independence of an authority.

(38) Member States should notify to the Commission the identity of the national regulatory and other competent authorities. For authorities competent for granting rights of way, the notification requirement may be fulfilled by a reference to the single information point established pursuant to Article 7(1) of Directive 2014/61/EU of the European Parliament and of the Council20.

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(39) The least onerous authorisation system possible should be used to allow the provision of electronic communications networks and services in order to stimulate the development of new communications services and pan-European communications networks and services and to allow service providers and consumers to benefit from the economies of scale of the single market.

(40) The benefits of the single market to service providers and end-users can be best achieved by general authorisation of electronic communications networks and of electronic communications services other than number-independent interpersonal communications services, without requiring any explicit decision or administrative act by the national regulatory authority and by limiting any procedural requirements to a declaratory notification only. Where Member States require notification by providers of electronic communications networks or services when they start their activities, this notification should be submitted to BEREC which acts as a single contact point. Such notification should not entail administrative cost for the providers and could be made available via an entry point at the website of the national regulatory-competent authorities. In order to support effective cross-border coordination, in particular for pan-European operators, BEREC should establish and maintain a database of notifications, based on the information provided by national regulatory-competent authorities. Competent authorities should transmit to BEREC only complete notifications. Member States should not impede the provision of networks or services in any way, including on the grounds of incompleteness of a notification. BEREC should forward in good time the notifications to the national regulatory authority in all Member States in which the providers of electronic communications networks or services intend to provide electronic communications networks or services. Member States can also require proof that notification was made by means of any legally recognised postal or electronic acknowledgement of receipt of the notification to BEREC. Such acknowledgement should in any case not consist of or require an administrative act by the national regulatory authority, or any other authority.
(41) The notification to BEREC should entail a mere declaration of the provider's intention to commence the provision of electronic communications networks and services. A provider may only be required to accompany such declaration by the information set out in Article 12 of this Directive. Member States should not impose additional or separate notification requirements.

(42) Contrary to the other categories of electronic communications networks and services as defined in this Directive, number-independent interpersonal communications services do not benefit from the use of public numbering resources and do not participate in a publicly assured interoperable ecosystem. It is therefore not appropriate to subject these types of services to the general authorisation regime.

(43) When granting rights of use for radio spectrum, numbering resources or rights to install facilities, the competent authorities should inform the undertakings to whom they grant such rights of the relevant conditions. Member States may set out such conditions for the use of radio spectrum in individual rights of use or in the general authorisation.

(44) General authorisations should only contain conditions which are specific to the electronic communications sector. They should not be made subject to conditions which are already applicable by virtue of other existing national law, in particular regarding consumer protection, which is not specific to the communications sector. For instance, competent authorities may inform operators about applicable environmental and, town and country planning requirements. Conditions imposed under the general authorisation should not affect the determination of applicable law pursuant to Regulation (EC) 593/2008.
(45) The conditions that may be attached to general authorisations should cover specific conditions governing accessibility for users with disabilities and the need of public authorities and emergency services to communicate between themselves and with the general public before, during and after major disasters.

(46) It is necessary to include the rights and obligations of undertakings under general authorisations explicitly in such authorisations in order to ensure a level playing field throughout the Union and to facilitate cross-border negotiation of interconnection between public communications networks.

(47) The general authorisation entitles providers of electronic communications networks and services to the public to negotiate interconnection under the conditions of this Directive. Providers of electronic communications networks and services other than to the public can negotiate interconnection on commercial terms.

(48) Competent authorities should duly take into account, when attaching conditions to the general authorisation and applying administrative charges, situations where electronic communications networks or services are provided by individuals on a not-for-profit basis. In the case of electronic communications networks and services not provided to the public it is appropriate to impose fewer and lighter conditions, if any at all, than are justified for electronic communications networks and services provided to the public.

(49) Specific obligations which may be imposed on providers of electronic communications networks and electronic communications services other than number-independent interpersonal communications services in accordance with Union law by virtue of their significant market power as defined in this Directive should be imposed separately from the general rights and obligations under the general authorisation.
(50) Providers of electronic communications networks and services may need a confirmation of their rights under the general authorisation with respect to interconnection and rights of way, in particular to facilitate negotiations with other, regional or local, levels of government or with service providers in other Member States. For this purpose the national regulatory authorities BEREC, which receives the notification to provide public or private communications networks or services, should provide declarations to undertakings either upon request or alternatively as an automatic response to a notification under the general authorisation. Such declarations should not by themselves constitute entitlements to rights nor should any rights under the general authorisation or rights of use or the exercise of such rights depend upon a declaration.

(51) Administrative charges may be imposed on providers of electronic communications services in order to finance the activities of the national regulatory authority or other competent authority in managing the authorisation system and for the granting of rights of use. Such charges should be limited to cover the actual administrative costs for those activities. For this purpose transparency should be created in the income and expenditure of national regulatory authorities and of other competent authorities by means of annual reporting about the total sum of charges collected and the administrative costs incurred. This will allow undertakings to verify that administrative costs and charges are in balance.
(52) Systems for administrative charges should not distort competition or create barriers for entry into the market. With a general authorisation system it will no longer be possible to attribute administrative costs and hence charges to individual undertakings except for the granting of rights of use for numbers numbering resources, radio spectrum and for rights to install facilities. Any applicable administrative charges should be in line with the principles of a general authorisation system. An example of a fair, simple and transparent alternative for these charge attribution criteria could be a turnover related distribution key. Where administrative charges are very low, flat rate charges, or charges combining a flat rate basis with a turnover related element could also be appropriate. To the extent that the general authorisation system extends to undertakings with very small market shares, such as community-based network providers, or to service providers whose business model generates very limited revenues even in case of significant market penetration in terms of volumes, Member States should assess the possibility to establish an appropriate de minimis threshold for the imposition of administrative charges.

(53) Member States may need to amend rights, conditions, procedures, charges and fees relating to general authorisations and rights of use where this is objectively justified. Such changes should be duly notified to all interested parties in good time, giving them adequate opportunity to express their views on any such amendments. Unnecessary procedures should be avoided in case of minor amendments to existing rights to install facilities or to use spectrum or numbers numbering resources when such amendments do not impact on third parties’ interests. Minor amendments to rights and obligations are those amendments which are mainly administrative, do not change the substantial nature of the general authorisations and the individual rights of use and thus cannot cause any comparative advantage to the other undertakings.
Considering the importance of ensuring Taking into account the need to ensure legal certainty and to promote regulatory predictability to provide a safe environment for investments, in particular for new wireless broadband communications, any restriction or withdrawal of any existing rights of use for radio spectrum or numbers numbering resources or to install facilities should be subject to predictable and transparent justifications and procedures; hence stricter requirements or a notification mechanism could be imposed in particular where rights of use have been assigned pursuant to competitive or comparative procedures and in the case of harmonised bands to be used for wireless broadband electronic communications services. Often, justifications referring to efficient and effective use of radio spectrum and technological evolution should in particular could rely on technical implementing measures adopted under Decision 262/2002/EU. Furthermore, except where proposed amendments are minor, where general authorizations and individual rights to use radio spectrum need to be restricted, withdrawn or amended without the consent of the right holder, this can only take place after consultation with interested parties. As restrictions or withdrawals of general authorisations or rights may have significant consequences for their holders, national competent authorities should take particular care and assess in advance the potential harm that such measures may cause before adopting such measures. The change in the use of spectrum as a result of the application of technology and service neutrality principles should not be considered a sufficient justification for a withdrawal of rights since it does not constitute the granting of a new right.

Minor amendments to rights and obligations are those amendments which are mainly administrative, do not change the substantial nature of the general authorisations and the individual rights of use and thus cannot cause any comparative advantage to the other undertakings.
National regulatory, and other competent authorities and BEREC need to gather information from market players in order to carry out their tasks effectively. This may include assessing the compliance of general terms and conditions with this Directive without suspending the applicability of those terms and conditions during the assessment. By exception it may also be necessary to gather information from other undertakings active in sectors that are closely related to the electronic communications services sector, such as content providers, that hold information which could be necessary for them to exercise their tasks under EU law. It might also be necessary to gather such information on behalf of the Commission or BEREC, to allow them to fulfil their respective obligations under Union law. Requests for information should be proportionate and not impose an undue burden on undertakings. Information gathered by national regulatory and other competent authorities should be publicly available, except in so far as it is confidential in accordance with national rules on public access to information and subject to Union and national law on business confidentiality.

In order to ensure that national regulatory authorities carry out their regulatory tasks in an effective manner, the data which they gather should include accounting data on the retail markets that are associated with wholesale markets where an operator has significant market power and as such are regulated by the national regulatory authority. The data should also include data which enables the national regulatory authority to assess compliance with conditions attached to rights of use, the possible impact of planned upgrades or changes to network topology on the development of competition or on wholesale products made available to other parties. Information regarding compliance with coverage obligations attached to rights of use for radio spectrum is key to ensure completeness of the geographic surveys of network deployments undertaken by national regulatory authorities. In that respect, the competent authority should be able to require that information is provided at disaggregated local level with a granularity adequate to conduct a geographical survey of networks.
(57) To alleviate **the burden of** reporting and information obligations for network and service providers and the competent authority concerned, such obligations should be proportionate, objectively justified and limited to what is strictly necessary. In particular, duplication of requests for information by the competent authority, and by BEREC and the systematic and regular proof of compliance with all conditions under a general authorisation or a right of use should be avoided. Undertakings should know the intended use of the information sought. Provision of information should not be a condition for market access. For statistical purposes a notification may be required from providers of electronic communications networks or services when they cease activities.

(58) Member States' obligations to provide information for the defence of Union interests under international agreements as well as reporting obligations under legislation which is not specific to the electronic communications sector such as competition law should not be affected.

(59) Information that is considered confidential by a competent authority, in accordance with Union and national rules on business confidentiality and protection of personal data, may be exchanged with the Commission and other national regulatory authorities and BEREC where such exchange is necessary for the application of the provisions of this Directive. The information exchanged should be limited to that which is relevant and proportionate to the purpose of such an exchange.
Electronic communications broadband networks are becoming increasingly diverse in terms of technology, topology, medium used and ownership, therefore, regulatory intervention must rely on detailed information and forecasts regarding network roll-out in order to be effective and to target the areas where it is needed. That information is essential for the purpose of promoting investment, increasing connectivity across the Union and providing information to all relevant authorities and citizens. It should include surveys plans regarding both deployment of very high capacity networks, as well as significant upgrades or extensions of existing copper or other networks which might not match the performance characteristics of very high capacity networks in all respects, such as roll-out of fibre to the cabinet coupled with active technologies like vectoring. The relevant forecasts should concern periods of up to three years. The level of detail and territorial granularity of the information that national regulatory competent authorities should gather should be guided by the specific regulatory objective, and should be adequate for the regulatory purposes that it serves. Therefore, the size of the territorial unit will also vary between Member States, depending on the regulatory needs in the specific national circumstances, and on the availability of local data. Level 3 in the Nomenclature of Territorial Units for Statistics (NUTS) is unlikely to be a sufficiently small territorial unit in most circumstances. National-regulatory and/or other competent authorities should be guided by BEREC guidelines on best practice to approach such a task, and such guidelines will be able to rely on the existing experience of national regulatory and/or other competent authorities in conducting geographical surveys of networks roll-out. Without prejudice to confidentiality requirements National regulatory competent authorities should, where the information is not already available on the market, make data directly accessible in an open data format in accordance 2013/37/EU and without restrictions on reuse the information gathered in such surveys and should make available tools to end-users as regards quality of service to contribute towards the improvement of their awareness of the available connectivity services. Where the national regulatory and/or other competent authorities deem it to be appropriate, they may also collect publicly available information on plans to deploy very high capacity networks. In gathering any of that information, all authorities concerned should respect the principle of confidentiality, and should avoid causing competitive disadvantages to any operator.
Bridging the digital divide in the Union is essential to enable all citizens of the Union to have access to state-of-the-art internet and digital services. To that end, in the case of specific and well defined areas, national regulatory authorities should have the possibility to invite undertakings and public authorities to declare their intention to deploy very high capacity networks, organise a call for declarations of interest with the aim of identifying undertakings that are willing to invest in very high capacity networks in these areas, allowing them sufficient time to provide a thoroughly considered response. The relevant forecasts should concern periods of up to three years. The information included in these forecasts should reflect the economic prospects of the electronic communications networks sector and investment intentions of operators at the time when the data is gathered, in order to allow the identification of available connectivity in different areas. Where an undertaking or public authority declares an intention to deploy in an area, the national regulatory and/or other competent authority may require other undertakings and public authorities to declare whether or not they intend to deploy very high capacity networks, or significantly upgrade or extend their network to a performance of at least 100 Mbps download speeds in this area. This procedure will create transparency for undertakings and public authorities that have expressed their interest in deploying in this area, so that when designing their business plans they can assess the likely competition that they will face from other networks. The positive effect of such transparency relies on market participants responding truthfully and in good faith. While market participants can change their deployment plans for unforeseen, objective and justifiable reasons, competent authorities should intervene, including if public funding is affected, and if appropriate impose a penalty if they have been provided knowingly or due to gross negligence by an undertaking or public authority with misleading erroneous or incomplete information. For the purpose of the relevant provision on penalties, gross negligence should refer to a situation where an undertaking or a public authority provides misleading, erroneous or incomplete information due to a behaviour or internal organisation which severely neglects due diligence regarding the information provided. Gross negligence should not require that the provider or public authority knows that the information provided is misleading, erroneous or incomplete but ought to have known if it had acted or been organised with due diligence. It is important that the penalties are sufficiently dissuasive in view of the negative impact caused on competition and to publicly funded
projects. The provisions on penalties should be without prejudice to any rights of end-users to claim compensation for damages in accordance with national law.

In the interests of predictable investment conditions, national regulatory competent authorities should be able to share information with undertakings and public authorities expressing interest in deploying very high-speed capacity networks on whether other types of network upgrades, including those below 100 Mbps download speed, are present or foreseen in the area in question.

(62) It is important that national regulatory and other competent authorities consult all interested parties on proposed decisions give them sufficient time to the complexity of the matter to provide their comments and take account of their comments before adopting a final decision. In order to ensure that decisions at national level do not have an adverse effect on the single market or other Treaty objectives, national regulatory authorities should also notify certain draft decisions to the Commission and other national regulatory authorities to give them the opportunity to comment. It is appropriate for national regulatory competent authorities to consult interested parties on all draft measures which have an effect on trade between Member States. The cases where the procedures referred to in Articles 24 and 34 apply are defined in this Directive.

(63) In order to appropriately address the interests of citizens, Member States should put in place an appropriate consultation mechanism. Such a mechanism could take the form of a body which would, independently of the national regulatory authority and service providers, carry out research into consumer-related issues, such as consumer behaviour and mechanisms for changing suppliers, and which would operate in a transparent manner and contribute to the existing mechanisms for stakeholder consultation. Furthermore, a mechanism could be established for the purpose of enabling appropriate cooperation on issues relating to the promotion of lawful content. Any cooperation procedures agreed pursuant to such a mechanism should, however, not allow for the systematic surveillance of Internet usage.
In the event of a dispute between undertakings in the same Member State in an area covered by this Directive, for example relating to obligations for access and interconnection or to the means of transferring end-user lists, an aggrieved party that has negotiated in good faith but failed to reach agreement should be able to call on the national regulatory authority to resolve the dispute. National regulatory authorities should be able to impose a solution on the parties. The intervention of a national regulatory authority in the resolution of a dispute between providers of electronic communications networks or services or associated facilities in a Member State should seek to ensure compliance with the obligations arising under this Directive.

In addition to the rights of recourse granted under national or Union law, there is a need for a simple procedure to be initiated at the request of either party in a dispute, to resolve cross-border disputes between undertakings providing or authorised to provide electronic communications networks or services in different Member States.

One important task assigned to BEREC is to adopt opinions in relation to cross-border disputes where appropriate. National regulatory authorities should therefore fully reflect any opinion taken by BEREC in their measures imposing any obligation on an undertaking or otherwise resolving the dispute in such cases.
Lack of coordination between Member States when organising the use of spectrum in their
territory can, if not solved through bilateral Member States negotiations, create large-
scale interference issues severely impacting the development of the Digital Single Market.
Member States should take all necessary measures to avoid cross-border and harmful
interference between them. Upon request of one or more Member States or of the
Commission, the Radio Spectrum Policy Group should be tasked with supporting the
necessary cross-border coordination and be the designated forum for resolving disputes
between Member States on cross border issues. Building on RSPG's proposed solution,
an implementing measure may be required in some circumstances to definitively resolve
cross-border interferences or to enforce under Union law a coordinated solution agreed by
two or several Member States in bilateral negotiations.

Lack of coordination between Member States and countries neighbouring the Union
can also create large-scale interference issues. Member States should take appropriate
measures to avoid cross-border and harmful interference with countries neighbouring the
Union, and cooperate with each other to that end. Upon request by Member States, the
Union should, provide its full support for Member States affected by cross-border
interference from third countries.
(68) The Radio Spectrum Policy Group (RSPG) is a Commission high-level advisory group which was created by Commission Decision 2002/622/EC to contribute to the development of the internal market and to support the development of a Union-level radio spectrum policy, taking into account economic, political, cultural, strategic, health and social considerations, as well as technical parameters. It should be composed of the heads of the bodies that have overall political responsibility for strategic spectrum policy. It should assist and advise the Commission and the Member States with respect to spectrum policy. This should further increase the visibility of spectrum policy in the various EU policy areas and help to ensure cross-sectorial coherence at national and Union level. It should also provide advice to the European Parliament and the Council upon their request. Moreover, the RSPG should also be the forum for the coordination of implementation by Member States of their obligations related to radio spectrum under this Directive and should play a central role in fields essential for the internal market such as cross-border coordination or standardisation. Technical or expert working groups could also be created to assist plenary meetings, at which strategic policy is framed through senior-level representatives of the Member States and the Commission.

The Commission has indicated its intention to amend, within six months after the entry into force of this Directive, Commission Decision 2002/622/EC of 26 July 2002 establishing a Radio Spectrum Policy Group in order to reflect the new tasks conferred on the RSPG by this Directive.
In the context of a competitive environment, the views of interested parties, including users and consumers, should be taken into account. In such a competitive environment, the views of interested parties, including users and consumers, should be taken into account, when dealing with issues related to end-users' rights. Out-of-court dispute settlement procedures may constitute a fast and cost-efficient way for end-users to enforce their rights, in particular for consumers and micro and small enterprises. For consumer disputes, effective, non-discriminatory and inexpensive procedures to settle their disputes with providers of publicly available electronic communications services are already ensured by Directive 2013/11/EU of the European Parliament and of the Council, in so far as relevant contractual disputes are concerned and the consumer is resident and the undertaking is established within the Union.

Member States should enable the national regulatory authorities or the competent authorities responsible for, or independent bodies with proven expertise in dealing with end-user rights to act as dispute settlement entity. With respect to such dispute settlements, the authorities should not be subject to any instructions.

As many Member States have established dispute resolution procedures also for end-users other than consumers, to whom Directive 2013/11/EU of the European Parliament and of the Council does not apply, it is reasonable to maintain the sector-specific dispute resolution procedure for both consumers and, where Member States extend it, also for other end-users, in particular micro and small enterprises. In relation to out-of-court dispute resolution, Member States should be able to maintain or introduce rules that go beyond those laid down by Directive 2013/11/EU in order to ensure a higher level of consumer protection.

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Competent authorities should be able to monitor and secure compliance with the terms and conditions of the general authorisation and rights of use, and in particular to ensure effective and efficient use of spectrum and compliance with coverage and quality of service obligations, through financial or administrative penalties including injunctions and withdrawals of rights of use in the event of breaches of those terms and conditions. Undertakings should provide the most accurate and complete information possible to competent authorities to allow them to fulfil their surveillance tasks. In order to avoid the creation of barriers to entry in the market, namely through anti-competitive hoarding, enforcement of conditions attached to spectrum rights by Member States should be improved effective and all competent authorities beyond national regulatory authorities should participate where necessary. Enforcement conditions should include the application of a "use it or lose it" solution, to counter-balance long duration of rights. For that purpose, trading. Trading and leasing of spectrum should be considered as modalities which ensure effective use by the original right holder.

The conditions, which may be attached to general authorisations and individual rights of use, should be limited to what is strictly necessary to ensure compliance with requirements and obligations under national law and Union law.
(72) Any party subject to a decision of a competent authority should have the right to appeal to a body that is independent of the parties involved and of any external intervention or political pressure which could jeopardise its independent assessment of matters coming before it. That body can be a court. Furthermore, any undertaking which considers that its applications for the granting of rights to install facilities have not been dealt with in accordance with the principles set out in this Directive should be entitled to appeal against such decisions. That appeal procedure should be without prejudice to the division of competences within national judicial systems and to the rights of legal entities or natural persons under national law. In any case, Member States should grant effective judicial review against such decisions.

(73) In order to ensure legal certainty for market players, appeal bodies should carry out their functions effectively; in particular, appeal proceedings should not be unduly lengthy. Interim measures suspending the effect of the decision of a competent authority should be granted only in urgent cases in order to prevent serious and irreparable damage to the party applying for those measures and if the balance of interests so requires.

(74) There has been a wide divergence in the manner in which appeal bodies have applied interim measures to suspend the decisions of the national regulatory and/or other competent authorities. In order to achieve greater consistency of approach common standards should be applied in line with Union case-law. Appeal bodies should also be entitled to request available information published by BEREC. Given the importance of appeals for the overall operation of the regulatory framework, a mechanism should be set up for collecting information on appeals and decisions to suspend decisions taken by the competent authorities in all the Member States and for the reporting of that information to the Commission and to BEREC. That mechanism should ensure that the Commission or BEREC can retrieve from Member States the text of the decisions and judgments with a view to developing a data-base.
(74a) Transparency in the application of the Union mechanism for consolidating the internal market for electronic communications should be increased in the interest of citizens and stakeholders and to enable parties concerned to make their views known, including by way of requiring national regulatory authorities to publish any draft measure at the same time as it is communicated to the Commission, BEREC, and the national regulatory authorities in other Member States. Any such draft measure should be reasoned and should contain a detailed analysis.

(75) The Commission should be able, after taking utmost account of the opinion of BEREC, to require a national regulatory authority to withdraw a draft measure where it concerns definition of relevant markets or the designation or not of undertakings with significant market power, and where such decisions would create a barrier to the single market or would be incompatible with Union law and in particular the policy objectives that national regulatory authorities should follow. This procedure is without prejudice to the notification procedure provided for in Directive 2015/1535/EU and the Commission's prerogatives under the Treaty in respect of infringements of Union law.

(76) The national consultation provided for under Article 24 should be conducted prior to the Union law consultation provided for under Articles 32 and 33 of this Directive, in order to allow the views of interested parties to be reflected in the Union law consultation. This would also avoid the need for a second Union law consultation in the event of changes to a planned measure as a result of the national consultation.

(77) It is important that the regulatory framework is implemented in a timely manner. When the Commission has taken a decision requiring a national regulatory authority to withdraw a planned measure, national regulatory authorities should submit a revised measure to the Commission. A deadline should be laid down for the notification of the revised measure to the Commission under Article 32 in order to allow market players to know the duration of the market review and in order to increase legal certainty.
(78) The Union mechanism allowing the Commission to require national regulatory authorities to withdraw planned measures concerning market definition and the designation of operators having significant market power has contributed significantly to a consistent approach in identifying the circumstances in which ex ante regulation may be applied and those in which the operators are subject to such regulation. The experience of the procedures under Article 7 and 7a of Directive 2002/21/EC (Framework Directive) has shown that inconsistencies in the national regulatory authorities’ application of remedies under similar market conditions undermine the internal market in electronic communications. Therefore the Commission and BEREC should participate in ensuring, within their respective responsibilities, a higher level of consistency in the application of remedies concerning draft measures proposed by national regulatory authorities. In addition, for draft measures falling under the second subparagraph of paragraph 2 of Article 59 or under paragraphs 2 or 3 of Article 74 where BEREC shares the Commission's concerns, the Commission should be able to require a national regulatory authority to withdraw a draft measure. In order to benefit from the expertise of national regulatory authorities on the market analysis, the Commission should consult BEREC prior to adoption of its decisions and/or recommendations.

(79) Having regard to the short time-limits in the Union consultation mechanism, powers should be conferred on the Commission to adopt recommendations and/or guidelines to simplify the procedures for exchanging information between the Commission and national regulatory authorities, for example in cases concerning stable markets, or involving only minor changes to previously notified measures. Powers should also be conferred on the Commission in order to allow for the introduction of a notification exemption so as to streamline procedures in certain cases.

(80) National regulatory authorities should be required to cooperate with each other, with BEREC and with the Commission in a transparent manner to ensure the consistent application, in all Member States, of the provisions of this Directive.
(81) The discretion of national regulatory authorities needs to be reconciled with the development of consistent regulatory practices and the consistent application of the regulatory framework in order to contribute effectively to the development and completion of the internal market. National regulatory authorities should therefore support the internal market activities of the Commission and those of BEREC.

(82) Measures that could affect trade between Member States are measures that may have an influence, direct or indirect, actual or potential, on the pattern of trade between Member States in a manner which might create a barrier to the single market. They comprise measures that have a significant impact on operators or users in other Member States, which include, *inter alia*: measures which affect prices for users in other Member States; measures which affect the ability of an undertaking established in another Member State to provide an electronic communications service, and in particular measures which affect the ability to offer services on a transnational basis; and measures which affect market structure or access, leading to repercussions for undertakings in other Member States.

(83) In carrying out its review of the functioning of this Directive, the Commission should assess whether, in the light of developments in the market and with regard to both competition and consumer protection, there is a continued need for the provisions on sector-specific *ex ante* regulation or whether those provisions should be amended or repealed.
A more convergent use and definition of elements of selection procedures and the conditions attached to the rights of use for radio spectrum which have a significant impact on market conditions and the competitive situation, including conditions for entry and expansion, would be favoured by a coordination mechanism whereby the RSPG, on the request by the national regulatory authority and/or competent authority or exceptionally on its own initiative, would convene a Peer Review Forum to examine draft measures in advance of the granting of rights of use by a given Member State with a view to exchanging best practice. The exchange of views should be based on information provided by the national regulatory authority and/or competent authority that requests the Peer Review Forum and should be a subset of a wider national measure, which may more broadly consist of the granting, trade and lease, duration, renewal or the amendment of rights of use. Therefore, the national regulatory authority and/or competent authority may also provide information on other draft national measures or aspects thereof related to the relevant selection procedure for limiting rights of use for radio spectrum which are not covered by the peer review mechanism. To reduce administrative burden, the national regulatory authority and/or competent authority may submit such information by way of a common reporting format, where available, for transmission to RSPG members.

The Peer Review Forum is an instrument of peer learning. It should contribute to a better exchange of best practices between Member States and increase the transparency of the procedures according to article 54 para. 2. The Peer Review Process should not be a formal condition of national authorization procedures.
(85) Where the harmonised assignment of radio spectrum to particular undertakings has been agreed at European level, Member States should strictly implement such agreements in the granting of rights of use for radio spectrum from the national frequency usage plan.

(86) Member States should be encouraged to may consider joint authorisations as an option when issuing rights of use where the expected usage covers cross-border situations.

(87) Any Commission decision under Article 40.38(1) should be limited to regulatory principles, approaches and methodologies. For the avoidance of doubt, it should not prescribe detail which will normally need to reflect national circumstances, and it should not prohibit alternative approaches which can reasonably be expected to have equivalent effect. Such a decision should be proportionate and should not have an effect on decisions taken by national regulatory or other competent authorities that do not create a barrier to the internal market.

(88) The Union and the Member States have entered into commitments in relation to standards and the regulatory framework of telecommunications networks and services in the World Trade Organisation.

(89) Standardisation should remain primarily a market-driven process. However there may still be situations where it is appropriate to require compliance with specified standards at Union level in order to improve interoperability, freedom of choice for users and encourage interconnectivity in the single market. At national level, Member States are subject to the provisions of Directive 2015/1535/EU. Standardisation procedures under this Directive are without prejudice to the provisions of the Radio Equipment Directive 2014/53/EU, the Low Voltage Directive 2014/35/EU and the Electromagnetic Compatibility Directive 2014/30/EU.
(90) Providers of public electronic communications networks or publicly available electronic communications services, or of both, should be required to take measures to safeguard the security of their networks and services, respectively, and to prevent or minimise the impact of security incidents. Having regard to the state of the art, those measures should ensure a level of security of networks and services appropriate to the risks posed. Security measures should take into account, as a minimum, all the relevant aspects of the following elements: as regards security of networks and facilities: physical and environmental security, security of supplies, access control to networks and integrity of networks; as regards incident handling: incident-handling procedures, incident detection capability, incident reporting and communication; as regards business continuity management: service continuity strategy and contingency plans, disaster recovery capabilities; and as regards monitoring, auditing and testing: monitoring and logging policies, exercise contingency plans, network and service testing, security assessments and compliance monitoring; and compliance with international standards.
Given the growing importance of number-independent interpersonal communications services, it is necessary to ensure that they are also subject to appropriate security requirements in accordance with their specific nature and economic importance. Providers of such services should thus also ensure a level of security commensurate with the degree of appropriate to the risk posed to the security of the electronic communications services they provide. Given that providers of number-independent interpersonal communications services normally do not exercise actual control over the transmission of signals over networks, the degree of risk for such services can be considered in some respects lower than for traditional electronic communications services. Therefore, whenever it is justified by the actual assessment of the security risks involved, the security requirements for measures taken by number-independent interpersonal communications services should be lighter. In that context, the providers should be able to decide about the measures they consider appropriate to manage the risks posed to the security of their services. The same approach should apply mutatis mutandis to interpersonal communications services which make use of numbers and which do not exercise actual control over signal transmission.
(91a) Providers of public communications networks or of publicly available electronic communications services should inform end-users of particular and significant security threats and of measures they can take to protect the security of their communications, for instance by using specific types of software or encryption technologies. The requirement to inform end-users of such threats should not discharge a service provider from the obligation to take, at its own costs, appropriate and immediate measures to remedy any security threats and restore the normal security level of the service. The provision of such information about security threats to the end-user should be free of charge.

(91b) In order to safeguard security of networks and services, and without prejudice to the Member States' powers to ensure the protection of their essential security interests and public security, and to permit the investigation, detection and prosecution of criminal offences, the use of encryption for example, end-to-end where appropriate should be promoted and, where necessary, encryption should be mandatory in accordance with the principles of security and privacy by default and design;
(92) Competent authorities should ensure that the integrity and availability of public communications networks are maintained. The European Network and Information Security Agency ('ENISA') should contribute to an enhanced level of security of electronic communications by, amongst other things, providing expertise and advice, and promoting the exchange of best practices. The competent authorities should have the necessary means to perform their duties, including powers to request the information necessary to assess the level of security of networks or services. They should also have the power to request comprehensive and reliable data about actual security incidents that have had a significant impact on the operation of networks or services. They should, where necessary, be assisted by Computer Security Incident Response Teams (CSIRTs) established under Article 9 of Directive (EU) 2016/1148/EU. In particular, CSIRTs may be required to provide competent authorities with information about risks and incidents affecting public communications networks and publicly available electronic communications services and recommend ways to address them.

(93) Where the provision of electronic communications relies on public resources whose use is subject to specific authorisation, Member States may grant the authority competent for issuance thereof the right to impose fees to ensure optimal use of those resources, in accordance with the procedures envisaged in this Directive. In line with the case-law of the Court of Justice, Member States cannot levy any charges or fees in relation to the provision of networks and electronic communications services other than those provided for by this Directive. In that regard, Member States should have a coherent approach in establishing those charges or fees in order not to provide an undue financial burden linked to the general authorisation procedure or rights of use for providers of electronic communications networks and services.

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(94) To ensure optimal use of resources, fees should reflect the economic and technical situation of the market concerned as well as any other significant factor determining their value. At the same time, fees should be set in a manner that enables innovation in the provision of networks and services as well as competition in the market ensures efficient assignment and use of spectrum. Member States should therefore ensure that fees for rights of use are established on the basis of a mechanism which provides for appropriate safeguards against outcomes whereby the value of the fees is distorted as a result of revenue maximisation policies, anticompetitive bidding or equivalent behaviour. This Directive is without prejudice to the purpose for which fees for rights of use and rights to install facilities are employed. Such fees may for instance be used to finance activities of national regulatory authorities and competent authorities that cannot be covered by administrative charges. Where, in the case of competitive or comparative selection procedures, fees for rights of use for radio spectrum consist entirely or partly of a one-off amount, payment arrangements should ensure that such fees do not in practice lead to selection on the basis of criteria unrelated to the objective of ensuring optimal use of radio spectrum. The Commission may publish on a regular basis benchmark studies and other guidance as appropriate with regard to best practices for the assignment of radio spectrum, the assignment of numbering resources or the granting of rights of way.

(95) Fees imposed on undertakings for rights of use for radio spectrum can influence decisions about whether to seek such rights and put into use radio spectrum resources. With a view to ensuring optimal use of radio spectrum, Member States should therefore set reserve prices in a way that leads to the efficient assignment of the rights, irrespective of the type of selection procedure used. Member States should also take into account possible costs associated with the fulfilment of authorisation conditions imposed to further policy objectives. In doing so, regard should also be had to the competitive situation of the market concerned including the possible alternative uses of the resources.
(96) Optimal use of radio spectrum resources depends on the availability of appropriate networks and associated facilities. In that regard, Member States should ensure aim at ensuring that, where national regulatory and/or other competent authorities impose apply fees for rights of use for radio spectrum and for rights to install facilities, they should take into consideration the need to facilitate continuous infrastructure development with a view to achieving the most efficient use of the resources. Member States should therefore provide for seek to ensure applying to the best extent possible modalities for payment of the fees for rights of use for radio spectrum linked with the actual availability of the resource in a manner that facilitates supports the investments necessary to promote such infrastructure development and the provision of related services. The payment modalities should be specified in an objective, transparent, proportionate and non-discriminatory manner before opening procedures for the granting of rights of use for spectrum.

(97) It should be ensured that procedures exist for the granting of rights to install facilities that are timely, non-discriminatory and transparent, in order to guarantee the conditions for fair and effective competition. This Directive is without prejudice to national provisions governing the expropriation or use of property, the normal exercise of property rights, the normal use of the public domain, or to the principle of neutrality with regard to the rules in Member States governing the system of property ownership.

(98) Permits issued to providers of electronic communications networks and services allowing them to gain access to public or private property are essential factors for the establishment of electronic communications networks or new network elements. Unnecessary complexity and delay in the procedures for granting rights of way may therefore represent important obstacles to the development of competition. Consequently, the acquisition of rights of way by authorised undertakings should be simplified. National regulatory authorities should be able to coordinate the acquisition of rights of way, making relevant information accessible on their websites.
It is necessary to strengthen the powers of the Member States as regards holders of rights of way to ensure the entry or roll-out of a new network in a fair, efficient and environmentally responsible way and independently of any obligation on an operator with significant market power to grant access to its electronic communications network. Improving facility sharing can lower the environmental cost of deploying electronic communications infrastructure and serve public health, public security and meet town and country planning objectives. Competent authorities should be empowered to require that the undertakings which have benefitted from rights to install facilities on, over or under public or private property share such facilities or property (including physical co-location) after an appropriate period of public consultation, during which all interested parties should be given the opportunity to state their views, in the specific areas where such general interest reasons impose such sharing. That can be the case for instance where the subsoil is highly congested or where a natural barrier needs to be crossed. Competent authorities should in particular be able to impose the sharing of network elements and associated facilities, such as ducts, conduits, masts, manholes, cabinets, antennae, towers and other supporting constructions, buildings or entries into buildings, and a better coordination of civil works on environmental or other public-policy grounds. On the contrary, it should be for national regulatory authorities to define rules for apportioning the costs of the facility or property sharing, to ensure that there is an appropriate reward of risk for the undertakings concerned. In the light of the obligations imposed by Directive 2014/61/EU, the competent authorities, particularly local authorities, should also establish appropriate coordination procedures, in cooperation with national regulatory authorities, with respect to public works and other appropriate public facilities or property which may include procedures that ensure that interested parties have information concerning appropriate public facilities or property and ongoing and planned public works, that they are notified in a timely manner of such works, and that sharing is facilitated to the maximum extent possible.
(100) Where mobile operators are required to share towers or masts for environmental reasons, such mandated sharing may lead to a reduction in the maximum transmitted power levels allowed for each operator for reasons of public health, and this in turn may require operators to install more transmission sites to ensure national coverage. Competent authorities should seek to reconcile the environmental and public health considerations in question, taking due account of the precautionary approach set out in Council Recommendation No 1999/519/EC.

(101) Radio spectrum is a scarce public resource with an important public and market value. It is an essential input for radio-based electronic communications networks and services and, in so far as it relates to such networks and services, should therefore be efficiently allocated and assigned by national regulatory authorities and/or other competent authorities according to harmonised objectives and principles governing their action as well as to objective, transparent and non-discriminatory criteria, taking into account the democratic, social, linguistic and cultural interests related to the use of frequencies. Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) establishes a framework for harmonisation of radio spectrum.

(102) Radio spectrum policy activities in the Union should be without prejudice to measures taken at Union or national level, in accordance with Union law, to pursue general interest objectives, in particular with regard to public governmental and defence networks, content regulation and audiovisual and media policies, and the right of Member States to organise and use their radio spectrum for public order, public security and defence.
Ensuring ubiquitous widespread connectivity in each Member State is essential for economic and social development, participation in public life and social and territorial cohesion. As connectivity and the use of electronic communications becomes an integral element to European society and welfare, Member States should strive to ensure EU-wide wireless broadband coverage. This should be achieved by relying on imposition by Member States of appropriate coverage requirements, which should be adapted to each area served and limited to proportionate burdens in order not to hinder deployment by service providers. Given the major role systems such as RLANs play in providing high speed wireless broadband indoors, measures should be taken to ensure aiming at ensuring release of sufficient radio spectrum in bands which are particularly valuable assets for the cost-efficient deployment of wireless networks with universal coverage, in particular indoors. Moreover, coherent and coordinated measures for high-quality terrestrial wireless coverage across the Union, building on best national practices for operators' licence obligations, should aim to meet the RSPP objective that all citizens throughout the Union should have access both indoors and outdoors, to the fastest broadband speeds of not less than 30 Mbps by 2020, and should aim to achieve an ambitious vision for a gigabit society in the Union. Such measures will promote innovative digital services and ensure long-term socioeconomic benefits.

Seamless coverage of the territory as well as connectivity across Member States should be maximised and reliable, with a view to promote in-border and cross-border services and applications such as connected cars and e-health.
(104) The need to ensure that citizens are not exposed to electromagnetic fields at a level harmful to public health is imperative. Member States should take the most consistent way possible pursue consistency across the Union to address this issue, having particular regard to the precautionary approach taken in Council Recommendation No 1999/519/EC, in order to work towards ensuring more consistent deployment conditions. Member States should apply the procedure set out in Directive 2015/1535/EU where relevant with a view also to providing transparency to stakeholders and to allow other Member States and the Commission to react.

(105) Spectrum harmonisation and coordination and equipment regulation supported by standardisation are complementary need to be coordinated closely to meet their joint objectives effectively, with the support of the RSPG. Coordination between the content and timing of mandates to CEPT under the Radio Spectrum Decision and standardisation requests to standardisation bodies, such as the European Telecommunications Standards Institute, including with regard to radio receivers parameters, should facilitate the introduction of future systems, support spectrum sharing opportunities and ensure efficient spectrum management.

(106) The demand for harmonised radio spectrum is not uniform in all parts of the Union. In cases where there is lack of demand for all or part of a harmonised band at regional or national level, Member States could exceptionally be able to allow an alternative use of the band, for example to cover lack of market supply for certain uses, as long as such lack of demand persists and provided that the alternative use does not prejudice the harmonised use of the said band by other Member States and that it ceases when demand for the harmonised use materialises.

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(107) Flexibility in spectrum management and access to spectrum has been established through technology and service-neutral authorisations to allow spectrum users to choose the best technologies and services to apply in frequency bands declared available for electronic communications services in the relevant national frequency allocation plans in accordance with Union law (the ‘principles of technology and service neutrality’). The administrative determination of technologies and services should apply only when general interest objectives are at stake and should be clearly justified and subject to regular periodic review.

(108) Restrictions on the principle of technology neutrality should be appropriate and justified by the need to avoid harmful interference, for example by imposing emission masks and power levels, to ensure the protection of public health by limiting public exposure to electromagnetic fields, to ensure the proper functioning of services through an adequate level of technical quality of service, while not necessarily precluding the possibility of using more than one service in the same frequency band, to ensure proper sharing of spectrum, in particular where its use is only subject to general authorisations, to safeguard efficient use of spectrum, or to fulfil a general interest objective in conformity with Union law.
(109) Spectrum users should also be able to freely choose the services they wish to offer over the spectrum. On the other hand, measures should be allowed which require the provision of a specific service to meet clearly defined general interest objectives such as safety of life, the need to promote social, regional and territorial cohesion, or the avoidance of the inefficient use of spectrum to be permitted where necessary and proportionate. Those objectives should include the promotion of cultural and linguistic diversity and media pluralism as defined by Member States in conformity with Union law. Except where necessary to protect safety of life or, exceptionally, to fulfil other general interest objectives as defined by Member States in accordance with Union law, exceptions should not result in certain services having exclusive use, but should rather grant them priority so that, in so far as possible, other services or technologies may coexist in the same band. It lies within the competence of the Member States to define the scope and nature of any exception regarding the promotion of cultural and linguistic diversity and media pluralism.

(110) As the allocation of spectrum to specific technologies or services is an exception to the principles of technology and service neutrality and reduces the freedom to choose the service provided or technology used, any proposal for such allocation should be transparent and subject to public consultation.

(111) In exceptional cases where Member States decide to limit the freedom to provide electronic communications networks and services based on grounds of public policy, public security or public health, Member States should explain the reasons for such limitation.
(112) Radio spectrum should be managed so as to ensure that harmful interference is avoided. This basic concept of harmful interference should therefore be properly defined to ensure that regulatory intervention is limited to the extent necessary to prevent such interference, having regard also to the need for network equipment and end-user devices to incorporate resilient receiver technology to take into consideration advanced methods for protection against harmful interference, with the aim to apply these technologies and spectrum management methods in order to avoid, to the best extent possible the application of the non-interference, non-protection principle. Transport has a strong cross-border element and its digitalisation brings challenges. Vehicles (metro, bus, cars, trucks, trains, etc) are becoming more and more autonomous and connected. In an EU single market, vehicles travel beyond national borders more easily. Reliable communications, and avoiding harmful interferences, are critical for the safe and good operation of vehicles and their on-board communications systems.
(113) With growing spectrum demand and new varying applications and technologies which necessitate more flexible access and use of spectrum, Member States should promote the shared use of spectrum by determining the most appropriate authorisation regimes for each scenario and by defining appropriate and transparent rules and conditions therefor. Shared use of spectrum increasingly ensures its effective and efficient use by allowing several independent users or devices to access the same frequency band under various types of legal regimes so as to make additional spectrum resources available, raise usage efficiency and facilitate spectrum access for new users. Shared use can be based on general authorisations or licence-exempt use allowing, under specific sharing conditions, several users to access and use the same spectrum in different geographic areas or at different moments in time. It can also be based on individual rights of use under arrangements such as licenced shared access where all users (with an existing user and new users) agree on the terms and conditions for shared access, under the supervision of the competent authorities, in such a way as to ensure a minimum guaranteed radio transmission quality. When allowing shared use under different authorisation regimes, Member States should not set widely diverging durations for such use under different authorisation regimes.

(113a) General authorisations for the use of spectrum may facilitate the most effective use of spectrum and foster innovation in some cases and are pro-competitive whereas individual rights of use for spectrum in other cases may be the most appropriate authorisation regime in the presence of certain specific circumstances. For instance, One of the examples where individual rights of use should be considered when favourable propagation characteristics of the radio spectrum or the envisaged power level of the transmission means that the required quality of service prevents general authorisations from addressing the interference concerns. Where Technical measures such as solutions to improve receiver resilience can might enable the use of general authorisations or enable spectrum sharing, these should be applied and possibly avoid the systematic recourse to non-protection, non-interference principles should be avoided.
(114) In order to ensure predictability and preserve legal certainty and investment stability, Member States should define in advance appropriate criteria to determine compliance with the objective of efficient use of spectrum by right holders when implementing the conditions attached to individual rights of use and general authorisations. Interested parties should be involved in the definition of such conditions and informed in a transparent manner about how the fulfilment of their obligations will be assessed.

In order to avoid the creation of barriers to entry in the market, namely through anti-competitive hoarding, enforcement of conditions attached to spectrum rights by Member States should be effective and all competent authorities should participate where necessary. Enforcement conditions should include the application of a "use it or lose it" solution. In order to ensure legal certainty in respect of possible exposure to any sanction for breach of the conditions of the general authorization or of the rights of use, those lack of use for spectrum, thresholds of use, among others in terms of time, quantity or identity of spectrum, should be defined in advance. Trading and leasing of spectrum should be considered as modalities which ensure effective use by the original right holder.

(115) Considering the importance of technical innovation, Member States should be able to provide for rights to use spectrum for experimental purposes, subject to specific restrictions and conditions strictly justified by the experimental nature of such rights.

(116) Network infrastructure sharing, and in some instances spectrum sharing, can allow for a more efficient and effective use of radio spectrum and ensure the rapid deployment of networks, especially in less densely populated areas. When defining the conditions to be attached to rights of use for radio spectrum, competent authorities should also consider authorising forms of sharing or coordination between undertakings with a view to ensure effective and efficient use of spectrum or compliance with coverage obligations, in compliance with competition law principles.
Due to its limited propagation characteristics, radio spectrum in very high bands is unlikely to be used to provide territorial broadband coverage and is likely to be used in very densely populated areas as a priority. A nation-wide licence could result in spectrum being unused in major part of the territory, in effect sterilising its use. There is also an expected decrease in use of such radio spectrum from very densely populated cities to inner suburbia on to outer suburbia, as well as focused use such as inside factories. This is a problem that all Member States are likely to face individually or together. As diverging solutions could fragment the internal market in equipment, delaying rollout of 5G systems, it might be necessary to find a common solution, acknowledging any technical harmonisation measures in force, where appropriate, taking into consideration the need for protecting or sharing with existing uses. This solution could provide a toolbox for Member States in identifying the appropriate authorisation regime to be applied to a band, or part of a band, depending on different factors such as a general categorisation of population density. When deciding on the most appropriate authorisation regime to be applied in a band or parts thereof where technical conditions have been or are being harmonised under Decisions No.676/2002/EC, competent authorities should therefore in particular consider the propagation characteristics of the bands, the expected divergence between urban and rural use, the possible need to protect existing services and the resulting implication for economies of scale in manufacturing. Any solution should also take into account whether any safeguards should apply for relevant incumbent uses.
Where technical conditions for a spectrum band are harmonised under Decision N°676/2002/EC, competent authorities have to decide on the most appropriate authorisation regime to be applied in that band or parts thereof. Where all Member States are likely to face similar problems for which diverging solutions could fragment the internal market in equipment, and thereby delay the rollout of 5G systems, it may be necessary to recommend common solutions, acknowledging technical harmonisation measures in force.
This could provide a common toolbox for Member States which they could take into account when identifying appropriate consistent authorisation regimes to be applied to a band, or part of a band, depending on different factors such as population density, propagation characteristics of the bands, divergence between urban and rural uses, the possible need to protect existing services and the resulting implications for economies of scale in manufacturing.

(117) Market conditions as well as the relevance and number of players can differ amongst Member States. While the need and opportunity to attach conditions to rights of use for radio spectrum can be subject to national specificities which should be duly accommodated, the modalities of the application of such obligations should be coordinated at EU level through Commission implementing measures to ensure a consistent approach in addressing similar challenges across the EU.
The requirements of service and technology neutrality in granting rights of use, together with the possibility to transfer rights between undertakings, underpin the freedom and means to deliver electronic communications services to the public, thereby also facilitating the achievement of general interest objectives. This Directive does not prejudice whether radio spectrum is assigned directly to providers of electronic communications networks or services or to entities that use these networks or services. Such entities may be radio or television broadcast content providers. The responsibility for compliance with the conditions attached to the right to use a radio frequency and the relevant conditions attached to the general authorisation should in any case lie with the undertaking to whom the right of use for the radio spectrum has been granted. Certain obligations imposed on broadcasters for the delivery of audiovisual media services may require the use of specific criteria and procedures for the granting of spectrum usage rights to meet a specific general interest objective set out by Member States in conformity with Union law. However, the procedure for the granting of such right should in any event be objective, transparent, non-discriminatory and proportionate. The case law of the Court of Justice requires that any national restrictions on the rights guaranteed by Article 56 of the Treaty on the Functioning of the European Union should be objectively justified, proportionate and not exceed what is necessary to achieve those objectives. Moreover, spectrum granted without following an open procedure should not be used for purposes other than the general interest objective for which they were granted. In such case, the interested parties should be given the opportunity to comment within a reasonable period. As part of the application procedure for granting rights, Member States should verify whether the applicant will be able to comply with the conditions to be attached to such rights. These conditions should be reflected in eligibility criteria set out in objective, transparent, proportionate and non-discriminatory terms prior to the launch of any competitive selection procedure. For the purpose of applying these criteria, the applicant may be requested to submit the necessary information to prove his ability to comply with these conditions. Where such information is not provided, the application for the right to use a radio frequency may be rejected.
(119) Member States should only impose, prior to the granting of right, the verification of elements that can reasonably be demonstrated by an applicant exercising ordinary care, taking due account of the important public and market value of radio spectrum as a scarce public resource. This is without prejudice to the possibility for subsequent verification of the fulfilment of eligibility criteria, for example through milestones, where criteria could not reasonably be met initially. To preserve effective and efficient use of radio spectrum, Member States should not grant rights where their review indicates applicants' inability to comply with the conditions, without prejudice to the possibility of facilitating time-limited experimental use. Sufficiently long duration of authorisations for the use of spectrum should increase investment predictability to contribute to faster network roll-out and better services, as well as stability to support spectrum trading and leasing. Unless use of spectrum is authorised for an unlimited period of time, such duration should both take account of the objectives pursued and be sufficient to facilitate recoupment of the investments made. While a longer duration can ensure investment predictability, measures to ensure effective and efficient use of radio spectrum, such as the power of the competent authority to amend or withdraw the right in case of non-compliance with the conditions attached to the rights of use, or the facilitation of radio spectrum tradability and leasing, will serve to prevent inappropriate accumulation of radio spectrum and support greater flexibility in distributing spectrum resources. Greater recourse to annualised fees is also a means to ensure a continuous assessment of the use of the spectrum by the holder of the right.
(120) In deciding whether to renew already granted rights of use for radio spectrum, competent authorities should take into account the extent to which renewal would further the objectives of the regulatory framework and other objectives under national and Union law. Any such decision should be subject to an open, non-discriminatory and transparent procedure and based on a review of how the conditions attached to the rights concerned have been fulfilled. When assessing the need to renew rights of use, Member States should weigh the competitive impact of renewing already assigned rights against the promotion of more efficient exploitation or of innovative new uses that might result if the band were opened to new users. Competent authorities may make their determination in this regard by allowing for only a limited duration for the renewal in order to prevent severe disruption of established use. While decisions on whether to renew rights assigned prior to the applicability of this Directive should respect any rules already applicable, Member States should equally ensure that they do not prejudice the objectives of this Directive.

(121) When renewing existing rights of use, Member States should, together with the assessment of the need to renew the right, review the fees attached thereto with a view to ensuring that those fees continue to promote optimal use, taking account amongst other things, of the stage of market and technological evolution. For reasons of legal certainty, it is appropriate for any adjustments to the existing fees to be based on the same principles as those applicable to the award of new usage rights.
(122) Effective management of radio spectrum can be ensured by facilitating the continued efficient use of spectrum that has already been assigned. In order to ensure legal certainty to rights holders, the possibility of renewal of rights of use should be considered within an appropriate time-span prior to the expiry of the rights concerned, **for example at least 2 years before the expiry of the rights when these have been assigned for 15 years or more unless when at the time of assignment the possibility for renewal has been explicitly excluded.** In the interest of continuous resource management, competent authorities should be able to undertake such consideration at their own initiative as well as in response to a request from the assignee. The renewal of the right to use may not be granted contrary to the will of the assignee.

(123) Transfer of spectrum usage rights can be an effective means of increasing the efficient use of spectrum. For the sake of flexibility and efficiency, and to allow valuation of spectrum by the market, Member States should by default allow spectrum users to transfer or lease their spectrum usage rights to third parties following a simple procedure and subject to the conditions attached to such rights and to competition rules, under the supervision of the national regulatory authorities responsible. In order to facilitate such transfers or leases, as long as harmonisation measures adopted under the Radio Spectrum Decision are respected, Member States should also consider requests to have spectrum rights partitioned or disaggregated and conditions for use reviewed.
(124) Measures taken specifically to promote competition when granting or renewing rights of use for radio spectrum should be decided by national regulatory **and/or other competent** authorities, which have the necessary economic, technical and market knowledge. Spectrum assignment conditions can influence the competitive situation in electronic communications markets and conditions for entry. Limited access to spectrum, in particular when spectrum is scarce, can create a barrier to entry or hamper investment, network roll-out, the provision of new services or applications, innovation and competition. New rights of use, including those acquired through transfer or leasing, and the introduction of new flexible criteria for spectrum use can also influence existing competition. Where unduly applied, certain conditions used to promote competition, can have other effects; for example, spectrum caps and reservations can create artificial scarcity, wholesale access obligations can unduly constrain business models in the absence of market power, and limits on transfers can impede the development of secondary markets. Therefore, a consistent and objective competition test for the imposition of such conditions is necessary and should be applied consistently. The use of such measures should therefore be based on a thorough and objective assessment, by national regulatory **and/or other competent** authorities, of the market and the competitive conditions thereof. **National competent authorities** should, however, **always ensure the effective and efficient use of spectrum and avoid distortion of competition competitive harms through anti-competitive hoarding.**
In taking measures to promote competition, the national regulatory authorities and/or competent authorities should take into account the approach to market analysis. This should entail, inter alia, a forward-looking, structural evaluation of the market and a need to take into account where relevant existing market conditions as well as expected or foreseeable market developments.

(125) Building on opinions from the RSPG, the adoption of a common deadline for allowing the use of a band which has been harmonised under the Radio Spectrum Decision can be necessary to avoid cross-border interferences and beneficial to ensure release of the full benefits of the related technical harmonisation measures for equipment markets and for the deployment of very high capacity electronic communications networks and services. Allowing the use of a band entails assigning spectrum under a general authorization regime or individual rights of use so as to permit the use of spectrum as soon as the assignment process is completed. In order to assign frequencies, it might be necessary to release a band occupied by other users and to compensate them.
Implementation of a common deadline for allowing the use of harmonized bands for electronic communications services, including for 5G, might however be affected in a particular Member State by problems relating to unresolved cross-border coordination issues between Member States or with third countries; to the complexity of ensuring the technical migration of existing users of a band; a restriction to the usage of the band based on a general interest objective, to the safeguarding of national security and defence or to force majeure. In any case, Member States should take all measures to reduce any delay to the minimum in terms of geographical coverage, timing and spectrum range.

Moreover, Member States may, where this deemed appropriate, in light of their assessment of the relevant circumstances, request Union to provide legal, political and technical support to resolve spectrum coordination issues with countries neighbouring the Union, including candidate and acceding countries, in such a way that the Member States concerned can observe their obligations under Union law.

(125a) In order to ensure for increased coordinated availabilities of spectrum by 2020 to achieve world-class very high speed fixed and mobile wireless networks (5G), the 3.4-3.8 GHz and the 24.25-27.5 GHz bands have been identified by RSPG as priority bands suitable to fulfil the objectives of the 5G Action Plan by 2020. The bands 40.5-43.5 GHz and 66-71 GHz have also been identified in that context for further studies. It is therefore necessary to ensure that, by 31 December 2020, the entire or a large 3.4-3.8 GHz and the 24.25-27.5 GHz bands or parts of the thereof 3.4-3.8 GHz and the 24.25-27.5 GHz bands be available for terrestrial systems capable of providing wireless broadband electronic communications services under harmonised technical conditions, in complement to Decision (EU) 2017/899 on the 700 MHz band, as these three bands have specific qualities, in terms of coverage and data capacity, which allows to combine appropriately to meet 5G requirements.
Member States could, however, be affected by interferences likely to arise from third countries which, in accordance with the ITU Radio Regulations, have identified those bands for services other than international mobile telecommunications. This might have an effect on the obligation to meet a common implementation date.

Future use of the 26 GHz band for 5G terrestrial wireless services will among others target urban areas and sub-urban hotspot areas, while some deployment can be foreseen along major roads and railway tracks in rural areas. This provides the opportunity to use the 26 GHz band for other services than 5G mobile wireless outside these geographic areas, e.g. for business specific communications or indoor use, and therefore for Member States to designate and make this band available on a non-exclusive basis.

In line with the RSPG opinion, a sufficiently large portion of the 26 GHz band should be made available for 5G through a progressive release of the band while avoiding any unnecessary negative impact on current users of the band such as satellite services. Allowing the use of spectrum for 5G may also require in certain cases reorganising the use of the bands. In the 3.6 GHz band, for example, the use of 80 MHz or 100 MHz or multiples thereof for 5G networks has been envisaged; this may require the review of a legacy of various conditions attached to the rights of use of a band and the regrouping of small licensed blocks, which are fragmented across the entire band, into larger channels, or group regional licenses into the same sub-band, which would allow for sufficient capacity and coverage to meet the urgent needs of future 5G services, including broadband services, to be offered by mobile operators and new vertical players. In order to be efficient and achieve the benefits of the internal market, such reorganisation would need to rely on a coordinated EU level approach.
(126) Where the demand for a radio spectrum band exceeds the availability and, as a result, a Member State concludes that the rights of use for radio spectrum must be limited, appropriate and transparent procedures should apply for the granting of such rights to avoid any discrimination and optimise the use of the scarce resource. Such limitation should be justified, proportionate and based on a thorough assessment of market conditions, giving due weight to the overall benefits for users and to national and internal market objectives. The objectives governing any limitation procedure should be clearly defined in advance. When considering the most appropriate selection procedure, and in compliance with coordination measures taken at Union level, Member States should timely and transparently consult all interested parties on the justification, objectives and conditions of the procedure. Member States may use, inter alia, competitive or comparative selection procedures for the assignment of radio spectrum or for numbering resources with exceptional economic value. In administering such schemes, national regulatory competent authorities should take into account the objectives of this Directive. If a Member State finds that further rights can be made available in a band, it should start the process therefor.
(127) Massive growth in radio spectrum demand, and in end-user demand for wireless broadband capacity, calls for solutions allowing alternative, complementary, spectrally efficient access solutions, including low-power wireless access systems with a small-area operating range such as radio local area networks (RLAN) and networks of low-power small-size cellular access points. Such complementary wireless access systems, in particular publicly accessible RLAN access points, increase access to the internet for end-users and mobile traffic off-loading for mobile operators. RLANs use harmonised radio spectrum without requiring an individual authorisation or spectrum usage right. Most RLAN access points are so far used by private users as local wireless extension of their fixed broadband connection. End-users, within the limits of their own internet subscription, should not be prevented from sharing access to their RLAN with others, so as to increase the number of available access points, particularly in densely populated areas, maximise wireless data capacity through radio spectrum re-use and create a cost-effective complementary wireless broadband infrastructure accessible to other end-users. Therefore, unnecessary restrictions to the deployment and interlinkage of RLAN access points should also be removed. Public authorities or public service providers, who use RLANs in their premises for their personnel, visitors or clients, for example to facilitate access to e-Government services or for information on public transport or road traffic management, could also provide access to such access points for general use by citizens as an ancillary service to services they offer to the public on such premises, to the extent allowed by competition and public procurement rules. Moreover, the provider of such local access to electronic communications networks within or around a private property or a limited public area on a non-commercial basis or as an ancillary service to another activity that is not dependant on such access (such as RLAN hotspots made available to customers of other commercial activities or to the general public in that area) can be subject to compliance with general authorisations for rights of use for radio spectrum but should not be subject to any conditions or requirements attached to general authorisations applicable to providers of public communications networks or services or to obligations regarding end-users or interconnection. However, such provider should remain subject to the liability rules of Article 12 of Directive 2000/31/EC on electronic commerce26. Further technologies such as LiFi are emerging that will complement current radio spectrum capabilities of RLANs and wireless access point to include optical visible light-based access points and lead to hybrid local area networks allowing optical wireless communication.

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Since low power small-area wireless access points, such as femtocells, picocells, metrocels or microcells, are very small and make use of unobtrusive equipment similar to that of domestic RLAN routers, which do not require any permits beyond what is necessary for the use of spectrum, and considering their positive impact on the use of spectrum and on the development of wireless communications, any restrictions on their deployment should be limited to the greatest extent possible. As a result, in order to facilitate the deployment and operation of small-area wireless access points, and without prejudice to any applicable requirement related to spectrum management, Member States should not subject to any limitations individual permits the deployment of such devices on buildings which are not officially protected as part of a designated environment or because of their special architectural or historical merit, except for reasons of public safety. For that purpose, their characteristics - such as maximum size, weight and emission characteristics - should be specified at Union level in a proportionate way for local deployment and to ensure a high level of protection of public health, as laid down in Recommendation 1999/519/EC. For the operation of small-area wireless access points, article 7 of Directive 2014/53/EU should be applied their use should be subject to general requirements only. Member States should not subject such devices to meeting the characteristics as above to the granting of individual permits, such as for individual town planning, for the installation and/or operation of every small cell device. Furthermore, Member States should not unduly restrict the installation of other wireless access points. This is without prejudice to private property rights set in Union or national law.
The procedure for considering permit applications should be streamlined and without prejudice to any commercial agreements and any administrative charge involved should be limited to the administrative costs relating to the processing of the application. The process of assessing a request for a permit should take as little time as possible, and in principle no longer than four months.

(128a) Public buildings and other public infrastructure are visited and used daily by a significant number of end-users who need connectivity to consume eGovernance, eTransport and other services. Other public infrastructure (such as street lamps, traffic lights, etc.) offer very valuable sites for deploying small cells due to their density, etc. Without prejudice to the possibility for competent authorities to subject the deployment of small-area wireless access points to individual prior permits operators should have the right to access to these public sites for the purpose of adequately serving demand. Member States should therefore ensure that such public buildings and other public infrastructure are made available on reasonable conditions for the deployment of small-cells with a view to complement Directive 2014/61/EU and without prejudice to the principles set out in Article 3 of Directive 2014/61/EU. The latter follows a functional approach and imposes obligations of access to physical infrastructure only when it is part of a network and only if it is owned or used by a network operator, thereby leaving many buildings owned or used by public authorities outside its scope. On the contrary, a specific obligation is not necessary for physical infrastructure, such as ducts or poles, used for intelligent transport systems (ITS), which are owned by network operators (providers of transport services and/or providers of public communications networks), and host parts of a network, thus falling within the scope of Directive 2014/61/EU.
(129) The provisions of this Directive as regards access and interconnection apply to those networks that are used for the provision of publicly available electronic communications services. Non-public networks do not have access or interconnection obligations under this Directive except where, in benefiting from access to public networks, they may be subject to conditions laid down by Member States.

(130) The term ‘access’ has a wide range of meanings, and it is therefore necessary to define precisely how that term is used in this Directive, without prejudice to how it may be used in other Union measures. An operator may own the underlying network or facilities or may rent some or all of them.

(131) In an open and competitive market, there should be no restrictions that prevent undertakings from negotiating access and interconnection arrangements between themselves, in particular on cross-border agreements, subject to the competition rules of the Treaty. In the context of achieving a more efficient, truly pan-European market, with effective competition, more choice and competitive services to end-users, undertakings which receive requests for access or interconnection from other undertakings which are subject to general authorisation in order to provide electronic communications networks or services to the public should in principle conclude such agreements on a commercial basis, and negotiate in good faith.
(132) In markets where there continue to be large differences in negotiating power between undertakings, and where some undertakings rely on infrastructure provided by others for delivery of their services, it is appropriate to establish a framework to ensure that the market functions effectively. National regulatory authorities should have the power to secure, where commercial negotiation fails, adequate access and interconnection and interoperability of services in the interest of end-users. In particular, they can ensure end-to-end connectivity by imposing proportionate obligations on undertakings that are subject to the general authorisation and that control access to end-users. Control of means of access may entail ownership or control of the physical link to the end-user (either fixed or mobile), and/or the ability to change or withdraw the national number or numbers needed to access an end-user's network termination point. This would be the case for example if network operators were to restrict unreasonably end-user choice for access to Internet portals and services.

(133) In the light of the principle of non-discrimination, national regulatory authorities should ensure that all operators, irrespective of their size and business model, whether vertically integrated or separated, can interconnect on reasonable terms and conditions, with the view to providing end-to-end connectivity and access to the global Internet.

(134) National legal or administrative measures that link the terms and conditions for access or interconnection to the activities of the party seeking interconnection, and specifically to the degree of its investment in network infrastructure, and not to the interconnection or access services provided, may cause market distortion and may therefore not be compatible with competition rules.
(135) Network operators who control access to their own customers do so on the basis of unique numbers or addresses from a published numbering or addressing range. Other network operators need to be able to deliver traffic to those customers, and so need to be able to interconnect directly or indirectly to each other. It is therefore appropriate to lay down rights and obligations to negotiate interconnection.

(136) Interoperability is of benefit to end-users and is an important aim of this regulatory framework. Encouraging interoperability is one of the objectives for national regulatory authorities and other competent authorities as set out in this framework, which also provides for the Commission to publish a list of standards and/or specifications covering the provision of services, technical interfaces and/or network functions, as the basis for encouraging harmonisation in electronic communications. Member States should encourage the use of published standards and/or specifications to the extent strictly necessary to ensure interoperability of services and to improve freedom of choice for users.

(137) Currently both end-to-end connectivity and access to emergency services depend on end-users adopting using number-based interpersonal communications services. Future technological developments or an increased use of number-independent interpersonal communications services could entail a lack of sufficient interoperability between communications services. As a consequence significant barriers to market entry and obstacles to further onward innovation could emerge and appreciably threaten both effective end-to-end connectivity between end-users and effective access to emergency services.
(138) In case such interoperability issues arise, the Commission may request a BEREC report which should provide a factual assessment of the market situation at the Union and Member States level. On the basis Taking utmost account of the BEREC report and other available evidence and taking into account the effects on the internal market, the Commission should decide whether there is a need for regulatory intervention by national regulatory authorities and/or other competent authorities. If the Commission considers that such regulatory intervention should be considered by National Regulatory Authorities and/or other competent authorities, it may adopt implementing measures specifying the nature and scope of possible regulatory interventions by NRAs, including in particular obligations to publish and allow the use, modification and redistribution of relevant information by the authorities and other providers and measures to impose the mandatory use of standards or specifications on all or specific providers. The terms 'European standards' and 'international standards' are defined in Article 2 of Regulation (EU) No 1025/2012. National regulatory authorities and/or other competent authorities should assess, in the light of the specific national circumstances, whether any intervention is necessary and justified to ensure end-to-end connectivity or access to emergency services, and if so, impose proportionate obligations in accordance with the Commission implementing measures on those providers of number-independent interpersonal communications services with a significant level of coverage and user-uptake. Significant should be interpreted in the sense that the geographic coverage and the number of end-users of the provider concerned represent a critical mass in view of achieving the goal of ensuring end-to-end connectivity between end-users. Providers with a limited number of end-users or limited geographic coverage which would only marginally contribute to achieving that goal, should normally not be subject to such interoperability obligations.

In situations where undertakings are deprived of access to viable alternatives to non-replicable assets wiring, and cables and associated facilities inside buildings or up to the first distribution or concentration point and in order to promote competitive outcomes in the interest of end-users, national regulatory authorities should be empowered to impose access obligations to all operators, without prejudice to their respective irrespectively of their market power. In this regard, national regulatory authorities should take into consideration all technical and economic barriers to future replication of networks. However, as such obligations can in certain cases be intrusive, can undermine incentives for investments, and can have the effect of strengthening the position of dominant players, they should be taken only where justified and proportionate to achieving sustainable competition in the relevant markets. The mere fact that more than one such infrastructure already exists should not necessarily be interpreted as showing that its assets are replicable. The first distribution point should be identified by reference to objective criteria. If necessary in combination with such access obligations, undertakings may also rely on the obligations to provide access to physical infrastructure, inter alia inspection chambers, manholes, buildings or entries to buildings, based on Directive 2014/61/EU on measures to reduce the cost of deploying high-speed electronic communications networks. Any obligations imposed by the national regulatory authority should be coherent with any other decisions taken by other competent authorities under Directive 2014/61/EU to ensure access to wiring and cables inside buildings or up to the first concentration point.

National regulatory authorities should be able, to the extent necessary, to impose obligations on operators to provide access to the facilities referred to in Annex II, Part II, namely application program interfaces (APIs) and electronic programme guides (EPGs), to ensure not only accessibility for end users to digital radio and television broadcast services but also to related complementary services. Such complementary services may include programme related services which are specifically designed to improve accessibility for end-users with disabilities, and programme related connected TV services.
(140) It is important that when national regulatory authorities assess the concentration or distribution point up to which they intend to impose access, they choose a concentration point in accordance with BEREC guidelines. Selecting a concentration point nearer to end-users will be more beneficial to infrastructure competition and the roll-out of very high capacity networks. In this way the national regulatory authority should first consider choosing a concentration point in a building or just outside a building. It could be justified to extend access obligations to wiring and cables beyond the first concentration point in areas with lower population density, while confining such obligations to points as close as possible to end-users, capable of hosting sufficient number of end-users, where it is demonstrated that replication would also be impossible beyond that first concentration point faces high and non-transitory physical and/or economic barriers, leading to important competition problems and/or market failures at the retail level to the detriment of end users. The assessment of the replicability of network elements requires a market review which is different from an analysis assessing significant market power and the national regulatory authority thus does not need to establish significant market power in order to impose these obligations. On the other hand, such review requires an sufficient economic assessment of market conditions, to establish whether the criteria necessary to impose obligations beyond the first distribution or concentration point are met. Such extended access obligations are more likely to be necessary in geographical areas where the business case for alternative infrastructure rollout is more risky, for example because of low population density or the limited number of multi-dwelling buildings. Conversely, a high concentration of households might be indicative that the imposition of such obligations might be unnecessary. National regulatory authorities should also consider whether such obligations may strengthen the position of operators with significant market power. National regulatory authorities should be able to impose access to active network components used for service provision on such infrastructure if access to passive elements would be economically inefficient or physically impracticable, and if the national regulatory authority considers that, absent such an intervention, the purpose of the access obligation would be circumvented.
In order to enhance the consistent regulatory practice across the Union, the Commission should be able to require the national regulatory authority to withdraw its draft measures extending access obligations beyond the first concentration point, where BEREC shares the Commission's serious doubts as to the compatibility of the draft measure with Union law and in particular the regulatory objectives of Article 3.

(141) In such cases, in order to comply with the principle of proportionality, it can be appropriate for national regulatory authorities to exclude certain categories of owners or undertakings, or both, from obligations going beyond the first concentration point, which should be determined by national regulatory authorities, on the grounds that an access obligation not based on significant market power would risk compromising their business case for recently deployed network elements. Structurally separated Wholesale-only undertakings should not be subject to such access obligations if they offer an effective alternative access on a commercial basis to a very high capacity network, on fair, non-discriminatory and reasonable terms and conditions, including as regards price. This may be extended to other undertakings providers on the same terms. This exception may not be appropriate for undertakings providers that are in receipt of public funding.
(142) Sharing of passive infrastructure used in the provision of wireless electronic communications services in compliance with competition law principles can be particularly useful to maximise very high capacity connectivity throughout the Union, especially in less dense areas where replication is impracticable and end-users risk being deprived of such connectivity. National regulatory and/or other competent authorities should, exceptionally, be enabled to impose such sharing or localised roaming access, in compliance with Union law, if that possibility has been clearly established in the original conditions for the granting of the right of use and they demonstrate the benefits of such sharing in terms of overcoming insurmountable economic or physical obstacles and access to networks or services is therefore severely deficient or absent, and taking into account several elements, including in particular the need for coverage along major transport paths, choice and higher quality of service for end-users as well as the need to maintain infrastructure roll-out incentives. In circumstances where there is no access by end-users, and sharing of passive infrastructure alone does not suffice to address the situation, the national regulatory authorities should be able to impose obligations on the sharing of active infrastructure.

In so doing, national regulatory and/or other competent authorities retain the flexibility to choose the most appropriate sharing or access obligation which should be proportionate and justified based on the nature of the problem identified.
While it is appropriate in some circumstances for a national regulatory and/or other competent authority to impose obligations on operators that do not have significant market power in order to achieve goals such as end-to-end connectivity or interoperability of services, it is however necessary to ensure that such obligations are imposed in conformity with the regulatory framework and, in particular, its notification procedures. Such obligations must only be imposed where justified in order to secure the objectives of this Directive, and where they are objectively justified, transparent, proportionate and non-discriminatory for the purpose of promoting efficiency, sustainable competition, efficient investment and innovation, and giving the maximum benefit to end-users, and imposed in conformity with the relevant notification procedures.

In order to overcome insurmountable economic or physical obstacles for providing end-users with services or networks which rely on the use of radio spectrum and where mobile coverage gaps still persist, their closing may require the access and sharing of passive, or in circumstances where this is not sufficient, sharing of active infrastructure, or localized roaming access agreements. Without prejudice to sharing obligations attached to the rights of use on the basis of other provisions of this Directive, and in particular Article 52, where national regulatory and/or other competent authorities intend to take measures to impose the sharing of passive or when passive access and sharing are not sufficient, active infrastructure sharing or localized roaming access agreements they may, however, also be called to consider the possible risk for market participants in underserved areas.
(144) Competition rules alone may not be sufficient to ensure cultural diversity and media pluralism in the area of digital television. Technological and market developments make it necessary to review obligations to provide conditional access on fair, reasonable and non-discriminatory terms on a regular basis, either by a Member State for its national market or the Commission for the Union, in particular to determine whether there is justification for extending obligations to electronic programme guides (EPGs) and application programme interfaces (APIs), to the extent that is necessary to ensure accessibility for end-users to specified digital broadcasting services. Member States may specify the digital broadcasting services to which access by end-users must be ensured by any legislative, regulatory or administrative means that they deem necessary.

(145) Member States may also permit their national regulatory authority to review obligations in relation to conditional access to digital broadcasting services in order to assess through a market analysis whether to withdraw or amend conditions for operators that do not have significant market power on the relevant market. Such withdrawal or amendment should not adversely affect access for end-users to such services or the prospects for effective competition.

(146) There is a need for ex ante obligations in certain circumstances in order to ensure the development of a competitive market, the conditions of which favour the deployment and take-up of very high capacity connectivity networks and services and the maximisation of end-user benefits. The definition of significant market power used in this Directive is equivalent to the concept of dominance as defined in the case law of the Court of Justice.

(147) Two or more undertakings can be found to enjoy a joint dominant position not only where there exist structural or other links between them but also where the structure of the relevant market is conducive to coordinated effects, that is, it encourages parallel or aligned anti-competitive behaviour on the market.
(148) It is essential that *ex ante* regulatory obligations should only be imposed on a wholesale market where there are one or more undertakings with significant market power, with a view to ensure sustainable competition on a related retail market and where national and Union competition law remedies are not sufficient to address the problem. The Commission has drawn up guidelines at Union level in accordance with the principles of competition law for national regulatory authorities to follow in assessing whether competition is effective in a given market and in assessing significant market power. National regulatory authorities should analyse whether a given product or service market is effectively competitive in a given geographical area, which could be the whole or a part of the territory of the Member State concerned or neighbouring parts of territories of Member States considered together. An analysis of effective competition should include an analysis as to whether the market is prospectively competitive, and thus whether any lack of effective competition is durable. Those guidelines should also address the issue of newly emerging markets, where de facto the market leader is likely to have a substantial market share but should not be subjected to inappropriate obligations. The Commission should review the guidelines regularly, in particular on the occasion of a review of the existing legislation, taking into account evolving case law, economic thinking and actual market experience and with a view to ensuring that they remain appropriate in a rapidly developing market. National regulatory authorities will need to cooperate with each other where the relevant market is found to be transnational.

(149) In determining whether an undertaking has significant market power in a specific market, national regulatory authorities should act in accordance with Union law and take into the utmost account the Commission guidelines on market analysis and the assessment of significant market power.
(150) National regulatory authorities should define relevant geographic markets within their territory taking into utmost account the Commission Recommendation on Relevant Product and Service Markets adopted in accordance with this Directive and taking into account national and local circumstances. Therefore, national regulatory authorities should at least analyse the markets that are contained in the Recommendation, including those markets that are listed but no longer regulated in the specific national or local context. National regulatory authorities should also analyse markets that are not contained in that Recommendation, but are regulated within the territory of their jurisdiction on the basis of previous market analyses, or other markets, if they have sufficient grounds to consider that the three criteria test provided in this Directive may be met.

(151) Transnational markets can be defined when it is justified by the geographic market definition, taking into account all supply-side and demand-side factors in accordance with competition law principles. BEREC is the most appropriate body to undertake such analysis, benefiting from the extensive collective experience of national regulatory authorities when defining markets on a national level. National circumstances should be taken into account when an analysis of potential transnational markets is undertaken. If transnational markets are defined and warrant regulatory intervention, concerned national regulatory authorities should cooperate to identify the appropriate regulatory response, including in the process of notification to the Commission. They can also cooperate in the same manner where transnational markets are not identified but on their territories market conditions are sufficiently homogeneous to benefit from a coordinated regulatory approach, such as for example in terms of similar costs, market structures or operators or in case of transnational or comparable end-user demand.
In some circumstances geographic markets are defined as national or sub-national, for example due to the national or local nature of network roll-out which determines the boundaries of undertakings' potential market power in respect of wholesale supply, but there still is a significant transnational demand from one or more categories of end-users. That can in particular be the case for demand from business end-users with multisite facility operations in different Member States. If that transnational demand is not sufficiently met by suppliers, for example if they are fragmented along national borders or locally, a potential internal market barrier arises. Therefore, BEREC should be empowered to provide guidelines to national regulatory authorities on common regulatory approaches to ensure that transnational demand can be met in a satisfactory way, providing a basis for the interoperability of wholesale access products across the Union, and permitting efficiencies and economies of scale despite the fragmented supply side. BEREC's guidelines should shape the choices of national regulatory authorities in pursuing the internal market objective when imposing regulatory obligations on SMP operators at the national level while providing guidance for the harmonisation of technical specifications of wholesale access products capable of meeting such identified transnational demand, in the interest of the Single Market.

If national regulatory authorities have not followed the common approach recommended by BEREC to meet the identified transnational demand, with the consequence that transnational end-user demand is not efficiently met, and that avoidable barriers to the internal market arise, it could be necessary to harmonise the technical specifications of wholesale access products capable of meeting a given transnational demand, taking into account the BEREC guidelines.
(154) The objective of any *ex ante* regulatory intervention is ultimately to produce benefits for end-users in terms of price, quality and choice by making retail markets effectively competitive on a sustainable basis. It is likely that national regulatory authorities will gradually be able to find many retail markets to be competitive even in the absence of wholesale regulation, especially taking into account expected improvements in innovation and competition.

(155) For national regulatory authorities the starting point for the identification of wholesale markets susceptible to *ex ante* regulation is the analysis of corresponding retail markets. The analysis of effective competition at the retail and at the wholesale level is conducted from a forward-looking perspective over a given time horizon, and is guided by competition law, including the relevant case-law of the Court of Justice, as appropriate. If it is concluded that a retail markets would be effectively competitive in the absence of *ex ante* wholesale regulation on the corresponding relevant market(s), this should lead the national regulatory authority to conclude that regulation is no longer needed at the relevant wholesale level.

(156) During the gradual transition to deregulated markets, commercial agreements, including for co-investment and access between operators will gradually become more common, and if they are sustainable and improve competitive dynamics, they can contribute to the conclusion that a particular wholesale market does not warrant *ex ante* regulation. A similar logic would apply in reverse, to unforeseeable termination of commercial agreements on a deregulated market. The analysis of such agreements should take into account that the prospect of regulation can be a motive for network owners to enter into commercial negotiations. With a view to ensure adequate consideration of the impact of regulation imposed on related markets when determining whether a given market warrants *ex ante* regulation, national regulatory authorities should ensure markets are analysed in a coherent manner and where possible, at the same time or as close as possible to each other in time.
When assessing wholesale regulation to solve problems at the retail level, national regulatory authorities should take into account that several wholesale markets can provide wholesale upstream inputs for a particular retail market, and conversely, one wholesale market can provide wholesale upstream inputs for a variety of retail markets. Furthermore, competitive dynamics in a particular market can be influenced by markets that are contiguous but not in a vertical relationship, such as can be the case between certain fixed and mobile markets. National regulatory authorities should conduct that assessment for each individual wholesale market considered for regulation, starting with remedies for access to civil infrastructure, as such remedies are usually conducive to more sustainable competition including infrastructure competition, and thereafter analysing any wholesale markets considered susceptible to ex ante regulation in order of their likely suitability to address identified competition problems at retail level. When deciding on the specific remedy to be imposed, national regulatory authorities should assess its technical feasibility and carry out a cost-benefit analysis, having regard to its degree of suitability to address the identified competition problems at retail level, and enabling competition based on differentiation and technological neutrality. National regulatory authorities should consider the consequences of imposing any specific remedy which, if feasible only on certain network topologies, could constitute a disincentive for the deployment of very high capacity networks in the interest of end-users. Without prejudice to the principle of technological neutrality, the national regulatory authorities should provide incentives through the remedies imposed, and, where possible, before the roll-out of infrastructure, for the development of flexible and open network architecture, which would reduce eventually the burden and complexity of remedies imposed at a later stage. At each stage of the assessment, before the national regulatory authority determines whether any additional, more burdensome, remedy should be imposed on the significant market power operator, it should seek to determine whether the retail market concerned would be effectively competitive, also taking into account in the light of any relevant commercial arrangements or other wholesale market circumstances, including other types of regulation already in force, such as for example general access obligations to non-replicable assets or obligations imposed pursuant to Directive 2014/61/EU, and of any regulation already deemed appropriate by the national regulatory authority for an operator with significant market power. Such a staged assessment, aiming to ensure that only the most appropriate remedies necessary to effectively address any problems identified in the market
analysis are imposed, does not preclude a national regulatory authority from finding that a mix of such remedies together, even if of differing intensity, in line with the proportionality principle offers the least intrusive way of addressing the problem. Even if such differences do not result in the definition of distinct geographic markets, they may justify differentiation in the appropriate remedies imposed in the light of the differing intensity of competitive constraints.

(158) *Ex ante* regulation imposed at the wholesale level, which is in principle less intrusive than retail regulation, is considered sufficient to tackle potential competition problems on the related downstream retail market or markets. The advances in the functioning of competition since the regulatory framework for electronic communications has been in place are demonstrated by the progressive deregulation of retail markets across the Union. Further, the rules relating to the imposition of *ex ante* remedies on undertakings with significant market power should be simplified and be made more predictable, where possible. Therefore, the power of imposition of *ex ante* regulatory controls based on significant market power in retail wholesale markets should be repealed.

(159) When a national regulatory authority withdraws wholesale regulation it should define an appropriate period of notice to ensure a sustainable transition to a de-regulated market. In defining such period, the national regulatory authority should take into account the existing agreements between access providers and access seekers that have been entered into on the basis of the imposed regulatory obligations. In particular, such agreements can provide a contractual legal protection to access seekers for a determined period of time. The national regulatory authority should also take into account the effective possibility for market participants to take up any commercial wholesale access or co-investment offers which can be present in the market and the need to avoid an extended period of possible regulatory arbitrage. Transition arrangements established by the national regulatory authority should consider the extent and timing of regulatory oversight of pre-existing agreements, once the notice period starts.
In order to provide market players with certainty as to regulatory conditions, a time limit for market reviews is necessary. It is important to conduct a market analysis on a regular basis and within a reasonable and appropriate time frame. Failure by a national regulatory authority to analyse a market within the time limit may jeopardise the internal market, and normal infringement proceedings may not produce their desired effect on time. Alternatively, the national regulatory authority concerned should be able to request the assistance of BEREC to complete the market analysis. For instance, this assistance could take the form of a specific task force composed of representatives of other national regulatory authorities.

Due to the high level of technological innovation and highly dynamic markets in the electronic communications sector, there is a need to adapt regulation rapidly in a coordinated and harmonised way at Union level, as experience has shown that divergence among the national regulatory authorities in the implementation of the regulatory framework may create a barrier to the development of the internal market.

However, in the interest of greater stability and predictability of regulatory measures, the maximum period allowed between market analyses should be extended from three to five years, provided market changes in the intervening period do not require a new analysis. In determining whether a national regulatory authority has complied with its obligation to analyse markets and notified the corresponding draft measure at a minimum every five years, only a notification including a new assessment of the market definition and of significant market power will be considered as starting a new five-year market cycle. A mere notification of new or amended regulatory remedies, imposed on the basis of a previous and unrevised market analysis will not be considered to have satisfied that obligation. Non-compliance by a national regulatory authority with the obligation to conduct market analysis at regular intervals laid down in this Directive should not be considered in itself a ground for the invalidity or inapplicability of existing obligations imposed by that national regulatory authority in the market in question.
(163) The imposition of a specific obligation on an undertaking with significant market power does not require an additional market analysis but a justification that the obligation in question is appropriate and proportionate in relation to the nature of the problem identified on the market in question, and on the related retail market.

(164) When assessing the proportionality of the obligations and conditions to be imposed, national regulatory authorities should take into account the different competitive conditions existing in the different areas within their Member States having regard in particular to the results of the geographical survey conducted in accordance with this Directive.

(165) When considering whether to impose remedies to control prices, and if so in what form, national regulatory authorities should seek to allow a fair return for the investor on a particular new investment project. In particular, there may be risks associated with investment projects specific to new access networks which support products for which demand is uncertain at the time the investment is made.
(166) Reviews of obligations imposed on operators designated as having significant market power during the timeframe of a market analysis should allow national regulatory authorities to take into account the impact on competitive conditions of new developments, for instance of newly concluded voluntary agreements between operators, such as access and co-investment agreements, thus providing the flexibility which is particularly necessary in the context of longer regulatory cycles. A similar logic should apply in case of unforeseeable breach or termination of commercial agreements, or if they have effects that diverge from the national regulatory authorities’ expectations set out in the market analysis. If the termination of an existing agreement occurs in a deregulated market, a new market analysis may be necessary. In the absence of a single important change in the market but in the case of dynamic markets, it may exceptionally be necessary to conduct a market analysis more often than every five years, for example not earlier than every three years as was the case before the implementation of this Directive. Markets should be considered dynamic if the technological evolution and end-user demand patterns are likely to evolve in such a way that the conclusions of the analysis would be superseded within the medium term for a significant group of geographic areas or of end users within the geographic and product market defined by the national regulatory authority.
(167) Transparency of terms and conditions for access and interconnection, including prices, serve to speed up negotiation, avoid disputes and give confidence to market players that a service is not being provided on discriminatory terms. Openness and transparency of technical interfaces can be particularly important in ensuring interoperability. Where a national regulatory authority imposes obligations to make information public, it may also specify the manner in which the information is to be made available, and whether or not it is free of charge, taking into account the nature and purpose of the information concerned.

(168) In light of the variety of network topologies, access products and market circumstance that have arisen since 2002, the objectives of Annex II of the Directive 2002/19/EC, concerning local loop unbundling, and access products for providers of digital television and radio services, can be better achieved and in a more flexible manner, by providing guidelines on the minimum criteria for a reference offer to be developed by and periodically updated by BEREC. Annex II of the Directive 2002/19/EC should therefore be removed.

(169) The principle of non-discrimination ensures that undertakings with market power do not distort competition, in particular where they are vertically integrated undertakings that supply services to undertakings with whom they compete on downstream markets.
(170) In order to address and prevent non-price related discriminatory behaviour, equivalence of inputs (EoI) is in principle the surest way to achieve effective protection from discrimination. On the other hand, providing regulated wholesale inputs on an EoI basis is likely to trigger higher compliance costs than other forms of non-discrimination obligations. Those higher compliance costs should be measured against the benefits of more vigorous competition downstream, and of the relevance of non-discrimination guarantees in circumstances where the operator with significant market power is not subject to direct price controls. In particular, national regulatory authorities might consider that the provision of wholesale inputs over new systems on an EoI basis is more likely to create sufficient net benefits, and thus be proportionate, given the comparatively lower incremental compliance costs to ensure that newly built systems are EoI-compliant. On the other hand, national regulatory authorities should also consider whether obligations are proportionate for affected undertakings, for example, by taking into account implementation costs and weigh up possible disincentives to the deployment of new systems, relative to more incremental upgrades, in the event that the former would be subject to more restrictive regulatory obligations. In Member States with a high number of small-scale SMP operators, the imposition of EoI on each of these operators can be disproportionate.

(171) Accounting separation allows internal price transfers to be rendered visible, and allows national regulatory authorities to check compliance with obligations for non-discrimination where applicable. In this regard the Commission published Recommendation 2005/698/EC of 19 September 2005 on accounting separation and cost accounting systems.
Civil engineering assets that can host an electronic communications network are crucial for the successful roll-out of new networks because of the high cost of duplicating them, and the significant savings that can be made when they can be reused. Therefore, in addition to the rules on physical infrastructure laid down in Directive 2014/61/EU, a specific remedy is necessary in those circumstances where civil engineering assets are owned by an operator designated with significant market power. Where civil engineering assets exist and are reusable, the positive effect of achieving effective access to them on the roll-out of competing infrastructure is very high, and it is therefore necessary to ensure that access to such assets can be used as a self-standing remedy for the improvement of competitive and deployment dynamics in any downstream market, to be considered before assessing the need to impose any other potential remedies, and not just as an ancillary remedy to other wholesale products or services or as a remedy limited to undertakings availing of such other wholesale products or services. National regulatory authorities should value reusable legacy civil engineering assets on the basis of the regulatory accounting value net of the accumulated depreciation at the time of calculation, indexed by an appropriate price index, such as the retail price index, and excluding those assets which are fully depreciated, over a period of not less than 40 years, but still in use.

National regulatory authorities should, when imposing obligations for access to new and enhanced infrastructures, ensure that access conditions reflect the circumstances underlying the investment decision, taking into account, inter alia, the roll-out costs, the expected rate of take up of the new products and services and the expected retail price levels. Moreover, in order to provide planning certainty to investors, national regulatory authorities should be able to set, if applicable, terms and conditions for access which are consistent over appropriate review periods. In the event that price controls are deemed appropriate, such terms and conditions can include pricing arrangements which depend on volumes or length of contract in accordance with Union law and provided they have no discriminatory effect. Any access conditions imposed should respect the need to preserve effective competition in services to consumers and businesses.
(174) Mandating access to network infrastructure can be justified as a means of increasing competition, but national regulatory authorities need to balance the rights of an infrastructure owner to exploit its infrastructure for its own benefit, and the rights of other service providers to access facilities that are essential for the provision of competing services.

(175) In markets where an increased number of access networks can be expected on a forward-looking basis, end-users are more likely to benefit from improvements in network quality, by virtue of infrastructure-based competition, compared to markets where only one network persists. The adequacy of competition on other parameters, such as price and choice, is likely to depend on the national and local competitive circumstances. In assessing the adequacy of competition on such parameters and the need for regulatory intervention, national regulatory authorities should also take into account whether where wholesale access is available to any interested undertaking on reasonable commercial terms permitting sustainable competition competitive outcomes for end-users on the retail market. The application of general competition rules in such markets characterised by sustainable and effective infrastructure-based competition should be sufficient.
Where obligations are imposed on operators that require them to meet reasonable requests for access to and use of networks elements and associated facilities, such requests should only be refused on the basis of objective criteria such as technical feasibility or the need to maintain network integrity. Where access is refused, the aggrieved party may submit the case to the dispute resolutions procedure referred to in Articles 27 and 28. An operator with mandated access obligations cannot be required to provide types of access which it is not within its power to provide. The imposition by national regulatory authorities of mandated access that increases competition in the short term should not reduce incentives for competitors to invest in alternative facilities that will secure more sustainable competition and/or higher performance and end-user benefits in the long-term. For example, when choosing the least intrusive regulatory way and in line with the proportionality principle, national regulatory authorities might decide to review the obligations imposed on operators designated with significant market power and amend any previous decision, including by withdrawing obligations, imposing or not imposing new access obligations if this is in the interests of users and sustainable service competition. National regulatory authorities may impose technical and operational conditions on the provider and/or beneficiaries of mandated access in accordance with Union law. In particular the imposition of technical standards should comply with Directive 1535/2015/EU.
(177) Price control may be necessary when market analysis in a particular market reveals inefficient competition. In particular, operators with significant market power should avoid a price squeeze whereby the difference between their retail prices and the interconnection and/or access prices charged to competitors who provide similar retail services is not adequate to ensure sustainable competition. When a national regulatory authority calculates costs incurred in establishing a service mandated under this Directive, it is appropriate to allow a reasonable return on the capital employed including appropriate labour and building costs, with the value of capital adjusted where necessary to reflect the current valuation of assets and efficiency of operations. The method of cost recovery should be appropriate to the circumstances taking account of the need to promote efficiency, sustainable competition and deployment of very high capacity networks and thereby maximise end-user benefits and should take in account the need to have predictable and stable wholesale prices for the benefit of all operators seeking to deploy new and enhanced networks, in accordance with Commission guidance.  

(178) Due to uncertainty regarding the rate of materialisation of demand for the provision of next-generation broadband services it is important in order to promote efficient investment and innovation to allow those operators investing in new or upgraded networks a certain degree of pricing flexibility. **National regulatory authorities may decide not to impose or maintain regulated wholesale access prices on next generation networks if sufficient competition safeguards are present.** More specifically, to prevent excessive prices in markets where there are operators designated as having significant market power, pricing flexibility should be accompanied by additional safeguards to protect competition and end-user interests, such as strict non-discrimination obligations, measures to ensure technical and economic replicability of downstream products, and a demonstrable retail price constraint resulting from infrastructure competition or a price anchor stemming from other regulated access products, or both. Those competitive safeguards do not prejudice the identification by national regulatory authorities of other circumstances under which it would be appropriate not to impose regulated access prices for certain wholesale inputs, such as where high price elasticity of end-user demand makes it unprofitable for the operator with significant market power to charge prices appreciably above the competitive level or where lower population density reduces the incentives for the development of very high capacity networks and the national regulatory authority establishes that effective and non-discriminatory access is ensured through obligations imposed in accordance with this directive.

(179) Where a national regulatory authority imposes obligations to implement a cost accounting system in order to support price controls, it may itself undertake an annual audit to ensure compliance with that cost accounting system, provided that it has the necessary qualified staff, or it may require the audit to be carried out by another qualified body, independent of the operator concerned.
(180) The charging system in the Union for wholesale voice call termination is based on Calling Party Network Pays. An analysis of demand and supply substitutability shows that currently or in the foreseeable future, there are as yet no substitutes at wholesale level which might constrain the setting of charges for termination in a given network. Taking into account the two-way access nature of termination markets, further potential competition problems include cross-subsidisation between operators. These potential competition problems are common to both fixed and mobile voice call termination markets. Therefore, in the light of the ability and incentives of terminating operators to raise prices substantially above cost, cost orientation is considered the most appropriate intervention to address this concern over the medium term. Future market developments may alter the dynamics of these markets to the extent that regulation would no longer be necessary.

(181) In order to reduce the regulatory burden in addressing the competition problems relating to wholesale voice call termination coherently across the Union, the Commission should establish in a delegated act a single maximum voice termination rate for mobile fixed services and a single maximum voice termination rate for fixed services that apply EU-wide.
(182) In order to simplify their setting and facilitate their imposition where appropriate, wholesale voice call termination rates in fixed and mobile markets in the Union shall be set by means of a delegated act. This Directive should lay down the detailed criteria and parameters on the basis of which the values of voice call termination rates are set. Termination rates across the Union have decreased consistently and are expected to continue to do so. When the Commission determines the maximum termination rates in the first decision / delegated act that it adopts pursuant to this Directive, it should disregard any unjustified exceptional national deviation from that trend.

(183) This Directive sets maximum wholesale voice call termination rates for fixed and mobile networks below which the initial delegated act will establish the exact rate to be applied by national regulatory authorities. The initial rate will be further updated. Based on the bottom-up pure LRIC models applied by national regulators to date and applying the above criteria the voice termination rates currently vary from 0.4045 cent per minute to 1.226 cent per minute in mobile networks and between 0.0430 cent per minute and 0.1400 cent per minute in fixed networks in the most local layer of interconnection (calculated as a weighted average between peak and off-peak rates). The variation in rates is due to different local conditions and relative price structures currently existing as well as to the different timing of the model calculations across Member States. In addition, in fixed networks the level of cost efficient termination rates depends also on the network layer where the termination service is provided.
Due to current uncertainty regarding the rate of materialisation of demand for very high capacity broadband services as well as general economies of scale and density, co-investment agreements offer significant benefits in terms of pooling of costs and risks, enabling smaller-scale operators to invest on economically rational terms and thus promoting sustainable, long-term competition, including in areas where infrastructure-based competition might not be efficient. Such co-investments can take different forms, including co-ownership of network assets or long-term risk sharing through co-financing or through purchase agreements. In this context, purchase agreements which constitute co-investments entail acquisition of specific rights to capacity of a structural character, involving a degree of co-determination and enabling co-investors to compete effectively and sustainably in the long term in downstream markets in which the operator designated with significant market power is active. By contrast, mere commercial access agreements that are limited to the rental of capacity do not give rise to such rights and therefore should not be considered as co-investments.

Where an operator with significant market power makes an offer for co-investment on fair, reasonable and non-discriminatory terms in very high capacity networks that consist of optical fibre elements up to the end-user premises or the base station, providing an opportunity to operators of different sizes and financial capacity to become infrastructure co-investors, the national regulatory authority should be able to refrain from imposing obligations pursuant to this Directive on the new very high capacity network if at least one potential co-investor has entered into a co-investment agreement with the operator designated with significant market power. Where a national regulatory authority decides to make binding a co-investment offer that has not yet resulted in an agreement, and decides, not to impose additional regulatory obligations, it can do so, subject to the condition that such an agreement must be concluded before the deregulatory measure takes effect.

In cases where it is technically impracticable to deploy optical fibre elements up to the end-user premises, the very high capacity networks may also consist of optical fibre elements up to the immediate proximity of, meaning just outside, such premises.
When making a determination to refrain from imposing obligations, the national regulatory authority should take such steps after ensuring that the offers are compliant with the necessary criteria and are made in good faith. The differential regulatory treatment of new very high capacity networks should be subject to review in subsequent market analyses which, in particular after some time has elapsed, may require adjustments to the regulatory treatment. In duly justified circumstances, national regulatory authorities may impose obligations on such new network elements when they establish that certain markets would, in the absence of regulatory intervention, face significant competition problems. In particular, when there are multiple downstream markets, which may not have reached the same degree of competition, national regulatory authorities could require specific asymmetric remedies to promote effective competition, for instance, but not limited to, niche retail markets, such as electronic communications products for business end-users. To maintain the competitiveness of the markets, national regulatory authorities should also safeguard the rights of access seekers who do not participate in a given co-investment. This should be achieved through the maintenance of existing access products or – where legacy network elements are dismantled in due course – through imposition of access products with at least comparable functionality and quality to those previously available on the legacy infrastructure, in both cases subject to an appropriate adaptable mechanism validated by the national regulatory authority that does not undermine the incentives for co-investors. In order to enhance the consistent regulatory practice across the Union, where national regulatory authorities concluded that the conditions in Article 74(1) are met, the Commission should be able to require the national regulatory authority to withdraw its draft measures either refraining from imposing obligations in accordance with Article 74(2) or intervening with regulatory obligations in specific circumstances in accordance with Article 74(3), where BEREC shares the Commission's serious doubts as to the compatibility of the draft measure with Union law and in particular the regulatory objectives of Article 3. In the interest of efficiency, a national regulatory authority should be able to submit a single notification to the Commission of a draft measure pursuant to Article 74(2) that relates to a co-investment scheme that meets the requirements of Article 74(1) and of the market test in Article 76bis. Where the Commission does not exercise its powers to require the withdrawal of the draft measure, it would be disproportionate for subsequent simplified notifications of individual draft decisions of the national
regulatory authority on the basis of the same scheme, including in addition evidence of actual conclusion of an agreement with at least one co-investor, to be subject to a decision requiring withdrawal in the absence of a change in circumstances.

Furthermore, obligations imposed on operators irrespective of market power pursuant to this Directive or to the Directive on measures to reduce the cost of deploying high-speed electronic communications networks (2014/61/EU) will continue to apply. Obligations in relation to co-investment agreements are without prejudice to the application of Union law.

(185) The purpose of functional separation, whereby the vertically integrated operator is required to establish operationally separate business entities, is to ensure the provision of fully equivalent access products to all downstream operators, including the operator’s own vertically integrated downstream divisions. Functional separation has the capacity to improve competition in several relevant markets by significantly reducing the incentive for discrimination and by making it easier to verify and enforce compliance with non-discrimination obligations. In exceptional cases, functional separation may be justified as a remedy where there has been persistent failure to achieve effective non-discrimination in several of the markets concerned, and where there is little or no prospect of infrastructure competition within a reasonable time frame after recourse to one or more remedies previously considered to be appropriate. However, it is very important to ensure that its imposition preserves the incentives of the concerned undertaking to invest in its network and that it does not entail any potential negative effects on consumer welfare. Its imposition requires a coordinated analysis of different relevant markets related to the access network, in accordance with the market analysis procedure set out in Article 67. When undertaking the market analysis and designing the details of this remedy, national regulatory authorities should pay particular attention to the products to be managed by the separate business entities, taking into account the extent of network roll-out and the degree of technological progress, which may affect the substitutability of fixed and wireless services. In order to avoid distortions of competition in the internal market, proposals for functional separation should be approved in advance by the Commission.
(186) The implementation of functional separation should not prevent appropriate coordination mechanisms between the different separate business entities in order to ensure that the economic and management supervision rights of the parent company are protected.

(187) Where a vertically integrated undertaking chooses to transfer a substantial part or all of its local access network assets to a separate legal entity under different ownership or by establishing a separate business entity for dealing with access products, the national regulatory authority should assess the effect of the intended transaction, including any access commitments offered by this undertaking, on all existing regulatory obligations imposed on the vertically integrated operator in order to ensure the compatibility of any new arrangements with this Directive. The national regulatory authority concerned should undertake a new analysis of the markets in which the segregated entity operates, and impose, maintain, amend or withdraw obligations accordingly. To this end, the national regulatory authority should be able to request information from the undertaking.
(189a) It is already possible today in some markets that as part of the market analysis the undertaking with significant market power may offer commitments which aim at addressing competition problems identified by the national regulatory authority and which the national regulatory authority then takes into account in deciding on the appropriate regulatory obligations. In accordance with Article 66, any new market developments should be taken into account in deciding on the most appropriate remedies. However, and without prejudice to Article 74, the nature of the commitments offered as such does not limit the discretion accorded to the national regulatory authority in Article 66. In order to enhance transparency and to provide legal certainty across the Union, the procedure for undertakings to propose commitments and for the national regulatory authorities to assess them, taking into account the views of market participants through a market test, and if appropriate to make them binding on the committing undertaking and enforceable by the national regulatory authority, should be laid down in this Directive. Unless the conditions of Article 74(2) are met, this procedure is without prejudice to the application of the market analysis procedure pursuant to Article 65 and the obligation to impose appropriate and proportionate remedies to address the identified market failure pursuant to Article 66.
(189b) National regulatory authorities should be able to make commitments binding, wholly or in part, for a specific period which should not exceed the period for which they are offered, after having conducted a market test by means of a public consultation of stakeholders and interested parties. In the case where the commitments have been made binding, the national regulatory authority should consider the consequences of this decision in its market analysis and take them into account when choosing the most appropriate regulatory measure(s). National regulatory authorities should consider the commitments made from a forward-looking perspective of sustainability, in particular when choosing the period for which they are made binding, and should have regard to the value placed by stakeholders in the public consultation on stable and predictable market conditions. Binding commitments related to voluntary separation by a vertically integrated undertaking which has been designated as having significant market power in one or more relevant markets can add predictability and transparency to the process, by setting out the process of implementation of the planned separation, for example by providing a roadmap for implementation with clear milestones and predictable consequences if certain milestones are not met.

(189c) The commitments can include the appointment of a monitoring trustee, whose identity and mandate should be approved by the national regulatory authority and the obligation on the operator offering them to provide periodic implementation reports.
Network owners that do not have retail market activities and whose business model is therefore limited to the provision of wholesale services to others, can be beneficial to the creation of a thriving wholesale market, with positive effects on retail competition downstream. Furthermore, their business model can be attractive to potential financial investors in less volatile infrastructure assets and with longer term perspectives on deployment of very high capacity networks. Nevertheless, the presence of a wholesale-only operator does not necessarily lead to effectively competitive retail markets, and wholesale-only operators can be designated with significant market power in particular product and geographic markets. The certain competition risks arising from the behaviour of operators following wholesale-only business models might be lower than for vertically integrated operators, provided the wholesale-only model is genuine and no incentives to discriminate between downstream providers exist. The regulatory response should therefore be commensurately less intrusive, but should preserve in particular the possibility to introduce obligations in relation to fair and reasonable pricing. On the other hand, national regulatory authorities must be able to intervene if competition problems have arisen to the detriment of end-users.

An undertaking active on a wholesale market that supplies retail services solely to business users larger than small and medium-sized enterprises (SMEs) should be regarded as a wholesale only undertaking.
(191) To facilitate the migration from legacy copper networks to next-generation networks, which is in the interests of end-users, national regulatory authorities should be able to monitor network operators' own initiatives in this respect and to establish, where necessary, **the conditions for** an appropriate migration process, for example by means of prior notice, transparency and acceptable availability of alternative comparable access products of at least comparable quality, once the network owner has demonstrated the intent and readiness by the network owner to switch to upgraded off the copper networks is clearly demonstrated. In order to avoid unjustified delays to the migration, national regulatory authorities should be empowered to withdraw access obligations relating to the copper network once an adequate migration process has been established and compliance with conditions and process for migration from legacy infrastructure is ensured. However, network owners should be able to decommission legacy networks. Access seekers migrating from an access product based on legacy infrastructure to an access product based on a more advanced technology or medium should be able to upgrade their access to any regulated product with higher capacity, should they wish, but should not be required to do so. In the case of an upgrade, access seekers should adhere to the regulatory conditions for access to the higher capacity access product, as determined by the national regulatory authority in its market analysis.

(192) The liberalisation of the telecommunications sector and increasing competition and choice for communications services go hand in hand with parallel action to create a harmonised regulatory framework which secures the delivery of universal service. The concept of universal service should evolve to reflect advances in technology, market developments and changes in user demand.
(193) Under Article 169 of the Treaty on the Functioning of the European Union, the Union is to contribute to the protection of consumers.

(194) Universal service is a safety net to ensure that a set of at least the minimum services is available to all end-users and at an affordable price to consumers, where a risk of social exclusion arising from the lack of such access prevents citizens from full social and economic participation in society.

(195) Basic broadband internet access is virtually universally available across the Union and very widely used for a wide range of activities. However, the overall take-up rate is lower than availability as there are still those who are disconnected by reasons related to awareness, cost, skills and by choice. Affordable functional adequate broadband internet access has become of crucial importance to society and the wider economy. It provides the basis for participation in the digital economy and society through essential online internet services.

(196) A fundamental requirement of universal service is to ensure that all end-users consumers have access at an affordable price to an available functional adequate broadband internet access and voice communications services, at least at a fixed location. Member States should also have the possibility to ensure affordability of adequate broadband internet access and voice communications services other than at a fixed location of services not provided at a fixed location but to citizens on the move, where they deem this consider that this a mobile internet connection affordable functional internet access and voice communications via wireless means is necessary to ensure their consumers' full social and economic participation in society. Particular attention should be paid in this context to ensure that end-users with disabilities have equivalent access. There should be no limitations on the technical means by which the connection is provided, allowing for wired or wireless technologies, nor any limitations on the category of operators which provide part or all of universal service obligations.
The speed of internet access experienced by a given user may depend on a number of factors, including the provider(s) of Internet connectivity as well as the given application for which a connection is being used. It is for the Member States, taking into account BEREC's report on best practices, to define the adequate broadband internet access in the light of national conditions and the minimum bandwidth enjoyed by the majority of consumers within a Member State's territory in order to allow an adequate level of social inclusion and participation in the digital society and economy in their territory. The affordable functional adequate broadband internet access service should have sufficient bandwidth in order to support access to and use of at least a minimum set of basic services that reflect the services used by the majority of end-users. To this end, the Commission should monitor the development in the usage of internet to identify those online services used by a majority of end-users across the EU and necessary for social and economic participation in the society and update the list accordingly. This minimum list of services should be further defined by Member States, in order to allow an adequate level of social inclusion and participation in the digital society and economy in their territory. The requirements of Union legislation on open internet, in particular of Regulation (EU) No 2015/2120 of the European Parliament and of the Council of 25 November 2015, should apply to any adequate broadband internet access service.

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(198) End users Consumers should not be obliged to access services they do not want and it should therefore be possible for eligible end users consumers to limit, on request, the affordable universal service to voice communications service only.

(198a) Member States should be able to extend measures related to affordability and control of expenditure measures to micro, small and medium enterprises and not-for-profit organisations provided they fulfil the relevant conditions.

(199) National regulatory authorities in coordination with other competent authorities should be able to monitor the evolution and level of retail tariffs for services that fall under the scope of universal service obligations. The monitoring should be carried out in such a way that it would not represent an excessive administrative burden for either national regulatory and other competent authorities or undertakings providing providers of such services.
Affordable price means a price defined by Member States at national level in the light of specific national conditions. Where Member States establish that retail prices for adequate broadband internet access and voice communications services are not affordable for consumers with low-income or special social needs, including the elderly—older people, the disabled—end-users with disabilities and the end-users—consumers living in rural or geographically isolated areas, they should take appropriate measures. For that purpose, they may provide those consumers with direct support for communication purposes, which may be part of social allowances, or such as for example—vouchers for or direct payments to such those consumers. This can be an appropriate alternative having regard to the need to minimise market distortions. Alternatively or in addition, Member States may require all providers of such services, or in exceptional circumstances those providers they have designated—to offer basic tariff options or packages to those consumers.

Where additional measures beyond the basic tariff options or packages provided by undertakings are insufficient for ensuring affordability for end-users with low incomes or special needs, direct support such as for example—vouchers to such end-users can be an appropriate alternative having regard to the need to minimise market distortions.

Affordable price means a price defined by Member States at national level in the light of specific national conditions, and may involve special tariff options or packages to deal with the needs of low-income users or users with special social needs, including the elderly—older people, the disabled—end-users with disabilities and the end-users—consumers living in rural or geographically isolated areas. These offers should be provided with basic features, in order to avoid distortion of the functioning of the market. Affordability for individual consumers—end-users should be founded upon their right to contract with a provider an undertaking, availability of a number, continued connection of service and their ability to monitor and control their expenditure.
(200a) Where a Member States requires providers to offer to **consumers with low-income or special social needs end-users** tariff options or packages different from those provided under normal commercial conditions these tariff options or packages should be provided by all providers providing of internet access and voice communication services. In accordance with the principle of proportionality, requiring all **undertakings providing providers of** internet access and voice communication services for tariff options or packages should not result in excessive administrative or financial burden for those **undertakings providers** or Member States. Where a Member States demonstrates, on the basis of an objective assessment, such an excessive administrative or financial burden, they it might exceptionally decide to impose the obligation to offer specific tariff options or packages only on designated **undertakings providers**. The objective assessment should also consider the benefits arising for consumers with low income or special social needs from a choice of providers and the benefits for all providers being able to benefit from being a universal service provider. Where a Member States exceptionally decides to impose the obligation to offer specific tariff options or packages on designated **undertakings providers only**, they should ensure that, like other end-users, end-users **consumers** with low income or special needs have a choice of providers offering social tariffs. However, **in certain situations** Member States might not be able to guarantee a choice of providers, for example where only one operator provides services in the area of residence of the beneficiary, or if providing choice would put an excessive additional organisational and financial burden on the Member State or the relevant competent authority.
(201) *It should no longer be possible to refuse* Affordability should no longer be a barrier to consumers' end-users access to at least the minimum set of connectivity services. A right to contract with a provider a undertaking should mean that end-users consumers who might face refusal, in particular those with low incomes or special social needs, should have the possibility to enter into a contract for the provision of affordable functional adequate broadband internet access and voice communications services at least at a fixed location with any undertaking providing provider of such services in that location or a designated provider, where a Member State has exceptionally decided to designate one or more providers to offer those tariff options or packages. In order to minimise the financial risks such as non-payment of bills, providers undertakings should be free to provide the contract under pre-payment terms, on the basis of affordable individual pre-paid units.

(202) In order to ensure that citizens are reachable by voice communications services, Member States should ensure the availability of a telephone number for a reasonable period also during periods of non-use of voice communications service. Undertakings Providers should be able to put in place mechanisms to check the continued interest of the end-user consumer in keeping the availability of the number.

(203) Compensating undertakings providing providers of such services in such circumstances need not result in distortion of competition, provided that such undertakings providers are compensated for the specific net cost involved and provided that the net cost burden is recovered in a competitively neutral way.
(204) In order to assess the need for affordability measures, national regulatory authorities in coordination with and/or other competent authorities, or in co-ordination between both should be able to monitor the evolution and details of offers of tariff options or packages for end users consumers with low incomes or special social needs.

(205) Where Member States conclude that additional specific measures are needed to ensure beyond the basic tariff options or packages provided by undertakings are insufficient for ensuring affordability for end users with low incomes or special needs, they may, having regard to the need to minimise market distortions, provide those end-users with direct support, which may be realised by social allowances, such as for example vouchers, to such end-users can be an appropriate alternative having regard to the need to minimise market distortions. Member States may also require undertakings in general, or those undertakings they have designated, where a Member State has chosen to use a designation mechanism, to offer basic tariff options or packages to those end-users.

(206) Member States should introduce measures to promote the creation of a market for affordable products and services incorporating facilities for disabled end-users consumers with disabilities, including equipment with assistive technologies. This can be achieved, inter alia, by referring to European standards, or by introducing supporting the implementation of requirements in accordance with under Union law harmonising accessibility requirements for products and services Directive xxx/YYY/EU of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services. Member States should define appropriate measures according to national circumstances, which gives flexibility for Member States to take specific measures for instance if the market is not delivering affordable products and services incorporating facilities for disabled end-users consumers with disabilities under normal economic conditions. Those measures could include direct financial support to end users.

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The cost to consumers with disabilities of relay services should be equivalent to the average cost of voice communication services referred to in Article 79.

(206bis) Relay services refer to services which enable two-way communication between (remote) end-users of different modes of communication (e.g. text, sign, speech) by providing conversion between those modes of communication, normally by a human operator. Real time text is defined in accordance with Union law harmonising accessibility requirements for products and services and refers to form of text conversation in point to point situations or in multipoint conferencing where the text being entered is sent in such a way that the communication is perceived by the user as being continuous on a character-by-character basis.

(207) For data communications at data rates that are sufficient to permit a functional adequate broadband internet access, fixed-line connections are nearly universally available and used by a majority of citizens across the Union. The standard fixed broadband coverage and availability in the Union stood at 97% of homes in 2015, with an average take-up rate of 72%, and services based on wireless technologies have even greater reach. However, there are differences between Member States as regards availability and affordability of fixed broadband across urban and rural areas.

(208) The market has a leading role to play in ensuring availability of broadband internet access with constantly growing capacity. In areas where the market would not deliver, other public policy tools to support availability of functional adequate broadband internet access connections appear, in principle, more cost-effective and less market-distortive than universal service obligations, for example recourse to financial instruments such as those available under EFSI and CEF, the use of public funding from the European structural and investment funds, attaching coverage obligations to rights of use for radio spectrum to support the deployment of broadband networks in less densely populated areas and public investment in conformity with Union State aid rules.
(209) If after carrying out a due assessment, taking into account the results of the geographical survey of networks deployment conducted by the national regulatory competent authority, or the latest information available to the Member States before the results of the first geographical survey are available, it is shown that neither the market nor public intervention mechanisms are likely to provide end-users in certain areas with a connection capable of delivering functional adequate broadband internet access service as defined by Member States in accordance with Article 79 (2) and voice communications services at a fixed location, the Member State should be able to exceptionally designate different providers undertakings or sets of undertakings providers of to provide these services in the different relevant parts of the national territory.

In addition to the geographical survey Member States should be able to use, where necessary, any additional evidence to establish to what extent adequate broadband internet access and voice communications services are available at a fixed location. That additional evidence could include data available to the national regulatory authorities through the market analysis procedure and data collected from users.

Universal service obligations in support of availability of adequate broadband functional internet access service may be restricted by Member States to the end-user’s primary location or residence. There should be no constraints on the technical means by which the functional adequate broadband internet access and voice communications services at a fixed location are provided, allowing for wired or wireless technologies, nor any constraints on which operators provide part or all of universal service obligations.
(210) In accordance with the principle of subsidiarity, it is for the Member States to decide on the basis of objective criteria which undertakings providers are designated as universal service providers, where appropriate taking into account the ability and the willingness of providers undertakings to accept all or part of the universal service obligations. This does not preclude that Member States can include, in the designation process, specific conditions justified on grounds of efficiency, including, inter alia, grouping geographical areas or components or setting minimum periods for the designation.

(211) The costs of ensuring the availability of a connection capable of delivering functional adequate broadband internet access service as identified in accordance with Article 79 (2) and voice communications service at a fixed location at an affordable price within the universal service obligations should be estimated, in particular by assessing the expected financial burden for providers undertakings and users in the electronic communications sector.

(212) A priori, requirements to ensure nation-wide territorial coverage imposed in the designation procedure are likely to exclude or dissuade certain providers undertakings from applying for being designated as universal service providers. Designating providers with universal service obligations for an excessive or indefinite time period may also lead to an a priori exclusion of certain providers undertakings. Where a Member State decides to designate one or more providers for affordability purposes, these providers may be different from those designated for the availability element of universal service.
(213) When an undertaking a provider exceptionally designated to provide tariff options or packages different from those provided under normal commercial conditions as identified in Article 80 of this Directive or to ensure the availability at a fixed location of functional adequate broadband internet access or voice communications services, as identified in Article 81 of this Directive, chooses to dispose of a substantial part, viewed in light of its universal service obligation, or all, of its local access network assets in the national territory to a separate legal entity under different ultimate ownership, the national regulatory competent authority should assess the effects of the transaction in order to ensure the continuity of universal service obligations in all or parts of the national territory. To this end, the national regulatory competent authority which imposed the universal service obligations should be informed by the provider undertaking in advance of the disposal. The assessment of the national regulatory competent authority should not prejudice the completion of the transaction.
In order to provide stability and support a gradual transition, Member States should be able to continue to ensure the provision of universal services in their territory, other than functional adequate broadband internet access and voice communications services at a fixed location, that are included in the scope of their universal obligations on the basis of Directive 2002/22/EC at the entry into force of this Directive, provided the services or comparable services are not available under normal commercial circumstances. Allowing the continuation of the provision of public payphones to the general public by use of coins and/or credit/debit cards and/or pre-payment cards, including cards for use with dialling codes, directories and directory enquiry services under the universal service regime, as long as the need is still demonstrated, would give Member States the flexibility necessary to duly take into account the varying national circumstances. This can include providing public pay telephones in the main entry points of the country, such as airports or train and bus stations, as well as places used by people in cases of emergencies, such as hospitals, police stations and highway emergency areas, to meet the reasonable needs of end-users, including end-users with disabilities. However, the financing of such services should be done via public funds as for the other universal service obligations.
(215) Member States should monitor the situation of end-users consumers with respect to their use of functional adequate broadband internet access and voice communications services and in particular with respect to affordability. The affordability of functional adequate broadband internet access and voice communications services is related to the information which users receive regarding usage expenses as well as the relative cost of usage compared to other services, and is also related to their ability to control expenditure. Affordability therefore means giving power to consumers through obligations imposed on undertakings providers. These obligations include a specified level of itemised billing, the possibility for consumers selectively to block certain calls (such as high-priced calls to premium services), the possibility for consumers to control expenditure via pre-payment means and the possibility for consumers to offset up-front connection fees. Such measures may need to be reviewed and changed in the light of market developments. Itemised bills on the usage of internet access should only indicate the time, duration and the amount of consumption during a usage session but not indicate the websites or internet end-points connected to during such a usage session.

(216) Except in cases of persistent late payment or non-payment of bills, consumers entitled to affordable tariffs should be protected from immediate disconnection from the network on the grounds of an unpaid bill and, particularly in the case of disputes over high bills for premium-rate services, should continue to have access to essential voice communications services and a minimum service level of adequate internet access as defined by Member States pending resolution of the dispute. Member States may decide that such access may continue to be provided only if the subscriber continues to pay line rental or basic internet access charges.
(217) Where the provision of functional **adequate broadband** internet access and voice communications services or the provision of other **universal** services in accordance with Article 85 result in an unfair burden on a **provider** an undertaking, taking due account of the costs and revenues as well as the intangible benefits resulting from the provision of the services concerned, that unfair burden can be included in any net cost calculation of universal obligations.

(218) Member States should, where necessary, establish mechanisms for financing the net cost of universal service obligations in cases where it is demonstrated that the obligations can only be provided at a loss or at a net cost which falls outside normal commercial standards. It is important to ensure that the net cost of universal service obligations is properly calculated and that any financing is undertaken with minimum distortion to the market and to undertakings, and is compatible with the provisions of Articles 107 and 108 of the Treaty on the Functioning of the European Union.

(219) Any calculation of the net cost of universal service should take due account of costs and revenues, as well as the intangible benefits resulting from providing universal service, but should not hinder the general aim of ensuring that pricing structures reflect costs. Any net costs of universal service obligations should be calculated on the basis of transparent procedures.

(220) Taking into account intangible benefits means that an estimate in monetary terms, of the indirect benefits that an undertaking derives by virtue of its position as provider of universal service, should be deducted from the direct net cost of universal service obligations in order to determine the overall cost burden.
(221) When a universal service obligation represents an unfair burden on a provider, it is appropriate to allow Member States to establish mechanisms for efficiently recovering net costs. 

Recovery via public funds constitutes one method of recovering the net costs of universal service obligations. Sharing the net costs of universal service obligations between providers of electronic communications networks and services is another method. Member States should be able to finance the net costs of different elements of universal service through different mechanisms, and/or to finance the net costs of some or all elements from either of the mechanisms or a combination of both. 

The net costs of universal service obligations should be recovered via public funds. Functional Adequate broadband internet access brings benefits not only to the electronic communications sector but also to the wider online economy and to society as a whole. Providing a connection which supports broadband speeds to an increased number of end-users enables them to use online services and so actively to participate in the digital society. Ensuring such connections on the basis of universal service obligations serves at least as much both the public interest as it serves and the interests of electronic communications providers. 

These facts should be taken into account by Member States when choosing and designing mechanisms for recovering net costs. Therefore Member States should compensate the net costs of such connections supporting broadband speeds as part of the universal service from public funds, which should be understood to comprise funding from general government budgets. In the case of cost recovery by means of sharing the net cost of universal service obligation between providers of electronic communications networks and services, Member States should ensure that the method of allocation amongst providers is based on objective and non-discriminatory criteria and is in accordance with the principle of proportionality. This principle does not prevent Member States from exempting new entrants which have not yet achieved any significant market presence. Any funding mechanism should ensure that market participants only contribute to the financing of universal service obligations and not to other activities which are not directly linked to the provision of the universal service obligations. Recovery mechanisms should in all cases respect the principles of Union law, and in particular in the case of sharing mechanisms those of non-discrimination and proportionality. Any funding mechanism should ensure that users in one Member State do not contribute to universal service costs in another Member State. 

The net cost of universal service obligations may be shared between all or certain specified classes of providers. Member States should ensure that the sharing mechanism respects the
principles of transparency, least market distortion, non-discrimination and proportionality. Least market distortion means that contributions should be recovered in a way that as far as possible minimises the impact of the financial burden falling on end-users, for example by spreading contributions as widely as possible.

(222) Undertakings Providers benefiting from universal service funding should provide to national regulatory authorities a sufficient level of detail of the specific elements requiring such funding in order to justify their request. Member States' schemes for the costing and financing of universal service obligations should be communicated to the Commission for verification of compatibility with the Treaty. Member States should ensure effective transparency and control of amounts charged to finance universal service obligations. Calculation of the net costs of providing universal service should be based on an objective and transparent methodology to ensure the most cost-effective provision of universal service and promote a level playing field for market operators. Making the methodology intended to be used to calculate the net costs of individual universal service elements known in advance before implementing the calculation could help to achieve increased transparency.

(222bis) Member States are not permitted to impose on market players financial contributions which relate to measures which are not part of universal service obligations. Individual Member States remain free to impose special measures (outside the scope of universal service obligations) and finance them in conformity with Union law but not by means of contributions from market players.
In order to effectively support the free movement of goods, services and persons within the Union, it should be possible to use certain national numbering resources, in particular certain non-geographic numbers, in an extraterritorial manner, that is to say outside the territory of the assigning Member State throughout the territory of the Union. In view of the considerable risk of fraud with respect to interpersonal communications, such extraterritorial use should only be allowed for the provision of electronic communications services with the exception of other than interpersonal communications services. Member States should therefore ensure enforcement of that relevant national laws, in particular consumer protection rules and other rules related to the use of numbers numbering resources are enforced should be ensured by Member States independently of where the rights of use have been granted and where the numbering resources are used within the Union. independently of the Member State where the rights of use for numbers have been granted. That should entail that the national regulatory and other competent authorities of those Member States remain competent to apply their national laws to numbering resources used in their territory, including where rights have been granted in another Member State, where a number is used are competent to apply their national laws to the undertaking to which the number has been assigned. In addition, the national regulatory and/or other competent authorities of the Member States where numbering resources from another Member State are used do not have control over those numbering resources. It is therefore essential that the national regulatory and/or other competent authorities of the Member State which grants the rights of extraterritorial use should also ensure the effective protection of the end-users in the Member States where those numbers are used. In view of achieving effective protection, a national regulatory and/or other competent authorities granting rights of extraterritorial use should attach conditions in accordance with Annex I, Part E regarding the respect by the provider of the consumer protection rules and other rules related to the use of numbering resources in those Member States where those resources will be used.
The national regulatory and/or other competent authorities of those Member States where numbering resources are used should have the possibility to may request the support of the national regulatory and/or other competent authorities responsible for the assignment that granted the rights of use for the numbering resources to assist them in enforcing the respect of its rules applicable in those Member states where the number is used. Such support Enforcement measures by the national regulatory and/or other competent authorities that granted the rights of use should include dissuasive sanctions, in particular in case of a serious breach the withdrawal of the right of extraterritorial use for the numbers numbering resources assigned to the undertaking concerned. The requirements on extraterritorial use should be without prejudice to Member States' powers to block, on a case-by-case basis, access to numbers or services where that is justified by reasons of fraud or misuse. The extraterritorial use of numbers numbering resources should be without prejudice to Union's rules related to the provision of roaming services, including those relative to preventing anomalous or abusive use of roaming services which are subject to retail price regulation and which benefit from regulated wholesale roaming rates. Member States should continue to be able to enter into specific agreements on extraterritorial use of numbering resources with third countries.
(224) Member States should promote over-the-air provisioning of numbering resources to facilitate switching of electronic communications providers. Over-the-air provisioning of numbering resources enables the reprogramming of telecommunication equipment identifiers without physical access to the devices concerned. This feature is particularly relevant for machine-to-machine services, that is to say services involving an automated transfer of data and information between devices or software-based applications with limited or no human interaction. Providers of such machine-to-machine services might not have recourse to physical access to their devices due to their use in remote conditions, or to the large number of devices deployed or to their usage patterns. In view of the emerging machine-to-machine market and new technologies, Member States should strive to ensure technological neutrality in promoting over-the-air provisioning.

(225) Access to numbering resources on the basis of transparent, objective and non-discriminatory criteria is essential for undertakings to compete in the electronic communications sector. Member States should be able to grant rights of use for numbering resources to undertakings other than providers of electronic communications networks or services in view of the increasing relevance of numbers for various Internet of Things services. All elements of national numbering plans should be managed by national regulatory and/or other competent authorities, including point codes used in network addressing. Where there is a need for harmonisation of numbering resources in the Union to support the development of pan-European services or cross-border services, in particular new machine-to-machine-based services such as connected cars, and where the demand could not be met on the basis of the existing numbering resources in place, the Commission can take implementing measures with the assistance of BEREC.

(226) The requirement to publish decisions on the granting of rights of use for numbering resources may be fulfilled by making these decisions publicly accessible via a website.
(227) Considering the particular aspects related to reporting missing children, Member States should maintain their commitment to ensure that a well-functioning service for reporting missing children is actually available in their territories under the number ‘116000’. **Member States should take appropriate measures to ensure that a sufficient level of service quality in operating the ‘116 000’ number is achieved.**

(227b) **In parallel with the missing children hotline number ‘116000’, many Member States also ensure that children have access to a child-friendly service operating a helpline that helps children in need of care and protection through the use of the ‘116111’ number. Such Member States and the Commission should ensure that awareness is raised among citizens, and in particular among children and among national child protection systems, about the existence of the ‘116111’ helpline.**

(228) A single market implies that end-users are able to access all numbers included in the national numbering plans of other Member States and to access services using non-geographic numbers, including freephone and premium-rate numbers, within the Union, except where the called end-user has chosen, for commercial reasons, to limit access from certain geographical areas. End-users should also be able to access numbers from the Universal International Freephone Numbers (UIFN). Cross-border access to numbering resources and associated services should not be prevented, except in objectively justified cases, for example to combat fraud or abuse (e.g. in connection with certain premium-rate services), when the number is defined as having a national scope only (e.g. a national short code) or when it is economically unfeasible. Tariffs charged to parties calling from outside the Member State concerned need not be the same as for those parties calling from inside that Member State. Users should be fully informed in advance and in a clear manner of any charges applicable to freephone numbers, such as international call charges for numbers accessible through standard international dialling codes. **Where interconnection or other service revenues are withheld by providers of electronic communications services for reasons of fraud or misuse, Member States should ensure that retained service revenues are refunded to the end-users affected by the relevant fraud or misuse where possible.**
(228a) In accordance with the principle of proportionality, a number of end-user rights provisions of this Directive should not apply to NIICS which are micro enterprises as defined in Commission Recommendation 2003/361/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises. According to the Court case-law, the definition of an SME, which includes micro-enterprises, must be interpreted strictly. In order to include only enterprises that are genuinely independent micro-enterprises, it is necessary to examine the structure of micro-enterprises which form an economic group, the power of which exceeds the power of a micro-enterprise, and to ensure that the definition of micro-enterprise is not circumvented by purely formal means.

(229) The completion of the single market for electronic communications requires the removal of barriers for end-users to have cross-border access to electronic communications services across the Union. Providers of electronic communications to the public should not deny or restrict access or discriminate against end-users on the basis of their nationality, Member State of residence or of establishment. Differentiation should, however, be possible on the basis of objectively justifiable differences in costs and risks, which may go beyond the measures provided for in Regulation 531/2012 in respect of abusive or anomalous use of regulated retail roaming services.
(230) Divergent implementation of the rules on end-user protection has created significant internal market barriers affecting both providers of electronic communications services and end-users. Those barriers should be reduced by the applicability of the same rules ensuring a high common level of protection across the Union. A calibrated full harmonisation of the end-user rights covered by this Directive should considerably increase legal certainty for both end-users and providers of electronic communications services, and should significantly lower entry barriers and unnecessary compliance burden stemming from the fragmentation of the rules. Full harmonisation helps to overcome barriers to the single market resulting from such national end-user provisions which at the same time protect national providers against competition from other Member States. In order to achieve a high common level of protection, several end-user provisions should be reasonably enhanced in this Directive in the light of best practices in Member States. Full harmonisation of their rights increases the trust of end-users in the internal market as they benefit from an equally high level of protection when using electronic communications services, not only in their Member State but also while living, working or travelling in other Member States. Full harmonisation should only extend to the subject matters covered by the provisions on end-user rights in this Directive. Therefore, it should not affect national law with respect to those aspects of end-user protection, including some aspects of transparency measures which are not covered by these provisions. For example, measures relating to transparency obligations which are not covered by this Directive should be considered as compatible with the principle of full harmonisation whereas additional requirements regarding transparency issues covered by this Directive, such as publication of information, should be considered as incompatible. Subject to other provisions of Union law, Member States can also provide for end-user protection facilitating the switching between sound or television broadcasting content services, which fall outside the scope of this Directive. Moreover, Member States should be able to maintain or introduce national provisions on issues not specifically addressed in this Directive, in particular in order to address newly emerging issues.
Contracts are an important tool for end-users to ensure transparency of information and legal certainty. Most service providers in a competitive environment will conclude contracts with their customers for reasons of commercial desirability. In addition to the provisions of this Directive, the requirements of existing Union consumer protection legislation relating to contracts, in particular Directive 2011/83/EU of the European Parliament and of the Council on consumer rights\(^{31}\) and Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts, apply to consumer transactions relating to electronic communications networks and services. The inclusion of information requirements in this Directive, which might also be required pursuant to Directive 2011/83/EU, should not lead to duplications of the same information within pre-contractual and contractual documents. Relevant information provided in respect of this Directive, including any more prescriptive and more detailed informational requirements, should be deemed to fulfil the corresponding requirements pursuant to Directive 2011/83/EU.

Some of those end-user protection provisions which a priori apply only to consumers, namely those on contract information maximum contract duration and bundles, should benefit not only consumers but also micro and small enterprises as defined in Commission Recommendation 2003/361/EC, and not-for-profit organisations as defined in Member States law; The bargaining position of those categories of enterprises and organisations is comparable to that of consumers and they should therefore benefit from the same level of protection unless they explicitly choose to waive those rights.

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(232) **Obligations** on contract information in this Directive, *including those of Directive 2011/83/EU referred to in this Directive*, should apply irrespective of whether any payment is made **and of the amount of the payment** to be made by the customer. They should apply not only to consumers but also to micro and small enterprises as defined in Commission Recommendation 2003/361/EC, whose bargaining position is comparable to that of consumers and which should therefore benefit from the same level of protection. The **obligations on contract information**, including those contained in Directive 2011/83/EU on consumer rights, should apply automatically to those undertakings **and organisations mentioned in [Recital 231bis]** unless they prefer negotiating individualised contract terms with providers of electronic communications services. As opposed to micro and small enterprises **and not-for-profit organisations**, larger enterprises usually have stronger bargaining power and do, therefore, not depend on the same contractual information requirements as consumers. Other provisions, such as number portability, which are important also for larger enterprises should continue to apply to all end-users. "**Not-for-profit organisations**" are legal entities that do not earn profits for their owners or members. Typically, not-for-profit organisations are charities or other types of public interest organisations. Hence, as in view of the comparable situation of small not-for-profit organisations with a similar size to micro and small enterprises, it is legitimate to treat such organisations in the same way as micro or small enterprises under this Directive, insofar as end-user rights are concerned.
The specificities of the electronic communications sector require, beyond horizontal contract rules, a limited number of additional end-user protection provisions. End-users should inter alia be informed of any quality of service levels offered, conditions for promotions and termination of contracts, applicable tariff plans and tariffs for services subject to particular pricing conditions. That information is relevant for providers of publicly available electronic communications services other than transmission services used for the provision of machine-to-machine services. Without prejudice to applicable rules on the protection of personal data, a provider of publicly available electronic communications services should not be subject to the obligations on information requirements for contracts where the provider, and affiliated companies or persons, do not receive any kind of remuneration directly or indirectly linked to the provision of electronic communications services. Such a situation could, for example, concern a university giving visitors free access to its Wi-Fi network on the campus without receiving any kind of remuneration for the provision of its electronic communications service, neither through payment from the users nor through advertising revenues.

In order to enable the end-user to make a well-informed choice, it is essential that the required relevant information is provided prior to the conclusion of the contract and in clear and understandable language and on a durable medium or, where not feasible and without prejudice to the definition of durable medium in Directive 2011/83, in a document, made available by the provider and notified to the user, that is easy to download, open and consult on devices, commonly used by consumers. For the same reason of facilitating choice, providers should present a summary of the essential contract terms. In order to facilitate comparability and reduce compliance cost, the Commission should, after consulting BEREC, adopt a template for such contract summaries. The pre-contractually provided information as well as the summary template should constitute an integral part of the final contract. The contract summary should be concise and easily readable, ideally no longer than the equivalent of one single-sided A4 page or, where a number of different services are bundled into a single contract, the equivalent of up to three such A4 pages.
(234) Following the adoption of Regulation (EU) 2015/2120 the provisions in this Directive regarding information on conditions limiting access to and/or use of services and applications and as regards traffic shaping became obsolete and should be repealed.

(235) With respect to terminal equipment, the customer contract should specify any *conditions* imposed by the provider on the use of the equipment, such as by way of ‘SIM-locking’ mobile devices, if such *conditions* are not prohibited under national legislation, and any charges due on termination of the contract, whether before or on the agreed expiry date, including any cost imposed in order to retain the equipment. *Where the end-user chooses to retain* terminal equipment *bundled at the moment* of the contract *conclusion, any compensation due should not exceed its* residual value, determined pro rata temporis of the *value calculated on the basis of the value at the moment of the contract conclusion, or on the remaining part of the service fee until the end of the contract, whichever amount is smaller. Member States may choose other methods of calculating the compensation rate, where such a rate is equal to or less than that compensation calculated. Any restriction on the usage of terminal equipment on other networks should be lifted, free of charge, by the provider at the latest upon payment of such compensation.*

(236) Without prejudice to the substantive obligation on the provider related to security by virtue of this Directive, the contract should specify the type of action the provider might take in case of security incidents, threats or vulnerabilities. *In addition, the contract should also specify any compensation and refund arrangements available if a provider responds inadequately to a security incident, including if a security incident, notified to the provider, takes place due to known software or hardware vulnerabilities, for which patches have been issued by the manufacturer or developer and the service provider has not applied those patches or taken any other appropriate counter-measure.*
(237) The availability of transparent, up-to-date and comparable information on offers and services is a key element for consumers in competitive markets where several providers offer services. End-users should be able to easily compare the prices of various services offered on the market based on information published in an easily accessible form. In order to allow them to make price and service comparisons easily, competent authorities in cooperation coordination, where relevant, with national regulatory authorities should be able to require from providers of internet access services and/or publicly available interpersonal communication services greater transparency as regards information (including tariffs, quality of service, conditions on terminal equipment supplied, and other relevant statistics). Any such requirements should take due account of the characteristics of those networks or services. They should also ensure that third parties have the right to use, without charge, publicly available information published by such undertakings, in view of providing comparison tools.

(238) End-users are often not aware of the cost of their consumption behaviour or have difficulties to estimate their time or data consumption when using electronic communications services. In order to increase transparency and to allow better control of their communications budget it is important to provide end-users with facilities that enable them to track their consumption in a timely manner. In addition, Member States may maintain or introduce provisions on consumption limits protecting end-users against “bill-shocks”, including in relation to premium rate services and other services subject to particular pricing conditions. This allows competent authorities to require information about such prices to be provided prior to providing the service and does not prejudice the possibility of Member States to maintain or introduce general obligations for premium rate services to ensure effective protection of end-users.
(239) Independent comparison tools, such as websites, are an effective means for end-users to assess the merits of different providers of internet access services and interpersonal communications services, where provided against recurring or consumption-based direct monetary payments of publicly available electronic communications services other than number-independent interpersonal communications services, and to obtain impartial information, in particular by comparing prices, tariffs, and quality parameters in one place. Such tools should be operationally independent from service providers and which means that no service provider should be given favourable treatment in search results, and should aim at providing information that is both clear and concise and complete and comprehensive. They should also aim at including the broadest possible range of offers, so as to give a representative overview and cover a significant part of the market. The information given on such tools should be trustworthy, impartial and transparent. End-users should be informed of the availability of such tools. Member States should ensure that end-users have free access to at least one such tool in their respective territories. Where there is only one tool in a Member State and that tool ceases to operate or ceases to comply with the quality criteria, the Member State should ensure that end-users have access within a reasonable time to another comparison tool at national level.
(240) Independent comparison tools should be operationally independent from providers of publicly available electronic communications services. They can be operated by private undertakings, or by or on behalf of competent authorities, however they should be operated in accordance with specified quality criteria including the requirement to provide details of their owners, provide accurate and up-to-date information, state the time of the last update, set out clear, objective criteria on which the comparison will be based and include a broad range of offers, covering a significant part of the market. Member States should be able to determine how often comparison tools are required to review and update the information they provide to end-users, taking into account the frequency with which providers of internet access services and of publicly available electronic interpersonal communications services, generally update their tariff and quality information. Where there is only one tool in a Member State and that tool ceases to operate or ceases to comply with the quality criteria, the Member State should ensure that end-users have access within a reasonable time to another comparison tool at national level.
In order to address public interest issues with respect to the use of internet access services and publicly available electronic number-based interpersonal communications services and to encourage protection of the rights and freedoms of others, the competent authorities of Member States should be able to produce and disseminate or have disseminated, with the aid of such providers, public interest information related to the use of such services. This could include public interest information regarding the most common infringements and their legal consequences, for instance regarding copyright infringement, other unlawful uses and the dissemination of harmful content, and advice and means of protection against risks to personal security, which may for example arise from disclosure of personal information in certain circumstances, as well as risks to privacy and personal data, and the availability of easy-to-use and configurable software or software options allowing protection for children or vulnerable persons. The information could be coordinated by way of the cooperation procedure established in this Directive. Such public interest information should be updated whenever necessary and should be presented in easily comprehensible formats, as determined by each Member State, and on national public authority websites. National regulatory Competent authorities of Member States should be able to oblige providers of internet access services and publicly available number-based interpersonal communications services to disseminate this standardised information to all their customers in a manner deemed appropriate by the national regulatory competent authorities. Dissemination of such information should however not impose an excessive burden on providers. If they do, Member States should require this dissemination by the means used by undertakings providers in communications with end-users made in the ordinary course of business.

In the absence of relevant rules of Union law, content, applications and services are deemed lawful or harmful in accordance with national substantive and procedural law. It is a task for the Member States, not for providers of electronic communications networks or services, to decide, in accordance with due process, whether content, applications or services are lawful or harmful. This Directive and the ePrivacy Directive 2002/58/EC are without prejudice to Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce), which, inter alia, contains a ‘mere conduit’ rule for intermediary service providers, as defined therein.
(243) National regulatory authorities in coordination with other competent authorities, or where relevant, other competent authorities in co-ordination with national regulators should be empowered to monitor the quality of services and to collect systematically information on the quality of services offered by providers of internet access services and of publicly available interpersonal communications services, to the extent that the latter are able to offer minimum levels of service quality either through control of at least some elements of the network or by virtue of a service level agreement to that effect, including the quality related to the provision of services to disabled end-users with disabilities. This information should be collected on the basis of criteria which allow comparability between service providers and between Member States. Providers of such electronic communications services, operating in a competitive environment, are likely to make adequate and up-to-date information on their services publicly available for reasons of commercial advantage. National regulatory authorities and/or other competent authorities, or in coordination between national regulators with other competent authorities should nonetheless be able to require publication of such information where it is demonstrated that such information is not effectively available to the public. Where the quality of services of publicly available interpersonal communication services depends on any external factors, such as control of signal transmission or network connectivity, national regulatory authorities in coordination with other competent authorities should be able to require providers of such services to inform their consumers accordingly. National regulatory authorities in coordination with other competent authorities should also set out the measurement methods to be applied by the service providers in order to improve the comparability of the data provided. In order to facilitate comparability across the Union and to reduce compliance cost, BEREC should adopt guidelines on relevant quality of service parameters which national regulatory authorities in coordination with other competent authorities should take into utmost account.
(244) In order to take full advantage of the competitive environment, consumers should be able to make informed choices and to change providers when it is in their best interest. It is essential to ensure that they are able to do so without being hindered by legal, technical or practical obstacles, including contractual conditions, procedures, charges etc. That does not preclude undertakings providers from setting reasonable minimum contractual periods of up to 24 months in consumer contracts. However, Member States should have the possibility to maintain or introduce provisions for a shorter maximum duration and to permit consumers to change tariff plans or terminate the contract within the contract period without incurring additional costs in light of national conditions, such as levels of competition and stability of network investments. Independently from the electronic communications service contract, consumers might prefer and benefit from a longer reimbursement period for physical connections. Such consumer commitments can be an important factor in facilitating deployment of very high capacity connectivity networks up to or very close to end-user premises, including through demand aggregation schemes which enable network investors to reduce initial take-up risks. However, the rights of consumers to switch between providers of electronic communications services, as established in this Directive, should not be restricted by such reimbursement periods in contracts on physical connections and such contracts should not cover terminal or internal access equipment, such as handsets, routers or modems. Member States should ensure equal treatment of entities, including operators, financing the deployment of a very high capacity physical connection to the premises of an end-user, including where such financing is by way of an instalment contract.

(245) In some Member States Automatic prolongation of contracts for electronic communications services is also possible. In those cases, consumers end-users should be able to terminate their contract without incurring any costs after the expiry of the contract term.
(246) Any changes to the contractual conditions imposed by providers of publicly available electronic communications services other than number-independent interpersonal communications services, which are not to the benefit of the end-user (for example in relation to charges, tariffs, data volume limitations, data speeds, coverage, or the processing of personal data), should be considered as giving rise to the right of the end-user to terminate the contract without incurring any costs, even if they are combined with some beneficial changes. Any change to the contractual conditions by the provider should therefore entitle the end-user to terminate the contract unless each change is in itself beneficial to the end-user, or the changes are of a purely administrative nature (such as a change in the provider’s address) and have no negative effect on the end-user, or the changes are strictly imposed by legislative or regulatory changes, such as new contract information requirements imposed by Union or national law. Whether a change is exclusively to the benefit of the end-user should be assessed on the basis of objective criteria. The end-user's right to terminate the contract should only be excluded if the provider is able to demonstrate that all contract changes are exclusively to the benefit of the end-user or are of a purely administrative nature without any negative effect on the end-user. End-users should be notified of any changes to the contractual conditions via in a durable medium. End-users other than consumers, micro- or small enterprises or not-for-profit organisations, should not benefit from the aforementioned termination rights in case of contract modification, in so far as transmission services used for machine-to-machine services are concerned. Member States can provide for specific end-user protections regarding contract termination where the end-users change their place of residence. The provisions on contract termination should be without prejudice to other provision of Union or national law concerning the grounds on which contracts can be terminated or contractual terms and conditions may be changed by the service provider or the end-user.
The possibility of switching between providers is key for effective competition in a competitive environment. The availability of transparent, accurate and timely information on switching should increase the end-users' confidence in switching and make them more willing to engage actively in the competitive process. Service providers should ensure continuity of service so that end-users are able to switch providers without being hindered by the risk of a loss of service and where technically possible allow for switching on the date requested by end-users.

Number portability is a key facilitator of consumer choice and effective competition in competitive electronic communications markets. End-users who so request should be able to retain their number(s) on the public telephone network independently of the provider of service and except for a limited time between the switching of providers of service. The provision of this facility between connections to the public telephone network at fixed and non-fixed locations is not covered by this Directive. However, Member States may apply provisions for porting numbers between networks providing services at a fixed location and mobile networks.

The impact of number portability is considerably strengthened when there is transparent tariff information, both for end-users who port their numbers and also for end-users who call those who have ported their numbers. National regulatory competent authorities should, where feasible, facilitate appropriate tariff transparency as part of the implementation of number portability.

When ensuring that pricing for interconnection related to the provision of number portability is cost-oriented, national regulatory competent authorities may also take account of prices available in comparable markets.
Number portability is a key facilitator of consumer choice and effective competition in competitive markets for electronic communications and should be implemented with the minimum delay, so that the number is functionally activated within one working day and the end-user does not experience a loss of service lasting longer than one working day from the agreed date. The right to port the number should be attributed to the end-user who has the relevant (pre- or post-paid) contract with the provider. In order to facilitate a one-stop-shop enabling a seamless switching experience for end-users, the switching process should be led by the receiving provider of electronic communications to the public. National regulatory or where relevant, other competent authorities may prescribe the global process of the switching and of the porting of numbers, taking into account national provisions on contracts and technological developments. This should include, where available, a requirement for the porting to be completed though over-the-air provisioning, unless an end-user requests otherwise. Experience in certain Member States has shown that there is a risk of consumers end-users being switched to another provider without having given their consent. While that is a matter that should primarily be addressed by law enforcement authorities, Member States should be able to impose such minimum proportionate measures regarding the switching process, including appropriate sanctions, as are necessary to minimise such risks, and to ensure that end-users are protected throughout the switching process without making the process less attractive for them. The right to port numbers should not be restricted by contractual conditions.

In order to ensure that switching and porting take place within the time-limits provided for this Directive, Member States should impose compensational measures in an easy and timely manner from a provider where an agreement with an end-user is not respected. Such measures should be proportionate to the length of the delay in complying with the agreement. End-users should at least be compensated for delays exceeding one working day in activation of service, porting of a number, or loss of service; and for providers missing agreed service or installation appointments. Additional compensation could also be in the form of an automatic reduction of the remuneration in cases where the transferring provider has to continue providing its services until the services of the receiving provider are activated.
(252) Bundles comprising at least an internet access service or a publicly available number-based publicly available electronic communications services other than number-independent interpersonal communications services, and other services such as publicly available number-independent interpersonal communications services, linear broadcasting, machine-to-machine services, or devices terminal equipment sold by the same provider under the same or a closely related contract, have become increasingly widespread and are an important element of competition. For the purposes of this Directive a bundle should be deemed to exist in situations where the elements of the bundle are provided or sold by the same provider under the same or a closely related or linked contract. While they often bring about benefits for end-users consumers, they can make switching more difficult or costly and raise risks of contractual "lock-in". Where divergent contractual rules on contract termination and switching apply to the different services, and/or to any contractual commitment regarding acquisition of products terminal equipment which form part of a bundle, consumers are effectively hampered in their rights under this Directive to switch to competitive offers for the entire bundle or parts of it. The Certain essential provisions of this Directive regarding contracts summary information, transparency, contract duration and termination and switching should, therefore, apply to all elements of a bundle, including terminal equipment, other services such as digital content or digital services, and those electronic communications services which are not directly covered by the scope of those provisions except to the extent that other rules applicable to the non-electronic communications elements of the bundle are more favourable to the consumer. Member States should also be able to apply other provisions in Title III to bundles to take specific market conditions into account. All end-user obligations applicable under this Directive to a given electronic communications service when provided or sold as a stand-alone service should also be applicable when it is part of a bundle-with at least an internet access service or a publicly available number-based interpersonal communications service. Other contractual issues, such as the remedies applicable in the event of non-conformity with the contract, should be governed by the rules applicable to the respective element of the bundle, for instance by the rules of contracts for the sales of goods or for the supply of digital content. However, a right to terminate any element of a bundle comprising at least an internet access service or a publicly available number-based interpersonal communications service before the end of the agreed contract term because of a lack of conformity or a failure to supply should give a consumer the right to terminate all elements of the bundle comprising at least an internet access service or a publicly available number-based interpersonal communications service.
For the same reasons of maintaining their capacity to switch easily providers, consumers should not be locked in with a provider by means of a contractual de facto extension of the initial contract period.

(253) Providers of number-based interpersonal communications services have an obligation to provide access to emergency services through emergency communications. In exceptional circumstances, namely due to a lack of technical feasibility, they might not be able to provide access to emergency services or caller location, or to both. In such cases, they should inform their customers adequately in the contract. Such providers should provide their customers with clear and transparent information in the initial contract and update it in the event of any change in the provision of access to emergency services, for example in invoices. This information should include any limitations on territorial coverage, on the basis of the planned technical operating parameters of the communications service and the available infrastructure. Where the service is not provided over a connection which is managed to give a specified quality of service, the information should also include the level of reliability of the access and of caller location information compared to a service that is provided over such a connection, taking into account current technology and quality standards, as well as any quality of service parameters specified under this Directive.

(254) In line with the objectives of the Charter of Fundamental Rights of the European Union and the obligations enshrined in the United Nations Convention on the Rights of Persons with Disabilities, the regulatory framework should ensure that all end-users, including end-users with disabilities, older people, and users with special social needs, have easy and equivalent access to affordable high quality services regardless of their place of residence within the Union. Declaration 22 annexed to the final Act of Amsterdam provides that the institutions of the Union shall take account of the needs of persons with disabilities in drawing up measures under Article 114 of the TFEU.
(255) End-users should be able to access emergency services through emergency communications free of charge and without having to use any means of payment, from any device which enables number-based interpersonal communications services, including when using roaming services in a Member State. Emergency communications are means of communication, that include not only voice communications but also SMS, messaging, video or other types of communications, for example real time text, total conversation and relay services that are enabled in a Member State to access emergency services.

Member States, taking into account the capabilities and technical equipment of the PSAPs, should be able to determine, which number-based interpersonal communications services are appropriate for emergency services, including the possibility to limit those options to voice communications and their equivalent for end-users with disabilities, or to add additional options as agreed with national PSAPs.

Emergency communication can be triggered on behalf of a person by the eCall in-vehicle system as defined by Regulation 2015/758/EU of the European Parliament and of the Council.
Member States should ensure that providers of end-users with number-based interpersonal communications services provide reliable and accurate access to emergency services, taking into account national specifications and criteria and the capabilities of national PSAPs. Member States should consider the PSAPs ability to handle emergency communications in more than one language. Where the number-based interpersonal communications service is not provided over a connection which is managed to give a specified quality of service, the service provider might not be able to ensure that emergency calls made through their service are routed to the most appropriate PSAP with the same reliability. For such network-independent providers, namely providers which are not integrated with a public communications network provider, providing caller location information may not always be technically feasible. Member States should ensure that standards ensuring accurate and reliable routing and connection to the emergency services are implemented as soon as possible in order to allow network-independent providers of number-based interpersonal communications services to fulfil the obligations related to access to emergency services and caller location information provision at a level comparable to that required of other providers of such communications services. Where such standards and the related PSAP systems have not yet been implemented, network-independent number-based interpersonal communications services should not be required to provide access to emergency services except in a manner that is technically feasible or economically viable. As an example, this may include the designation by a Member State of a single, central PSAP for receiving emergency communications. Nonetheless, such providers should inform end-users when access to 112 or to caller location information is not supported.

In order to improve the reporting and performance measurement by Member States with respect to the answering and handling of emergency calls, the Commission should every two years report back to the European Parliament and the Council on the effectiveness of the implementation of the European emergency call number "112".
(257) Member States should take specific measures to ensure that emergency services, including ‘112’, are equally accessible to disabled end-users with disabilities, in particular deaf, hearing-impaired, speech-impaired and deaf-blind users and in accordance with Union law harmonising accessibility requirements for products and services. This could involve the provision of special terminal devices for people end-users with disabilities when other ways of communication are not suitable for them.

(258) It is important to increase awareness of ‘112’ in order to improve the level of protection and security of citizens travelling in the European Union. To this end, citizens should be made fully aware, when travelling in any Member State, in particular through information provided in international bus terminals, train stations, ports or airports and in telephone directories, end-user and billing material, that ‘112’ can be used as a single emergency number throughout the Union. This is primarily the responsibility of the Member States, but the Commission should continue both to support and to supplement initiatives of the Member States to heighten awareness of ‘112’ and periodically to evaluate the public’s awareness of it.
(259) Caller location information, which applies to all emergency communications, improves the level of protection and the security of end-users and assists the emergency services in the discharge of their duties, provided that the transfer of emergency communication and associated data to the emergency services concerned is guaranteed by the national system of PSAPs. The reception and use of caller location information, which includes both network-based location information and where available, enhanced handset caller location information, should comply with relevant Union law on the processing of personal data and security measures. Undertakings that provide network-based location should make caller location information available to emergency services as soon as the call reaches that service, independently of the technology used. However, handset-based location technologies have proven to be significantly more accurate and cost effective due to the availability of data provided by the EGNOS and Galileo Satellite system and other Global Navigation Satellite Systems and Wi-Fi data. Therefore handset-derived caller location information should complement network-based location information even if the handset-derived location may become available only after the emergency communication is set up. Member States should ensure that, where available, the handset-derived caller location information is made available to the most appropriate PSAP. This might not be always possible, for example when the location is not available on the handset or through the interpersonal communications service used, or when it is not technically feasible to obtain that information. Furthermore, Member States should ensure that the PSAPs are able to retrieve and manage the caller location information available, where feasible. The establishment and transmission of caller location information should be free of charge for both the end-user and the authority handling the emergency communication irrespective of the means of establishment, for example through the handset or the network, or the means of transmission, for example through voice channel, SMS or Internet Protocol-based.
In order to respond to technological developments concerning accurate caller location information, equivalent access for end-users with disabilities and call routing to the most appropriate PSAP, the Commission should be empowered to adopt measures necessary to ensure the compatibility, interoperability, quality and continuity of emergency communications in the Union. Those measures may consist of functional provisions determining the role of various parties within the communications chain, for example number-based interpersonal communications service providers, electronic communications network operators and PSAPs, as well as technical provisions determining the technical means to fulfil the functional provisions. Such measures should be without prejudice to the organisation of emergency services of Member States.

Currently, a citizen in one Member State who has a need to contact the emergency services in another Member State cannot do so because the emergency services may not have contact information for emergency services in other Member States. The solution is to have an EU-wide, secure database of telephone numbers for a lead emergency service(s) in each country. Therefore, BEREC shall maintain a secure database of E.164 European emergency service numbers, if such a database is not maintained by any other organisations, in order to ensure that emergency services in one Member State can be contacted by emergency services in another Member State.

Diverging national legislation has developed in relation to the transmission by electronic communications services of public warnings regarding imminent or developing major emergencies and disasters. In order to approximate legislation in that area, this Directive should therefore provide that, when public warning systems are in place, public warnings should be transmitted by providers of mobile number-based interpersonal communication services to all end-users concerned. End-users concerned should be deemed to be those end-users who are located in the geographic areas potentially being affected by imminent or developing major emergencies and disasters during the warning period, as determined by the competent authorities.
(260ab) Where the effective reach of all end-users concerned, independently of their place or Member State of residence, is ensured and fulfill the highest level of data security, Member States may provide for transmission of public warnings by other publicly available electronic communications services other than mobile number-based interpersonal communications services and other than transmission services used for broadcasting or by mobile application transmitted via the internet access services. In order to inform end-users entering a Member State of such available public warning systems, that Member State should ensure, that those end-users receive, automatically by means of SMS, without undue delay and free of charge, easily understandable information on how to receive public warnings, including by means of mobile terminal equipment not enabled for internet access services. Public warnings other than those relying on mobile number-based interpersonal communications services should be transmitted to end-users in an easily receivable manner. Where a public warning system relies on an application it should not require end-users to login or register with the authorities or the application provider. Any use of end-users' location data should be in conformity with the ePrivacy Regulation Directive. Transmission of public warnings should be free of charge for end-users. In the course of the future review of this Directive, the Commission could also assess whether it is possible, in accordance with Union law, and feasible to set up a single EU-wide public warning system in order to alert the public in the event of an imminent or developing disaster or major state of emergency across different Member States.

(260b) Member States should be able to determine if proposals for alternative systems other than through mobile electronic number-based interpersonal communication services are truly equivalently of such services taking utmost account by means of the corresponding BEREC guidelines. Such guidelines should be developed in consultation with national emergency authorities in order to ensure that emergency experts have a role in their development and in order to ensure that there is a common understanding between different Member State emergency authorities as to what is needed to ensure full implementation of such public warning systems within the Member States while ensuring that EU citizens are effectively protected while travelling in another Member State.
In order to ensure that disabled end-users with disabilities benefit from competition and the choice of service providers enjoyed by the majority of end-users, relevant national competent authorities should specify, where appropriate and in light of national conditions, and after consulting persons with disabilities, consumer protection requirements for disabled end-users with disabilities to be met by undertakings providing providers of publicly available electronic communications services. Such requirements can include, in particular, that undertakings providers ensure that disabled end-users with disabilities take advantage of their services on equivalent terms and conditions, including prices, tariffs and quality, as those offered to their other end-users, irrespective of any additional costs incurred by these providers undertakings. Other requirements can relate to wholesale arrangements between providers undertakings. In order to avoid creating an excessive burden on service providers national regulatory competent authorities should verify, whether the objectives of equivalent access and choice can actually be achieved without such measures.

In addition to Union law harmonising accessibility requirements for products and services Directive xxx/YYYY/EU of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services this Directive sets out new enhanced affordability and availability measures requirements on related terminal equipment and specific equipment and specific services for disabled end-users with disabilities sets out several compulsory requirements for the harmonisation of a number of accessibility features for disabled users with disabilities of electronic communications services and related consumer terminal equipment. Therefore the corresponding obligation in this Directive that required Member States to encourage the availability of terminal equipment for disabled users with disabilities has become obsolete and should be repealed.
(263) Effective competition has developed in the provision of directory enquiry services and directories pursuant inter alia to Article 5 of Commission Directive 2002/77/EC. In order to maintain this effective competition, all service providers of number-based interpersonal communications services which attribute numbers from a numbering plan to their end-users should continue to be obliged to make relevant information available in a fair, cost-oriented and non-discriminatory manner.

(264) End-users should be informed about their right to determine whether or not they want to be included in a directory. Providers of number-based interpersonal communications services should respect the end-users’ decision when making data available to directory service providers. Article 12 of Directive 2002/58/EC ensures the end-users’ right to privacy with regard to the inclusion of their personal information in a public directory.

(265) End-users should be able to enjoy a guarantee of interoperability in respect of all equipment sold in the Union for the reception of radio in new vehicles of category M and of digital television. Member States should be able to require minimum harmonised standards in respect of such equipment. Such standards could be adapted from time to time in the light of technological and market developments.

(265a) Where Member States decide to adopt measures in accordance with Directive (EU) 2015/1535 for the interoperability of consumer radio equipment, radio sets should be capable of receiving and reproducing radio services provided via digital terrestrial radio broadcasting or via IP networks, in order to ensure that interoperability is maintained. This may also improve public safety, by enabling users to rely on a wider set of technologies for accessing and receiving emergency information in the Member States.

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(265b) The provisions on interoperability of consumer radio and television equipment do not prevent that radio equipment in new motor vehicles of category M is also capable of receiving and reproducing radio services provided via analogue terrestrial radio broadcasting; nor do those provisions prevent Member States from imposing obligations to ensure that digital radio equipment is capable of receiving and reproducing analogue terrestrial radio broadcasts.

(265c) Without prejudice to Union law, this Directive does not prevent Member States from adopting technical regulations related to digital terrestrial television equipment, for example to prepare the migration of consumers to new terrestrial broadcasting standards, and avoid the supply of equipment that would not be compliant with the standards to be rolled out.

(266) It is desirable to enable consumers to achieve the fullest connectivity possible to digital television sets. Interoperability is an evolving concept in dynamic markets. Standards bodies should do their utmost to ensure that appropriate standards evolve along with the technologies concerned. It is likewise important to ensure that connectors are available on digital television sets that are capable of passing all the necessary elements of a digital signal, including the audio and video streams, conditional access information, service information, application program interface (API) information and copy protection information. This Directive should therefore ensure that the functionality associated to and/or implemented in connectors is not limited by network operators, service providers or equipment manufacturers and continue to evolve in line with technological developments. For display and presentation of connected television services, the realisation of a common standard through a market-driven mechanism is recognised as a consumer benefit. Member States and the Commission may take policy initiatives, consistent with the Treaty, to encourage this development.
(267) Wholesale measures ensuring the inclusion of end-user data (both fixed and mobile) in databases should comply with the safeguards for the protection of personal data under Directive 95/46/EC which will be replaced by Regulation (EU) 2016/697, and including Article 12 of Directive 2002/58/EC (Directive on privacy and electronic communications). The cost-oriented supply of that data to service providers, with the possibility for Member States to establish a centralised mechanism for providing comprehensive aggregated information to directory providers, and the provision of network access under reasonable and transparent conditions, should be put in place in order to ensure that end-users benefit fully from competition, which has largely allowed enabling the removal of retail regulation from these services and the provision of offers of directory services under reasonable and transparent conditions.

(268) Following the abolition of the universal service obligation for directory services and given the existence of a functioning market for such services, the right to access directory enquiry services is not necessary any more. However, the national regulatory authorities should still be able to impose obligations and conditions on undertakings that control access to end-users in order to maintain access and competition in that market.
Member States should be able to lay down proportionate 'must carry' obligations on undertakings under their jurisdiction, in the interest of legitimate public policy considerations, but such obligations should only be imposed where they are necessary to meet general interest objectives clearly defined by Member States in conformity with Union law and should be proportionate and transparent. ‘Must carry’ obligations may be applied to specified radio and television broadcast channels and complementary services supplied by a specified media service provider. Obligations imposed by Member States should be reasonable, that is they should be proportionate and transparent in the light of clearly defined general interest objectives. Member States should provide an objective justification for the ‘must carry’ obligations that they impose in their national law so as to ensure that such obligations are transparent, proportionate and clearly defined. The obligations should be designed in a way which provides sufficient incentives for efficient investment in infrastructure. Obligations should be subject to periodic review at least every five years in order to keep them up-to-date with technological and market evolution and in order to ensure that they continue to be proportionate to the objectives to be achieved. Obligations could, where appropriate, entail a provision for proportionate remuneration which should be set out in national law. In that case, national law should also determine the applicable methodology for calculating appropriate remuneration. That methodology should avoid inconsistency with access remedies that may be imposed by national regulatory authorities on providers of transmission services used for broadcasting which have been designated as having significant market power. By way of exception, where a fixed-term contract signed before [date of entry into force] of this Directive provides for a different methodology, that methodology may continue to be applied for the duration of the contract. In the absence of a national provision on remuneration, providers of radio or television broadcast channels and providers of electronic communications networks used for the transmission of those radio or television broadcast channels should be able to agree contractually on a proportionate remuneration.
Electronic communications networks and services used for the distribution of radio or television broadcasts to the public include cable, IPTV, satellite and terrestrial broadcasting networks. They might also include other networks to the extent that a significant number of end-users use such networks as their principal means to receive radio and television broadcasts. 'Must carry' obligations related to analogue television broadcast transmissions should only be considered where a lack of such an obligation would cause significant disturbance for a significant number of end-users or where there are no other transmission means for specified television broadcast channels. Must carry obligations can include the transmission of services specifically designed to enable equivalent access by end-users with disabilities. Accordingly complementary services include, amongst others, services designed to improve accessibility for end-users with disabilities, such as videotext, subtitling for the deaf and hard of hearing, audio description, spoken subtitles and sign language interpretation, and may include access to the related raw-data where necessary. In light of the growing provision and reception of connected TV services and the continued importance of electronic programme guides for end-user choice the transmission of programme-related data necessary to support connected TV and electronic programme guide functionalities can be included in must carry obligations. Such programme-related data may include information about the programme content and how to access it but should not include the programme content itself.
(271) Calling line identification facilities are normally available on modern telephone exchanges and can therefore increasingly be provided at little or no expense. Member States are not required to impose obligations to provide these facilities when they are already available. Directive 2002/58/EC safeguards the privacy of users with regard to itemised billing, by giving them the means to protect their right to privacy when calling line identification is implemented. The development of these services on a pan-European basis would benefit consumers and is encouraged by this Directive. **A common practice by providers of internet access services is to provide customers with an e-mail address using their commercial name or trade mark. In order to ensure end-users do not suffer lock-in effects related to the risk of losing access to e-mails when changing internet access services, Member States should be able to impose obligations on providers of such services to, on request, either access their e-mails, or transfer e-mails sent to the relevant e-mail account(s). The facility should be provided free of charge and for a duration of time deemed appropriate by the national regulatory authority.**

(272) Publication of information by Member States will ensure that market players and potential market entrants understand their rights and obligations, and know where to find the relevant detailed information. Publication in the national gazette helps interested parties in other Member States to find the relevant information.

(273) In order to ensure that the pan-European electronic communications market is effective and efficient, the Commission should monitor and publish information on charges which contribute to determining prices to end-users.
(274) In order to determine the correct application of Union law, the Commission needs to know which undertakings have been designated as having significant market power and what obligations have been placed upon market players by national regulatory authorities. In addition to national publication of this information, it is therefore necessary for Member States to send this information to the Commission. Where Member States are required to send information to the Commission, this may be in electronic form, subject to appropriate authentication procedures being agreed.

(275) In order to take account of market, social and technological developments, including evolution of technical standards, to manage the risks posed to security of networks and services and to ensure effective access to emergency services through emergency communications, 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 specifying measures to address security risks; adapting conditions for access to digital television and radio services; setting a single wholesale voice call termination rate in fixed and mobile markets; adopting measures related to emergency communications in the Union; and adapting annexes II, IV, V, VI, VIII, IX and X of this Directive. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.
(276) In order to ensure uniform conditions for the implementation of this Directive, implementing powers should be conferred on the Commission to adopt decisions to resolve cross-border harmful interferences between Member States; to make the implementation of standards compulsory, or remove standards and/or specifications from the compulsory part of the list of standards; to take decisions setting out whether rights in a harmonised band shall be subject to a general authorisation or to individual rights of use; to specify the modalities of application of the criteria, rules and conditions with regard to harmonised radio spectrum; to specify the modalities of applying the conditions that Member States may attach to authorisations to use harmonised radio spectrum; to establish common limitation maximum dates by which the use of specific harmonised radio spectrum bands shall be authorised; to adopt transitional measures regarding the duration of rights of use for radio spectrum; to set criteria to coordinate the implementation of certain obligations; to specify technical characteristics for the design, deployment and operation of small-area wireless access points; to address unmet cross-border or pan-European demand for numbers; and to specify the nature and scope of obligations ensuring effective access to emergency services or to end-to-end connectivity between end-users within one or several Member States or throughout the European Union. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission’s exercise of implementing powers.

(277) Finally, the Commission should be able to adopt as necessary, having taken utmost account of the opinion of BEREC, recommendations in relation to the identification of the relevant product and service markets, the notifications under the procedure for consolidating the internal market and the harmonised application of the provisions of the regulatory framework.
(278) The provisions of this Directive should be reviewed periodically, in particular with a view to
determining the need for modification in the light of changing technological or market
conditions. As this Directive introduces novel approaches to the regulation of electronic
communications sectors, such as extended possibility to apply access obligation to all
operators regardless of their market power in order to address situations under the
second subparagraph of Article 59(2) and regulatory treatment of co-investments under
Article 74, a particular regard should be given in assessing their functioning.

(278a) Future technological and market developments, in particular changes in the use of
different electronic communications services and their ability to ensure effective access to
emergency services, might jeopardise the achievement of the objectives of Title III of this
Directive. BEREC should therefore monitor those developments in Member States and
regularly publish an opinion including an assessment of the impact of such developments
on the application in practice of the provisions of this Directive relating to end-users. The
Commission, taking outmost account of BEREC’s opinion should publish a report and
submit a legislative proposal to amend Title III where it considers it necessary to ensure the
objectives of this Directive

(279) Certain directives and decisions in this field should be repealed.

(280) The Commission should monitor the transition from the existing framework to the new
framework.
(281) Since the objectives of the proposed action, namely achieving a harmonised and simplified framework for the regulation of electronic communications services, electronic communications networks, associated facilities and associated services, of the conditions for the authorisation of networks and services, of spectrum use and of numbers numbering resources, of the regulation of access to and interconnection of electronic communications networks and associated facilities and of end-user protection cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale and effects of the action, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary for those objectives.

(282) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents, Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments.

(283) The obligation to transpose this Directive into national law should be confined to those provisions which represent a substantive amendment as compared to the earlier Directives. The obligation to transpose the provisions which are unchanged arises under the earlier Directives.

(284) This Directive should be without prejudice to the obligations of the Member States relating to the time-limits for the transposition into national law and the dates of application of the Directives set out in Annex XI, Part B,

HAVE ADOPTED THIS DIRECTIVE:

PART I. FRAMEWORK (GENERAL RULES FOR THE ORGANISATION OF THE SECTOR)

TITLE I: SCOPE, AIM & OBJECTIVES, DEFINITIONS

CHAPTER I
SUBJECT MATTER, AIM AND DEFINITIONS

Article 1
Subject matter and aim

1. This Directive establishes a harmonised framework for the regulation of electronic communications services, electronic communications networks, associated facilities and associated services, and certain aspects of terminal equipment. It lays down tasks of national regulatory and, where applicable, for other competent authorities and establishes a set of procedures to ensure the harmonised application of the regulatory framework throughout the Union.

2. The aim of this Directive is on the one hand to implement an internal market in electronic communications networks and services that will result in deployment and take-up of very high capacity networks, sustainable competition, interoperability of electronic communications services, accessibility, security of electronic communications networks and services and end-user benefits.
On the other hand, it is to ensure the provision throughout the Union of good-quality, affordable, publicly available services through effective competition and choice, to deal with circumstances in which the needs of end-users, including users with disabilities in order to access the services on an equal basis with others, are not satisfactorily met by the market and to lay down the necessary end-user rights.

3. This Directive is without prejudice to:

- obligations imposed by national law in accordance with Union law or by Union law in respect of services provided using electronic communications networks and services;

- measures taken at Union or national level, in compliance with Union law, to pursue general interest objectives, in particular relating to the protection of personal data and privacy, content regulation and audio-visual policy.


- the actions taken by Member States for public order and public security purposes and for defence.


3a. Where information contains personal data, the Commission, BEREC and the authorities concerned shall ensure the compliance of data processing with Union data protection rules.
Article 2
Definitions

For the purposes of this Directive:

(1) ‘electronic communications network’ means transmission systems, whether or not based on a permanent infrastructure or centralised administration capacity, and, where applicable, switching or routing equipment and other resources, including network elements which are not active, which permit the conveyance of signals by wire, radio, optical or other electromagnetic means, including satellite networks, fixed (circuit- and packet-switched, including Internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed;

(2) ‘very high capacity network’ means either an electronic communications network which either consists wholly of optical fibre elements at least up to the distribution point at the serving location or an electronic communications network which is capable of delivering under usual peak-time conditions similar network performance in terms of available down- and uplink bandwidth, resilience, error-related parameters, and latency and its variation. Network performance can be considered similar regardless of whether the end-user experience varies due to the inherently different characteristics of the medium by which the network ultimately connects with the network termination point.

(3) ‘transnational markets’ means markets identified in accordance with Article 63 covering the Union or a substantial part thereof located in more than one Member State;
(4) ‘electronic communications service’ means a service normally provided for remuneration via electronic communications networks, which encompasses 'internet access service' as defined in Article 2(2) of Regulation (EU) 2015/2120; and/or 'interpersonal communications service'; and/or services consisting wholly or mainly in the conveyance of signals such as transmission services used for the provision of machine-to-machine services and for broadcasting, but excludes services providing, or exercising editorial control over, content transmitted using electronic communications networks and services;

(5) ‘interpersonal communications service’ means a service normally provided for remuneration that enables direct interpersonal and interactive exchange of information via electronic communications networks between a finite number of persons, whereby the persons initiating or participating in the communication determine its recipient(s); it does not include services which enable interpersonal and interactive communication merely as a minor ancillary feature that is intrinsically linked to another service;

(6) ‘number-based interpersonal communications service’ means an interpersonal communications service which connects with the public switched telephone network, either by means of publicly assigned numbering resources, i.e. a number or numbers in national or international telephone numbering plans, or by enabling communication with a number or numbers in national or international telephone numbering plans;

(7) ‘number-independent interpersonal communications service’ means an interpersonal communications service which does not connect with the public switched telephone network, either by means of publicly assigned numbering resources, i.e. a number or numbers in national or international telephone numbering plans, or by enabling communication with a number or numbers in national or international telephone numbering plans;
(8) ‘public communications network’ means an electronic communications network used wholly or mainly for the provision of electronic communications services available to the public which support the transfer of information between network termination points;

(9) ‘network termination point’ or 'NTP' means the physical point at which an end-user is provided with access to a public communications network; in the case of networks involving switching or routing, the NTP is identified by means of a specific network address, which may be linked to an end-user's number or name.

(10) ‘associated facilities’ means those associated services, physical infrastructures and other facilities or elements associated with an electronic communications network and/or an electronic communications service which enable and/or support the provision of services via that network and/or service or have the potential to do so, and include, inter alia, buildings or entries to buildings, building wiring, antennae, towers and other supporting constructions, ducts, conduits, masts, manholes, and cabinets;

(11) ‘associated services’ means those services associated with an electronic communications network and/or an electronic communications service which enable and/or support the provision of services, self-provision or automated-provision via that network and/or service or have the potential to do so and include, inter alia, number translation or systems offering equivalent functionality, conditional access systems and electronic programme guides, voice command, multi-language or language translation as well as other services such as identity, location and presence service;

(12) ‘conditional access system’ means any technical measure, authentication system and/or arrangement whereby access to a protected radio or television broadcasting service in intelligible form is made conditional upon subscription or other form of prior individual authorisation;
(13) ‘user’ means a legal entity or natural person using or requesting a publicly available electronic communications service;

(14) ‘end-user’ means a user not providing public communications networks or publicly available electronic communications services.

(15) ‘consumer’ means any natural person who uses or requests a publicly available electronic communications service for purposes which are outside his or her trade, business, craft or profession;

(16) ‘provision of an electronic communications network’ means the establishment, operation, control or making available of such a network;

(17) ‘enhanced digital television equipment’ means set-top boxes intended for connection to television sets or integrated digital television sets, able to receive digital interactive television services;

(18) ‘application program interface (API)’ means the software interfaces between applications, made available by broadcasters or service providers, and the resources in the enhanced digital television equipment for digital television and radio services;

(19) ‘spectrum allocation’ means the designation of a given frequency band for use by one or more types of radio communications services, where appropriate, under specified conditions;
(20) ‘harmful interference’ means interference which endangers the functioning of a radio navigation service or of other safety services or which otherwise seriously degrades, obstructs or repeatedly interrupts a radio communications service operating in accordance with the applicable international, Union or national regulations;

(21) ‘call’ means a connection established by means of a publicly available interpersonal communications service allowing two-way voice communication;

(22) ‘security’ of networks and services means the ability of electronic communications networks and services to resist, at a given level of confidence, any action that compromises the availability, authenticity, integrity or confidentiality of those networks and services, of stored or transmitted or processed data, or of the related services offered by, or accessible via, those electronic communications networks or services.

(23) ‘general authorisation’ means a legal framework established by the Member State ensuring rights for the provision of electronic communications networks or services and laying down sector-specific obligations that may apply to all or to specific types of electronic communications networks and services, in accordance with this Directive.

(24) 'small-area wireless access point' means a low power wireless network access equipment of small size operating within a small range, using licenced radio spectrum or licence-exempt radio spectrum or a combination thereof, which may or may not be part of a public terrestrial mobile communications network, and be equipped with one or more low visual impact antennae, which allows wireless access by users to electronic communications networks regardless of the underlying network topology be it mobile or fixed;

(25) 'radio local area 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, radio spectrum for which the conditions of availability and efficient use for this purpose are harmonised at Union level;
(26) 'shared use of radio spectrum' means access by two or more users to use the same frequencies under a defined sharing arrangement, authorised by a national regulatory authority on the basis of a general authorisation, individual rights of use or a combination thereof, including regulatory approaches such as licenced shared access aiming to facilitate the shared use of a frequency band, subject to a binding agreement of all parties involved, in accordance with sharing rules as included in their rights of use so as to guarantee to all users predictable and reliable sharing arrangements, and without prejudice to the application of competition law;

(27) 'harmonised radio spectrum' means radio spectrum for whose availability and efficient use harmonised conditions have been established by way of a technical implementing measure in line with Article 4 of Decision No 676/2002/EC (Radio Spectrum Decision).

(28) ‘access’ means the making available of facilities and/or services to another undertaking, under defined conditions, on either an exclusive or non-exclusive basis, for the purpose of providing electronic communications services, including when they are used for the delivery of information society services or broadcast content services. It covers inter alia: access to network elements and associated facilities, which may involve the connection of equipment, by fixed or non-fixed means (in particular this includes access to the local loop and to facilities and services necessary to provide services over the local loop); access to physical infrastructure including buildings, ducts and masts; access to relevant software systems including operational support systems; access to information systems or databases for pre-ordering, provisioning, ordering, maintaining and repair requests, and billing; access to number translation or systems offering equivalent functionality; access to fixed and mobile networks, in particular for roaming; access to conditional access systems for digital television services and access to virtual network services;
(29) ‘interconnection’ means the physical and logical linking of public communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with users of the same or another undertaking, or to access services provided by another undertaking. Services may be provided by the parties involved or other parties who have access to the network. Interconnection is a specific type of access implemented between public network operators;

(30) ‘operator’ means an undertaking providing or authorised to provide a public communications network or an associated facility;

(31) ‘local loop’ means the physical path used by electronic communications signals connecting the network termination point to a distribution frame or equivalent facility in the fixed public electronic communications network.

(32) ‘voice communications’ means an electronic communications service made available to the public for originating and receiving, directly or indirectly, national or national and international calls through a number or numbers in a national or international numbering plan;
(33) ‘geographic number’ means a number from the national telephone numbering plan where part of its digit structure contains geographic significance used for routing calls to the physical location of the network termination point (NTP);

(34) ‘non-geographic number’ means a number from the national telephone numbering plan that is not a geographic number, such as mobile, freephone and premium-rate numbers;

(35) ‘public safety answering point’ (PSAP) means a physical location where an emergency communication is first received under the responsibility of a public authority or a private organisation recognised by the Member State;

(35aa) ‘Total conversation services’ means a multimedia real-time conversational service that provides bidirectional symmetric real-time transfer of motion video, real-time text and voice between users in two or more locations.

(36) ‘most appropriate PSAP’ means a PSAP defined beforehand by responsible authorities to cover emergency communications from a certain area or for emergency communications of a certain type;
(37) ‘emergency communication’: communication by means of interpersonal communications services between an end-user and the PSAP with the goal to request and receive emergency relief from emergency services;

(38) ‘emergency service’ means a service, recognised as such by the Member State, that provides immediate and rapid assistance in situations where there is, in particular, a direct risk to life or limb, to individual or public health or safety, to private or public property, or to the environment, in accordance with national legislation.

(38a) ‘caller location information’ means in a public mobile network the data processed, both from network infrastructure and handset-derived, indicating the geographic position of an end-user's mobile terminal and in a public fixed network the data about the physical address of the termination point.
CHAPTER II
OBJECTIVES

Article 3

General objectives

1. Member States shall ensure that in carrying out the regulatory tasks specified in this Directive, the national regulatory and other competent authorities take all reasonable measures which are necessary and proportionate for achieving the objectives set out in paragraph 2. Member States, the Commission, the Radio Spectrum Policy Group, and BEREC shall also contribute to the achievement of these objectives.

National regulatory and other competent authorities may shall contribute within their competencies to ensuring the implementation of policies aimed at the promotion of freedom of expression and information, cultural and linguistic diversity, as well as media pluralism.

2. In the context of this Directive, the national regulatory and other competent authorities as well as BEREC, the Commission and the Member States shall pursue each of the general objectives listed below, without the order in which they are listed indicating any order of priority:

(a) promote connectivity and access to, and take-up of, very high capacity networks data connectivity, including fixed, mobile and wireless networks, by all Union citizens and businesses;

(b) promote competition in the provision of electronic communications networks and associated facilities, including efficient infrastructure-based competition, and in the provision of electronic communications services and associated services;
(c) contribute to the development of the internal market by removing remaining obstacles to, and facilitating convergent conditions for, investment in and the provision of electronic communications networks, associated facilities and services and electronic communications services throughout the Union, by developing common rules and predictable regulatory approaches, by favouring the effective, efficient and coordinated use of spectrum, open innovation, the establishment and development of trans-European networks, the provision, availability and interoperability of pan-European services, and end-to-end connectivity;

(d) promote the interests of the citizens of the Union, including in the long term, by ensuring connectivity and widespread availability and take-up of very high capacity networks connectivity, including both fixed, and mobile and wireless networks, and of interpersonal electronic communications services, by enabling maximum benefits in terms of choice, price and quality on the basis of effective competition, by maintaining security of networks and services, by ensuring a high and common level of protection for end-users through the necessary sector-specific rules and by addressing the needs, such as affordable prices, of specific social groups, in particular disabled users with disabilities, elderly users and users with special social needs, and choice and equivalent access for end-users with disabilities.
2a. Where, the Commission establishes benchmarks and reports on the effectiveness of Member State’s measures towards achieving the objectives referred to in paragraph 2, the Commission shall where necessary be assisted by Member States, national regulatory authorities, BEREC and the RSPG.

3. The national regulatory and other competent authorities shall, in pursuit of the policy objectives referred to in paragraph 2, and specified in this paragraph, apply objective, transparent, non-discriminatory and proportionate regulatory principles, by, inter alia:

(a) promote regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods and through cooperation with each other, with BEREC, the RSPG and with the Commission;

(b) ensure that, in similar circumstances, there is no discrimination in the treatment of undertakings providing providers of electronic communications networks and services;

(c) apply EU law in a technologically neutral fashion, to the extent that this is consistent with the achievement of the objectives of paragraph 1;

(d) promote efficient investment and innovation in new and enhanced infrastructures, including by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertakings and by permitting various cooperative arrangements between investors and parties seeking access to diversify the risk of investment, whilst ensuring that competition in the market and the principle of non-discrimination are preserved;

(e) take due account of the variety of conditions relating to infrastructure, competition, end-user and consumers circumstances that exist in the various geographic areas within a Member State including local infrastructure managed by individuals on a not-for-profit basis;
(f) impose imposing \textit{ex ante} regulatory obligations only to the extent necessary to secure effective and sustainable competition on the retail market concerned \textit{in the end-user interest} and relaxing or lifting such obligations as soon as that condition is fulfilled.

Member States shall ensure that the national regulatory and other competent authorities act impartially, objectively, transparently and in a non-discriminatory and proportionate manner.

Article 4

Strategic planning and coordination of radio spectrum policy

1. Member States shall cooperate with each other and with the Commission, in the strategic planning, coordination and harmonisation of the use of radio spectrum in the Union \textit{in line with EU policies for the establishment and functioning of the internal market in electronic communications}. To this end, they shall take into consideration, inter alia, the economic, safety, health, public interest, public security and defence, freedom of expression, cultural, scientific, social and technical aspects of EU policies as well as the various interests of radio spectrum user communities with the aim of optimising the use of radio spectrum and avoiding harmful interference.

2. By cooperating with each other and with the Commission, Member States shall promote the coordination of radio spectrum policy approaches in the European Union and, where appropriate, harmonised conditions with regard to the availability and efficient use of radio spectrum necessary for the establishment and functioning of the internal market in electronic communications.
3. Member States shall, cooperate through the Radio Spectrum Policy Group, established by Commission Decision 2002/622/EC, cooperate with each other and with the Commission in accordance with paragraph 1, and upon their request with the European Parliament and the Council, in support of the strategic planning and coordination of radio spectrum policy approaches in the Union, by:

   a) developing best practices on spectrum related matters, in view of the implementation of this Directive;

   b) facilitating the coordination between Member States with a view to the implementation of this Directive and other Union law and to contributing to the development of the internal market;

   c) coordinating their approaches to the assignment and authorisation of use of radio spectrum and publishing reports or opinions on spectrum related matters.

BEREC shall participate on issues concerning their competencies relating to market regulation and competition related to radio spectrum.
4. The Commission, taking utmost account of the opinion of the Radio Spectrum Policy Group may submit legislative proposals to the European Parliament and the Council for establishing multiannual radio spectrum policy programmes. **as well as for the release of harmonised spectrum for shared and unlicensed uses.** Such programmes shall set out the policyorientations and objectives for the strategic planning and harmonisation of the use of radio spectrum in accordance with the provisions of this Directive.

**Title II: INSTITUTIONAL SET-UP AND GOVERNANCE**

**CHAPTER I**

**NATIONAL REGULATORY AND OTHER COMPETENT AUTHORITIES**

Article 5

National regulatory and other competent authorities

1. Member States shall ensure that each of the tasks laid down in this Directive is undertaken by a competent authority.

**Under the scope of this Directive** the national regulatory authority shall be responsible at least for the following tasks:

- implementing *ex ante* market regulation, including the imposition of access and interconnection obligations;
- ensuring the resolution of disputes between undertakings;
- carrying out radio spectrum management and/or decisions or, where those tasks are assigned to other competent authorities, providing advice regarding the market-shaping and competition elements of national processes related to the rights of use of radio spectrum for electronic communications services and networks when such spectrum management and/or decisions are carried out by any other competent authority, according to this Directive;

- contributing to the protection of end-users rights in the electronic communications sector, where relevant in cooperation with other competent authorities; where applicable;

- Assessing and monitoring closely market shaping and competition issues regarding open internet access
  - assessing the unfair burden and calculating the net cost of the provision of the universal service;

- enforcing ensuring number portability between providers;

- performing any other task that this Directive reserves to national regulatory authorities

Member States may assign other tasks provided for in this Directive and other Union law to national regulatory authorities and in particular those related to market competition or market entry such as general authorisation and those related to any role conferred on BEREC. In cases where those tasks affecting market competition or market entry are assigned to other competent authorities they shall seek to consult the National regulatory authority before a decision is taken. For the purposes of contributing to BEREC's tasks, national regulatory authorities shall be entitled to collect necessary data and other information from market participants.
Member States may also assign to national regulatory authorities other tasks on the basis of national law or national law implementing Union law.

Member States shall in particular promote to ensure stability of competences of the national regulatory authorities when transposing this Directive with regard to the attribution of tasks resulting from the 2009 electronic communications framework.

2. National regulatory authorities and other competent authorities of the same Member State or of different Member States shall have the right to enter into cooperative arrangements with each other to foster regulatory cooperation where necessary.

3. Member States shall publish the tasks to be undertaken by national regulatory authorities and other competent authorities in an easily accessible form, in particular where those tasks are assigned to more than one body. Member States shall ensure, where appropriate, consultation and cooperation between those authorities, and between those authorities and national authorities entrusted with the implementation of competition law and national authorities entrusted with the implementation of consumer law, on matters of common interest. Where more than one authority has competence to address such matters, Member States shall ensure that the respective tasks of each authority are published in an easily accessible form.

4. Member States shall notify to the Commission all national regulatory authorities and other competent authorities assigned tasks under this Directive, and their respective responsibilities, as well as any change thereof.
Article 6

Independence of national regulatory and other competent authorities

1. Member States shall guarantee the independence of national regulatory authorities and of other competent authorities by ensuring that they are legally distinct from and functionally independent of all organisations providing electronic communications networks, equipment or services. Member States that retain ownership or control of undertakings providing providers of electronic communications networks and/or services shall ensure effective structural separation of the regulatory function from activities associated with ownership or control.

2. Member States shall ensure that national regulatory authorities and other competent authorities exercise their powers impartially, transparently and in a timely manner. Member States shall ensure that they have adequate technical, financial and human resources to carry out the tasks assigned to them.

Article 7

Appointment and dismissal of members of national regulatory authorities

1. The head of a national regulatory authority, or, where applicable, the members of the collegiate body fulfilling that function within a national regulatory authority or their replacements, shall be appointed for a term of office of at least four or three years from among persons of recognised standing and professional experience, on the basis of merit, skills, knowledge and experience and following an open and transparent selection procedure. They shall not be allowed to serve more than two terms, either consecutive or not. Member States shall ensure continuity of decision-making by providing for an appropriate rotation scheme for the members of the collegiate body or the top management, such as by appointing the first members of the collegiate body for different periods, in order for their mandates, as well as that of their successors not to elapse at the same moment.
2. Member States shall ensure that the head of a national regulatory authority, or where applicable, members of the collegiate body fulfilling that function within a national regulatory authority or their replacements may be dismissed during their term only if they no longer fulfil the conditions required for the performance of their duties which are laid down in advance in national law set out in this Article.

3. The decision to dismiss the head of the national regulatory authority concerned, or where applicable members of the collegiate body fulfilling that function shall be made public at the time of dismissal. The dismissed head of the national regulatory authority, or where applicable, members of the collegiate body fulfilling that function shall receive a statement of reasons and shall have the right to request its publication, where this would not otherwise take place, in which case it shall be published. Member States shall ensure that this decision is subject to review by a court, on points of fact as well as on points of law.
Article 8

Political independence and accountability of the national regulatory authorities

1. Without prejudice to the provisions of Article 10, national regulatory authorities shall act independently and objectively including in the design of internal procedures and organisation of staff, shall operate in a transparent and accountable manner in accordance with Union law, and shall not seek or take instructions from any other body in relation to the exercise of the tasks assigned to them under national law implementing Union law. This shall not prevent supervision in accordance with national constitutional law. Only appeal bodies set up in accordance with Article 31 shall have the power to suspend or overturn decisions by the national regulatory authorities.

2. National regulatory authorities shall report annually inter alia on the state of the electronic communications market, the decisions they issue, their human and financial resources and attribution of these, as well as on future plans. Their reports shall be made public.

Article 9

Regulatory capacity of national regulatory authorities

1. Member States shall ensure that national regulatory authorities have separate annual budgets with autonomy in the implementation of the allocated budget. The budgets shall be made public.

2. Without prejudice to the obligation to ensure that national regulatory authorities have adequate financial and human resources to carry out the task assigned to them, financial autonomy shall not prevent supervision or control in accordance with national constitutional law. Any control exercised on the budget of the national regulatory authorities shall be exercised in a transparent manner and made public.
3. Member States shall also ensure that national regulatory authorities have adequate financial and human resources to enable them to actively participate in and contribute to the Body of European Regulators for Electronic Communications (BEREC)\textsuperscript{34}.

Article 10

Participation of national regulatory authorities in BEREC

1. Member States shall ensure that the goals of BEREC of promoting greater regulatory coordination and coherence are actively supported by the respective national regulatory authorities.

2. Member States shall ensure that national regulatory authorities take utmost account of guidelines, opinions, recommendations, common positions, best practices and methodologies adopted by BEREC when adopting their own decisions for their national markets.

\textsuperscript{34} Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office.
Article 11

Cooperation with national authorities

1. National regulatory authorities, other competent authorities under this Directive, and national competition authorities shall provide each other with the information necessary for the application of the provisions of this Directive. In respect of the information exchanged, Union data protection rules shall apply, and the receiving authority shall ensure the same level of confidentiality as the originating authority.

CHAPTER II

GENERAL AUTHORISATION

SECTION 1 GENERAL PART

Article 12

General authorisation of electronic communications networks and services

1. Member States shall ensure the freedom to provide electronic communications networks and services, subject to the conditions set out in this Directive. To this end, Member States shall not prevent an undertaking from providing electronic communications networks or services, except where this is necessary for the reasons set out in Article 52 (1) of the Treaty. Any such limitation to the freedom to provide electronic communications networks and services shall be duly reasoned and shall be notified to the Commission.
2. The provision of electronic communications networks or the provision of electronic communications services other than number-independent interpersonal communications services may, without prejudice to the specific obligations referred to in Article 13(2) or rights of use referred to in Articles 46 and 88, only be subject to a general authorisation.

3. Where a Member State deems that a notification requirement is justified for undertakings subject to general authorisation, that Member State may only require such undertakings to submit a notification to BEREC to the national regulatory and/or other competent authority but it the Member State may not require them to obtain an explicit decision or any other administrative act by the national regulatory competent authority or by any other authority before exercising the rights stemming from the authorisation.

Upon notification to BEREC, when required, an undertaking may begin activity, where necessary subject to the provisions on rights of use pursuant to this Directive. BEREC shall forward by electronic means and without delay each notification to the national regulatory authority in all Member States concerned by the provision of electronic communications networks or the provision of electronic communications services.

Information in accordance with this paragraph on existing notifications already made to the national regulatory authority on the date of transposition of this Directive shall be provided to BEREC at the latest on date of transposition.
4. The notification referred to in paragraph 3 shall not entail more than a declaration by a legal or natural person to the **competent authority** BEREC of the intention to commence the provision of electronic communications networks or services and the submission of the minimal information which is required to allow BEREC and the **national regulatory competent** authority to keep a register or list of providers of electronic communications networks and services. This information must be limited to:

   (1) the name of the provider;
   (2) the provider's legal status, form and registration number, where the provider is registered in a trade or other similar public register in the EU;
   (3) the geographical address of the provider's main establishment in the EU, if any, and, where existing, any secondary branch in a Member State;
   (3a) the provider's website, where existing, associated with the provision of electronic communications networks and/or services;
   (4) a contact person and contact details;
   (5) a short description of the networks or services intended to be provided;
   (6) the Member States concerned, and
   (7) an estimated date for starting the activity.

Member States may not impose any additional or separate notification requirements.
In order to minimise duplication of approximate notification requirements, BEREC shall publish guidelines for the notification template and maintain an EU database of the notifications transmitted to the competent authorities. To that end the competent authorities shall forward without undue delay to BEREC by electronic means each notification duly received. Notifications made to the competent authorities prior to the date referred to in Article 115(1), second subparagraph shall be forwarded to BEREC at the latest twelve months after that date.

_**Article 13**_

**Conditions attached to the general authorisation and to the rights of use for radio spectrum and for numbers, and specific obligations**

1. The general authorisation for the provision of electronic communications networks or services and the rights of use for radio spectrum and rights of use for numbers may be subject only to the conditions listed in Annex I. Such conditions shall be non-discriminatory, proportionate and transparent and, in the case of rights of use for radio spectrum, shall ensure its effective and efficient use and be in accordance with Articles 45 and 51, and, in the case of rights of use for numbers, shall be in accordance with Article 88.

2. Specific obligations which may be imposed on providers of electronic communications networks and services under Articles 36, 46(1), 48(2), 59(1), 59(4), 60, 66 and 73, or on those designated to provide universal service under this Directive shall be legally separate from the rights and obligations under the general authorisation. In order to achieve transparency for undertakings, the criteria and procedures for imposing such specific obligations on individual undertakings shall be referred to in the general authorisation.
3. The general authorisation shall only contain conditions which are specific for that sector and are set out in Parts A, B and C of Annex I and shall not duplicate conditions which are applicable to undertakings by virtue of other national legislation.

4. Member States shall not duplicate the conditions of the general authorisation where they grant the right of use for radio frequencies or numbers.

Article 14

Declarations to facilitate the exercise of rights to install facilities and rights of interconnection

At the request of an undertaking, competent authorities shall, within one week, issue standardised declarations, confirming, where applicable, that the undertaking has submitted a notification under Article 12(23) and detailing under what circumstances any undertaking providing electronic communications networks or services under the general authorisation has the right to apply for rights to install facilities, negotiate interconnection, and/or obtain access or interconnection in order to facilitate the exercise of those rights for instance at other levels of government or in relation to other undertakings. Where appropriate such declarations may also be issued as an automatic reply following the notification referred to in Article 12(23).
SECTION 2

General authorisation rights and obligations

Article 15

Minimum list of rights derived from the general authorisation

1. Undertakings authorised pursuant to Article 12, shall have the right to:

   (a) provide electronic communications networks and services;

   (b) have their application for the necessary rights to install facilities considered in accordance with Article 43 of this Directive.

   (c) use radio spectrum in relation to electronic communications services and networks subject to Articles 13, 46 and 54.

   (d) have their application for the necessary rights of use for numbers considered in accordance with Article 88.

2. When such undertakings provide electronic communications networks or services to the public the general authorisation shall also give them the right to:

   (a) negotiate interconnection with and where applicable obtain access to or interconnection from other providers of publicly available communications networks and services covered by a general authorisation anywhere in the Union under the conditions of and in accordance with this Directive;

   (b) be given an opportunity to be designated to provide different elements of a universal service and/or to cover different parts of the national territory in accordance with Article 81 or 82.
Article 16

Administrative charges

1. Any administrative charges imposed on providers of a service or a network under the general authorisation or to whom a right of use has been granted shall:

(a) in total, cover only the administrative costs which will be incurred in the management, control and enforcement of the general authorisation scheme and of rights of use and of specific obligations as referred to in Article 13(2), which may include costs for international cooperation, harmonisation and standardisation, market analysis, monitoring compliance and other market control, as well as regulatory work involving preparation and enforcement of secondary legislation and administrative decisions, such as decisions on access and interconnection; and

(b) be imposed upon the individual undertakings in an objective, transparent and proportionate manner which minimises additional administrative costs and attendant charges. Member States may choose not to apply administrative charges to undertakings whose turnover is below a certain threshold or whose activities do not reach a minimum market share or have a very limited territorial scope.

2. Where national regulatory authorities or other competent authorities impose administrative charges, they shall publish a yearly overview of their administrative costs and of the total sum of the charges collected. In the light of the difference between the total sum of the charges and the administrative costs, appropriate adjustments shall be made.
1. Member States shall require *providers of* public communications networks or publicly available electronic communications services which have special or exclusive rights for the provision of services in other sectors in the same or another Member State to:

(a) keep separate accounts for the activities associated with the provision of electronic communications networks or services, to the extent that would be required if these activities were carried out by legally independent companies, so as to identify all elements of cost and revenue, with the basis of their calculation and the detailed attribution methods used, related to their activities associated with the provision of electronic communications networks or services including an itemised breakdown of fixed asset and structural costs, or

(b) have structural separation for the activities associated with the provision of electronic communications networks or services.

Member States may choose not to apply the requirements referred to in the first subparagraph to undertakings the annual turnover of which in activities associated with electronic communications networks or services in the Member States is less than EUR 50 million.

2. Where *providers of* public communications networks or publicly available electronic communications services are not subject to the requirements of company law and do not satisfy the small and medium-sized enterprise criteria of Union law accounting rules, their financial reports shall be drawn up and submitted to independent audit and published. The audit shall be carried out in accordance with the relevant Union and national rules.

This requirement shall also apply to the separate accounts required under paragraph 1(a).

Section 3 Amendment and withdrawal
### Article 18

Amendment of rights and obligations

1. Member States shall ensure that the rights, conditions and procedures concerning general authorisations and rights of use for radio spectrum or for numbers or rights to install facilities may only be amended in objectively justified cases and in a proportionate manner, taking into consideration, where appropriate, the specific conditions applicable to transferable rights of use for radio spectrum and for numbers.

2. Except where proposed amendments are minor, and have been agreed with the holder of the rights or general authorisation, and without prejudice to Article 35 notice shall be given in an appropriate manner of the intention to make such amendments and interested parties, including users and consumers, shall be allowed a sufficient period of time to express their views on the proposed amendments, which shall be no less than four weeks except in exceptional circumstances.

Any amendment shall be published stating the reasons thereof.
Article 19

Restriction or withdrawal of rights

1. Without prejudice to Article 30 paragraphs 5 and 6, Member States shall not restrict or withdraw rights to install facilities or rights of use for radio spectrum or numbers-numbering resources before expiry of the period for which they were granted except where justified pursuant to paragraph 2 and where applicable in conformity with the Annex I and relevant national provisions regarding compensation for withdrawal of rights. Where existing rights of use of radio spectrum are restricted or withdrawn pursuant to paragraph 2, the owners of such rights may, where appropriate and in conformity with Union law and relevant national provisions, be compensated appropriately.

2. In line with the need to ensure the effective and efficient use of radio spectrum or the implementation of harmonised conditions adopted under Decision No 676/2002/EC, Member States may allow the restriction or withdrawal of rights of use for radio spectrum, including those rights granted pursuant to Article 49 with a 25 year minimum duration, based on pre-established and clearly defined procedures laid down in advance, in compliance with the principles of proportionality and non-discrimination.

3. A modification in the use of radio spectrum as a result of the application of paragraphs 4 or 5 of Article 45 shall not justify by itself the withdrawal of a right to use radio spectrum.

4. Any intention to restrict or withdraw authorisations or individual rights of use for radio spectrum or numbers-numbering resources without the consent of the right holder shall be subject to a public consultation with interested parties in accordance with Article 23.
CHAPTER III

Provision of information, surveys and consultation mechanism

Article 20

Information request to undertakings

1. Member States shall ensure that providers of electronic communications networks and services, associated facilities, or associated services provide all the information, including financial information, necessary for national regulatory authorities, other competent authorities and BEREC to ensure conformity with the provisions of, or decisions or opinions made in accordance with, this Directive and Regulation BEREC Reg. In particular, national regulatory authorities, and, where necessary for performing their tasks, other competent authorities, shall have the power to require those undertakings to submit information concerning future network or service developments that could have an impact on the wholesale services that they make available to competitors, as well as on electronic communications networks and associated facilities which is disaggregated at local level and sufficiently detailed to enable the geographical survey and to designate digital exclusion of areas in accordance with Article 22.

Where the information collected in accordance with the first subparagraph is insufficient for national regulatory authorities, other competent authorities and BEREC to carry out their regulatory tasks under EU law, such information may be requested from other relevant undertakings active in the electronic communications or adjacent closely related sectors.
Undertakings with significant market power on wholesale markets may also be required to submit accounting data on the retail markets that are associated with those wholesale markets.

National regulatory authorities and other competent authorities may request information from the single information points established pursuant to Directive 2014/61/EU on measures to reduce the cost of high-speed electronic communications networks.

Undertakings shall provide such information promptly upon request and in conformity with the timescales and level of detail required. The information requested shall be proportionate to the performance of that task. The competent authority shall give the reasons justifying its request for information and shall treat the information in accordance with paragraph 3.

2. Member States shall ensure that national regulatory authorities and other competent authorities provide the Commission, after a reasoned request, with the information necessary for it to carry out its tasks under the Treaty. The information requested by the Commission shall be proportionate to the performance of those tasks. Where the information provided refers to information previously provided by undertakings at the request of the authority, such undertakings shall be informed thereof. To the extent necessary, and unless the authority that provides the information has made an explicit and reasoned request to the contrary, the Commission shall make the information provided available to another such authority in another Member State. Subject to the requirements of paragraph 3, Member States shall ensure that the information submitted to one authority can be made available to another such authority in the same or different Member State and to BEREC, after a substantiated request, where necessary to allow either authority, or BEREC, to fulfil its responsibilities under Union law.
3. Where information, **including information gathered in the context of a geographical survey**, is considered confidential by a national regulatory or other competent authority in accordance with Union and national rules on business confidentiality or the protection of personal data, the Commission, BEREC and **any other competent** the authorities concerned shall ensure such confidentiality. In accordance with the principle of sincere cooperation, national regulatory authorities and other competent authorities shall not deny the provision of the requested information to the Commission, to BEREC or to another authority on the grounds of confidentiality or the need to consult with the parties which provided the information. When the Commission, BEREC or a competent authority undertake to respect the confidentiality of information identified as such by the authority holding it, the latter shall share the information on request for the identified purpose without having to further consult the parties who provided the information. Business confidentiality shall not prevent the timely sharing of information between the competent authority, the Commission, BEREC and any other competent authorities concerned for the purposes of reviewing, monitoring and supervising the application of this Directive.

4. Member States shall ensure that, acting in accordance with national rules on public access to information and subject to Union and national rules on business confidentiality and protection of personal data, national regulatory and other competent authorities publish such information as would contribute to an open and competitive market.

5. National regulatory and other competent authorities shall publish the terms of public access to information as referred to in paragraph 4, including procedures for obtaining such access.
Article 21

Information required under the general authorisation, for rights of use and for the specific obligations

1. Without prejudice to any information requested pursuant to Article 20 and information and reporting obligations under national legislation other than the general authorisation, national regulatory and other competent authorities may require undertakings to provide information under the general authorisation, for rights of use or the specific obligations referred to in Article 13(2) that is proportionate and objectively justified for in particular:

(a) systematic or case-by-case verification of compliance with condition 1 of Part A, conditions 2 and 6 of Part D and conditions 2 and 7 of Part E of Annex I and of compliance with obligations as referred to in Article 13 (2);
(b) case-by-case verification of compliance with conditions as set out in Annex I where a complaint has been received or where the competent authority has other reasons to believe that a condition is not complied with or in case of an investigation by the competent authority on its own initiative;
(c) procedures for and assessment of requests for granting rights of use;
(d) publication of comparative overviews of quality and price of services for the benefit of consumers;
(e) clearly defined statistical, reports or studies purposes;
(f) market analysis for the purposes of this Directive including data on the downstream or retail markets associated with or related to the markets which are the subject of the market analysis;
(g) safeguarding the efficient use and ensuring the effective management of radio spectrum and of numbering resources;
(h) evaluating future network or service developments that could have an impact on wholesale services made available to competitors, on territorial coverage, on connectivity available to end-users or on the designation of digital exclusion areas pursuant to Article 22.

(ha) conducting geographical studies;

(hb) responding to reasoned requests for information by BEREC.

The information referred to in points (a), (b), (d), (e), (f), (g), and (h), (ha) and (hb) of the first subparagraph may not be required prior to, or as a condition for, market access.

BEREC may develop templates for information requests where necessary to facilitate consolidated presentation and analysis of the information obtained.

2. As regards the rights of use for radio spectrum, such information shall refer in particular to the effective and efficient use of radio spectrum as well as to compliance with any coverage and quality of service obligations attached to the rights of use for radio spectrum and their verification.

3. Where national regulatory or other competent authorities require undertakings to provide information as referred to in paragraph 1, they shall inform them of the specific purpose for which this information is to be used.

4. National regulatory or other competent authorities may not duplicate requests of information already made by BEREC pursuant to Article 30 of Regulation xxxx/xxxx/EC (BEREC Regulation)\(^\text{35}\) where BEREC has made the information received available to those authorities.

Article 22
Geographical surveys of network deployments

1. National regulatory authorities and/or other competent authorities shall conduct a geographical survey of the reach of electronic communications networks capable of delivering broadband ("broadband networks") within three years from deadline for transposition of the Directive and shall update it at least every three years.

This geographical survey shall include consist of:

—- a) a survey of the current geographic reach of such broadband networks within their territory, as required in particular for conducting the tasks under this Directive required by Articles 62 and 65 and by Article 81, as well as for imposing obligations in accordance with Article 66 and for the surveys required for the application of State aid rules; and

—- b) This geographical survey may also include a three-year forecast for a period determined by the relevant authority of the reach of broadband networks, including very high capacity networks within their territory, relying on the information gathered in accordance with point (a), where this is available and relevant.
This forecast shall reflect the economic prospects of the electronic communications networks sector and investment intentions of operators at the time when the data is gathered, in order to allow the identification of available connectivity in different areas. This forecast shall include all relevant information, including on information on planned deployments by any undertaking or public authority, in particular to include of very high capacity networks and significant upgrades or extensions of legacy broadband networks to at least 100 Mbps download speeds the performance of next-generation access networks. For this purpose, national regulatory and/or other competent authorities shall request undertakings and public authorities to provide relevant information regarding planned deployments of such networks to the extent that it is available and can be provided with reasonable effort.

The extent to which it would be appropriate to rely on all or part of the information gathered in the context of such forecast shall be decided by the national regulatory authority with respect to tasks specifically attributed to it under this Directive. Where a survey is not conducted by the national regulatory authority, it shall be done in cooperation with that authority to the extent it may be relevant for its tasks.
The information collected in the geographical survey shall be at an appropriate level of local detail and shall include sufficient information on the quality of service and parameters thereof. National regulatory and/or other competent authorities shall ensure that confidential information gathered in the context of a geographical survey are is treated in accordance with Article 20 and shall be treated in accordance with Article 20.

2. National regulatory and/or other competent authorities may designate a "digital exclusion area" corresponding to an area with clear territorial boundaries where, on the basis of the information gathered and any forecast prepared pursuant to paragraph 1, it is determined that for the duration of the relevant forecast period no undertaking or public authority has deployed or is planning to deploy a very high capacity network or has to significantly upgraded or extended its network to a performance of at least 100 Mbps download speeds, or is planning to do so. National regulatory and/or other competent authorities shall publish the designated digital exclusion areas.
3. Within a designated digital exclusion area, National regulatory the relevant authorities may invite issue a call open to any undertakings and public authorities to declare their intention to deploy very high capacity networks over the duration of the relevant forecast period. In cases where this invitation results in a declaration by an undertaking or public authority of its intention to do so, the national regulatory relevant authorities may require other undertakings and public authorities to declare any intention to deploy very high capacity networks, or significantly upgrade or extend its network to a performance of at least 100 Mbps download speeds in this area. The national regulatory authorities relevant authority shall specify the information to be included in such submissions, in order to ensure at least a similar level of detail as that taken into consideration in the any forecast envisaged in pursuant to paragraph 1(b). It shall also inform any undertaking or public authority expressing its interest whether the designated digital exclusion area is covered or likely to be covered by an NGA network offering download speeds below 100 Mbps on the basis of the information gathered pursuant to paragraph 1(b).

4. When national regulatory authorities take measures pursuant to paragraph 3, they shall be taken so according to an efficient, objective, transparent and non-discriminatory procedure, whereby no undertaking is a priori excluded a priori. Failure to provide information pursuant to paragraph 1(b) or to respond to the call for interest pursuant to paragraph 3 may be considered as misleading information pursuant to Articles 20 or 21.
5. Member States shall ensure that national regulatory and/or other competent authorities, local, regional and national authorities with responsibility for the allocation of public funds for the deployment of electronic communications networks, for the design of national broadband plans, for defining coverage obligations attached to rights of use for radio spectrum and for verifying availability of services falling within the universal service obligation in their territory take into account the results of the geographical surveys and of any designated digital exclusion areas conducted in accordance with paragraphs 1, 2 and 3, and that national regulatory and/or other competent authorities supply such results subject to the receiving authority ensuring the same level of confidentiality and protection of business secrets as the originating authority and inform the parties which provided the information. These results shall also be made available to BEREC and the Commission upon their request and under the same conditions.

6. If the relevant information is not available on the market, national regulatory and/or other competent authorities shall make data from the geographical surveys which is not subject to confidentiality directly accessible in accordance with Directives 2013/37/EU to allow for its reuse. They shall also, where such tools are not available on the market, make available information tools enabling end-users to determine the availability of connectivity in different areas, with a level of detail which is useful to support their choice in terms of connectivity services of operator or service provider in line with national regulatory authority’s obligations regarding the protection of confidential information and business secrets.

7. By [date 18 months after the entry into force of this Directive] in order to contribute to the consistent application of geographical surveys and forecasts, BEREC shall, after consulting stakeholders and in close cooperation with the Commission and relevant national authorities, issue guidelines to assist national regulatory authorities and/or other competent authorities on the consistent implementation of their obligations under this Article.
Article 23

Consultation and transparency mechanism

Except in cases falling within Articles 32(9), 26, or 27, Member States shall ensure that, where national regulatory authorities or other competent authorities intend to take measures in accordance with this Directive, or where they intend to provide for restrictions in accordance with Article 45(4) and 45(5), which have a significant impact on the relevant market, they give interested parties the opportunity to comment on the draft measure within a reasonable period, having regard to the complexity of the matter and in any event not shorter than 30 days, except in exceptional circumstances. The competent authorities shall inform RSPG at the moment of publication about any such draft measures which fall within the scope of the comparative or competitive selection procedure pursuant to Article 54 paragraph 2 and relate to the use of spectrum for which the harmonised technical conditions have been set in order to enable the use for wireless broadband. In doing so, the competent authorities shall submit to the RSPG the appropriate information on the elements (a) to (g) of in Article 35 paragraph 1-2.

National regulatory and other competent authorities shall publish their national consultation procedures.

Member States shall ensure the establishment of a single information point through which all current consultations can be accessed.

The results of the consultation procedure shall be made publicly available, except in the case of confidential information in accordance with Union and national law on business confidentiality.
Article 24
Consultation with interested parties

1. Member States shall ensure as far as appropriate that competent authorities in coordination, where relevant, with national regulatory authorities take account of the views of end-users, consumers (including, in particular, consumers with disabilities), manufacturers and undertakings that provide electronic communications networks and/or services on issues related to all end-user and consumer rights, including equivalent access and choice for end-users with disabilities, concerning publicly available electronic communications services, in particular where they have a significant impact on the market.

In particular, Member States shall ensure that competent authorities in coordination, where relevant, with national regulatory authorities establish a consultation mechanism, accessible for persons with disabilities, ensuring that in their decisions on issues related to end-user and consumer rights concerning publicly available electronic communications services, due consideration is given to consumer interests in electronic communications.

2. Where appropriate, interested parties may develop, with the guidance of competent authorities in coordination, where relevant, with national regulatory authorities, mechanisms, involving consumers, user groups and service providers, to improve the general quality of service provision by, inter alia, developing and monitoring codes of conduct and operating standards.

3. Without prejudice to national rules in conformity with Union law promoting cultural and media policy objectives, such as cultural and linguistic diversity and media pluralism, competent authorities in coordination, where relevant, with national regulatory authorities and other relevant authorities may promote cooperation between undertakings providing providers of electronic communications networks and/or services and sectors interested in the promotion of lawful content in electronic communications networks and services. That cooperation may also include coordination of the public interest information to be provided pursuant to Article 96(3) and Article 95(1).
**Article 25**

**Out-of-court dispute resolution**

1. Member States shall ensure that consumers have access to transparent, non-discriminatory, simple, fast, fair and inexpensive out-of-court procedures for their unresolved disputes with undertakings providing publicly available electronic communications services other than number-independent interpersonal communications services, arising under this Directive and relating to the contractual conditions and/or performance of contracts concerning the supply of those networks and/or services. Member States shall ensure that the national regulatory authority and/or the competent authority responsible for, or at least one independent body with proven expertise in, the application of Articles 95 to 100 and Article 107 is listed as an alternative dispute resolution entity in accordance with Article 20(2) of Directive 2013/11/EU with a view to its acting as a dispute resolution entity for disputes between providers and consumers arising under this Directive and relating to the performance of contracts. Member States may extend the access to alternative dispute resolution procedures provided by that entity to end-users other than consumers, in particular micro and small enterprises.

2. Member States shall ensure that their legislation does not hamper the establishment of complaints offices and the provision of online services at the appropriate territorial level to facilitate access to dispute resolution by consumers and other end-users. For disputes involving consumers and falling within the scope of Regulation (EU) 524/2013, the provisions of that Regulation shall apply provided that the dispute settlement entity concerned has been notified to the Commission under Article 20 of Directive 2013/11/EU.

3. Without prejudice to the provisions of Directive 2013/11/EU, where such disputes involve parties in different Member States, Member States shall coordinate their efforts with a view to bringing about a resolution of the dispute.

4. This Article is without prejudice to national court procedures.
Article 26

Dispute resolution between undertakings

1. In the event of a dispute arising in connection with existing obligations under this Directive between undertakings providing providers of electronic communications networks or services in a Member State, or between such undertakings and other undertakings in the Member State benefiting from obligations of access and/or interconnection or between undertakings providing providers of electronic communications networks or services in a Member State and providers of associated facilities, the national regulatory authority concerned shall, at the request of either party, and without prejudice to paragraph 2, issue a binding decision to resolve the dispute in the shortest possible time frame on the basis of clear and efficient procedures and in any case within four months, except in exceptional circumstances. The Member State concerned shall require that all parties cooperate fully with the national regulatory authority.

2. Member States may make provision for national regulatory authorities to decline to resolve a dispute through a binding decision where other mechanisms, including mediation, exist and would better contribute to resolution of the dispute in a timely manner in accordance with Article 3. The national regulatory authority shall inform the parties without delay. If after four months the dispute is not resolved, and if the dispute has not been brought before the courts by the party seeking redress, the national regulatory authority shall issue, at the request of either party, a binding decision to resolve the dispute in the shortest possible time frame and in any case within four months.

3. In resolving a dispute, the national regulatory authority shall take decisions aimed at achieving the objectives set out in Article 3. Any obligations imposed on an undertaking by the national regulatory authority in resolving a dispute shall respect the provisions of this Directive.
4. The decision of the national regulatory authority shall be made available to the public, having regard to the requirements of business confidentiality. The parties concerned shall be given a full statement of the reasons on which it is based.

5. The procedure referred to in paragraphs 1, 3 and 4 shall not preclude either party from bringing an action before the courts.

Article 27
Resolution of cross-border disputes

1. In the event of a dispute arising under this Directive between undertakings in different Member States the provisions set out in paragraphs 2, 3 and 4 shall be applicable. Those provisions shall not apply to disputes relating to radio spectrum coordination covered by Article 28.

2. Any party may refer the dispute to the national regulatory authority or authorities concerned. Where the dispute affects trade between Member States, the competent national regulatory authority or authorities shall notify the dispute to BEREC in order to bring about a consistent resolution of the dispute, in accordance with the objectives set out in Article 3.

3. Where such a notification has been made, BEREC shall issue an opinion indicating to inviting the national regulatory authority or authorities concerned to take specific action in order to solve the dispute or to refrain from action, in the shortest possible time frame and in any case within four months, except in exceptional circumstances.

4. The national regulatory authority or authorities concerned shall await BEREC's opinion before taking any action to solve the dispute. In exceptional circumstances, where there is an urgent need to act, in order to safeguard competition or protect the interests of end-users, any of the competent national regulatory authorities may, either at the request of the parties or on its own initiative, adopt interim measures.
5. Any obligations imposed on an undertaking by the national regulatory authority as part of the resolution of the dispute shall comply with this Directive, take the utmost account of the opinion adopted by BEREC, and be adopted within one month from such opinion.

6. The procedure referred to in paragraph 2 shall not preclude either party from bringing an action before the courts.

Article 28

Radio Spectrum Coordination among Member States

1. Member States and their competent authorities shall ensure that the use of radio spectrum is organised on their territory in a way that no other Member State is prevented, in particular due to cross-border harmful interference between Member States, from allowing on its territory the use of harmonised radio spectrum in accordance with Union law legislation, especially due to harmful cross-border interference between Member States.

Member States They shall take all necessary measures to this effect without prejudice to their obligations under international law and relevant international agreements such as the ITU Radio Regulations and the ITU Radio Regional Agreements.

2. Member States shall cooperate with each other and through the Radio Spectrum Policy Group where appropriate, in the cross-border coordination of the use of radio spectrum in order to:

(a) ensure compliance with paragraph 1;

(b) solve any problem or dispute in relation to cross-border coordination or cross-border harmful interference between Member States as well as with non-EU countries which prevent Member States from using the harmonised radio spectrum in their territory.
3. **In order to ensure compliance with paragraph 1, any** Member State concerned as well as the Commission may request the Radio Spectrum Policy Group to use its good offices to address any problem or dispute in relation to cross-border coordination or cross border harmful interference. Where appropriate, the Radio Spectrum Policy Group may and, where appropriate, to propose a coordinated solution in an opinion **a coordinated solution regarding any such problem or dispute**, in order to assist Member States in complying with paragraphs 1 and 2.

4. **Where no solution has been reached following the actions pursuant to paragraphs 2 and 3 have not solved the problem or dispute, and at the request of any affected Member State or upon its own initiative,** the Commission may, taking utmost account of the any opinion of the Radio Spectrum Policy Group **recommending a coordinated solution pursuant to paragraph 3, adopt decisions implementing measures to resolve cross-border harmful interferences between two or several Member States which prevent them from using the harmonised radio spectrum in their territory.** Those decisions implementing acts shall be adopted in accordance with the examination procedure referred to in Article 110(4) and shall be addressed to those Member States concerned by the unresolved harmful interference.

5. The Union shall, upon request of any affected Member State, provide legal, political and technical support to resolve spectrum coordination issues with countries neighbouring the Union, including candidate and acceding countries, in such a way that the Member States concerned can observe their obligations under Union law. In the provision of such assistance, the Union shall use its legal and political powers to promote the implementation of Union policies.
Title III: Implementation

Article 29
Penalties and compensation

1. Member States shall lay down rules on penalties, **including** fines and **non-criminal** predetermined or periodic penalties, where necessary, **applicable to** infringements of national provisions adopted pursuant to this Directive or of any relevant legally-binding decision **issued by the Commission**, national regulatory or other competent authority **pursuant to this Directive**, and shall take all measures necessary to ensure that they are implemented. Within the limits of national constitutional law, national regulatory and other competent authorities shall have the power to impose such penalties. The penalties provided for must be appropriate, effective, proportionate and dissuasive. The Member States shall notify those provisions to the Commission by [date for transposition] and shall notify it without delay of any subsequent amendment affecting them.

1a. Member States shall provide for penalties in the context of the procedure referred to in Article 22(3) only where an undertaking or public authority knowingly or grossly negligently provides misleading, erroneous or incomplete information.

When determining the amount of fines or periodic penalties imposed on an undertaking or public authority for knowingly or grossly negligently providing misleading, erroneous or incomplete information in the context of the procedure referred to in Article 22(3), regard shall be had, inter alia, to whether the behaviour of the undertaking or public authority has had a negative impact on competition and, in particular, whether, contrary to the information originally provided or any update thereof, the undertaking or public authority has either deployed, extended or upgraded a network, or has not deployed a network, and has failed to provide an objective justification for that change of plan.
Article 30

Compliance with the conditions of the general authorisation or of rights of use for radio spectrum and for numbers numbering resources and compliance with specific obligations

1. Member States shall ensure that their relevant national regulatory and other competent authorities monitor and supervise compliance with the conditions of the general authorisation or of rights of use for radio spectrum and for numbers numbering resources, with the specific obligations referred to in Article 13(2) and with the obligation to use radio spectrum effectively and efficiently in accordance with Articles 4, 45(1) and 47 paragraphs 1 and 2.

Competent authorities shall have the power to require undertakings covered by the general authorisation or enjoying rights of use for radio spectrum or numbers numbering resources to provide all information necessary to verify compliance with the conditions of the general authorisation or of rights of use for radio spectrum and for numbers numbering resources or with the specific obligations referred to in Article 13(2) or Article 47(1) and (2), in accordance with Article 21.

2. Where a national competent authority finds that an undertaking does not comply with one or more of the conditions of the general authorisation or of rights of use for radio spectrum and for numbers numbering resources, or with the specific obligations referred to in Article 13(2), it shall notify the undertaking of those findings and give the undertaking the opportunity to state its views, within a reasonable time limit.
3. The relevant competent authority shall have the power to require the cessation of the breach referred to in paragraph 2 either immediately or within a reasonable time limit and shall take appropriate and proportionate measures aimed at ensuring compliance.

In this regard, Member States shall empower the relevant competent authorities to impose:

(a) dissuasive financial penalties where appropriate, which may include periodic penalties having retroactive effect; and

(b) orders to cease or delay provision of a service or bundle of services which, if continued, would result in significant harm to competition, pending compliance with access obligations imposed following a market analysis carried out in accordance with Article 65.

The measures and the reasons on which they are based shall be communicated to the undertaking concerned without delay and shall stipulate a reasonable period for the undertaking to comply with the measure.

4. Notwithstanding paragraphs 2 and 3, Member States shall empower the relevant competent authority to impose financial penalties where appropriate on undertakings for failure to provide information in accordance with the obligations imposed under Article 21(1)(a) or (b) and Article 67 within a reasonable period stipulated by the national competent authority.
5. In cases of serious breach or repeated breaches of the conditions of the general authorisation or of the rights of use for radio spectrum and for numbers numbering resources, or specific obligations referred to in Article 13(2) or Article 47 (1) or (2), where measures aimed at ensuring compliance as referred to in paragraph 3 of this Article have failed, Member States shall ensure that national regulatory and other competent authorities may prevent an undertaking from continuing to provide electronic communications networks or services or suspend or withdraw rights of use. Member States shall empower the relevant competent authority to impose sanctions and penalties which are effective, proportionate and dissuasive. Such sanctions and penalties may be applied to cover the period of any breach, even if the breach has subsequently been rectified.

6. Irrespective of the provisions of paragraphs 2, 3 and 5, where the relevant competent authority has evidence of a breach of the conditions of the general authorisation or of the rights of use for radio spectrum and for numbers numbering resources or of the specific obligations referred to in Article 13(2) or Article 47(1) and (2) that represents an immediate and serious threat to public safety, public security or public health or will create serious economic or operational problems for other providers or users of electronic communications networks or services or other users of the radio spectrum, it may take urgent interim measures to remedy the situation in advance of reaching a final decision. The undertaking concerned shall thereafter be given a reasonable opportunity to state its views and propose any remedies. Where appropriate, the relevant competent authority may confirm the interim measures, which shall be valid for a maximum of 3 months, but which may, in circumstances where enforcement procedures have not been completed, be extended for a further period of up to three months.

7. Undertakings shall have the right to appeal against measures taken under this Article in accordance with the procedure referred to in Article 31 of this Directive.
Article 31
Right of appeal

1. Member States shall ensure that effective mechanisms exist at national level under which any user or undertaking providing electronic communications networks, and/or services and/or associated facilities who is affected by a decision of a competent authority has the right of appeal against the decision to an appeal body that is completely independent of the parties involved and of any external intervention or political pressure liable to jeopardise its independent assessment of matters coming before it. This body, which may be a court, shall have the appropriate expertise to enable it to carry out its functions effectively. Member States shall ensure that the merits of the case are duly taken into account and that there is an effective appeal mechanism.

Pending the outcome of the appeal, the decision of the competent authority shall stand, unless interim measures are granted in accordance with national law.

2. Where the appeal body referred to in paragraph 1 is not judicial in character, written reasons for its decision shall always be given. Furthermore, in such a case, its decision shall be subject to review by a court or tribunal within the meaning of Article 267 of the Treaty.

3. Member States shall collect information on the general subject matter of appeals, the number of requests for appeal, the duration of the appeal proceedings and the number of decisions to grant interim measures. Member States shall provide such information, as well as the decisions or judgments to the Commission and BEREC after a reasoned request from either.
Title IV: Internal market procedures

Article 32

Consolidating the internal market for electronic communications

1. In carrying out their tasks under this Directive, national regulatory authorities shall take the utmost account of the objectives set out in Article 3, including in so far as they relate to the functioning of the internal market.

2. National regulatory authorities shall contribute to the development of the internal market by working with each other and with the Commission and BEREC in a transparent manner so as to ensure the consistent application, in all Member States, of the provisions of this Directive. To this end, they shall, in particular, work with the Commission and BEREC to identify the types of instruments and remedies best suited to address particular types of situations in the marketplace.

3. Except where otherwise provided in recommendations or guidelines adopted pursuant to Article 34 upon completion of the consultation, if referred to in required, under Article 23, where a national regulatory authority intends to take a measure which:

   (a) falls within the scope of Articles 59, 62, 65, or 66 or 86b of this Directive; and

   (b) would affect trade between Member States;

   it shall publish make the draft measure and accessible communicate it to the Commission, BEREC, and the national regulatory authorities in other Member States, at the same time, together with the reasoning on which the measure is based, in accordance with Article 20(3), and inform the Commission, BEREC and other national regulatory authorities thereof. National regulatory authorities, BEREC and the Commission may make comments to the national regulatory authority concerned only within one month. The one-month period may not be extended.
4. Where an intended measure covered by paragraph 3 aims at:
   (a) defining a relevant market which differs from those defined in the Recommendation in accordance with Article 62(1); or
   (b) deciding whether or not to designate an undertaking as having, either individually or jointly with others, significant market power, under Article 65(3) or (4);

and would affect trade between Member States, and the Commission has indicated to the national regulatory authority that it considers that the draft measure would create a barrier to the single market or if it has serious doubts as to its compatibility with Union law and in particular the objectives referred to in Article 3, the draft measure shall not be adopted for a further two months. This period may not be extended. The Commission shall inform BEREC and other national regulatory authorities of its reservations in such a case and simultaneously make them public.

4a. BEREC shall publish an opinion on the Commission's notification referred to in paragraph 4, indicating whether it considers that the draft measure should, could be maintained, or should be amended or withdrawn and shall, where appropriate, provide specific proposals to that end.

5. Within the two-month period referred to in paragraph 4, the Commission may:

   (a) take a decision requiring the national regulatory authority concerned to withdraw the draft measure; and/or
   (b) take a decision to lift its reservations in relation to a draft measure referred to in paragraph 4.

The Commission shall take utmost account of the opinion of BEREC before issuing a decision.

The decision shall be accompanied by a detailed and objective analysis of why the Commission considers that the draft measure should not be adopted, together with specific proposals for amending the draft measure.
6. Where the Commission has adopted a decision in accordance with paragraph 5, requiring the national regulatory authority to withdraw a draft measure, the national regulatory authority shall amend or withdraw the draft measure within six months of the date of the Commission's decision. When the draft measure is amended, the national regulatory authority shall undertake a public consultation in accordance with the procedures referred to in Article 23, and shall re-notify the amended draft measure to the Commission in accordance with the provisions of paragraph 3.

7. The national regulatory authority concerned shall take the utmost account of comments of other national regulatory authorities, BEREC and the Commission and may, except in cases covered by paragraphs 4 and 5(a), adopt the resulting draft measure and, where it does so, shall communicate it to the Commission.

8. The national regulatory authority shall communicate to the Commission and BEREC all adopted final measures which fall under paragraph (3)(a) and (b) of this Article.

9. In exceptional circumstances, where a national regulatory authority considers that there is an urgent need to act, in order to safeguard competition and protect the interests of users, by way of derogation from the procedure set out in paragraphs 3 and 4, it may immediately adopt proportionate and provisional measures. It shall, without delay, communicate those measures, with full reasons, to the Commission, the other national regulatory authority, and BEREC. A decision by the national regulatory authority to render such measures permanent or extend the time for which they are applicable shall be subject to the provisions of paragraphs 3 and 4.

9a. A national regulatory authority may withdraw a draft measure at any time.
Article 33

Procedure for the consistent application of remedies

1. Where an intended measure covered by Article 32(3) aims at imposing, amending or withdrawing an obligation on an operator in application of Article 59, or of Article 65 in conjunction with Article 59 and Articles 67 to 74, the Commission may, within the period of one month provided for by Article 32(3), 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 Union law. In such a case, the draft measure shall not be adopted for a further three months following the Commission's notification.

In the absence of such notification, the national regulatory authority concerned may adopt the draft measure, taking utmost account of any comments made by the Commission, BEREC or any other national regulatory authority.

2. 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 3, whilst taking due account of the views of market participants and the need to ensure the development of consistent regulatory practice.

3. Within six weeks from the beginning of the three month period referred to in paragraph 1, BEREC shall, acting by a majority of its component members, issue an opinion on the Commission's notification referred to in paragraph 1, indicating whether it considers that the draft measure should be amended or withdrawn and, where appropriate, provide specific proposals to that end. This opinion shall be reasoned and made public.
4. If in its opinion, BEREC shares the serious doubts of the Commission, it shall cooperate closely with the national regulatory authority concerned to identify the most appropriate and effective measure. Before the end of the three month period referred in paragraph 1, the national regulatory authority may:

   (a) amend or withdraw its draft measure taking utmost account of the Commission's notification referred to in paragraph 1 and of BEREC's opinion and advice;
   (b) maintain its draft measure.

5. The Commission may, within one month following the end of the three month period referred to in paragraph 1 and taking utmost account of the opinion of BEREC if any:

   (a) issue a recommendation requiring the national regulatory authority concerned to amend or withdraw the draft measure, including specific proposals to that end and providing reasons justifying its recommendation, in particular where BEREC does not share the serious doubts of the Commission;
   (b) take a decision to lift its reservations indicated in accordance with paragraph 1 or

   ——(c) for draft measures falling under the second subparagraph of paragraph 2 of Article 59 or under paragraphs 2 or 3 of Article 74, take a decision requiring the national regulatory authority concerned to withdraw the draft measure, where BEREC shares the serious doubts of the Commission. The decision shall be accompanied by a detailed and objective analysis of why the Commission considers that the draft measure should not be adopted, together with specific proposals for amending the draft measure. In this case, the procedure referred to in Article 32 (6) shall apply mutatis mutandis.
6. Within one month of the Commission issuing the recommendation in accordance with paragraph 5(a) or lifting its reservations in accordance with paragraph 5(b) of this Article, the national regulatory authority concerned shall communicate to the Commission and BEREC the adopted final measure.

This period may be extended to allow the national regulatory authority to undertake a public consultation in accordance with Article 23.

7. Where the national regulatory authority decides not to amend or withdraw the draft measure on the basis of the recommendation issued under paragraph 5(a), it shall provide a reasoned justification.

8. The national regulatory authority may withdraw the proposed draft measure at any stage of the procedure.

Article 34

Implementing provisions

After public consultation and consultation with national regulatory authorities and taking utmost account of the opinion of BEREC, the Commission may adopt recommendations and/or guidelines in relation to Article 32 that define the form, content and level of detail to be given in the notifications required in accordance with Article 32(3), the circumstances in which notifications would not be required, and the calculation of the time-limits.
CHAPTER II

Consistent spectrum assignment

Article 35
Peer review process

1. As regards the management of radio spectrum, national regulatory authorities shall be entrusted with the powers to at least adopt the following measures:

(a) in case of individual rights of use for radio spectrum, the selection process, in relation to Article 54;

(b) the criteria regarding the eligibility of the bidder, where appropriate, in relation to Article 48 (4);

(c) the parameters of spectrum economic valuation measures, such as the reserve price, in relation to Article 42;

(d) the duration of the rights of use and the conditions for renewal in line with Articles 49 and Article 50;

(e) any measures to promote competition pursuant to Article 52, when necessary;

(f) the conditions related to the assignment, transfer, including trade and lease of rights of use for radio spectrum in relation to Article 51, sharing of spectrum or wireless infrastructure in relation to Article 50 paragraph 3 or the accumulation of rights of use in relation to Article 52 paragraph 2 (c) and (e); and

(g) the parameters of coverage conditions pursuant to overall Member State policy objectives in this respect, in relation to Article 47.
2. Where the national regulatory and/or other competent authority intends to undertake a selection procedure in accordance with Article 54(2) in relation to radio spectrum bands for which technical conditions have been harmonised in order to enable their use for wireless broadband electronic communications networks and services, it shall inform, pursuant to Article 23, the RSPG about any such draft measures and indicate whether and when it requests RSPG to convene a Peer Review Forum.

When requested to do so, the RSPG shall organise a Peer Review forum in order to discuss and exchange views on the draft measures transmitted and shall facilitate the exchange of experiences and best practices on the draft measures transmitted by national regulatory or competent authorities.

The Peer Review forum shall be composed of the members of RSPG and organised and chaired by a representative of RSPG.

3. At the latest during the public consultation conducted pursuant to Article 23 the RSPG may exceptionally take the initiative to convene a Peer Review forum in line with the rules of procedure for organizing it in order to exchange experiences and best practices on a draft measure relating to a selection procedure where it considers that the draft measure would significantly prejudice the ability of the competent authority to achieve the objectives and principles set in Articles 3, 45, 46 and 47.

3a. The RSPG shall define in advance and make public the objective criteria for the exceptional convening of the peer review forum.
4. During the Peer Review forum, the competent authority or the national regulatory authority shall provide an explanation on how the draft measure:

(a) promotes the development of the internal market, the cross-border provision of services, as well as competition and maximise the benefits for the consumer, and overall achieve the objectives set in Articles 3 and 45, 46 and 47, as well as Decisions 676/2002/EC and 243/2012/EC;

(b) ensures effective and efficient use of radio spectrum; and

(c) ensures stable and predictable investment conditions for existing and prospective radio spectrum users when deploying networks for the provision of electronic communications services which rely on radio spectrum.

5. The Peer Review forum shall be open to voluntary participation by experts from other competent authorities and BEREC.

5a. The Peer Review forum shall be convened only once during the overall national preparation and consultation process of a single selection procedure concerning one or several radio spectrum bands, unless the national regulatory or competent authority requests that it is reconvened.

6. At the request of the competent authority that requested the meeting RSPG may adopt a report on how the relevant draft measure achieves the objectives provided in paragraph 4, reflecting the views exchanged in the Peer Review forum.

6a. RSPG shall annually publish a report concerning the draft measures discussed pursuant to paragraphs 2 and 3. The report shall indicate experiences and best practices noted. That report shall be published every February.

7. Following the Peer Review Forum, at the request of the competent authority that requested the meeting, the RSPG may adopt an opinion on the draft measure.
Article 36

Harmonised assignment of radio spectrum frequencies

Where the usage of radio frequencies spectrum has been harmonised, access conditions and procedures have been agreed, and undertakings to which the radio frequencies spectrum shall be assigned have been selected in accordance with international agreements and Union rules, Member States shall grant the right of use for such radio frequencies spectrum in accordance therewith. Provided that all national conditions attached to the right to use the radio frequencies spectrum concerned have been satisfied in the case of a common selection procedure, Member States shall not impose any further conditions, additional criteria or procedures which would restrict, alter or delay the correct implementation of the common assignment of such radio frequencies spectrum.

Article 37

Joint authorisation process to grant individual rights of use for radio spectrum

1. Two or several Member States may cooperate with each other and with the Commission RSPG and where appropriate BEREC to meet their obligations under Articles 13, 46 and 54, taking into account any interest expressed by market participants, by jointly establishing the common aspects of an authorisation process and, where appropriate, also jointly conducting the selection process to grant individual rights of use for radio spectrum, in line, where applicable with any common timetable established in accordance with Article 53.
Any market participant may request the conduct of a joint selection process upon providing sufficient evidence that a lack of coordination creates a significant barrier to the internal market. Any refusal to meet such a request shall be duly justified by the Member States concerned.

When designing the joint authorisation process, Members States shall may take into consideration meet the following criteria:

(a) the individual national authorisation processes shall be initiated and implemented by the competent authorities according to a jointly agreed schedule;
(b) it shall provide where appropriate for common conditions and procedures for the selection and granting of individual rights among the Member States concerned;
(c) it shall provide where appropriate for common or comparable conditions to be attached to the individual rights of use among the Member States concerned, inter alia allowing users to be assigned similar radio spectrum blocks;
(d) it shall be open at any time until the authorisation process has been conducted to other Member States.

Where, in spite of the interest expressed by market participants, Member States do not act jointly, they shall inform these market participants of the reasons explaining their decision.

2. Where the measures taken for the purposes of paragraph (1) fall in the scope of Article 35(1), the procedure provided in that Article shall be followed by the national regulatory authorities concerned simultaneously.
CHAPTER III

HARMONISATION PROCEDURES

Article 38
Harmonisation procedures

1. Without prejudice to Articles 37, 45, 46(3), 47(3), 53, Where the Commission finds that divergences in the implementation by the national regulatory authorities or by other competent authorities of the regulatory tasks specified in this Directive may create a barrier to the internal market, the Commission may, taking the utmost account of the opinion of BEREC, or of the RSPG where relevant, issue a recommendation or, in accordance with paragraph 3, a decision on the harmonised application of the provisions in this Directive and in order to further the achievement of the objectives set out in Article 3.

2. Member States shall ensure that national regulatory and other competent authorities take the utmost account of recommendations pursuant to paragraph 1 in carrying out their tasks. Where a national regulatory authority or other competent authority chooses not to follow a recommendation, it shall inform the Commission, giving the reasons for its position.

3. The decisions adopted pursuant to paragraph 1 may include only the identification of a harmonised or coordinated approach for the purposes of addressing the following matters:

   (a) the inconsistent implementation of general regulatory approaches by national regulatory authorities on the regulation of electronic communications markets in the application of Articles 62 and 65, where it creates a barrier to the internal market. Such decisions shall not refer to specific notifications issued by the national regulatory authorities pursuant to Article 33;
In such a case, the Commission shall propose a draft decision only:

– after at least two years following the adoption of a Commission Recommendation dealing with the same matter, and

– taking utmost account of an opinion from BEREC on the case for adoption of such a decision, which shall be provided by BEREC within three months of the Commission's request;

(b) numbering, including number ranges, portability of numbers and identifiers, number and address translation systems, and access to 112 emergency services.

4. The decision referred to in paragraph 1, shall be adopted in accordance with the examination procedure referred to in Article 110(4).

5. BEREC may on its own initiative advise the Commission on whether a measure should be adopted pursuant to paragraph 1.
6. If the Commission has not either adopted a recommendation or a decision within one year from the date of adoption of an opinion by BEREC indicating the existence of divergences in the implementation by the national regulatory authorities or by other competent authorities of the regulatory tasks specified in this Directive that could create a barrier to the internal market, it shall inform the European Parliament and the Council of its reasons for not doing so, and make those reasons public.

Where the Commission has adopted a recommendation in accordance with paragraph 1 but the inconsistent implementation creating barriers to the internal market persists for two years thereafter, the Commission shall, where paragraph 3 applies, adopt a decision in accordance with paragraph 3.

Where the Commission has not adopted a decision within a further year, it shall inform the European Parliament and the Council of its reasons for not doing so, and make those reasons public.

Article 39
Standardisation

1. The Commission shall draw up and publish in the Official Journal of the European Union a list of non-compulsory standards and/or specifications to serve as a basis for encouraging the harmonised provision of electronic communications networks, electronic communications services and associated facilities and services. Where necessary, the Commission may, following consultation of the Committee established by Directive 2015/1535/EU, request that standards be drawn up by the European standards organisations (European Committee for Standardisation (CEN), European Committee for Electrotechnical Standardisation (CENELEC), and European Telecommunications Standards Institute (ETSI)).
2. Member States shall encourage the use of the standards and/or specifications referred to in paragraph 1, for the provision of services, technical interfaces and/or network functions, to the extent strictly necessary to ensure interoperability of services, *end-to-end connectivity, facilitation of switching and portability, in order and to improve freedom of choice for users.*

As long as standards and/or specifications have not been published in accordance with paragraph 1, Member States shall encourage the implementation of standards and/or specifications adopted by the European standards organisations.

In the absence of such standards and/or specifications, Member States shall encourage the implementation of international standards or recommendations adopted by the International Telecommunication Union (ITU), the European Conference of Postal and Telecommunications Administrations (CEPT), the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC).

Where international standards exist, Member States shall encourage the European standards organisations to use them, or the relevant parts of them, as a basis for the standards they develop, except where such international standards or relevant parts would be ineffective.

*Any standards referred to in paragraph 1 or this paragraph shall not prevent access as may be required under this Directive where feasible.*

3. If the standards and/or specifications referred to in paragraph 1 have not been adequately implemented so that interoperability of services in one or more Member States cannot be ensured, the implementation of such standards and/or specifications may be made compulsory under the procedure laid down in paragraph 4, to the extent strictly necessary to ensure such interoperability and to improve freedom of choice for users.
4. Where the Commission intends to make the implementation of certain standards and/or specifications compulsory, it shall publish a notice in the *Official Journal of the European Union* and invite public comment by all parties concerned. The Commission shall take appropriate implementing measures and make implementation of the relevant standards compulsory by making reference to them as compulsory standards in the list of standards and/or specifications published in the *Official Journal of the European Union*.

5. Where the Commission considers that standards and/or specifications referred to in paragraph 1 no longer contribute to the provision of harmonised electronic communications services, or that they no longer meet consumers' needs or are hampering technological development, it shall remove them from the list of standards and/or specifications referred to in paragraph 1.

6. Where the Commission considers that standards and/or specifications referred to in paragraph 4 no longer contribute to the provision of harmonised electronic communications services, or that they no longer meet consumers' needs or are hampering technological development, it shall take the appropriate implementing measures and remove those standards and/or specifications from the list of standards and/or specifications referred to in paragraph 1.

7. The implementing measures referred to in paragraphs 4 and 6, shall be adopted in accordance with the examination procedure referred to in Article 110(4).

8. This Article does not apply in respect of any of the essential requirements, interface specifications or harmonised standards to which the provisions of Directive 2014/53/EU apply.
Title V: Security and integrity

Article 40

Security of networks and services

1. Member States shall ensure that undertakings providing providers of public communications networks or publicly available electronic communications services take appropriate and proportionate technical and organisational measures to appropriately manage the risks posed to security of networks and services. Having regard to the state of the art, these measures shall ensure a level of security appropriate to the risk presented. In particular, measures, including encryption where appropriate, shall be taken to prevent and minimise the impact of security incidents on users and on other networks and services.

ENISA shall facilitate in accordance with Regulation (EU) No 526/2013 the coordination of Member States to avoid diverging national requirements that may create security risks and barriers to the internal market.

2. Member States shall ensure that undertakings providing public communications networks take all appropriate steps to guarantee the integrity of their networks, and thus ensure the continuity of supply of services provided over those networks.
3. Member States shall ensure that undertakings providing providers of public communications networks or of publicly available electronic communications services notify without undue delay the competent authority of a breach of security incident that has had a significant impact on the operation of networks or services.

In order to determine the significance of the impact of a security incident, where available the following parameters shall, in particular, be taken into account:
(a) the number of users affected by the breach incident;
(b) the duration of the breach incident;
(c) the geographical spread of the area affected by the breach incident;
(d) the extent to which the functioning of the network or service is affected;
(e) the extent of impact on economic and societal activities.

Where appropriate, the competent authority concerned shall inform the competent authorities in other Member States and the European Network and Information Security Agency (ENISA). The competent authority concerned may inform the public or require the undertakings providers to do so, where it determines that disclosure of the breach incident is in the public interest.

Once a year, the competent authority concerned shall submit a summary report to the Commission and ENISA on the notifications received and the action taken in accordance with this paragraph.

3a. Member States shall ensure that in case of a particular and significant threat of a security incident in public communications networks or publicly available electronic communications services, providers of such networks or services shall inform their users potentially affected by such a threat of any possible protective measures or remedies which can be taken by the users. Where appropriate, providers should inform their users also of the threat itself.
4. This Article is without prejudice to Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector.

5. The Commission, taking utmost account of the opinion of ENISA, shall be empowered to adopt delegated acts in accordance with Article 109 with a view to specifying decisions detailing the technical and organisational measures referred to in paragraphs 1 and 2, including measures defining as well as the circumstances, format and procedures applicable to notification requirements pursuant to paragraph 3. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 110(4). They shall be based on European and international standards to the greatest extent possible, and shall not prevent Member States from adopting additional requirements in order to pursue the objectives set out in paragraphs 1 and 2.

**Article 41**

**Implementation and enforcement**

1. Member States shall ensure that in order to implement Article 40, the competent authorities have the power to issue binding instructions, including those regarding the measures required to remedy a breach, security incident or prevent one from occurring when a significant threat has been identified and time-limits for implementation, to undertakings providing providers of public communications networks or publicly available electronic communications services.
2. Member States shall ensure that competent authorities have the power to require undertakings providing providers of public communications networks or publicly available electronic communications services to:

(a) provide information needed to assess the security and/or integrity of their services and networks, including documented security policies; and
(b) submit to a security audit carried out by a qualified independent body or a competent authority and make the results thereof available to the competent authority. The cost of the audit shall be paid by the provider undertaking.

3. Member States shall ensure that the competent authorities have all the powers necessary to investigate cases of non-compliance and the effects thereof on the security of the networks and services.

4. Member States shall ensure that, in order to implement Article 40, the competent authorities have the power to obtain the assistance of a Computer Security Incident Response Teams ('CSIRTs') designated under Article 9 of Directive (EU) 2016/1148 in relation to issues falling within the tasks of the CSIRTs pursuant to Annex I, point 2 of that Directive.

5. The competent authorities shall, whenever appropriate and in accordance with national law, consult and cooperate with the relevant national law enforcement authorities, the competent authorities as defined in Article 8 (1) of Directive (EU) 2016/1148 and the national data protection authorities.
Part II. NETWORKS

Title I: Market entry and deployment

Article 42

Fees for rights of use for radio spectrum and rights to install facilities

1. Member States may allow the competent authority to impose fees for the rights of use for radio spectrum or rights to install facilities on, over or under public or private property that are used for the provision of electronic communications services or networks and associated facilities which ensure the optimal use of these resources. Member States shall ensure that such fees shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take into account the general objectives of this Directive.

   (a) being service and technology neutral, subject only to limitations in line with Article 45(4) and (5), while promoting the effective and efficient use of spectrum and maximising social and economic utility of spectrum;

   (b) taking into account the need to foster the development of innovative services; and

   (c) taking into account possible alternative uses of the resources.

2. With respect to rights of use for radio spectrum, Member States shall seek to ensure that applicable fees are set at a level which ensures efficient assignment and use of spectrum, including by:
(a) setting reserve prices established as minimum fees for rights of use for radio spectrum by take into account having regard to the value of the rights in their possible alternative uses;

(b) reflect the additional taking into account costs entailed by conditions attached to these rights in pursuit of the objectives under Articles 3, 4 and 45(2), such as coverage obligations that would fall outside normal commercial standards, in accordance with paragraph 1, and

(c) applying to the best extent possible payment modalities linked to the actual availability for use of the radio spectrum.

4. Member States shall ensure that where competent authorities impose fees, they take into account other fees or administrative charges linked to the general authorisation or rights of use established pursuant to this Directive, in order not to create undue financial burden to undertakings providing electronic communications networks and services and to incentivise optimal use of the allocated resources.

5. The imposition of fees pursuant to this Article shall comply with the requirements of Article 23 and, where applicable, Articles 35, 48(6) and 54.
CHAPTER I

ACCESS TO LAND

Article 43

Rights of way

1. Member States shall ensure that when a competent authority considers:

– an application for the granting of rights to install facilities on, over or under public or private property to an undertaking authorised to provide public communications networks, or

– an application for the granting of rights to install facilities on, over or under public property to an undertaking authorised to provide electronic communications networks other than to the public,

the competent authority:

– acts on the basis of simple, efficient, transparent and publicly available procedures, applied without discrimination and without delay, and in any event makes its decision within six months of the application, except in cases of expropriation, and

– follows the principles of transparency and non-discrimination in attaching conditions to any such rights.

The abovementioned procedures can differ depending on whether the applicant is providing public communications networks or not.
2. Member States shall ensure that where public or local authorities retain ownership or control of undertakings operating public electronic communications networks and/or publicly available electronic communications services, there is an effective structural separation of the function responsible for granting the rights referred to in paragraph 1 from the activities associated with ownership or control.

Article 44

Co-location and sharing of network elements and associated facilities for providers of electronic communications networks

1. Where an operator has exercised the right under national legislation to install facilities on, over or under public or private property, or has taken advantage of a procedure for the expropriation or use of property, competent authorities may shall, be able to impose co-location and sharing of the network elements and associated facilities installed on this basis, in order to protect the environment, public health, public security or to meet town and country planning objectives. Co-location or sharing of networks elements and facilities installed and sharing of property may only be imposed after an appropriate period of public consultation, during which all interested parties shall be given an opportunity to express their views and only in the specific areas where such sharing is deemed necessary in view of pursuing the objectives provided in this Article. Competent authorities may shall be able to impose the sharing of such facilities or property, including land, buildings, entries to buildings, building wiring, masts, antennae, towers and other supporting constructions, ducts, conduits, manholes, cabinets or measures facilitating the coordination of public works. Where necessary, national regulatory authorities shall a Member State may designate a national regulatory or other competent authority for each, several or all of the following tasks:
- coordinating the procedure provided for in this Article,
- acting as a single point of reference, and/or
- setting down rules for apportioning the costs of facility or property sharing and of civil works coordination.

2. Measures taken by a competent authority in accordance with this Article shall be objective, transparent, non-discriminatory, and proportionate. Where relevant, these measures shall be carried out in coordination with the national regulatory authorities.

CHAPTER II

ACCESS TO RADIO SPECTRUM

Section 1 Authorisations

Article 45

Management of radio spectrum

1. Taking due account of the fact that radio spectrum is a public good that has an important social, cultural and economic value, Member States shall ensure the effective management of radio spectrum for electronic communications services and networks in their territory in accordance with Articles 3 and 4. They shall ensure that radio spectrum allocation used for electronic communications services and networks and issuing general authorisations or individual rights of use for such radio spectrum by competent authorities are based on objective, transparent, pro-competitive, non-discriminatory and proportionate criteria.
In applying this Article, Member States shall respect relevant international agreements, including the ITU Radio Regulations and other agreements adopted in the framework of the ITU applicable to radio spectrum, such as the agreement reached at the Regional Radiocommunications Conference of 2006, and may take public policy considerations into account.

2. Member States shall promote the harmonisation of use of radio spectrum for use by electronic communications networks and services across the Union, consistent with the need to ensure effective and efficient use thereof and in pursuit of benefits for the consumer such as competition, economies of scale and interoperability of services and networks. In so doing, they shall act in accordance with Article 4 and with Decision 676/2002/EC by inter alia:

(a) ensuring pursuing wireless broadband coverage of their national territory and/or population at high quality and speed, both indoors and outdoors, including along as well as coverage of major national and European transport paths, including the trans-European transport network as defined in Regulation 1315/2013;

(b) ensuring that areas with similar characteristics, in particular in terms of network deployment or population density, are subject to consistent coverage conditions;

(c) facilitating the rapid development in the Union of new wireless communications technologies and applications, including, where appropriate, in a cross-sectorial approach;

(ca) ensuring predictability and consistency in the granting, renewal, amendment, restriction and withdrawal of rights in order to promote long-term investments;

(d) ensuring the prevention of cross-border or national harmful interference in accordance with Articles 28 and 46 respectively, and taking appropriate pre-emptive and remedial measures to that end;
(e) promoting the shared use of radio spectrum between similar and/or different uses of spectrum through appropriate established sharing rules and conditions, including the protection of existing rights of use, in accordance with Union competition law;

(f) applying the most appropriate and least onerous authorisation system possible in accordance with Article 46 in such a way as to maximise flexibility, sharing and efficiency in the use of radio spectrum

(g) ensuring that applying rules for the granting, transfer, renewal, modification and withdrawal of rights to use radio spectrum that are clearly and transparently defined and applied in order to guarantee regulatory certainty, consistency and predictability;

(h) ensuring pursuing consistency and predictability throughout the Union regarding the way the use of radio spectrum is authorised in protecting public health taking into account the Council Recommendation 1999/519/EC Exposure of the General Public to Electromagnetic Fields, against electromagnetic fields.

When adopting technical harmonisation measures under Decision No 676/2002/EC, the Commission may, taking utmost account of the opinion of Radio Spectrum Policy Group, adopt an implementing measure setting out whether, pursuant to Article 46 of this Directive, rights in the harmonised band shall be subject to a general authorisation or to individual rights of use. Those implementing measures shall be adopted in accordance with the examination procedure referred to in Article 110(4).
For this purpose, in preparation for the adoption of technical harmonisation measures for a radio spectrum band under Decision No 676/2002/EC, the Commission may request the Radio Spectrum Policy Group to adopt an opinion recommending the most appropriate authorisation regime(s) for the use of radio spectrum in the harmonised band or parts thereof and where appropriate, taking utmost account of such opinion, adopt a recommendation with a view to promote a consistent approach in the EU with regard to the authorisation regime(s) for the use of the band.

Where the Commission is considering acting to provide for adopting measures in accordance with Article 39 (1), (4), (5) and (6), it may seek the advice opinion of the Radio Spectrum Policy Group with regard to the implications of any such standard or specification for the coordination, harmonisation and availability of radio spectrum. The Commission shall take utmost account of the advice opinion of the Radio Spectrum Policy Group in taking any subsequent steps.

3. In case of a national or regional lack of market demand for the use of a harmonised band, adopted under Decision No 676/2002/EC, Member States may allow an alternative use of all or part of that band, including the existing use, in accordance with paragraphs 4 and 5, provided that:

(a) the finding of a lack of market demand for the use of the harmonised band is based on a public consultation in line with Article 23, including a forward-looking assessment of market demand;

(b) such alternative use does not prevent or hinder the availability or the use of the harmonised band in other Member States; and

(c) the Member State concerned takes due account of the long-term availability or use of the harmonised band in the Union and the economies of scale for equipment resulting from using the harmonised radio spectrum in the Union.
The alternative use shall only be allowed on an exceptional basis. Any decision to allow alternative use on an exceptional basis shall be subject to a regular review every three years or and shall in any event be reviewed promptly upon a duly justified request to the competent authority for use of the band in accordance with the harmonisation measure by a prospective user. The Member State shall inform the Commission and the other Member States of the decision taken as well as of the outcome of any review, together with its reasoning.

4. Unless otherwise provided in the second subparagraph, Member States shall ensure that all types of technology used for the provision of electronic communications services or networks may be used in the radio spectrum, declared available for electronic communications services in their National Frequency Allocation Plan in accordance with Union law.

Member States may, however, provide for proportionate and non-discriminatory restrictions to the types of radio network or wireless access technology used for electronic communications services where this is necessary to:

(a) avoid harmful interference;
(b) protect public health against electromagnetic fields, taking utmost account of Council Recommendation No 1999/519/EC;  
(c) ensure technical quality of service;
(d) ensure maximisation of radio spectrum sharing shared use of radio spectrum resources, in accordance with Union law;
(e) safeguard efficient use of radio spectrum; or
(f) ensure the fulfilment of a general interest objective in accordance with paragraph 5.

5. Unless otherwise provided in the second subparagraph, Member States shall ensure that all types of electronic communications services may be provided in the radio spectrum, declared available for electronic communications services in their National Frequency Allocation Plan in accordance with Union law. Member States may, however, provide for proportionate and non-discriminatory restrictions to the types of electronic communications services to be provided, including, where necessary, to fulfil a requirement under the ITU Radio Regulations.

Measures that require an electronic communications service to be provided in a specific band available for electronic communications services shall be justified in order to ensure the fulfilment of a general interest objective as defined by Member States in conformity with Union law, such as, and not limited to:

(a) safety of life;
(b) the promotion of social, regional or territorial cohesion;
(c) the avoidance of inefficient use of radio spectrum; or
(d) the promotion of cultural and linguistic diversity and media pluralism, for example by the provision of radio and television broadcasting services.

A measure which prohibits the provision of any other electronic communications service in a specific band may only be provided for where justified by the need to protect safety of life services. Member States may, exceptionally, also extend such a measure in order to fulfil other general interest objectives as defined by Member States in accordance with Union law.

6. Member States shall regularly review the necessity of the restrictions referred to in paragraphs 4 and 5, and shall make the results of these reviews public.

7. Restrictions established prior to 25 May 2011 shall comply with paragraphs 4 and 5 by the date of application of this Directive.
Article 46

Authorisation of the use of radio spectrum

1. Member States shall facilitate the use of radio spectrum, including shared use, under general authorisations and limit the granting of individual rights or of use for radio spectrum to situations where such rights are necessary to maximise efficient use in the light of demand and, taking into account the criteria set out in the second subparagraph. In all other cases, they shall set out the conditions for the use of radio spectrum in a general authorisation.

To this end, Member States shall decide on the most appropriate regime for authorising the use of radio spectrum, taking account of:

(a) the specific characteristics of the radio spectrum concerned;
(b) the need to protect against harmful interference;
(c) the requirements for development of a reliable sharing arrangement conditions, where appropriate;
(d) the need appropriate level of receiver resilience to ensure technical quality of communications or service;
(e) objectives of general interest as defined by Member States in conformity with Union law.

(ea) safeguard efficient use of spectrum.

When considering whether to apply a general authorisation or to grant individual rights, taking in account measures adopted under Decision No 676/2002/EC in cases where the radio spectrum band concerned has been harmonised, Member States shall seek to minimise problems of harmful interference, including in cases of shared use of radio spectrum on the basis of a combination of general authorisation and individual rights of use. In so doing, they shall have regard to the need:
to maintain incentives for incorporation of resilient receiver technologies in devices;

to prevent impediments caused by alternative users;

to avoid to the best extent possible the application of the non-interference, non-protection principle to general authorisation regimes; and

where that principle still applies, to protect against out-of-band interference.

Where appropriate, Member States shall consider the possibility to authorise the use of radio spectrum based on a combination of general authorisation and individual rights of use, taking into account the likely effects on competition, innovation and market entry of different combinations of individual right of use and general authorisations and of gradual transfers from one category to the other.

Member States shall seek to minimise restrictions to the use of radio spectrum by taking appropriate account of technological solutions for managing harmful interference so as to impose the least onerous authorisation regime possible.

2. When taking a decision pursuant to paragraph 1 with a view to facilitating the shared use of radio spectrum, the competent authorities shall ensure that the rules and conditions for the shared use of radio spectrum are clearly set out and concretely specified in the acts of authorisation. Such conditions shall facilitate efficient use, competition and innovation.
3. The Commission may, taking utmost account of the opinion of the Radio Spectrum Policy Group, adopt implementing measures on the modalities of application of the criteria, rules and conditions referred to in paragraphs 1 and 2 with regard to harmonised radio spectrum. It shall adopt these measures in accordance with the examination procedure referred to in Article 110(4).

Article 47

Conditions attached to general authorisations and to individual rights of use for radio spectrum

1. Competent authorities shall attach conditions to individual rights and general authorisations to of use for radio spectrum in accordance with Article 13(1) in such a way as to ensure optimal and the most effective and efficient use of radio spectrum by the beneficiaries of the general authorisation or the holders of individual rights or by any third party to which an individual right or part thereof has been traded or leased. They shall clearly define before the assignment or renewal any such conditions, including the level of use required and the possibility to trade and lease in relation to this obligation in order to ensure the implementation of those conditions in line with Article 30. Conditions attached to renewals of right of use for radio spectrum may not provide undue advantages to existing holders of those rights.

Such conditions shall specify any applicable parameters, including the period for putting the rights into use, the non-fulfilment of which would entitle the competent authority to withdraw the right of use or impose other measures.

— In order to maximise radio spectrum efficiency, when determining the amount and type of radio spectrum to be assigned, the competent authority shall have regard in particular to:

—— a. the possibility to combine complementary bands in a single assignment process; and
— b. the relevance of the size of radio spectrum blocks or of the possibility to combine such blocks in relation to the possible uses thereof, considering in particular the needs of new emerging communications systems.

Competent authorities shall timely consult and inform interested parties regarding conditions attached to individual usage rights and general authorisations in advance of their imposition. They shall determine in advance and inform interested parties in a transparent manner of the criteria for the assessment of the fulfilment of these conditions.

2. When attaching conditions to individual rights of use for radio spectrum, competent authorities may provide for the possibility to share authorise the sharing of passive or active infrastructure which rely on radio spectrum, or of radio spectrum, as well as commercial roaming access agreements, or the joint to jointly roll-out of infrastructures for the provision of services or networks which rely on the use of radio spectrum, in particular with a view to ensuring effective and efficient use of radio spectrum or promoting coverage. Competent authorities shall not prevent Conditions attached to the rights of use shall not prevent the sharing of radio spectrum in conditions attached to the rights of use for radio spectrum. Implementation by undertakings of conditions attached pursuant to this paragraph shall remain subject to competition law.

3. The Commission may adopt implementing measures in order to specify the modalities of applying the conditions that Member States may attach to authorisations to use harmonised radio spectrum in accordance with paragraphs 1 and 2, with the exception of fees pursuant to Article 42.
With regard to the coverage requirement under Part D of Annex I, any implementing measure shall be limited to specifying criteria to be used by the competent authority to define and measure coverage obligations, taking into account similarities of regional geographical characteristics, population density, economic development or network development for specific types of electronic communications and evolution of demand. Implementing measures shall not extend to the definition of specific coverage obligations.

Those implementing measures shall be adopted in accordance with the examination procedure referred to in Article 110(4), taking utmost account of any opinion of the Radio Spectrum Policy Group.

SECTION 2 RIGHTS OF USE

Article 48

Granting of individual rights of use for radio spectrum

1. Where it is necessary to grant individual rights of use for radio spectrum, Member States shall grant such rights, upon request, to any undertaking for the provision of networks or services under the general authorisation referred to in Article 12, subject to the provisions of Articles 13, 54 and 21(1)(c) and any other rules ensuring the efficient use of those resources in accordance with this Directive.
2. Without prejudice to specific criteria and procedures adopted by Member States to grant rights of use for radio spectrum to providers of radio or television broadcast content services with a view to pursuing general interest objectives in conformity with Union law, the rights of use for radio spectrum shall be granted through open, objective, transparent, non-discriminatory and proportionate procedures, and, in the case of radio frequencies, in accordance with the provisions of Article 45.

3. An exception to the requirement of open procedures may apply in cases where the granting of individual rights of use for radio spectrum to the providers of radio or television broadcast content services is necessary to achieve a general interest objective as defined by Member States in conformity with Union law.

4. Competent authorities shall consider applications for individual rights of use for radio spectrum in the context of selection procedures pursuant to objective, transparent, proportionate and non-discriminatory eligibility criteria that are set out in advance and reflect the conditions to be attached to such rights. They shall be able to request all necessary information from applicants to assess, on the basis of said criteria, applicants' ability to comply with the conditions. Where on the basis of the assessment, the authority concludes that an applicant does not possess the required ability, it shall provide a duly reasoned decision to that effect.

5. When granting rights of use, Member States shall specify whether those rights can be transferred or leased by the holder of the rights, and under which conditions. In the case of radio spectrum, such provision shall be in accordance with Articles 45 and 51 of this Directive.
6. Decisions on the granting of rights of use shall be taken, communicated and made public as soon as possible after receipt of the complete application by the national regulatory competent authority, within six weeks in the case of radio spectrum declared available for electronic communications services in their national frequency allocation plan. This time limit shall be without prejudice to Article 54(8) and to any applicable international agreements relating to the use of radio spectrum or of orbital positions.

Article 49

Duration of rights

1. Where Member States authorise the use of radio spectrum through individual rights of use for a limited period of time, they shall ensure that the authorisation is granted for a period that is appropriate in view of the objectives pursued in accordance with Articles 54(2) taking due account of the need to ensure competition as well as in particular effective and efficient use of radio spectrum and to promote efficient investments, including by allowing for an appropriate period for investment amortisation, and innovation.

2. Where Member States grant individual rights to use radio spectrum for which technical conditions have been harmonised to enable use for wireless broadband electronic communications services for a limited period of time, they shall ensure regulatory predictability for the rightholders over a period of at least 20 years regarding investment conditions in infrastructure which relies on the use of such radio spectrum, taking account of the requirements in paragraph (1). This article is subject where relevant to the modification of the conditions attached to these rights of use in accordance with article 18.
To this effect, they shall ensure that such rights shall be valid for a duration of at least 15 years and include where necessary to comply with the first subparagraph an adequate extension thereof, under the conditions set by this paragraph.

Member States shall make available the general criteria for an extension of rights of use in a transparent manner to all interested parties in advance of granting rights of use, as part of the conditions laid down under Article 54(3) and (6). Such general criteria shall relate to:

(a) the need to ensure effective and efficient use of the spectrum concerned, the objectives pursued in Article 45 (2) (a) and (c), or the need to fulfil general interest objectives relative to protection of safety of life, public order, public security or defence; and/or

(b) the need to ensure undistorted competition.

At the latest two years prior to the expiry of the initial duration of a right of use, the competent authority shall conduct an objective and forward-looking assessment of the general criteria laid down for extension of that right of use in the light of Article 45(2)(ca). Provided that the competent authority has not initiated enforcement action for non-compliance with the conditions of the rights of use pursuant to Article 30, it shall grant the extension of the right of use, unless it concludes, on the basis of present and prospective market conditions, that such extension, would not comply with the general criteria set according to paragraph (2) sub-paragraph (13) relative to
a) the need to ensure effective and efficient use of the spectrum concerned, the objectives pursued in Articles 3 and 45(2) (a) and (c) or the need to fulfil general interest objectives relative to protection of safety of life, public order, public security or defence and/or

b) the need to ensure undistorted competition.

On the basis of this assessment, the competent authority shall notify the right holder as to whether or not the extension of the right of use may be granted.

If the extension of the right of use may not be granted, the competent authority shall apply Article 48 for granting rights of use for that specific radio spectrum band.

Any measure under this paragraph shall be proportionate, non-discriminatory, transparent and motivated.

By derogation from Article 23, interested parties shall have the opportunity to comment on any draft measure pursuant to the second and the third and the fourth subparagraph for a period not shorter than 3 months.

This paragraph is without prejudice to the application of Articles 19 and 30.

When establishing fees for rights of use, Member States shall take account of the mechanism foreseen under this paragraph.
3. Member States may derogate from paragraph 2 where duly justified in the following cases:

- in limited geographical areas, where access to high-speed networks is severely deficient or absent and this is necessary to ensure achievement of the objectives of Article 45 (2);

- for specific short-term projects;

- for experimental use;

- for uses of spectrum which, in line with Article 45 paragraphs (4) and (5), can coexist with wireless broadband electronic communications services; or

- for alternative use of spectrum according to Article 45 paragraph (3)

4. Member States may adjust the duration of rights of use set under this article to ensure the simultaneous expiry of rights in one or several bands.
Article 50

Renewal of rights

1. National regulatory and/or other competent authorities shall take a decision on the renewal of individual rights of use for harmonised radio spectrum in a timely manner before the expiry of the rights except for licenses where, at the time of assignment, the possibility of renewal has been explicitly excluded. For that purpose, those authorities shall assess the need for such renewal at their own initiative or upon request by the right holder, in the latter case not earlier than 5 years prior to expiry of the rights concerned. This shall be without prejudice to renewal clauses applicable to existing rights.

2. In taking a decision pursuant to paragraph 1, competent authorities shall have regard to the following considerations:

   (a) fulfilment of the objectives of Articles 3, 45(2) and 48(2), as well as public policy objectives under national or Union law;

   (b) implementation of a measure adopted pursuant to Article 4 of Decision No 676/2002/EC;

   (c) review of the appropriate implementation of the conditions attached to the right concerned;

   (d) the need to promote, or avoid any distortion of, competition in line with Article 52;

   (e) rendering the use of radio spectrum more efficient in light of technological or market evolution;

   (f) the need to avoid severe service disruption.
3. When considering possible renewal of individual rights of use for harmonised radio spectrum for which the number of rights of use is limited pursuant to paragraph 2, competent authorities shall conduct an open, transparent and non-discriminatory procedure to examine the criteria in paragraph 2, and shall, in particular, inter alia:

(a) give all interested parties, including users and consumers, the opportunity to express their views through a public consultation in accordance with article 23; and

(b) clearly state the reasons for such possible renewal.

The national regulatory and/or other competent authority shall take into account any evidence arising from the consultation pursuant to the first subparagraph of market demand from undertakings other than those holding rights of use for spectrum in the band concerned when deciding whether to renew the rights of use or to organise a new selection procedure in order to grant the rights of use pursuant to Article 54.

4. A decision to grant a renewal of rights of use for harmonised radio spectrum may be accompanied by a review of the fees as well as of the other terms and conditions attached thereto. Where appropriate, national regulatory and/or other competent authorities may adjust the fees for the rights of use in compliance with the principles set out in Article 42(1) and (2).
Article 51

Transfer or lease of individual rights of use for radio spectrum

1. Member States shall ensure that undertakings may transfer or lease to other undertakings individual rights of use for radio spectrum. and in accordance with national procedures individual rights of use for radio spectrum in the bands for which this is provided in Union law or in the implementing measures adopted pursuant to paragraph 4.

—In other bands, Member States may also make provision for undertakings to transfer or lease individual rights of use for radio frequencies to other undertakings in accordance with national procedures.

—Without prejudice to paragraph 3, conditions attached to individual rights of use for radio spectrum shall continue to apply after the transfer or lease, unless otherwise specified by the competent authority.

—Member States may also determine that the provisions of this paragraph shall not apply where the undertaking's individual right to use radio frequencies spectrum was initially obtained free of charge or assigned for broadcasting.

2. Member States shall ensure that an undertaking's intention to transfer or lease rights of use for radio spectrum, as well as the effective transfer thereof is notified in accordance with national procedures to the national regulatory authority and to the competent authority responsible for granting individual rights of use if different and is made public. Where the use of radio spectrum has been harmonised through the application of the Decision No 676/2002/EC or other Union measures, any such transfer shall comply with such harmonised use.
3. Where undertakings notify their intention to transfer or lease rights of use for radio spectrum in accordance with paragraph 2, Member States shall allow the such-transfer or lease of rights of use for radio spectrum where the original conditions attached to the rights of use are maintained. Without prejudice to the need to ensure the absence of a distortion of competition, in particular in accordance with Article 52, Member States shall:

(a) Submit transfers and leases to the least onerous procedure possible;

(b) Not refuse the lease of rights of use for radio spectrum where the lessor undertakes to remain liable for meeting the original conditions attached to the rights of use;

(c) Not refuse the transfer of rights of use for radio spectrum unless there is a clear risk that the new holder is unable to meet the original conditions for the right of use;

(c) Not refuse a transfer or lease to an existing holder of rights of use for radio spectrum.

Any administrative charge imposed on undertakings in connection with processing an application for the transfer or lease of rights of use for radio spectrum shall comply with Article 16.
Points (a) to (c) are without prejudice to the Member States' competence to enforce compliance with the conditions attached to the rights of use at any time both with regard to the lessor and the lessee, in accordance with their national law.

Competent authorities shall facilitate the transfer or lease of rights of use for radio spectrum by giving timely consideration to any request to adapt the conditions attached to the right and by ensuring that the rights or the radio spectrum attached thereto may to the best extent be partitioned or disaggregated.

In view of any transfer or lease of rights of use for radio spectrum, competent authorities shall make all relevant details relating to tradable individual rights publicly available in a standardised electronic format when the rights are created and keep those details as long as the rights exist.

4. The Commission may adopt appropriate implementing measures to identify those relevant details bands for which rights of use for radio frequencies may be transferred or leased between undertakings. These measures shall not cover frequencies which are used for broadcasting.

These technical implementing measures shall be adopted in accordance with the examination procedure referred to in Article 110(4).
Article 52

Competition

1. National regulatory authorities and/or competent authorities shall promote effective competition and avoid distortions of competition in the internal market when deciding on the grant, amendment or renewal of rights of use for radio spectrum for electronic communications services and networks in accordance with this Directive.

2. When Member States grant, amend or renew rights of use for radio spectrum, their national regulatory authority or other competent authorities upon advice provided by national regulatory authority, may take appropriate measures such as:

   (a) limiting the amount of radio spectrum for which rights of use are granted to any undertaking, or, in justified circumstances, attaching conditions to such rights of use, such as the provision of wholesale access, national or regional roaming, in certain bands or in certain groups of bands with similar characteristics;

   (b) reserving, if appropriate and justified in regard to an exceptional specific situation in the national market, a certain part of a frequency band or group of bands for assignment to new entrants;
(c) refusing to grant new rights of use for radio spectrum or to allow new radio spectrum uses in certain bands, or attaching conditions to the grant of new rights of use for radio spectrum or to the authorisation of new radio spectrum uses, in order to avoid the distortion of competition by any assignment, transfer or accumulation of rights of use;

(d) including conditions prohibiting or imposing conditions on transfers of rights of use for radio spectrum, not subject to national or Union merger control, where such transfers are likely to result in significant harm to competition;

(e) amending the existing rights in accordance with this Directive where this is necessary to remedy ex post a distortion of competition by any transfer or accumulation of rights of use for radio spectrum.

National regulatory and/or other competent authorities shall, taking into account market conditions and available benchmarks, base their decision on an objective and forward-looking assessment of the market competitive conditions and of whether such measures are necessary to maintain or achieve effective competition and of the likely effects of such measures on existing and future investments by market operators in particular for network roll-out. In doing so, they shall take into account the approach to market analysis as set out in Article 65.

3. When applying paragraph 2, national regulatory and/or other competent authorities shall act in accordance with the procedures provided in Articles 18, 19, 23 and 35 of this Directive.
SECTION 3 PROCEDURES

Article 53

Coordinated timing of assignments

1. Member States shall cooperate in order to coordinate the use of harmonised radio spectrum for electronic communications networks and services in the Union and taking due account of the different national market situations. The Commission may, by way of an implementing measure:

This may include identifying

one, or, where appropriate, several common maximum dates by which the use of specific harmonised radio spectrum bands shall be authorised.

— (b) where necessary to ensure the effectiveness of coordination, adopt any transitional measure regarding the duration of rights pursuant to Article 49, such as an extension or a reduction of their duration, in order to adapt existing rights or authorisations to such harmonised date.

— Those implementing measures shall be adopted in accordance with the examination procedure referred to in Article 110(4), taking utmost account of the opinion of the Radio Spectrum Policy Group.
2. In bands for which the technical conditions have been harmonised in order to enable their use for wireless broadband electronic communications networks and services, Member States shall allow the use of radio spectrum, as soon as possible and at the latest two and a half years from the adoption of harmonised technical conditions by an implementing decision pursuant to Article 4 of Decision No 676/2002/EC, or as soon as possible after the lifting of any decision to allow alternative use on an exceptional basis pursuant to Article 45 (3). This is without prejudice to Decision (EU) 2017/899 of the European Parliament and Council and to the Commission's right of initiative to propose legislative instruments.

3. A Member State may delay the deadline provided for in paragraph 2 for a specific band under the following circumstances:

   (a) to the extent justified by a restriction to the usage of that band based on the general interest objective provided in point (a) or (d) of Article 45(5), and or

   (b) in the case of unresolved cross-border coordination issues resulting in harmful interference with third countries, provided the affected Member State has requested Union assistance where appropriate pursuant to Article 28(5);

   (c) safeguarding national security and defence; or

   (d) force majeure.

The Member State concerned shall review such a delay at least every two years.
3a. A Member State may delay the deadline provided for in paragraph 2 for a specific band to the extent necessary and up to another two and a half years in the case of:

(a) unresolved cross-border coordination issues resulting in harmful interference between Member States provided the affected Member State takes all necessary measures in a timely manner pursuant to Article 28 (3) and (4);

(b) the need to ensure, and the complexity of ensuring, the technical migration of existing users of that band.

3b. In the event of a delay under paragraphs 3 or 3a, the Member State concerned shall inform the other Member States and the Commission in a timely manner, setting out the reasons.
Article 53a

Coordinated timing of assignments for specific 5G bands

1. By 31 December 2020 for terrestrial systems capable of providing wireless broadband electronic communications services, Member States shall, where necessary in order to facilitate the roll-out of 5G, take all appropriate measures to:

   a) reorganise and allow the use, of sufficiently large blocks of the 3.4 to 3.8 GHz band;

   b) allow the use of at least 1 GHz of the 24.25 to 27.5 GHz frequency band, provided that there is a clear evidence of market demand and absence of significant constraints for migration of existing users or band clearance.

1a. Member States may, however, extend the deadline laid down in paragraph 1 where justified in accordance with Article 45(3), Article 53(2), 53(3) or (3a).

2. Measures taken pursuant paragraph 1 shall comply with the harmonised technical conditions established by the Commission pursuant to Article 4 of Decision n°676/2002/EC.
Article 54

Procedure for limiting the number of rights of use to be granted for radio spectrum

1. Without prejudice to any implementing act adopted pursuant to Article 53, where a Member State concludes that a right to use radio spectrum cannot be granted pursuant to Article 46 under a general authorisation and where it considers whether to limit the number of rights of use to be granted for radio spectrum, it shall inter alia:

   (a) clearly state the reasons for limiting the rights of use, in particular by giving due weight to the need to maximise benefits for users and to facilitate the development of competition, and review the limitation as appropriate at regular intervals or at the reasonable request of affected undertakings;

   (b) give all interested parties, including users and consumers, the opportunity to express their views on any limitation through a public consultation in accordance with Article 23. In the case of harmonised radio spectrum, this public consultation shall start within six months of the adoption of the implementing measure under Decision No 676/2002/EC unless technical reasons therein require a longer deadline.
2. When a Member State concludes that the number of rights of use has to be limited, it shall clearly define and justify the objectives pursued with the competitive or comparative selection procedure, and where possible quantify them, giving due weight to the need to fulfil national and internal market objectives. The objectives that the Member State may set out with a view to design the specific selection procedure shall, in addition to promoting competition, be limited to one or more of the following:

(a) promoting coverage;
(b) ensuring the required quality of service;
(c) promoting efficient use of spectrum, including by taking into account the impact of licence conditions and on the level of fees in accordance with article 42; and;
(d) promoting innovation and business development; and
(e) ensuring that fees promote optimal use of radio spectrum in accordance with Article 42;

The national regulatory and/or other competent authority shall clearly define and justify the choice of the selection procedure, including any preliminary phase to access the selection procedure. It shall also clearly state the outcome of any related assessment of the competitive, technical and economic situation of the market and provide reasons for the possible use and choice of measures pursuant to Article 35.

3. Member States shall publish any decision on the selection procedure chosen and the related conditions, clearly stating the reasons therefor and how it has taken into account the measure adopted by the authority in accordance with Article 35. It shall also publish the conditions that will be attached to the rights of use.

4. After having determined the procedure, the Member State shall invite applications for rights of use.
5. Where a Member State concludes that further rights of use for radio spectrum or a combination of different types of rights can be granted, taking into consideration advanced methods for protection against harmful interference, it shall publish that conclusion and initiate the process of granting such rights.

6. Where the granting of rights of use for radio spectrum needs to be limited, Member States shall grant such rights on the basis of selection criteria and a procedure determined by their national regulatory authorities pursuant to Article 35, which must be objective, transparent, non-discriminatory and proportionate. Any such selection criteria must give due weight to the achievement of the objectives and requirements of Articles 3, 4, 28 and 459.

7. The Commission shall adopt implementing measures setting criteria in order to coordinate the implementation of the obligations under paragraphs 1 to 3 by Member States. The implementing measures shall be adopted in accordance with the procedure referred to in Article 110(4) and taking utmost account of the opinion of the Radio Spectrum Policy Group.

8. Where competitive or comparative selection procedures are to be used, Member States may extend the maximum period of six weeks referred to in Article 48(6) for as long as necessary to ensure that such procedures are fair, reasonable, open and transparent to all interested parties, but by no longer than eight months, subject to any specific timetable established pursuant to Article 53.

Those time limits shall be without prejudice to any applicable international agreements relating to the use of radio spectrum and satellite coordination.

9. This Article is without prejudice to the transfer of rights of use for radio spectrum in accordance with Article 51 of this Directive.
CHAPTER III

DEPLOYMENT AND USE OF WIRELESS NETWORK EQUIPMENT

Article 55

Access to radio local area networks

1. Competent authorities shall allow the provision of access through radio local area networks to a public communications network as well as the use of the harmonised radio spectrum for that provision, subject only to applicable general authorisation conditions relating to radio spectrum use.

Where that provision is not commercial in character part of an economic activity or is ancillary to another commercial economic activity or public service which is not dependent on the conveyance of signals on those networks, any undertaking, public authority or end-user providing such access shall not be subject to any general authorisation for the provision of electronic communications networks or services pursuant to Article 12, to obligations regarding end-users rights pursuant to Title III of Part III of this Directive, nor to obligations to interconnect their networks pursuant to Article 59 (1).


2. Competent authorities shall not prevent providers of public communications networks or publicly available electronic communications services from allowing access to their networks to the public, through radio local area networks, which may be located at an end-user's premises, subject to compliance with the applicable general authorisation conditions and the prior informed agreement of the end-user.
3. In line in particular with Article 3(1) of Regulation 2015/2120 of the European Parliament and of the Council,\textsuperscript{37} competent authorities shall ensure that providers of public communications networks or publicly available electronic communications services do not unilaterally restrict or prevent end-users from:

a) the right of end-users to accede to accessing radio local area networks of their choice provided by third parties; or

b) the right of end-users to allow allowing reciprocally or more generally accessing to the networks of such providers by other end-users through radio local area networks, including on the basis of third-party initiatives which aggregate and make publicly accessible the radio local area networks of different end-users.

To that end, providers of public communications networks or publicly available electronic communications services shall make available and actively offer, clearly and transparently, products or specific offers allowing its end-users to provide access to third parties through a radio local area network.

4. Competent authorities shall not restrict limit or prevent the right of end-users from allowing to allow reciprocally or more generally access to their radio local area networks by other end-users, including on the basis of third-party initiatives which aggregate and make the radio local area networks of different end-users publicly accessible.

5. Competent authorities shall not unduly restrict the provision of access to radio local area networks to the public:

(a) by public authorities sector bodies on or in the immediate public spaces close to vicinity of premises occupied by such public authorities sector bodies, when that provision is ancillary to the public services provided on those premises;

(b) by initiatives of non-governmental organisations or public authorities sector bodies to aggregate and make reciprocally or more generally accessible the radio local area networks of different end-users, including, where applicable, the radio local area networks to which public access is provided in accordance with point (a).

Article 56

Deployment and operation of small-area wireless access points

1. Competent authorities shall not unduly restrict the deployment, connection and operation of small-area wireless access points. Member States shall seek to ensure that any rules governing the deployment and operation of small area wireless access points are nationally consistent. Such rules shall be published in advance.

In particular, competent authorities shall not subject the deployment of small-area wireless access points, meeting the characteristics laid down pursuant to paragraph 2, under the to any individual town planning permit or other individual prior permits in any other way, whenever such use is in compliance with implementing measures adopted pursuant to paragraph 2. The small-area wireless access points shall not be subject to any fees or charges going beyond the administrative charge that may be associated to the general authorisation in accordance with Article 46.
This paragraph is without prejudice to the authorisation regime for the radio spectrum employed to operate small-area wireless access points.

1a. By derogation to the second subparagraph of paragraph 1, competent authorities may require permits for the deployment of small-area wireless access points on buildings or sites of architectural, historical or natural value protected in accordance with national law or where necessary for public safety reasons. Competent authorities shall examine permit applications in accordance with Article 7 of Directive 2014/61/EU.

2. In order to ensure the uniform implementation of paragraph 1, the general authorisation regime for the deployment, connection and operation of small-area wireless access points, the Commission shall, by means of implementing acts, specify technical characteristics for the design, deployment and operation of the categories of small-area wireless access points which shall at a minimum comply with the requirements of Directive 2013/35/EU and take account of the thresholds defined in Council Recommendation No 1999/519/EC. The Commission shall specify those technical characteristics by reference to their physical and technical characteristics such as maximum size, weight, and where appropriate emission power, referred to in the second subparagraph of paragraph 1 and range, electromagnetic characteristics, the visual impact, of the deployed small-area wireless access points. Compliance with the specified characteristics shall ensure that small-area wireless access points are unobtrusive when in use in different local contexts.
The technical characteristics specified in order for the deployment, connection and operation of small-area wireless access point to benefit from paragraph 1 shall be without prejudice to the essential requirements of Directive 2014/53/EU.

The first such implementing act shall be adopted by mid 30 June 2020.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 110(4).

2a. This provision article is without prejudice to the essential requirements of Directive 2014/53/EU and to the authorisation regime applicable for the use of the relevant radio spectrum.

2b. Member States shall, applying where relevant the procedures adopted in accordance with Directive 2014/61/EU, ensure that operators have the right to access any physical infrastructure controlled by public national, regional or local authorities, which is technically suitable to host small-area wireless access points or which is necessary to connect such access points to a backbone network, including street furniture, such as light poles, street signs, traffic lights, billboards, bus and tramway stops and metro stations. Public authorities shall meet all reasonable requests for access on fair, reasonable and non-discriminatory terms and conditions, which shall be made transparent at a central access single information point.

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2c. Without prejudice to any commercial agreements, the deployment of small-area wireless access points shall not be subject to any fees or charges going beyond the administrative charge in accordance with Article 16.

Article 56a

Technical regulations on electromagnetic fields

The procedures laid down in Directive 2015/1535 (EU) shall apply with respect to any draft Member State measure that would impose requirements with respect to electromagnetic fields than different from those provided for in Council Recommendation No 1999/519 on the deployment of small area wireless access points.
Title II: Access

CHAPTER I

GENERAL PROVISIONS, ACCESS PRINCIPLES

Article 57

General framework for access and interconnection

1. Member States shall ensure that there are no restrictions which prevent undertakings in the same Member State or in different Member States from negotiating between themselves agreements on technical and commercial arrangements for access and/or interconnection, in accordance with Union law. The undertaking requesting access or interconnection does not need to be authorised to operate in the Member State where access or interconnection is requested, if it is not providing services and does not operate a network in that Member State.

2. Without prejudice to Article 106, Member States shall not maintain legal or administrative measures which oblige operators, when granting access or interconnection, to offer different terms and conditions to different undertakings for equivalent services and/or imposing obligations that are not related to the actual access and interconnection services provided without prejudice to the conditions fixed in Annex I of this Directive.
Article 58

Rights and obligations for undertakings

1. Operators of public communications networks shall have a right and, when requested by other undertakings so authorised in accordance with Article 15 of this Directive, an obligation to negotiate interconnection with each other for the purpose of providing publicly available electronic communications services, in order to ensure provision and interoperability of services throughout the Union. Operators shall offer access and interconnection to other undertakings on terms and conditions consistent with obligations imposed by the national regulatory authority pursuant to Articles 59, 60 and 66.

2. Without prejudice to Article 21 of this Directive, Member States shall require that undertakings which acquire information from another undertaking before, during or after the process of negotiating access or interconnection arrangements use that information solely for the purpose for which it was supplied and respect at all times the confidentiality of information transmitted or stored. The received information shall not be passed on to any other party, in particular other departments, subsidiaries or partners, for whom such information could provide a competitive advantage.

2a. Member States may provide for negotiations to be conducted through neutral intermediaries when conditions of competition so require.
CHAPTER II

ACCESS AND INTERCONNECTION

Article 59

Powers and responsibilities of the national regulatory authorities and other competent authorities with regard to access and interconnection

1. National regulatory authorities and/or other competent authorities in the case of let. b and c shall, acting in pursuit of the objectives set out in Article 3, encourage and where appropriate ensure, in accordance with the provisions of this Directive, adequate access and interconnection, and the interoperability of services, exercising their responsibility in a way that promotes efficiency, sustainable competition, the deployment of very high capacity networks, efficient investment and innovation, and gives the maximum benefit to end-users. They shall provide guidance and make publicly available the procedures applicable to gain access and interconnection to ensure that small and medium-sized enterprises and operators with a limited geographical reach can benefit from the obligations imposed.

In particular, without prejudice to measures that may be taken regarding undertakings with significant market power in accordance with Article 66, national regulatory authorities and/or other competent authorities in the case of let. b and c shall be able to impose:

(a) to the extent that is necessary to ensure end-to-end connectivity, obligations on those undertakings that are subject to general authorisation except number-independent interpersonal communications services and that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case
(b) in justified cases and to the extent that is necessary, obligations on those undertakings that are subject to general authorisation, except number-independent interpersonal communications services, and that control access to end-users to make their services interoperable.

(c) In justified cases, where end-to-end connectivity between end-users is endangered due to a lack of interoperability between interpersonal communications services, they reach a significant level of coverage or user uptake and to the extent that it is necessary to ensure end-to-end connectivity between end-users, obligations on relevant providers of number-independent interpersonal communications services which reach a significant level of coverage and/or user uptake, to make their services interoperable.

(d) To the extent that is necessary to ensure accessibility for end-users to digital radio and television broadcasting services and related complementary services specified by the Member State, obligations on operators to provide access to the other facilities referred to in Annex II, Part II on fair, reasonable and non-discriminatory terms.

The obligations referred to in point (c) of the second subparagraph may only be imposed:

(i) to the extent necessary to ensure interoperability of interpersonal communications services and may include proportionate obligations on providers of those services to publish and allow the use, modification and redistribution of relevant information by the authorities and other providers, or to use and implement standards or specifications listed in Article 39(1) or of any other relevant European or international standards,

(ii) where the Commission, after consulting BEREC and taking utmost account of its opinion, has found an appreciable threat to end-to-end connectivity between end-users throughout the European Union or in at least 3 Member States and has adopted implementing measures specifying the nature and scope of any obligations that may be imposed, in accordance with the examination procedure referred to in Article 110(4).
2. In particular, and without prejudice to paragraph 1, national regulatory authorities shall be able to impose obligations upon reasonable request to grant access to wiring and cables and associated facilities inside buildings or up to the first concentration or distribution point as determined by the national regulatory authority, where that point is located outside the building. Such obligations may be imposed on providers of electronic communications networks the owners of such wiring and cable or on undertakings that have the right to use such wiring and cables, where this is justified on the grounds that replication of such network elements would be economically inefficient or physically impracticable. National regulatory authorities may also impose such obligations on the owners of such wiring and cable, where the undertakings are not providers of electronic communications networks, on the same grounds. The access conditions imposed may include specific rules on access to such network elements and to associated facilities and associated services, transparency and non-discrimination and for apportioning the costs of access, which, where appropriate, are adjusted to take into account risk factors.

Where a national regulatory authority concludes, having regard, where applicable, to the existing obligations resulting from any relevant market analysis, that the obligations imposed in accordance with the previous subparagraph do not sufficiently address high and non-transitory economic or physical barriers to replication which underlie an existing or emerging market situation significantly limiting competitive outcomes for end-users, National regulatory authorities may extend to those owners or undertakings the imposition of such access obligations, on fair and reasonable terms and conditions, beyond the first concentration or distribution point, to a point that it determines to be the closest to end-users capable of hosting to a concentration point as close as possible to end-users a sufficient number of end-user connections to be commercially viable for efficient access seekers. In determining the extent of the extension beyond the first concentration or distribution point, the national regulatory authority shall have regard to take utmost account of relevant BEREC guidelines, to the extent strictly necessary to address insurmountable economic or physical barriers to replication in areas with lower population density. If justified on physical and/or economic grounds, national regulatory authorities may impose active or virtual access obligations.
National regulatory authorities shall not impose obligations in accordance with the second subparagraph on an undertaking providers of electronic communications networks where they determine that:

(a) the undertaking provider meets the criteria listed in Article 77 paragraphs (a) and
(b) makes available a viable and similar alternative means of access to end-users is made available to any undertaking, provided that the access is offered on fair, non-discriminatory and reasonable terms and conditions to a very high capacity network. National regulatory authorities may extend this exemption to other undertakings providers offering, on fair, non-discriminatory and reasonable terms and conditions, access to a very high capacity network; by an undertaking meeting the criteria listed in Article 77 paragraphs (a) and (b); and or

(b) in the case of recently deployed network elements, in particular by smaller local projects, the granting imposition of that access obligations would compromise the economic or financial viability of their a new network deployment in particular by smaller local projects.

As an exception to (a), national regulatory authorities may allow national regulatory authorities to impose obligations on undertakings providers of electronic communications networks fulfilling the criteria laid down in (a) where the network concerned is publicly funded, in accordance with the rules of the public support scheme.

2a. BEREC shall publish guidelines to foster a consistent application of paragraph 2, by setting out the relevant criteria for determining:

(a) the first concentration or distribution point;
(b) the point, beyond the first concentration or distribution point, capable of hosting a sufficient number of end-user connections to enable an efficient undertaking to overcome the significant replicability barriers identified;

(c) which network deployments can be considered new; and

(d) which projects can be considered small.

(e) which economic or physical barriers to replication are high and non-transitory.

These guidelines shall be issued at the latest on the date of transposition of this Directive, as set out in Article 115.

3. Without prejudice to paragraph 1, Member States shall ensure that competent authorities have the power to impose on undertakings providing or authorised to provide electronic communications networks obligations in relation to the sharing of passive or active infrastructure or obligations to conclude localised roaming access agreements for the provision of very high capacity networks, in both cases if directly necessary for the local provision of services which rely on the use of spectrum, in compliance with Union law and provided that no viable and similar alternative means of access to end-users is made available to any undertaking on fair and reasonable terms and conditions. Competent authorities may impose such obligations provided that this possibility has been clearly provided for when granting the rights of use for radio spectrum and only where justified on the grounds that, in the area subject to such obligations, the market-driven deployment of infrastructure for the provision of services or networks which rely on the use of radio spectrum is subject to insurmountable economic or physical obstacles and therefore access to networks or services by end-users is severely deficient or absent. In those circumstances where access and sharing of passive infrastructure alone does not suffice to address the situation, national regulatory authorities may impose obligations on sharing of active infrastructure.
National regulatory authorities Competent authorities shall have regard to:

(a) the need to maximise connectivity throughout the Union, along major transport paths and in particular territorial areas, and to the possibility to significantly increase choice and higher quality of service for end-users;
(b) the efficient use of radio spectrum;
(c) the technical feasibility of sharing and associated conditions;
(d) the state of infrastructure-based as well as service-based competition;
(e) the possibility to significantly increase choice and higher quality of service for end-users;
(f) technological innovation;
(g) the overriding need to support the incentive of the host to roll out the infrastructure in the first place.

Such sharing, or access or coordination obligations shall be subject to agreements concluded on the basis of fair and reasonable terms and conditions. In the event of dispute resolution, national regulatory competent authorities may inter alia impose on the beneficiary of the sharing or access obligation, the obligation to share its spectrum with the infrastructure host in the relevant area.
4. Obligations and conditions imposed in accordance with paragraph 1, 2 and 3 shall be objective, transparent, proportionate and non-discriminatory, they shall be implemented in accordance with the procedures referred to in Articles 23, 32 and 33. National regulatory authorities and competent authorities which have imposed such obligations shall assess the results of such obligations and conditions within five years from the adoption of the previous measure adopted in relation to the same operators and whether it would be appropriate to withdraw or amend them in the light of evolving conditions. National regulatory authorities shall notify the outcome of their assessment in accordance with the same procedures.

5. With regard to access and interconnection referred to in paragraph 1, Member States shall ensure that the national regulatory authority is empowered to intervene at its own initiative where justified in order to secure the policy objectives of Article 3, in accordance with the provisions of this Directive and the procedures referred to in Articles 23 and 32, 2620 and 21.

6. By entry into force plus 18 months in order to contribute to a consistent definition of the location of network termination points by national regulatory authorities, BEREC shall, after consulting stakeholders and in close cooperation with the Commission, adopt guidelines on common approaches to the identification of the network termination point in different network topologies. National regulatory authorities shall take utmost account of those guidelines when defining the location of network termination points.
Article 60

Conditional access systems and other facilities

1. Member States shall ensure that the conditions laid down in Annex II, Part I, apply in relation to conditional access to digital television and radio services broadcast to viewers and listeners in the Union, irrespective of the means of transmission.

2. In the light of market and technological developments, the Commission may be empowered to adopt implementing measures delegated acts in accordance with Article 109 to amend Annex II.

3. Notwithstanding the provisions of paragraph 1, Member States may permit their national regulatory authority, as soon as possible after the entry into force of this Directive and periodically thereafter, to review the conditions applied in accordance with this Article, by undertaking a market analysis in accordance with the first paragraph of Article 65 to determine whether to maintain, amend or withdraw the conditions applied.

Where, as a result of this market analysis, a national regulatory authority finds that one or more operators do not have significant market power on the relevant market, it may amend or withdraw the conditions with respect to those operators, in accordance with the procedures referred to in Articles 23 and 32, only to the extent that:
(a) accessibility for end-users to radio and television broadcasts and broadcasting channels and services specified in accordance with Article 106 would not be adversely affected by such amendment or withdrawal, and

(b) the prospects for effective competition in the markets for:

(i) retail digital television and radio broadcasting services, and

(ii) conditional access systems and other associated facilities,

would not be adversely affected by such amendment or withdrawal.

An appropriate period of notice shall be given to parties affected by such amendment or withdrawal of conditions.

4. Conditions applied in accordance with this Article are without prejudice to the ability of Member States to impose obligations in relation to the presentational aspect of electronic programme guides and similar listing and navigation facilities.
CHAPTER III

MARKET ANALYSIS AND SIGNIFICANT MARKET POWER

Article 61

Undertakings with significant market power

1. Where this Directive requires national regulatory authorities to determine whether operators have significant market power in accordance with the procedure referred to in Article 65, paragraphs 2 and 3 of this Article shall apply.

2. An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.

In particular, national regulatory authorities shall, when assessing whether two or more undertakings are in a joint dominant position in a market, act in accordance with Union law and take into the utmost account the guidelines on market analysis and the assessment of significant market power published by the Commission pursuant to Article 62.
3. Where an undertaking has significant market power on a specific market (the first market), it may also be designated as having significant market power on a closely related market (the second market), where the links between the two markets are such as to allow the market power held in the first market to be leveraged into the second market, thereby strengthening the market power of the undertaking. Consequently, remedies aiming to prevent such leverage may be applied in the second market pursuant to Articles 67, 68, 69 and 72.

Article 62

Procedure for the identification and definition of markets

1. After public consultation including with national regulatory authorities and taking the utmost account of the opinion of BEREC, the Commission shall adopt a Recommendation on Relevant Product and Service Markets (the Recommendation). The Recommendation shall identify those product and service markets within the electronic communications sector the characteristics of which may be such as to justify the imposition of regulatory obligations set out in this Directive, without prejudice to markets that may be defined in specific cases under competition law. The Commission shall define markets in accordance with the principles of competition law. The Commission shall include product and service markets in the Recommendation where, after observing overall trends in the Union, it finds that each of the three criteria listed in paragraph 1 of Article 65 is met.

The Recommendation shall be reviewed at the latest by transposition date. The Commission shall thereafter regularly review the Recommendation.
2. After consultation with BEREC, the Commission shall publish, at the latest on the date of entry into force of this Directive, guidelines for market analysis and the assessment of significant market power (hereinafter ‘the SMP guidelines’) which shall be in accordance with the relevant principles of competition law and include guidance to national regulatory authorities on the application of the concept of significant market power to the specific context of ex ante regulation of electronic communications markets, taking account of the three criteria listed in paragraph 1 of Article 65.

3. National regulatory authorities shall, taking the utmost account of the Recommendation and the SMP guidelines, define relevant markets appropriate to national circumstances, in particular relevant geographic markets within their territory including by taking into account inter alia the degree of infrastructure competition in those areas, in accordance with the principles of competition law. National regulatory authorities shall also take into account the results of the geographical survey conducted in accordance with Article 22(1) where relevant. They shall follow the procedures referred to in Articles 23 and 32 before defining the markets that differ from those identified in the Recommendation.
Article 63

Procedure for the identification of transnational markets

1. If the Commission or at least two national regulatory authorities concerned submit a reasoned request including supporting evidence BEREC shall conduct an analysis of a potential transnational market. After consulting stakeholders and taking utmost account of the analysis carried out by BEREC, in close cooperation with the Commission, BEREC may adopt a Decisions identifying transnational markets in accordance with the principles of competition law and taking utmost account of the Recommendation and SMP Guidelines adopted in accordance with Article 62. BEREC shall conduct an analysis of a potential transnational market if the Commission or at least two national regulatory authorities concerned submit a reasoned request providing supporting evidence.

2. In the case of transnational markets identified in accordance with paragraph 1, the national regulatory authorities concerned shall jointly conduct the market analysis taking the utmost account of the SMP Guidelines and, in a concerted fashion, shall decide on any imposition, maintenance, amendment or withdrawal of regulatory obligations referred to in Article 65(4). The national regulatory authorities concerned shall jointly notify to the Commission with their draft measures regarding the market analysis and any regulatory obligations pursuant to Articles 32 and 33.

Two or more national regulatory authorities may also jointly notify their draft measures regarding the market analysis and any regulatory obligations in the absence of transnational markets, where they consider that market conditions in their respective jurisdictions are sufficiently homogeneous.
Article 64

Procedure for the identification of transnational demand

1. BEREC shall conduct an analysis of transnational end-user demand for products and services that are provided within the Union in one or more of the markets listed in the Recommendation, if it receives a reasoned request providing supporting evidence from the Commission or from at least two of the national regulatory authorities concerned indicating that there is a serious demand problem to be addressed. BEREC may also conduct such analysis if it receives a reasoned request from market participants providing sufficient supporting evidence and considers there is a serious demand problem to be addressed. BEREC's analysis is without prejudice to any findings of transnational markets in accordance with Article 63(1) and to any findings of national or sub-national geographical markets by national regulatory authorities in accordance with Article 62(3).

That analysis of transnational end-user demand may include products and services that are supplied within product or service markets that have been defined in different ways by one or more national regulatory authorities when taking into account national circumstances, provided that those products and services are substitutable to those supplied in one of the markets listed in the Recommendation.
2. If BEREC concludes that a transnational end-user demand exists, is significant and is not sufficiently met by supply provided on a commercial or regulated basis, it shall, after consulting stakeholders and in close cooperation with the Commission, issue guidelines on common approaches for national regulatory authorities to meet the identified transnational demand, including, where appropriate, when they impose remedies in accordance with Article 66. National regulatory authorities shall take into utmost account these guidelines when performing their regulatory tasks within their jurisdiction. **These guidelines may provide the basis for convergence interoperability of wholesale access products across the Union and may include guidance for the harmonisation of**

——— 2. On the basis of BEREC guidelines referred to in paragraph 1, the Commission may adopt a Decision pursuant to Article 38 to harmonise the technical specifications of wholesale access products capable of meeting such identified transnational demand, when they are imposed by national regulatory authorities on operators designated with significant market power in markets where such access products are supplied, as defined according to national circumstances. Article 38(3)(a) second subparagraph first indent shall not apply in such a case.

**Article 65**

**Market analysis procedure**

1. National regulatory authorities shall determine whether a relevant market defined in accordance with Article 62(3) may be such as to justify the imposition of the regulatory obligations set out in this Directive. Member States shall ensure that an analysis is carried out, where appropriate, in collaboration with the national competition authorities. National regulatory authorities shall take utmost account of the SMP guidelines and shall follow the procedures referred to in Articles 23 and 32 when conducting such analysis.
A market may be such as to justify the imposition of regulatory obligations set out in this Directive if the following three criteria are cumulatively met:

(a) high and non-transitory structural, legal or regulatory barriers to entry are present;
(b) there is a market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry;
(c) competition law alone is insufficient to adequately address the identified market failure(s).

Where a national regulatory authority conducts an analysis of a market that is included in the Recommendation, it shall consider that points (a), (b) and (c) of the second subparagraph have been met, unless the national regulatory authority determines that one or more of such criteria is not met in the specific national circumstances.

2. Where a national regulatory authority conducts the analysis required by paragraph 1, it shall consider developments from a forward-looking perspective in the absence of regulation imposed on the basis of this Article in that relevant market, and taking into account:

(a) the existence of market developments affecting which may increase the likelihood of the relevant market tending towards effective competition, such as those commercial co-investment or access agreements between operators which benefit competitive dynamics sustainably;

(b) all relevant competitive constraints, including at wholesale and retail level, irrespective of whether the sources of such constraints are deemed to be electronic communications networks, electronic communications services, or other types of services or applications which are comparable from the perspective of the end-user, and irrespective of whether such constraints are part of the relevant market;
(c) other types of regulation or measures imposed and affecting the relevant market or related retail market or markets throughout the relevant period, including, without limitation, obligations imposed in accordance with Articles 44, 58 and 59; and

(d) regulation imposed on other relevant markets on the basis of this Article.

3. Where a national regulatory authority concludes that a relevant market may not be such as to justify the imposition of regulatory obligations in accordance with the procedure in paragraphs 1 and 2 of this Article, or where the conditions in paragraph 4 of this Article are not met, it shall not impose or maintain any specific regulatory obligations in accordance with Article 66. In cases where there already are sector specific regulatory obligations imposed in accordance with Article 66, it shall withdraw such obligations placed on undertakings in that relevant market.

National regulatory authorities shall ensure that parties affected by such a withdrawal of obligations receive an appropriate period of notice, defined by balancing the need to ensure a sustainable transition for the beneficiaries of these obligations and end-users, end-user choice, and that regulation does not continue beyond what is necessary. When setting such period of notice, national regulatory authorities may determine specific conditions and notice periods in relation to existing access agreements.

4. Where a national regulatory authority determines that, in a relevant market the imposition of regulatory obligations in accordance with paragraphs 1 and 2 of this Article is justified, it shall identify any undertakings which individually or jointly have a significant market power on that relevant market in accordance with Article 61. The national regulatory authority shall impose on such undertakings appropriate specific regulatory obligations in accordance with Article 66 or maintain or amend such obligations where they already exist if it considers that the outcome for end-users on one or more retail markets would not be effectively competitive in the absence of those obligations.
5. Measures taken in accordance with the provisions of paragraphs 3 and 4 shall be subject to the procedures referred to in Articles 23 and 32. National regulatory authorities shall carry out an analysis of the relevant market and notify the corresponding draft measure in accordance with Article 32:

(a) within five years from the adoption of a previous measure where the national regulatory authority has defined the relevant market and determined which undertakings have significant market power. Exceptionally, that five-year period may be extended for up to one additional year, where the national regulatory authority has notified a reasoned proposed extension to the Commission no later than four months before the expiry of the five years period, and the Commission has not objected within one month of the notified extension;

(b) within three years from the adoption of a revised Recommendation on relevant markets, for markets not previously notified to the Commission; or

(c) within three years from their accession, for Member States which have newly joined the Union.

6. Where a national regulatory authority considers that it may not complete or has not completed its analysis of a relevant market identified in the Recommendation within the time limit laid down in paragraph 65, BEREC shall, upon request, provide assistance to the national regulatory authority concerned in completing the analysis of the specific market and the specific obligations to be imposed. With this assistance, the national regulatory authority concerned shall within six months of the limit laid down in paragraph 5 notify the draft measure to the Commission in accordance with Article 32.
CHAPTER IV

ACCESS REMEDIES AND SIGNIFICANT MARKET POWER

Article 66

Imposition, amendment or withdrawal of obligations

1. Member States shall ensure that national regulatory authorities are empowered to impose the obligations identified in Articles 67 to 72 and 74 to 78.

2. Where an operator is designated as having significant market power on a specific market as a result of a market analysis carried out in accordance with Article 65 of this Directive, national regulatory authorities shall be able to impose any of the obligations set out in Articles 67 to 72, 74 to 75 and 77 of this Directive as appropriate. *In accordance with the principle of proportionality, a national regulatory authority shall choose the least intrusive way of addressing the problems identified in the market analysis.*

3. Without prejudice to:

   – the provisions of Articles 59 and 60,

   – the provisions of Articles 44 and 17 of this Directive, Condition 7 in Part D of Annex I as applied by virtue of Article 13(1) of this Directive, Articles 91 and 99 of this Directive and the relevant provisions of Directive 2002/58/EC containing obligations on undertakings other than those designated as having significant market power, or

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the need to comply with international commitments,

national regulatory authorities shall not impose the obligations set out in Articles 67 to 72 and 74, 75 and 77 on operators that have not been designated in accordance with paragraph 2.

In exceptional circumstances, when a national regulatory authority intends to impose on operators with significant market power obligations for access or interconnection other than those set out in Articles 67 to 72 and 74, 75 and 77, it shall submit this request to the Commission. The Commission shall take utmost account of the opinion of BEREC. The Commission, acting in accordance with the procedure referred to in Article 110(3), shall take a decision authorising or preventing the national regulatory authority from taking such measures.

4. Obligations imposed in accordance with this Article shall be:

   a) based on the nature of the problem identified by a national regulatory authority in its market analysis, in particular to safeguard long-term sustainable competition at retail level and where appropriate taking into account the identification of transnational demand pursuant to Article 64;

   b) They shall be proportionate, having regard, where possible, to the costs and benefits;

   c) and justified in the light of the objectives laid down in Article 3 of this Directive; and

   d) 2002/21/EC (Framework Directive). Such obligations shall only be imposed following consultation in accordance with Articles 23 and 32.
5. In relation to the third indent of the first subparagraph of paragraph 3, national regulatory authorities shall notify decisions to impose, amend or withdraw obligations on market players to the Commission, in accordance with the procedure referred to in Article 32.

6. National regulatory authorities shall consider the impact of new market developments, such as in relation to commercial agreements, including co-investment agreements, **influencing competitive dynamics** which have been concluded, or unforeseeably breached, or terminated, affecting competitive dynamics.

If these developments are not sufficiently important in order to determine the need to undertake a new market analysis in accordance with Article 65, the national regulatory authority shall assess without delay whether it is necessary to review the obligations imposed on operators designated with significant market power and **amend any previous decision, including by withdrawing obligations or imposing new obligations**, in order to ensure that such obligations continue to meet the conditions in paragraph 4. Such amendments shall only be imposed following consultation in accordance with Articles 23 and 32.
**Article 67**

**Obligation of transparency**

1. National regulatory authorities may, in accordance with the provisions of Article 66, impose obligations for transparency in relation to interconnection and/or access, requiring operators to make public specified information, such as accounting information, technical specifications, network characteristics and expected developments thereof, terms and conditions for supply and use, including any conditions limiting altering access to and/or use of services and applications, particularly with regard to migration from legacy infrastructure, where such conditions are allowed by Member States in conformity with Union law, and prices.

2. In particular where an operator has obligations of non-discrimination, national regulatory authorities may require that operator to publish a reference offer, which shall be sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested, giving a description of the relevant offerings broken down into components according to market needs, and the associated terms and conditions including prices. The national regulatory authority shall, inter alia, be able to impose changes to reference offers to give effect to obligations imposed under this Directive.

3. National regulatory authorities may specify the precise information to be made available, the level of detail required and the manner of publication.
4. No later than 1 year after the adoption of this Directive, in order to contribute to the consistent application of transparency obligations, BEREC shall, after consulting stakeholders and in close cooperation with the Commission, issue guidelines on the minimum criteria for a reference offer and shall review them whenever necessary in order to adapt them to technological and market developments. In providing such minimum criteria, BEREC shall pursue the objectives in Article 3, and shall have regard for the needs of the beneficiaries of access obligations and end-users that are active in more than one Member State as well as to any BEREC guidelines identifying transnational demand in accordance with Article 64 and to any related Commission Decision.

Notwithstanding paragraph 3, where an operator has obligations under Article 70 or 71 concerning wholesale network infrastructure access, national regulatory authorities shall ensure the publication of a reference offer taking utmost account of the BEREC guidelines on the minimum criteria for a reference offer, and shall specify ensure that key performance indicators are specified, where relevant, as well as corresponding service levels agreements and associated financial penalties, to be made available on the access provided, and closely monitor and ensure compliance with them. In addition, NRAs national regulatory authorities may, where necessary, predetermine the associated financial penalties in accordance with Union and national law.
Article 68

Obligation of non-discrimination

1. A national regulatory authority may, in accordance with the provisions of Article 66, impose obligations of non-discrimination, in relation to interconnection and/or access.

2. Obligations of non-discrimination shall ensure, in particular, that the operator applies equivalent conditions in equivalent circumstances to other undertakings providing providers of equivalent services, and provides services and information to others under the same conditions and of the same quality as it provides for its own services, or those of its subsidiaries or partners. In particular, in cases where the operator is deploying new systems, national regulatory authorities may impose on that operator obligations to supply access products and services to all undertakings, including to its downstream arm itself, on the same timescales, terms and conditions, including those relating to price and service levels, and by means of the same systems and processes, in order to ensure equivalence of access.

Article 69

Obligation of accounting separation

1. A national regulatory authority may, in accordance with the provisions of Article 66, impose obligations for accounting separation in relation to specified activities related to interconnection and/or access.

In particular, a national regulatory authority may require a vertically integrated company to make transparent its wholesale prices and its internal transfer prices inter alia to ensure compliance where there is a requirement for non-discrimination under Article 68 or, where necessary, to prevent unfair cross-subsidy. National regulatory authorities may specify the format and accounting methodology to be used.
2. Without prejudice to Article 20, to facilitate the verification of compliance with obligations of transparency and non-discrimination, national regulatory authorities shall have the power to require that accounting records, including data on revenues received from third parties, are provided on request. National regulatory authorities may publish such information as would contribute to an open and competitive market, while respecting national and Union rules on commercial confidentiality.

Article 70

Access to civil engineering

1. A national regulatory authority may, in accordance with Article 66, impose obligations on operators to meet reasonable requests for access to, and use of, civil engineering including, without limitation but not limited to, buildings or entries to buildings, building cables including wiring, antennae, towers and other supporting constructions, poles, masts, ducts, conduits, inspection chambers, manholes, and cabinets, in situations where having considered the market analysis indicates the national regulatory authority deems concludes that denial of access or access given under unreasonable terms and conditions having a similar effect would hinder the emergence of a sustainable competitive market at the retail level and would not be in the end-user's interest.

2. National regulatory authorities may impose obligations on an operator to provide access in accordance with this Article, irrespective of whether the assets that are affected by the obligation are part of the relevant market in accordance with the market analysis, provided that the obligation is necessary and proportionate to meet the objectives of Article 3.
1. Only where a national regulatory authority concludes that the obligations imposed in accordance with Article 70 would not on their own lead to the achievement of the objectives set out in Article 3, it may, in accordance with the provisions of Article 66, impose obligations on operators to meet reasonable requests for access to, and use of, specific network elements and associated facilities, in situations where the national regulatory authority considers that denial of access or unreasonable terms and conditions having a similar effect would hinder the emergence of a sustainable competitive market at the retail level, and would not be in the end-user's interest.

Operators may be required *inter alia*:

(a) to give third parties access to, *and use of, specific physical* specified network elements and *accompanying associated* facilities, as appropriate, including access to network elements which are either not active or physical and/or active or virtual unbundled access to the local loop *and sub-loop*;

(b) to give third parties access to specified active and/or virtual network elements and services;

(b) to negotiate in good faith with undertakings requesting access;

(c) not to withdraw access to facilities already granted;

——(ca) to provide specified services on a wholesale basis for resale by third parties;
(d) to grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;
(e) to provide co-location or other forms of associated facilities sharing;
(f) to provide specified services needed to ensure interoperability of end-to-end services to users, including facilities for software emulated networks or roaming on mobile networks;
(g) to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services;
(h) to interconnect networks or network facilities;
(i) to provide access to associated services such as identity, location and presence service.

National regulatory authorities may attach to those obligations conditions covering fairness, reasonableness and timeliness.

2. When national regulatory authorities are considering the appropriateness of imposing any of the possible specific obligations referred in paragraph 1, and in particular when assessing, in conformity with the principle of proportionality, whether and how such obligations should be imposed, they shall analyse whether other forms of access to wholesale inputs either on the same or a related wholesale market, would already be sufficient to address the identified problem at the retail level in the pursuit of the interests of end users. The assessment shall include existing or prospective commercial access offers, regulated access pursuant to Article 59 – to be considered with Art 59, or existing or contemplated planned regulated access to other wholesale inputs pursuant to this Article. They shall take account in particular of the following factors:

(a) the technical and economic viability of using or installing competing facilities, in the light of the rate of market development, taking into account the nature and type of interconnection and/or access involved, including the viability of other upstream access products such as access to ducts;
(b) the expected technological evolution affecting network design and management;

(ba) the need to ensure technology neutrality enabling the parties to design and manage their own networks;

(c) the feasibility of providing the access proposed, in relation to the capacity available;

(d) the initial investment by the facility owner, taking account of any public investment made and the risks involved in making the investment with particular regard to investments in and risk levels associated with very high capacity networks;

(e) the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure-based competition and innovative commercial business models which that support sustainable competition such as those based on co-investment in networks;

(f) where appropriate, any relevant intellectual property rights;

(g) the provision of pan-European services.

Where a national regulatory authority considers, in accordance with Article 66, the imposition of obligations on the basis of Articles 70 or this Article, it shall examine whether the sole imposition of obligations in accordance with Article 70 would be a proportionate means to promote competition and the interests of the end-user.

3. When imposing obligations on an operator to provide access in accordance with the provisions of this Article, national regulatory authorities may lay down technical or operational conditions to be met by the provider and/or beneficiaries of such access where necessary to ensure normal operation of the network. Obligations to follow specific technical standards or specifications shall be in compliance with the standards and specifications laid down in accordance with Article 39.
Article 72

Price control and cost accounting obligations

1. A national regulatory authority may, in accordance with the provisions of Article 66, 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 may sustain prices at an excessively high level, or may apply a price squeeze, to the detriment of end-users.

In determining whether or not price control obligations would be appropriate, national regulatory authorities shall take into account the need to promote competition and long-term end-user interests related to the deployment and take-up of next-generation networks, and in particular of very high capacity networks. In particular, to encourage investments by the operator, including in next-generation networks, national regulatory authorities shall take into account the investment made by the operator. Where the national regulatory authorities deem price controls appropriate, they shall allow the operator a reasonable rate of return on adequate capital employed, taking into account any risks specific to a particular new investment network project.

National regulatory authorities shall not consider not to impose or maintain obligations pursuant to this Article, where they establish that a demonstrable retail price constraint is present and that any obligations imposed in accordance with Articles 67 to 71, including in particular any economic replicability test imposed in accordance with Article 68 ensures effective and non discriminatory access.
When national regulatory authorities consider it appropriate to impose price controls on access to existing network elements, they shall also take account of the benefits of predictable and stable wholesale prices in ensuring efficient entry and sufficient incentives for all operators to deploy new and enhanced networks.

2. National regulatory authorities shall ensure that any cost recovery mechanism or pricing methodology that is mandated serves to promote the deployment of new and enhanced networks, efficiency and sustainable competition and maximise sustainable consumer end user benefits. In this regard national regulatory authorities may also take account of prices available in comparable competitive markets.

3. Where an operator has an obligation regarding the cost orientation of its prices, the burden of proof that charges are derived from costs including a reasonable rate of return on investment shall lie with the operator concerned. For the purpose of calculating the cost of efficient provision of services, national regulatory authorities may use cost accounting methods independent of those used by the undertaking. National regulatory authorities may require an operator to provide full justification for its prices, and may, where appropriate, require prices to be adjusted.

4. National regulatory authorities shall ensure that, where implementation of a cost accounting system is mandated in order to support price controls, a description of the cost accounting system is made publicly available, showing at least the main categories under which costs are grouped and the rules used for the allocation of costs. Compliance with the cost accounting system shall be verified by a qualified independent body. A statement concerning compliance shall be published annually.
Article 73
Termination rates

1. Where a national regulatory authority imposes obligations relating to cost recovery and price controls on operators designated as having significant market power on a market for wholesale voice call termination, it shall set maximum symmetric termination rates based on the costs incurred by an efficient operator. The evaluation of efficient costs shall be based on current cost values. The cost methodology to calculate efficient costs shall be based on a bottom-up modelling approach using long-run incremental traffic-related costs of providing the wholesale voice call termination service to third-parties.

The details of the cost methodology shall be set by a Commission decision, adopted pursuant to Article 38.

2. By date of transposition 31 December 2020 the Commission shall, after having consulted taking utmost account of the opinion of BEREC, adopt an Decision implementing act delegated act setting: delegated acts in accordance with Article 109 concerning a single maximum EU-wide mobile voice termination rate and a single maximum EU-wide fixed voice termination rate, which is imposed on any operator active on each of the markets of mobile voice termination and fixed voice termination respectively in any Member State. to be imposed by national regulatory authorities;
on undertakings designated as having significant market power in fixed and mobile voice termination markets respectively in the Union.

When adopting these delegated acts, the Commission shall:

- follow the principles laid down in the first subparagraph of paragraph 1 and shall comply with the principles, criteria and parameters provided in Annex III;

4. In applying paragraph 2, the Commission shall ensure that the single voice call termination rate in mobile networks shall not exceed 1.23 €cent per minute and the single voice call termination rate in fixed networks shall not exceed 0.14 €cent per minute. The Commission shall

- when setting the single maximum EU-wide fixed voice termination rate and mobile voice termination rate for the first time, take into account the weighted average of efficient costs maximum termination rates in fixed and mobile networks established in accordance with the principles provided in Annex III the first subparagraph of paragraph 1 applied across the Union.

The single maximum EU-wide fixed voice termination rate and mobile voice termination rates in the first delegated act shall not be higher than the highest rates in force in any Member State, after any necessary adjustment for exceptional national circumstances, six months before the adoption of the delegated act; when setting the single maximum termination rate for the first time.
5. When adopting delegated acts pursuant to paragraph 2, the Commission shall

- take into account the total number of end-users in each Member State, in order to ensure a proper weighting of the maximum termination rates, as well as national circumstances which result in significant differences between Member States when determining the maximum termination rates in the Union;

6. The Commission may request BEREC to develop an economic model in order to assist the Commission in determining the maximum termination rates in the Union. The Commission shall

- take into account market information provided by BEREC, national regulatory authorities or, directly, by undertakings providing electronic communications networks and services; and
- consider the need to allow for a transition period of no longer than 12 months as to allow adjustments in Member States where this is necessary on the basis of rates previously imposed.
7. The delegated act referred to in paragraph 1 shall be adopted in accordance with the examination procedure referred to in Article 110(4)/109. Taking utmost account of the opinion of BEREC, the Commission shall review the delegated acts adopted pursuant this Article every five years and shall consider on that occasion, by application of the criteria listed in Article 65(1), whether EU wide maximum mobile voice termination rates or fixed voice termination rates continue to be necessary. Where the Commission decides in accordance with this subparagraph not to impose a maximum mobile voice termination rate or a maximum fixed termination rate, or both, national regulatory authorities may conduct market analyses of voice termination markets in accordance with Article 65, to assess whether the imposition of regulatory obligations is necessary. If a national regulatory authority imposes as a result of such analysis cost oriented termination rates in a relevant market, it shall follow the principles, criteria and parameters provided in Annex III and its draft measure shall be implemented in accordance with the procedures referred to in Articles 23, 32 and 33.

3. National regulatory authorities shall closely monitor and ensure compliance with the application of the single maximum EU-wide mobile and fixed voice termination rates by providers of termination services. National regulatory authorities may at any time require a provider of voice termination services to amend the rate it charges to other undertakings if it does not comply with the Decision implementing/delegated act referred to in paragraph 1. National regulatory authorities shall annually report to BEREC and the Commission concerning the application of this Article.
Article 74

Regulatory treatment of new very high capacity network elements

1. Undertakings which have been designated as having significant market power in one or several relevant markets in accordance with Article 65 of this Directive may offer commitments in accordance with the procedure set out in Article 76bis and subject to conditions (a) to (e) of the following subparagraph to open the deployment of a new very high capacity network that consists of optical fibre elements up to the end-user premises or base station, to co-investment, for example, by offering co-ownership or long-term risk sharing through co-financing or through purchase agreements giving rise to specific rights of a structural character by other providers of electronic communications networks and/or services.

When the national regulatory authority assesses these proposed commitments, it shall determine in particular whether the offer to co-invest meets the following cumulative conditions:

(a) it is open at any point during the lifetime of the network to any provider of electronic communications services and/or networks,
(b) it would allow other co-investors which are providers of electronic communications services and/or networks, to compete effectively and sustainably in the long term in downstream markets in which the operator designated with significant market power is active, on terms which include *inter alia* fair, reasonable and non-discriminatory terms offered to potential co-investors allowing access to the full capacity of the network to the extent that it is subject to co-investment; flexibility in terms of the value and timing of the participation of each co-investor; a possibility to increase such participation in the future; and reciprocal rights awarded by the co-investors after the deployment of the co-invested infrastructure;

(c) it is made public by the operator in a timely manner and, if the operator does not meet the criteria listed in Art 77 paragraphs a) and b) at least 6 months before the start of the deployment of the new network. Based on national circumstances this period may be prolonged; and

(d) access seekers not participating in the co-investment can benefit from the outset from the same quality, speed, conditions and end-user reach as was available before the deployment, complemented with a mechanism of adaptation over time, confirmed by the national regulatory authority in the light of developments on the related retail markets, that maintains the incentives to participate in the co-investment. To that end, such mechanism shall ensure that access seekers have access to the very high capacity elements of the network at a time and on the basis of transparent and non-discriminatory terms which reflect appropriately the degrees of risk incurred by the respective co-investors at different stages of the deployment and take into account the competitive situation in retail markets; either through commercial agreements based on fair and reasonable terms or by means of regulated access maintained or adapted by the national regulatory authority.
(c) it complies When assessing co-investment offers and processes referred to in point (a) of the first subparagraph, national regulatory authorities shall ensure that those offers and processes at a minimum comply with the criteria set out in Annex IV and is made in good faith.

2. If the national regulatory authority concludes, taking into account the results of the market test conducted in accordance with the provisions of Article 76bis(2), that the proposed co-investment commitment satisfies the criteria in the first paragraph it shall make the commitments binding pursuant to Article 76bis(3), and decide not to impose any additional obligations pursuant to Article 66 as regards the parts of the new very high capacity network that are subject to the commitments, if at least one potential co-investor has entered into a co-investment agreement with the operator designated with significant market power.

This is without prejudice to the regulatory treatment of circumstances that do not satisfy the criteria in the first paragraph, taking into account the results of any market test conducted in accordance with the provisions in Article 76bis(2), but which have an impact on competition and are taken into account in the market analysis procedure pursuant to Articles 65 and 66.
National regulatory authorities shall continuously monitor compliance with the requirements set out in the first paragraph and may require the operator designated as having significant market power to provide it with annual compliance statements.

This Article is without prejudice to the power of a national regulatory authority to take decisions pursuant to the first paragraph of Article 26 in the event of a dispute arising between undertakings in connection with a co-investment agreement deemed by it to comply with the conditions set out in the first paragraph.

3. By way of an exception to paragraph 2, first sub-paragraph, a national regulatory authority may, in duly justified circumstances, impose, maintain or adapt remedies in accordance with Articles 66 to 72 as regards new very high capacity networks referred to under paragraph 1 in order to address significant competition problems on specific markets where the national regulatory authority establishes that given the specific characteristics of these markets, these competition problems would not otherwise be addressed.

4. BEREC, after consulting stakeholders and in close cooperation with the Commission, shall publish guidelines to foster the consistent application by national regulatory authorities of the criteria set out in the first paragraph, and in Annex IV.
Article 75

Functional separation

1. Where the national regulatory authority concludes that the appropriate obligations imposed under Articles 67 to 72 have failed to achieve effective competition and that there are important and persisting competition problems and/or market failures identified in relation to the wholesale provision of certain access product markets, it may, as an exceptional measure, in accordance with the provisions of the second subparagraph of Article 66(3), impose an obligation on vertically integrated undertakings to place activities related to the wholesale provision of relevant access products in an independently operating business entity.

That business entity shall supply access products and services to all undertakings, including to other business entities within the parent company, on the same timescales, terms and conditions, including those relating to price and service levels, and by means of the same systems and processes.

2. When a national regulatory authority intends to impose an obligation for functional separation, it shall submit a proposal to the Commission that includes:

(a) evidence justifying the conclusions of the national regulatory authority as referred to in paragraph 1;

(b) a reasoned assessment that there is no or little prospect of effective and sustainable infrastructure-based competition within a reasonable time frame;
(c) an analysis of the expected impact on the regulatory authority, on the undertaking, in particular on the workforce of the separated undertaking and on the electronic communications sector as a whole, and on incentives to invest in a sector as a whole, particularly with regard to the need to ensure social and territorial cohesion, and on other stakeholders including, in particular, the expected impact on competition and any potential consequential effects on consumers;
(d) an analysis of the reasons justifying that this obligation would be the most efficient means to enforce remedies aimed at addressing the competition problems/markets failures identified.

3. The draft measure shall include the following elements:

(a) the precise nature and level of separation, specifying in particular the legal status of the separate business entity;
(b) an identification of the assets of the separate business entity, and the products or services to be supplied by that entity;
(c) the governance arrangements to ensure the independence of the staff employed by the separate business entity, and the corresponding incentive structure;
(d) rules for ensuring compliance with the obligations;
(e) rules for ensuring transparency of operational procedures, in particular towards other stakeholders;
(f) a monitoring programme to ensure compliance, including the publication of an annual report.

4. Following the Commission's decision on the draft measure taken in accordance with Article 66(3), the national regulatory authority shall conduct a coordinated analysis of the different markets related to the access network in accordance with the procedure set out in Article 65. On the basis of its assessment, the national regulatory authority shall impose, maintain, amend or withdraw obligations, in accordance with Articles 23 and 32 of this Directive.
5. An undertaking on which functional separation has been imposed may be subject to any of the obligations identified in Articles 67 to 72 in any specific market where it has been designated as having significant market power in accordance with Article 65, or any other obligations authorised by the Commission pursuant to Article 66(3).

Article 76

Voluntary separation by a vertically integrated undertaking

1. Undertakings which have been designated as having significant market power in one or several relevant markets in accordance with Article 65 of this Directive shall inform the national regulatory authority at least three months in advance and in a timely manner, in order to allow the national regulatory authority to assess the effect of the intended transaction, when they intend to transfer their local access network assets or a substantial part thereof to a separate legal entity under different ownership, or to establish a separate business entity in order to provide to all retail providers, including its own retail divisions, fully equivalent access products.

Undertakings shall also inform the national regulatory authority of any change of that intent as well as the final outcome of the process of separation.

Undertakings may also offer commitments regarding access conditions that will apply to their network during an implementation period and after the proposed form of separation is implemented, with a view to ensuring effective and non-discriminatory access by third parties. The offer of commitments shall include sufficient details, including in terms of timing of implementation and duration, so as to allow the national regulatory authority to conduct its tasks in accordance with paragraph 2 of this Article. Such commitments may extend beyond the maximum period for market reviews established in Article 65(5).
2. The national regulatory authority shall assess the effect of the intended transaction together with the proposed commitments where applicable on existing regulatory obligations under this Directive.

For that purpose, the national regulatory authority shall conduct an analysis of the different markets related to the access network in accordance with the procedure set out in Article 65.

The national regulatory authority shall take into account any commitments offered by the undertaking, having regard in particular to the objectives in Article 3. In so doing, the national regulatory authority shall consult third parties in accordance with Article 23, and shall address in particular, without limitation, those third parties which are directly affected by the intended transaction.

On the basis of its assessment, the national regulatory authority shall impose, maintain, amend or withdraw obligations, in accordance with Articles 23 and 32, applying, if appropriate, the provisions of Article 77. In its decision, the national regulatory authority may make the commitments binding, wholly or in part. By way of exception to Article 65(5), the national regulatory authority may make some or all commitments binding for the entire period for which they are offered.

3. Without prejudice to the provisions of Article 77, the legally and/or operationally separate business entity may be subject as appropriate to any of the obligations identified in Articles 67 to 72 in any specific market where it has been designated as having significant market power in accordance with Article 65, or any other obligations authorised by the Commission pursuant to Article 66(3) and where any commitments offered are insufficient to meet the objectives of Article 3.

4. The national regulatory authority shall monitor the implementation of the commitments offered by the undertakings that it has made binding in accordance with paragraph 2 of this Article and shall consider their extension when the period of time for which they are initially offered has expired.
Article 76bis

Commitments procedure

1. Undertakings designated as having significant market power may propose to the national regulatory authority commitments regarding access or co-investment conditions that will apply to their networks, or both, in relation to inter alia:

   a) cooperative arrangements relevant to the assessment of appropriate and proportionate obligations pursuant to Article 66;

   (b) co-investment commitments in very high capacity networks pursuant to Article 74;
   or

   (c) effective and non-discriminatory access by third parties pursuant to Article 76, respectively during an implementation period of voluntary separation by a vertically integrated undertaking and after the proposed form of separation is implemented.

The proposal for commitments shall be sufficiently detailed including as to the timing and scope of their implementation and their duration, to allow the national regulatory authority to undertake its assessment pursuant to paragraph 2. Such commitments may extend beyond the periods for carrying out market analysis provided in Article 65(5).
2. In order to assess any commitments offered by an undertaking pursuant to paragraph 1, the national regulatory authority shall, except where such offers clearly do not fulfil one or more relevant conditions or criteria unless justified, perform a market test, in particular on the offered terms, by conducting a public consultation of stakeholders and interested parties, including *inter alia* those third parties which are directly affected by the intended transaction. Potential co-investors or access seekers may provide views on the compliance of the initial proposed commitment with the conditions or criteria provided in Article 66, 74 or 76, as applicable, and may propose changes to that offer. As regards the commitments proposed under this article, the national regulatory authority shall have particular regard when assessing obligations pursuant to Article 66 (4) to evidence regarding the fair and reasonable character of the proposed commitments, the openness of the commitments to all market operators, the timely availability of access under fair, reasonable and non-discriminatory access conditions, including to very high capacity networks, in advance of launch of related retail services, and the proposed commitments' overall adequacy to enable sustainable competition on downstream markets and to facilitate cooperative deployment and take-up of very high capacity networks in the interest of end-users. Taking into account all the views expressed in the consultation, and the extent to which such views are representative of different stakeholders, the national regulatory authority shall communicate to the undertaking designated as having significant market power its preliminary conclusions whether the commitments satisfy the objectives, criteria and procedures with the criteria set out in this Article and in Articles 66, 74 or 76, as applicable, and under which conditions it may consider to make the commitments binding. The undertaking may revise its initial offer to take account of the preliminary conclusions of the national regulatory authority and with a view to satisfying the criteria set out in this Article and in Articles 66, 74 or 76, as applicable.
3. Without prejudice to Article 74(2), first sub-paragraph, the national regulatory authority may issue a decision to make the commitments binding, wholly or in part. By way of exception to Article 65(5), the national regulatory authority may make some or all commitments binding for a specific period of time, which may be the entire period for which they are offered, and in the case of co-investment commitments made binding pursuant to Article 74(2), 1st sub-paragraph, it shall make them binding for a minimum of seven years.

Unless the specific provisions of Article 74 apply, this Article is without prejudice to the application of the market analysis procedure pursuant to Article 65 and the imposition of obligations pursuant to Article 66.

Where the national regulatory authority makes commitments binding pursuant to this Article, it shall consider under Article 66 the consequences of that decision for market development and the appropriateness of any obligations that it has imposed or would otherwise have intended to be imposed pursuant to that Article and Articles 67 to 72. When notifying the relevant draft measure under Article 66 in accordance with Article 32, the national regulatory authority shall accompany the notified draft measure with the commitments decision.
4. The national regulatory authority shall monitor, supervise and ensure compliance with the commitments offered by the undertakings that it has made binding in accordance with paragraph 3 of this Article in the same way it monitors, supervises and ensures compliance with obligations imposed under Article 66 and shall consider their extension when the period of time for which they are initially offered has expired. If the national regulatory authority concludes that an undertaking has not complied with the commitments that have been made binding in accordance with paragraph 3, it may impose penalties on such undertaking in accordance with Article 29. Without prejudice to the procedure for ensuring compliance of specific obligations under Article 30, the national regulatory authority shall, be able to reassess the obligations imposed in accordance with Article 66(6),

Article 77

**Wholesale-only undertakings**

1. A national regulatory authority that designates an undertaking which is absent from any retail markets for electronic communications services as having significant market power in one or several wholesale markets in accordance with Article 65 shall consider whether that undertaking has the following characteristics:

   (a) all companies and business units within the undertaking, including all companies that are controlled but not necessarily wholly owned by the same ultimate owner(s), **and any shareholder capable of exercising control over the undertaking**, only have activities, current and planned for the future, in wholesale markets for electronic communications services and therefore do not have activities in any retail market for electronic communications services provided to end-users in the Union;
(b) the undertaking is not bound to deal with a single and separate undertaking operating downstream that is active in any retail market for electronic communications services provided to end-users, because of does not hold an exclusive agreement, or an agreement which de facto amounts to an exclusive agreement, with a single and separate undertaking operating downstream that is active in any retail market for electronic communications services provided to private or commercial end-users.

2. If the national regulatory authority concludes that the conditions laid down in points (a) and (b) of paragraph 1 of this Article are fulfilled, it may only impose on that undertaking any of the obligations pursuant to Articles 68, 70 or 71 or relative to fair and reasonable pricing if justified on the basis of a market analysis including a prospective assessment of the SMP operator's likely behaviour.

3. The national regulatory authority shall review obligations imposed on the undertaking in accordance with this Article at any time if it concludes that the conditions laid down in points (a) and (b) of paragraph 1 of this Article are no longer met and shall apply Articles 65 to 72, as appropriate. The undertakings shall without undue delay inform the national regulatory authority of any change of circumstance relevant to points (a) and (b).

4. The national regulatory authority shall also review obligations imposed on the undertaking in accordance with this Article if on the basis of evidence of terms and conditions offered by the undertaking to its downstream customers, the authority concludes that competition problems have arisen or are likely to arise to the detriment of end-users which require the imposition of one or more obligations provided in Articles 67, 68, 69, 70 or 72, or the modification of the obligations imposed in accordance with paragraph 2.

5. The imposition of obligations and their review in accordance with this Article shall be implemented in accordance with the procedures referred to in Articles 23, 32 and 33.
Article 78

Migration from legacy infrastructure

1. Undertakings which have been designated as having significant market power in one or several relevant markets in accordance with Article 65 shall inform the national regulatory authority in advance and in a timely manner when they plan to decommission or replace with a new infrastructure parts of the network, including legacy infrastructure necessary to operate a copper network, which are subject to obligations pursuant to Articles 66 to 77.

2. The national regulatory authority shall ensure that the decommissioning or replacement process includes a transparent timetable and conditions, including inter alia an appropriate period of notice and for transition, and establishes the availability of alternative products of at least comparable quality providing access to the upgraded network infrastructure elements substituting the decommissioned replaced infrastructure elements if necessary to safeguard competition and the rights of end-users.

With regard to assets which are proposed for decommissioning or replacement, the national regulatory authority may withdraw the obligations after having ascertained:

(a) the access provider has demonstrably established the appropriate conditions for migration, including making available an alternative access product of at least comparable quality enabling to reach the same end-users, as was available using the legacy infrastructure; and
(b) the access provider has complied with the conditions and process provided to the national regulatory authority in accordance with the present Article.

Such withdrawal shall be implemented in accordance with the procedures referred to in Articles 23, 32 and 33. The provisions of this Article shall be without prejudice to the availability of regulated products imposed by the national regulatory authority on the upgraded network infrastructure in accordance with the procedures in Articles 65 and 66.

Article 78b

BEREC guidelines on very high capacity networks

By transposition date, BEREC shall, after consulting stakeholders and in close cooperation with the Commission, issue guidelines on the criteria a network has to fulfil in order to be considered a very high capacity network, in particular in terms of down- and uplink bandwidth, resilience, error-related parameters, and latency and its variation. The national regulatory authorities shall take those guidelines into utmost account. BEREC shall update the guidelines by 31 December 2025, and regularly thereafter.
PART III. SERVICES

Article 79

Affordable universal service

1. Member States shall ensure that all consumers in their territory have access at an affordable price, in the light of specific national conditions, to an available functional adequate broadband internet access service and to voice communications services at the quality specified in their territory, including the underlying connection, at least at a fixed location.

1a. In addition, Member States may also ensure affordability of services referred to in paragraph 1 not provided at a fixed location, where they deem this to be necessary to ensure consumers' full social and economic participation in society.

2. Each Member States shall, in the light of national conditions and the minimum bandwidth enjoyed by the majority of consumers within the territory of that Member State, and taking into account the BEREC report on best practices, define the broadband internet access service for the purposes of paragraph 1 with a view to ensuring the bandwidth necessary for social and economic participation in society. The universal adequate broadband internet access service shall be capable of delivering the bandwidth necessary for supporting at least the minimum set of services set out in Annex V.
By ... 18 months after the date of entry into force of this Directive, BEREC shall, in order to contribute towards a consistent application of this Article, after consulting stakeholders and in close cooperation with the Commission, taking into account available Commission (Eurostat) data, adopt guidelines a report on Member States' best practices which allow national regulatory authorities on how to define the minimum quality of service requirements, including minimum bandwidth, to support at least the minimum set of services set out in Annex V and reflecting the average bandwidth availability to the majority of the population in each Member State in respect of defining the adequate broadband internet access service pursuant to the first subparagraph. This That report shall be updated every two years regularly to reflect technological advances and changes in consumer usage patterns.

3. When an end-user consumer so requests, the connection referred to in paragraph 1 and, where applicable, in paragraph 1a may be limited to support voice communications only.

3a. Member States may extend the provisions of this Article to micro, small and medium enterprises and not-for-profit organisations as end-users.
Article 80

Provision of affordable universal service

1. National regulatory authorities in coordination with other competent authorities shall monitor the evolution and level of retail tariffs of services identified in Article 79(1) available on the market, in particular in relation to national prices and national consumer income.

2. Where Member States establish that, in the light of national conditions, retail prices for services identified in Article 79(1) are not affordable, because low-income or special social needs consumers are prevented from accessing such services, they shall take measures to ensure affordability for such consumers of adequate broadband internet access and voice communications services at least at a fixed location.

For that purpose, Member States may either ensure that support is provided to such consumers for communication purposes and/or require providers of such services to offer to those end-users tariff options or packages different from those provided under normal commercial conditions, or both. To that end, Member States may require such providers to apply common tariffs, including geographic averaging, throughout the territory. In exceptional circumstances, in particular where the application to all providers would result in demonstrated excessive administrative or financial burden for providers or the Member State, a Member State may exceptionally decide to impose the obligation to offer those specific tariff options or packages only on designated undertakings. Article 81 shall apply to such designations mutatis mutandis. Where a Member State designates undertakings, it shall ensure that all consumers with low income or special social needs benefit from a choice of undertakings offering tariff options addressing their needs, unless ensuring such choice is impossible or would create an excessive additional organisational or financial burden. Member States shall ensure that consumers entitled to such tariff options or packages have a right to contract either with an undertaking providing the services identified in Article 79(1), or with a provider designated in accordance with this paragraph, and that such undertaking provides them with an adequate period of availability of a number and avoid unwarranted disconnection of service.
3. Member States shall ensure that undertakings which provide tariff options or packages to low-income or special social needs end-users consumers pursuant to paragraph 2, keep the national regulatory and other competent authorities informed of the details of such offers. National regulatory authorities in coordination with other competent authorities shall ensure that the conditions under which undertakings provide tariff options or packages pursuant to paragraph 2 are fully transparent and are published and applied in accordance with the principle of non-discrimination. National regulatory authorities in coordination with other competent authorities may require that specific schemes be modified or withdrawn.

4. Member States may, in the light of national conditions, ensure that support is provided to low-income or special social needs end-users in view of ensuring affordability of functional internet access and voice communications services at least at a fixed location.

5. Member States shall ensure, in the light of national conditions, that either support is provided as appropriate to end-users consumers with disabilities, and where appropriate that other specific measures are taken, in view of ensuring that related terminal equipment is accessible for persons with disabilities, and specific equipment and specific services that enhance equivalent access, including where necessary total conversation services and relay services enhancing equivalent access are available and affordable.

6. When applying this Article, Member States shall seek to minimise market distortions.

6a. Member States may extend the provisions of this Article to micro, and small and medium enterprises and not-for-profit organisations as end-users.
Article 81

Availability of universal service

1. Where a Member State has established, taking into account taken of the results, where available, of the geographical survey conducted in accordance with Article 22(1), and any additional evidence where necessary, that the availability at a fixed location of functional adequate internet access service as defined in accordance with Article 79(2) and of voice communications service cannot be ensured under normal commercial circumstances or through other potential public policy tools in its national territory or different parts thereof, it may impose appropriate universal service obligations to meet all reasonable requests by end-users for accessing those services in the relevant parts of its territory.

2. Member States shall determine the most efficient and appropriate approach for ensuring the availability at a fixed location of functional adequate broadband internet access service as defined in accordance with Article 79(2) and of voice communications service, whilst respecting the principles of objectivity, transparency, non-discrimination and proportionality. They shall seek to minimise market distortions, in particular the provision of services at prices or subject to other terms and conditions which depart from normal commercial conditions, whilst safeguarding the public interest.

3. In particular, where Member States decide to impose obligations to ensure for end-users the availability at a fixed location of functional adequate broadband internet access service as defined in accordance with Article 79(2) and of voice communications service, they may designate one or more undertakings to guarantee the availability at a fixed location of functional adequate broadband internet access service as identified in accordance with Article 79(2) and of voice communications service in order to cover all the national territory. Member States may designate different undertakings or sets of undertakings to provide functional adequate broadband internet access and voice communications services at a fixed location and/or to cover different parts of the national territory.
4. When Member States designate providers in part or all of the national territory as providers having the obligation to ensure the availability at a fixed location of functional adequate broadband internet access service as defined in accordance with Article 79(2) and of voice communications service, they shall do so using an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no provider is a priori excluded from being designated. Such designation methods shall ensure that functional adequate broadband internet access and voice communications services at a fixed location are provided in a cost-effective manner and may be used as a means of determining the net cost of the universal service obligation in accordance with Article 84.

5. When a provider designated in accordance with paragraph 3 intends to dispose of a substantial part or all of its local access network assets to a separate legal entity under different ownership, it shall inform in advance the national regulatory and/or other competent authority in a timely manner, in order to allow that authority to assess the effect of the intended transaction on the provision at a fixed location of functional adequate broadband internet access service as defined in accordance with Article 79(2) and of voice communications service. The national regulatory and/or other competent authority may impose, amend or withdraw specific obligations in accordance with Article 13(2).
Article 82

Status of existing universal services

1. Member States may continue to ensure the availability or affordability of other services than functional adequate broadband internet access service as defined in accordance with Article 79(2) and voice communications service at a fixed location that were in force prior to date of entry into force, if the need for such services is established in the light of national circumstances. When Member States designate providers / undertakings in part or all of the national territory for the provision of those services, Article 81 shall apply. Financing of these obligations shall comply with Article 85.

Member States shall review the obligations imposed pursuant to this Article at the latest 3 years after the entry into force of this Directive and thereafter once every 3 years.
Article 83
Control of expenditure

1. Member States shall ensure that in providing facilities and services additional to those referred to in Article 79, *providers of voice communications and internet access* services in accordance with Article 79 to 82 establish terms and conditions in such a way that the end-user is not obliged to pay for facilities or services which are not necessary or not required for the service requested.

2. Member States shall ensure that those *undertakings providing providers of the functional adequate broadband internet access and/or* voice communications services referred to in Article 79 and implemented *providing services* pursuant to Article 80 *provide offer* the specific facilities and services set out in Annex VI, Part A, *as applicable*, in order that *end-users consumers* can monitor and control expenditure and put in place a system to avoid unwarranted disconnection of *voice communications service or of functional adequate broadband internet access service* for the *end-users consumers* who are entitled thereto, including an appropriate mechanism to check continued interest in using the service.

*Member States may extend the provisions of this paragraph to micro, small and medium enterprises and not-for-profit organisations as end-users.*

3. Member States shall ensure that the competent authority is able to waive the requirements of paragraph 2 in all or part of its national territory if it is satisfied that the facility is widely available.
Article 84

Costing of universal service obligations

1. Where national regulatory/competent authorities consider that the provision of functional adequate broadband internet access service as defined in accordance with Article 79(2) and of voice communications service; as set out in Articles 79, 80 and 81 or the continuation of existing universal services as set out in Article 82 may represent an unfair burden on providers of such services that request compensation, they shall calculate the net costs of its provision.

For that purpose, national regulatory/competent authorities shall:

(a) calculate the net cost of the universal service obligation, taking into account any market benefit which accrues to a provider undertaking of functional adequate broadband internet access service as defined in accordance with Article 79(2) and voice communications service; as set out in Articles 79, 80 and 81 or the continuation of existing universal services as set out in Article 82, in accordance with Annex VII; or

(b) make use of the net costs of providing universal service identified by a designation mechanism in accordance with Article 81(3), 81(4) and 81(5).

2. The accounts and/or other information serving as the basis for the calculation of the net cost of universal service obligations under paragraph 1(a) shall be audited or verified by the national regulatory authority or a body independent of the relevant parties and approved by the national regulatory authority. The results of the cost calculation and the conclusions of the audit shall be publicly available.
Article 85

Financing of universal service obligations

1. Where, on the basis of the net cost calculation referred to in Article 84, national regulatory competent authorities find that an undertaking is subject to an unfair burden, Member States shall, upon request from the undertaking concerned, decide
   (a) to introduce a mechanism to compensate that undertaking for the determined net costs under transparent conditions from public funds; and/or
   Only the net cost, as determined in accordance with Article 84, of the obligations laid down in Articles 79, 81 and 82 may be financed.
   (b) to share the net cost of universal service obligations between providers of electronic communications networks and services.

2. Where the net cost is shared under the second subparagraph of paragraph 1(b), Member States shall establish a sharing mechanism administered by the national regulatory authority or a body independent from the beneficiaries under the supervision of the national regulatory authority. Only the net cost, as determined in accordance with Article 84, of the obligations laid down in Articles 79 to 82 may be financed.

3. A sharing mechanism shall respect the principles of transparency, least market distortion, non-discrimination and proportionality, in accordance with the principles of Annex VII, Part B. Member States may choose not to require contributions from undertakings whose national turnover is less than a set limit.

4. Any charges related to the sharing of the cost of universal service obligations shall be unbundled and identified separately for each undertaking. Such charges shall not be imposed or collected from undertakings that are not providing services in the territory of the Member State that has established the sharing mechanism.
Article 86

Transparency

1. Where the net cost of universal service obligations is to be calculated in accordance with Article 84, national regulatory authorities shall ensure that the principles for net cost calculation, including the details of methodology to be used are publicly available.

Where a mechanism for sharing the net cost of universal service obligations as referred to in Article 85 is established, national regulatory authorities shall ensure that the principles for cost sharing and compensation of the net cost are publicly available.

2. Subject to Union and national rules on business confidentiality, national regulatory authorities shall ensure that an annual report is published providing the details of calculated cost of universal service obligations, identifying the contributions made by all the undertakings involved, including any market benefits that may have accrued to the undertaking(s) pursuant to universal service obligations laid down in Articles 79, 81 and to 82.
Article 86a

Additional mandatory services

Member States may decide to make additional services, apart from services within the universal service obligations as defined in Chapter II Articles 79-82, publicly available in its own territory but, in such circumstances, no compensation mechanism involving specific undertakings may be imposed.

Article 86b

Regulatory controls on retail services

1. Member States may ensure that national regulatory authorities impose appropriate regulatory obligations on undertakings identified as having significant market power on a given retail market in accordance with Article 61 where:

(a) as a result of a market analysis carried out in accordance with Article 65, a national regulatory authority determines that a given retail market identified in accordance with Article 62 is not effectively competitive; and

(b) the national regulatory authority concludes that obligations imposed under Articles 67 to 72 would not result in the achievement of the objectives set out in Article 3.
2. Obligations imposed under paragraph 1 shall be based on the nature of the problem identified and be proportionate and justified in the light of the objectives laid down in Article 3. The obligations imposed may include requirements that the identified undertakings do not charge excessive prices, inhibit market entry or restrict competition by setting predatory prices, show undue preference to specific end-users or unreasonably bundle services. National regulatory authorities may apply to such undertakings appropriate retail price cap measures, measures to control individual tariffs, or measures to orient tariffs towards costs or prices on comparable markets, in order to protect end-user interests whilst promoting effective competition.

4. National regulatory authorities shall ensure that, where an undertaking is subject to retail tariff regulation or other relevant retail controls, the necessary and appropriate cost accounting systems are implemented. National regulatory authorities may specify the format and accounting methodology to be used. Compliance with the cost accounting system shall be verified by a qualified independent body. National regulatory authorities shall ensure that a statement concerning compliance is published annually.

5. Without prejudice to Article 80 and Article 83, national regulatory authorities shall not apply retail control mechanisms under paragraph 1 of this Article to geographical or user markets where they are satisfied that there is effective competition.
Title II: **Numbers Numbering Resources**

**Article 87**

**Numbering resources**

1. Member States shall ensure that national regulatory and/or other competent authorities control the granting of rights of use for all national numbering resources and the management of the national numbering plans and that they provide adequate numbers and numbering ranges for the provision of all publicly available electronic communications services. National regulatory authorities shall establish objective, transparent and non-discriminatory procedures for granting rights of use for national numbering resources.

2. National regulatory and/or other competent authorities may also grant rights of use for numbering resources from the national numbering plans for the provision of specific services to undertakings other than providers of electronic communications networks or services, provided that those undertakings demonstrate their ability to manage those numbers and sufficient and adequate numbering resources are made available to satisfy current and foreseeable future demand. Those undertakings shall demonstrate their ability to manage the numbering resources and comply with any relevant requirements set out pursuant to Article 88. National regulatory and/or other competent authorities may suspend the further granting of numbering resources rights of use for numbering resources to such undertakings if it is demonstrated that there is a risk of exhaustion of numbering resources. By entry into force plus 18 months in order to contribute to the consistent application of this paragraph, BEREC shall adopt, after consulting stakeholders and in close cooperation with the Commission, guidelines on common criteria for the assessment of the ability to manage numbering resources and the risk of exhaustion of numbering resources.
3. **National regulatory and/or other competent authorities** shall ensure that national numbering plans and procedures are applied in a manner that gives equal treatment to all providers of publicly available electronic communications services and other the undertakings if they are eligible in accordance with paragraph 2. In particular, Member States shall ensure that an undertaking to which the right of use for a range of numbers numbering resources has been granted does not discriminate against other providers of electronic communications services as regards the number sequences numbering resources used to give access to their services.

4. Each Member State shall determine ensure that national regulatory and/or other competent authorities make available a range of its non-geographic numbering resources numbers which may be used for the provision of electronic communications services other than interpersonal communications services, throughout the territory of the Union, without prejudice to Regulation (EU) No 531/2012 and implementing acts based thereon, and Article 91 (2) of this Directive. Where rights of use for numbers numbering resources have been granted in accordance with paragraph 2 to undertakings other than providers of electronic communications networks or services, this paragraph shall apply to the specific services for whose provision the rights of use have been granted provided by those undertakings. National regulatory and/or other competent authorities shall ensure that the conditions, attached in accordance with Part E of Annex I, for the right of use for numbers numbering resources used for the provision of services outside the Member State of the country code, and their enforcement, are not neither less stringent nor more stringent than the conditions and enforcement applicable to services provided within the Member State of the country code, in accordance with this Directive. National regulatory and/or other competent authorities shall also ensure in accordance with Article 88(6) that providers using numbers numbering resources of their country code in other Member States comply with consumer protection and other national rules related to the use of numbers numbering resources applicable in those Member States where the numbers numbering resources are used. This obligation is without prejudice to the enforcement powers of the competent authorities of those Member States.
BEREC shall assist national regulatory authorities and/or other competent authorities at their request in coordinating their activities to ensure an efficient management of numbering resources and with a right of extraterritorial use within the Union in compliance with the regulatory framework.

In order to facilitate the monitoring by the national regulatory and/or other competent authorities of compliance with the requirements of this paragraph, BEREC shall establish a central registry database on the numbering resources with a right of extraterritorial use within the Union. For this purpose, to which national regulatory authorities and/or competent authorities shall transmit the relevant information to BEREC. Where numbering resources with a right of extraterritorial use within the Union are not granted by the national regulatory authority, the competent authority responsible for their granting or management shall consult with the national regulatory authority.

5. Member States shall ensure that the ‘00’ code is the standard international access code. Special arrangements for making calls the use of number-based interpersonal communications services between locations adjacent to one another across borders between Member States may be established or continued. End-users in the locations concerned shall be fully informed of such arrangements.

Member States may agree to share a common numbering plan for all or specific categories of numbers.

End-users in the locations concerned shall be fully informed of such arrangements or agreements.
6. **Without prejudice to Article 99**, Member States shall promote the over-the-air provisioning of numbering resources, where technically feasible - to facilitate change switching of providers of electronic communications networks or services by end-users other than consumers, in particular providers and users of machine-to-machine services.

7. Member States shall ensure that the national numbering plans, and all subsequent additions or amendments thereto, are published, subject only to limitations imposed on the grounds of national security.

8. Member States shall support the harmonisation of specific numbers or numbering ranges within the Union where it promotes both the functioning of the internal market and the development of pan-European services. The Commission shall continue to monitor market developments and participate in international organisations and fora where numbering decisions are taken. Where the Commission considers it justified and appropriate, it shall take appropriate technical implementing measures in the interest of the Single Market, Where necessary to address unmet cross-border or pan-European demand for numbers numbering resources, the Commission shall, taking utmost account of the opinion of BEREC, adopt implementing acts harmonising specific numbers or numbering ranges which would otherwise constitute an obstacle to trade between Member States.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 110(4).
Article 88

Procedure of granting of rights of use for numbers numbering resources

1. Where it is necessary to grant individual rights of use for numbers numbering resources, national regulatory and/or other competent authorities shall grant such rights, upon request, to any undertaking for the provision of electronic communications networks or services covered by a general authorisation referred to in Article 12, subject to the provisions of Articles 13 and 21(1)(c) and any other rules ensuring the efficient use of those numbering resources in accordance with this Directive. National regulatory authorities may also grant rights of use for numbers to undertakings other than providers of electronic communications networks or services in accordance with Article 87(2).

2. The rights of use for numbers numbering resources shall be granted through open, objective, transparent, non-discriminatory and proportionate procedures.

When granting rights of use for numbers numbering resources, national regulatory and/or other competent authorities shall specify whether those rights can be transferred by the holder of the rights, and under which conditions.

Where national regulatory and/or other competent authorities grant rights of use for numbering resources for a limited period of time, the duration shall be appropriate for the service concerned in view of the objective pursued taking due account of the need to allow for an appropriate period for investment amortisation.
3. Decisions on the granting of rights of use for numbers numbering resources shall be taken, communicated and made public as soon as possible after receipt of the complete application by the national regulatory and/or other competent authorities, within three weeks in the case of numbers numbering resources that have been allocated for specific purposes within the national numbering plan.

4. Where it has been decided national regulatory and/or other competent authorities have determined, after consultation with interested parties in accordance with Article 23, that rights of use for numbers numbering resources of exceptional economic value are to be granted through competitive or comparative selection procedures, national regulatory and/or other competent authorities may extend the maximum period of three weeks by up to a further three weeks.

5. National regulatory and/or other competent authorities shall not limit the number of rights of use to be granted except where this is necessary to ensure the efficient use of numbering resources.

6. Where the rights of use for numbers numbering resources includes their extraterritorial use within the Union in accordance with Article 87(4), national regulatory and/or other competent authorities shall attach to the right of use specific conditions in order to ensure compliance with all the relevant national consumer protection rules and national laws related to the use of numbers numbering resources applicable in the Member States where the numbers numbering resources are used.
Upon request from a national regulatory and/or other competent authority of another a Member State where the numbering resources are used, demonstrating a breach of relevant consumer protection rules or number-related national laws related to the use of numbering resources of that Member State, the national regulatory and/or other competent authorities of the Member State where the rights of use for the numbers numbering resources have been granted, shall enforce the conditions attached under the first subparagraph in accordance with Article 30, including in serious cases by withdrawing the right of extraterritorial use for the numbers numbering resources granted to the undertaking concerned.

BEREC shall facilitate and coordinate the exchange of information between the national regulatory authorities competent authorities of the different Member States involved and ensure the appropriate coordination of work among them.

6a. This Article shall also apply where national regulatory and/or other competent authorities grant rights of use for numbering resources to undertakings other than providers of electronic communications networks or services in accordance with Article 87(2).
Article 89

Fees for rights of use for numbers numbering resources

Member States may allow national regulatory and/or other competent authorities to impose fees for the rights of use for numbers numbering resources which reflect the need to ensure the optimal use of these resources. Member States shall ensure that such fees are objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take into account the objectives in Article 3.

Article 90

Missing children and child helpline hotlines

1. Member States shall ensure that citizens have access to a service operating a hotline to report cases of missing children free of charge. The hotline shall be available on the number '116000'.

2. Member States shall ensure that disabled end-users with disabilities are able to access services provided under the number ‘116000’ numbering range to the greatest extent possible. Measures taken to facilitate disabled end-users' access by end-users with disabilities to such services whilst travelling in other Member States shall be based on compliance with relevant standards or specifications published in accordance with Article 39.

3. Member States shall take appropriate measures to ensure that the authority or undertaking to which the 116000 number was assigned allocates the necessary resources to operate the hotline.”
4. Where appropriate, Member States and the Commission shall ensure that citizens are adequately informed of the existence and use of services provided under the '116 000' and '116111' numbers.

**Article 91**

**Access to numbers and services**

1. Member States shall ensure that, where technically and economically feasible, and except where a called end-user has chosen for commercial reasons to limit access by calling parties located in specific geographical areas, national regulatory and/or other competent authorities take all necessary steps to ensure that end-users are able to:

   (a) access and use services using non-geographic numbers within the Union; and

   (b) access all numbers provided in the Union, regardless of the technology and devices used by the operator, including those in the national numbering plans of Member States and Universal International Freephone Numbers (UIFN).
2. Member States shall ensure **national regulatory and/or other competent authorities** are able to require undertakings providing **providers of** public communications networks and/or publicly available electronic communications services to block, on a case-by-case basis, access to numbers or services where this is justified by reasons of fraud or misuse and to require that in such cases providers of electronic communications services withhold relevant interconnection or other service revenues.

*Article 91a*

**Exemption clause**

Title III, with the exception of Articles 92 and 93, shall not apply to micro-enterprises providing number-independent interpersonal communications services.

This exception shall not apply to micro-enterprises that also provide other electronic communications services.

Member States shall ensure that end-users are informed of this exemption before concluding a contract with a micro-enterprise.

*Article 92*

**Non-discrimination**

Providers of electronic communications networks or services shall not apply any **different** requirements or **general** conditions of access **to** or use **of networks or services** to end-users, **for reasons related to** the end-user’s nationality, place of residence **or place of establishment**, unless such **different treatment is** objectively justified.
Article 93

Fundamental rights safeguard

1. National measures regarding end-users’ access to, or use of, services and applications through electronic communications networks shall respect the fundamental rights and freedoms, as guaranteed by the Charter of Fundamental Rights of the Union (‘the Charter’) and general principles of Union law.

2. Any of these measures regarding end-users’ access to, or use of, services and applications through electronic communications networks liable to restrict limit the exercise of those fundamental the rights or freedoms recognised by the Charter may only be imposed if they are provided for by law and respect the essence of those rights or freedoms, are appropriate, proportionate, and necessary, and genuinely meet objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others in line with Article 52(1) of the Charter of Fundamental Rights of the European Union and with general principles of Union law, including the right to an effective judicial protection and due process remedy and to a fair trial. Accordingly, these measures may only be taken with due respect for the principle of the presumption of innocence and the right to privacy. A prior, fair and impartial procedure shall be guaranteed, including the right to be heard of the person or persons concerned, subject to the need for appropriate conditions and procedural arrangements in duly substantiated cases of urgency in conformity with the Charter of Fundamental Rights of the European Union. The right to effective and timely judicial review shall be guaranteed.
Article 94

Level of harmonisation

Member States shall not maintain or introduce in their national law end-user protection provisions and diverging from the provisions laid down in Articles 95 to 107, including more or less stringent provisions to ensure a different level of protection, unless otherwise provided for in this Title.

2. For a period of 12 months from transposition date in Article 115 (1), Member States shall be able to continue to apply more stringent national consumer protection provisions diverging from those laid down in Articles 95 to 107 provided that those provisions were in force before the adoption of this Directive and any restrictions to the internal market resulting therefrom are proportionate to the objective of consumer protection. Member States shall notify the Commission by 12 months after adoption of this Directive of any national provisions to be applied on the basis of this paragraph.
Article 95
Information requirements for contracts

1. Before a consumer is bound by a contract or any corresponding offer, providers of publicly available electronic communications services other than transmission services used for the provision of machine-to-machine services shall provide the information referred to in required pursuant to Articles 5 and 6 of Directive 2011/83/EU, and in addition the following information listed in Annex VII bis to the extent that such information pertains to a service they provide. This information shall be provided in a clear and comprehensible manner on a durable medium as defined in Directive 2011/83/EU or, where provision on a durable medium is not feasible, in an easily downloadable document made available by the provider. The provider shall actively draw the end-user's attention to the availability of that document and the importance of downloading it for purposes of documentation, future reference and unchanged reproduction.

This information shall, upon request, be provided, in an accessible format for end-users with disabilities in accordance with Union law harmonising accessibility requirements for products and services.
3. The information referred to in paragraphs 1 and 2 5 and 6 shall also be provided to micro or small enterprises and not-for-profit organisations as end-users unless they have explicitly agreed to waive all or parts of those provisions, Moved into Annex (Para 4)

5. Providers of publicly available electronic communications services other than transmission services used for the provision of machine-to-machine services shall provide consumers with a concise and easily readable contract summary template, which identifies the main elements of the information requirements in accordance with paragraphs 1 and 2. Those main elements shall include at least:

(a) the name and address and contact information of the provider and, if different, the contact information for any complaint,

(b) the main characteristics of each service provided,

(c) the respective prices for activating the electronic communications service and for any recurring and/or consumption-related charges, where the service is provided for direct monetary payment,

(d) the duration of the contract and the conditions for its renewal and termination,

(e) the extent to which the products and services are designed for disabled end-users with disabilities,

(f) with respect to internet access services, a summary of the information required pursuant to Article 4(1) (d) and (e) of Regulation (EU) 2015/2120.
By [entry into force + 12 months], the Commission shall, after consulting BEREC, adopt an implementing act specifying a contract summary template to be used by the providers to fulfil their obligations under this paragraph. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 110(4).

Providers subject to the obligations under paragraphs 1-4 shall duly complete this contract summary template with the required information and provide it free of charge to consumers, and micro and small enterprises, and small not-for-profit organisations, prior to the conclusion of the contract including distance contracts. Where for objective technical reasons it is impossible to provide the contract summary at that moment, it shall be provided, without undue delay thereafter, and the contract shall become effective when the end-user has confirmed his or her agreement after reception of the contract summary. The contract summary shall become an integral part of the contract.

5bis. The information referred to in paragraphs 1 and 5 shall become an integral part of the contract and shall not be altered unless the contracting parties expressly agree otherwise.

6. Where internet access services or publicly available interpersonal communications services are billed on the basis of either time or volume consumption, their providers shall offer consumers the facility to monitor and control the usage of each of those services. This facility shall include access to timely information on the level of consumption of services included in a tariff plan. In particular, providers shall send a notification to consumers before any volume usage caps predefined by competent authorities in coordination, where relevant, with national regulatory authorities and included in their tariff plan are reached and when a service included in their tariff plan is fully consumed.
6a. Member States may maintain or introduce in their national law provisions to require service providers to provide additional information on the consumption level and temporarily prevent further usage of the relevant service in excess of a financial or volume limit determined by the competent authority.

7. Member States shall remain free to maintain or introduce legislation relating to aspects not regulated by this Article, in particular in order to address newly emerging issues.

Article 96

Transparency, comparison of offers and publication of information

Competent authorities in coordination, where relevant, with national regulatory authorities shall ensure that, where providers of internet access services and/or publicly available interpersonal communication services make the provision of these services subject to terms and conditions, the information referred to in Annex VIII is published in a clear, comprehensive, machine-readable way and in an accessible format for end-users with disabilities, in accordance with Directive EEA Union law harmonising accessibility requirements for products and services, by all such providers, or by the competent authority itself in coordination, where relevant, with the national regulatory authority. Such information shall be updated regularly. Competent authorities in coordination, where relevant, with national regulatory authorities may specify additional requirements regarding the form in which such information is to be published. That information shall, on request, be supplied to the competent authority in coordination and, where relevant, with the national regulatory authority in advance of its publication.
2. Competent authorities in coordination, where relevant, with national regulatory authorities shall ensure that end-users have access free of charge to at least one independent comparison tool which enables them to compare and evaluate prices and tariffs of services provided against recurring or consumption-based direct monetary payments, and the quality of service performance where minimum service quality is offered or the undertaking is required to publish such information pursuant to Article 97, of different internet access services and publicly available number-based electronic communications services other than number-independent interpersonal communications services, and where applicable for publicly available number independent interpersonal communications services.

The comparison tool shall:

(a) be operationally independent from service providers, thereby ensuring that service providers are given equal treatment in search results;

(b) clearly disclose their owners and operators of the comparison tool;

(c) set out clear, objective criteria on which the comparison will be based;

(d) use plain and unambiguous language;

(e) provide accurate and up-to-date information and state the time of the last update;

(f) be open to any provider of internet access services or publicly available interpersonal communications services making available the relevant information, and include a broad range of offers covering a significant part of the market and, where the information presented is not a complete overview of the market, a clear statement to that effect, before displaying results;

(g) provide an effective procedure to report incorrect information.

(ga) include the possibility to compare prices, tariffs and quality of service performance between offers available to consumers and, if required by Member States, between those offers and those standard publicly available offers to other end-users.
Comparison tools fulfilling the requirements in points (a) to (g) shall, upon request by the provider of the tool, be certified by competent authorities in coordination, where relevant, with national regulatory authorities. Third parties shall have a right to use, free of charge, and in open data formats, the information published by undertakings providing providers of internet access services and/or publicly available electronic communications services, other than number-independent interpersonal communications services, for the purposes of making available such independent comparison tools.

3. Member States may require that undertakings providing providers of internet access services or publicly available number-based-interpersonal communications services, or both, or number-independent interpersonal communications services provided against recurring and/or consumption-based direct monetary payments, or both/all, distribute public interest information free of charge to existing and new end-users, where appropriate, by the same means as those they ordinarily use in their communications with end-users. In such a case, that public interest information shall be provided by the relevant public authorities in a standardised format and shall, inter alia, cover the following topics:

(a) the most common uses of internet access services and number-based publicly available interpersonal 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 data protection rights, 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 internet access services and publicly available number-based interpersonal communications services.
Quality of service of internet access services and interpersonal communications services

1. National regulatory authorities in coordination with other competent authorities may require providers of internet access services and of publicly available number-based interpersonal communications services to publish comprehensive, comparable, reliable, user-friendly and up-to-date information for end-users on the quality of their services, to the extent that they control at least some elements of the network either directly or by virtue of a service level agreement to that effect, and on measures taken to ensure equivalence in access for disabled end-users with disabilities. National regulatory authorities in coordination with other competent authorities may also require providers of publicly available interpersonal communication services to inform the consumer, if the quality of services they provide depends on any external factors, such as control of signal transmission or network connectivity.

That information shall, on request, be supplied to the national regulatory and, where relevant, to other competent authorities in advance of its publication. Such measures to ensure quality of service shall be in compliance with Regulation (EU) 2015/2120.

2. National regulatory authorities in coordination with other competent authorities shall specify, taking utmost account of BEREC guidelines, the quality of service parameters to be measured and the applicable measurement methods, and the content, form and manner of the information to be published, including possible quality certification mechanisms. Where appropriate, the parameters, definitions and measurement methods set out in Annex IX shall be used.
By entry into force plus 18 months, in order to contribute to a consistent application of this paragraph and of Annex IX, BEREC shall adopt, after consultation of stakeholders and in close cooperation with the Commission, guidelines on detailing the relevant quality of service parameters, including parameters relevant for disabled end-users with disabilities, the applicable measurement methods, the content and format of publication of the information, and quality certification mechanisms.

Article 98

Contract duration and termination

1. Member States shall ensure that conditions and procedures for contract termination are not a disincentive against changing service provider and that contracts concluded between consumers and undertakings providing publicly available electronic communications services other than number-independent interpersonal communications services and, other than transmission services used for the provision of machine-to-machine services, do not mandate an initial commitment period longer than 24 months. Member States may adopt or maintain provisions which mandate shorter maximum durations for the initial contractual commitment period.

This paragraph shall not apply to the duration of an instalment contract where the consumer has agreed in a separate contract to instalment payments exclusively for deployment of a physical connection in particular to very high capacity connectivity networks. An instalment contract for the deployment of a physical connection shall not include terminal equipment, such as a router or modem and shall not preclude consumers from exercising their rights under this Article.

1a. Paragraph 1 shall also apply to micro or small enterprises and not-for-profit organisations as end-users unless they have explicitly agreed to waive those provisions.
2. Where a contract or national law provides for a fixed duration contract for electronic communications services other than number-independent interpersonal communications services and other than transmission services used for the provision of machine-to-machine services to be automatically prolonged, the Member State shall ensure that, after such an automatic prolongation, end-users are entitled to terminate the contract at any time with a maximum one-month notice period, as determined by Member States and without incurring any costs except the charges for receiving the service during the notice period. Before the contract is automatically prolonged, providers shall inform the consumer-end-users in a prominent and timely way and on a durable medium about the end of the contractual commitment and about the means to terminate the contract. In addition, and at the same time, the provider shall give consumer-end-users best tariff advice relating to their services. This best tariff information should also be given at least once a year by the providers to consumer-end-users.

3. End-users shall have the right to terminate their contract without incurring any further costs upon notice of changes in the contractual conditions proposed by the provider of publicly available electronic communications services other than number-independent interpersonal communications services and other than transmission services used for the provision of machine-to-machine services unless the proposed changes are exclusively to the benefit of the end-user, or are of a purely administrative nature and have no negative effect on the end-user or they are strictly necessary to implement directly imposed by legislative or regulatory provisions. Providers shall notify end-users, at least one month in advance, of any such change in the contractual conditions, and shall inform them at the same time of their right to terminate their contract without incurring any further costs if they do not accept the new conditions. The right to terminate the contract shall be exercisable within a deadline of one month after the notification which may be extended by Member States by an additional three months. Member States shall ensure that notification is made in a clear and comprehensible manner on a durable medium and in a format chosen by the end-user at the time of concluding the contract.
3a. Any significant discrepancy, continued or regularly recurring, between the actual performance of an electronic communication service other than an internet access service and other than a number-independent interpersonal communication service and the performance indicated in the contract, shall be considered as a basis for triggering the remedies available to the consumer in accordance with national law, including the right to terminate the contract without any cost.

4. Where an end-user has the right to terminate a contract for a publicly available electronic communications service other than a number-independent interpersonal communication service and other than transmission services used for the provision of machine-to-machine services before the end of the agreed contract period pursuant to this Directive, other provisions of Union law or national law, no compensation shall be due by the end-user other than for retained subsidised terminal equipment. Where the end-user chooses to retain terminal equipment bundled at the moment of the contract conclusion, any compensation due shall not exceed its prorata temporis value as agreed at the moment of the contract conclusion or on the remaining part of the service fee until the end of the contract, whichever amount is smaller. Member States may prescribe other methods of calculating the compensation rate, provided that such a method does not lead to a level of compensation exceeding the compensation as calculated above. Any restriction condition on the usage of terminal equipment on other networks shall be lifted, free of charge, by the provider at a point specified by Member States and at the latest upon payment of such compensation.

4a. In case of consumers, paragraphs 3 and 4 shall apply mutatis mutandis to contracts concluded with providers of transmission services used for the provision of machine to machine services. As far as transmission services used for machine-to-machine services are concerned the rights mentioned in paragraphs 3 and 4 should only benefit end-users which are consumers, micro- or small enterprises or not-for-profit organisations.
Article 99

Provider switching and number portability

1. In the case of switching between providers of internet access services, the providers concerned shall provide the end-user with adequate information before and during the switching process and ensure continuity of the service unless technically not feasible. The receiving provider shall ensure that the activation of the service shall occur within the shortest possible time on the date and within the timeframe expressly agreed with the end-user. The transferring provider shall continue to provide its services on the same terms until the services of the receiving provider are activated. Loss of service during the switching process shall not exceed one working day. National regulatory authorities shall ensure the efficiency and simplicity of the switching process for the end-user.

2. Member States shall ensure that all end-users with numbers from the national telephone numbering plan who so request shall have the right to retain their number(s) independently of the undertaking providing the service in accordance with the provisions of Part C of Annex VI. (agreement at trilogue of 28.02)

2a. Where an end-user terminates a contract with a provider, Member States shall ensure that the end-user can retain the right to port a number to another provider for a minimum of one month after the date of termination, unless that right is renounced by the end-user.

3. National regulatory authorities shall ensure that pricing between operators and/or service providers related to the provision of number portability is cost-oriented, and that no direct charges are applied to end-users.

4. National regulatory authorities shall not impose retail tariffs for the porting of numbers in a manner that would distort competition, such as by setting specific or common retail tariffs.
5. Porting of numbers and their subsequent activation shall be carried out within the shortest possible time on the date(s) explicitly agreed with the end user. In any case, 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 an agreement date agreed with the end-user. In case of failure of the porting process, the transferring provider shall reactivate the number and/or service of the end-user until the porting is successful. The transferring provider shall continue to provide its services on the same terms and conditions until the services of the receiving provider are activated. In any event, the loss of service during the process of switching and porting shall not exceed one working day. Operators whose access networks or facilities are used by either the transferring or the receiving provider, or both, shall ensure that there is no loss of service that would delay the switching and porting process.

5a. The receiving provider shall lead the switching and porting processes set out in Paragraphs 1 and 5 and both the receiving and transferring providers shall cooperate in good faith. They shall neither delay nor abuse the switching and porting process nor shall they port numbers or switch end-users without their explicit consent. National regulatory authorities may establish the global process of switching and of porting of numbers, taking into account national provisions on contracts, technical feasibility and the need to maintain continuity of service to the end-user. This shall include, where technically feasible, a requirement for the porting to be completed though over-the-air provisioning, unless an end-user requests otherwise.

In any event, loss of service during the process of switching and porting shall not exceed one working day.
The end-users' contracts with the transferring provider shall be terminated automatically upon conclusion of the switching process. Transferring providers shall refund upon request of the consumer any remaining credit to the consumers using pre-paid services. Refund may be subject to a fee only if stated in the contract. Any such fee shall be proportionate and commensurate with the actual costs incurred by the transferring provider in offering the refund. National regulatory authorities shall also take appropriate measures ensuring that end-users are adequately informed and protected throughout the switching and porting processes and are not switched to another provider against their will.

6. Member States shall ensure that appropriate sanctions on undertakings are provided for, including and an obligation to compensate end-users in case of a failure to comply with the requirements of this article, including in particular as regards delays in porting or abuse of porting by them or on their behalf.

6a. Member States shall define the rules for providers to compensate in an easy and timely manner end-users in the case of delay in or abuse of porting or switching or missed service or installation appointments.

6b. In addition to the information required under Annex VII Bis, Member States shall ensure that end-users are adequately informed about the existence of this right to compensation.
Article 100

Bundled offers

1. If a bundle of services or a bundle of services and terminal equipment offered to a consumer comprises at least an internet access service or a publicly available number-based interpersonal communications services, Articles 95 (5), 96 (1), 98 and 99(1) shall apply mutatis mutandis to all the whole bundle including mutatis mutandis to those elements of the bundle otherwise not covered by those provisions.

1a. If a bundle of services or a bundle of services and terminal equipment offered to a consumer comprises at least an internet access service or a publicly available number-based interpersonal communications service, where the consumer has a right to terminate any element of the bundle before the end of the agreed contract term because of a lack of conformity with the contract or a failure to supply as provided by Union law or national law in accordance with Union law, Member States shall provide that the consumer has the right to terminate all elements of the bundle.

2. Any subscription to additional services or terminal equipment provided or distributed by the same provider of internet access services or of publicly available number-based interpersonal communications services shall not extend the period of the contract in place to which such services or terminal equipment are added, unless the consumer expressly agrees otherwise when subscribing to the additional services or terminal equipment.

2b. Paragraphs 1 and 2 shall also apply to end-users who are micro or small enterprises, or not-for-profit organisations unless they have explicitly agreed to waive all or parts of those provisions.

2c. Member States may also apply paragraph 1 as regards other provisions laid down in this Title.
Article 101

Availability of services

Member States shall take all necessary measures to ensure the fullest possible availability of publicly available telephone services, voice communications and internet access service provided over public communications networks in the event of catastrophic network breakdown or in cases of force majeure. Member States shall ensure that undertakings providing providers of publicly available telephone services voice communications take all necessary measures to ensure uninterrupted access to emergency services and uninterrupted transmission of public warnings.

Article 102

Emergency communications and the single European emergency call number

1. Member States shall ensure that all end-users of the service referred to in paragraph 2, including users of public pay telephones and of private non-publicly available electronic communication networks enabling calls to public networks, are able to access the emergency services through emergency communications free of charge and without having to use any means of payment, by using the single European emergency number '112' and any national emergency number specified by Member States.

Member States shall promote the access to emergency services through the single European emergency number ‘112’ from non-publicly available electronic communication networks enabling calls to public networks, in particular when the operator responsible for that network does not provide an alternative and easy access to an emergency service.
2. Member States, in consultation with national regulatory authorities and emergency services and providers of electronic communications services, shall ensure that undertakings providing end-users with providers of publicly available number-based interpersonal communications services, where that service allows end-users to originate national calls to a number in a national or international telephone numbering plan, provide access to emergency services through emergency communications to the most appropriate PSAP.

In case of an appreciable threat to effective access to emergency services the obligation for undertakings may be extended to all other interpersonal communications services in accordance with the conditions and procedure set out in Article 59 (1)(c).

3. Member States shall ensure that all emergency communications to the single European emergency number ‘112’ are appropriately answered and handled in the manner best suited to the national organisation of emergency systems. Such emergency communications shall be answered and handled at least as expeditiously and effectively as emergency communications to the national emergency number or numbers, where these continue to be in use.

3a. The Commission shall every two years submit a report to the European Parliament and the Council on the effectiveness of the implementation of the European emergency call number ‘112’.
4. Member States shall ensure that access for end-users with disabilities to emergency services is available through emergency communications and equivalent to that enjoyed by other end-users in accordance with Union law harmonising accessibility requirements for products and services. The Commission and the national regulatory and/or other competent authorities shall take appropriate measures to ensure that end-users with disabilities can access emergency services on an equivalent basis with others, whilst travelling in another Member States, where feasible, without any pre-registration. These measures shall seek to ensure interoperability across Member States and shall be based to the greatest extent possible on European standards or specifications published in accordance with the provisions of Article 39, and they shall not prevent Member States from adopting additional requirements in order to pursue the objectives set out in this Article.

5. Member States shall ensure that caller location information is made available to the most appropriate PSAP without delay after the emergency communication is set up. This shall include network-based location information and, where available, handset-derived caller location information. Member States shall ensure that the establishment and the transmission of the caller location information are free of charge for the end-user and to the PSAP with regard to all emergency communications to the single European emergency number '112'. Member States may extend that obligation to cover emergency communications to national emergency numbers. Competent regulatory authorities, if necessary after consulting BEREC, shall lay down criteria for the accuracy and reliability of the caller location information provided.
6. Member States shall ensure that citizens are adequately informed about the existence and use of the single European emergency number ‘112’, as well as its accessibility features, including through initiatives specifically targeting persons travelling between Member States, and persons end-users with disabilities. That information shall be provided in accessible formats, addressing different types of disabilities. The Commission shall support and complement Member States’ action.

7. In order to ensure effective access to emergency services through emergency communications to ‘112’ services in the Member States, the Commission shall, after consulting BEREC, adopt delegated acts in accordance with Article 109 supplementing paragraphs 2, 4 and 5 on the measures necessary to ensure the compatibility, interoperability, quality, reliability and continuity of emergency communications in the Union with regard to caller location solutions, access for end-users with disabilities and routing to the most appropriate PSAP. The first such delegated acts shall be adopted by [insert date] 4 years after the entry into force.

Those measures shall be adopted without prejudice to, and shall have no impact on, the organisation of emergency services, which remains in the exclusive competence of Member States.

BEREC shall maintain a database of E.164 numbers of European emergency services to ensure that they are able to contact each other from one Member State to another, if such a database is not maintained by another organisations.

Those measures shall be adopted without prejudice to, and shall have no impact on, the organisation of emergency services, which remains in the exclusive competence of Member States.
Article 102a
Public Warning System

1. By 42 months after entry into force, Member States shall ensure that, when public warning systems regarding imminent or developing major emergencies and disasters are in place, public warnings are transmitted by providers of mobile number-based interpersonal communication services to end-users concerned.

2. Notwithstanding paragraph 1, Member States may determine that public warnings be transmitted through publicly available electronic communications services other than those referred to in paragraph 1 and other than broadcasting services, or through internet access service or a mobile application relying on an internet access service, provided that the effectiveness of the public warning system is equivalent in terms of coverage and capacity to reach end-users including those only temporarily present in the area concerned, taking utmost account of BEREC guidelines. Public warnings shall be receivable by end-users in an easy manner.

BEREC shall, after consulting the authorities in charge of PSAPs and by 18 months after entry into force publish guidelines on how to assess whether the effectiveness of public warnings under paragraph 2 is equivalent to those under paragraph 1.
Article 103

Equivalent access and choice for disabled end-users with disabilities

1. Member States shall ensure that the competent authorities specify, where appropriate, requirements to be met by providers of publicly available electronic communications services to ensure that end-users with disabilities:

(a) have access to electronic communications services, including the related contractual information provided pursuant to Article 95, equivalent to that enjoyed by the majority of end-users; and

(b) benefit from the choice of undertakings and services available to the majority of end-users.

2. In taking the measures referred to in paragraph 1, Member States shall encourage compliance with the relevant standards or specifications published in accordance with Article 39.
Article 104

Telephone directory enquiry services

1. Member States shall ensure that all providers of number-based interpersonal communications services which attribute numbers from a numbering plan meet all reasonable requests to make available, for the purposes of the provision of publicly available directory enquiry services and directories, the relevant information in an agreed format on terms which are fair, objective, cost oriented and non-discriminatory.

2. National regulatory authorities shall be able to impose obligations and conditions on undertakings that control access of end-users for the provision of directory enquiry services in accordance with the provisions of Article 59. Such obligations and conditions shall be objective, equitable, non-discriminatory and transparent.

3. Member States shall not maintain any regulatory restrictions which prevent end-users in one Member State from accessing directly the directory enquiry service in another Member State by voice call or SMS, and shall take measures to ensure such access in accordance with Article 91.

4. Paragraphs 1 to 3 shall apply subject to the requirements of Union legislation on the protection of personal data and privacy and, in particular, Article 12 of Directive 2002/58/EC.
Article 105

Interoperability of car radio, consumer radio and consumer digital television equipment

1. In accordance with the provisions of Annex X, Member States shall ensure the interoperability of the consumer car-radio equipment and consumer digital television equipment referred to therein.

2. Member States may adopt measures to ensure the interoperability of other consumer radio equipment while limiting the impact on the market of low value radio equipment and while ensuring that such measures are not applied to products where a radio receiver is purely ancillary (such as smartphones) and to equipment used by radio amateurs.

3. Member States shall encourage providers of digital television services to ensure, where appropriate, that the terminal equipment they provide to their end users is interoperable so that where technically feasible the terminal equipment is reusable with other providers of digital television services.

Without prejudice to Article 5(2) of Directive 2012/19/EU, Member States shall ensure that upon termination of their contract end users have the possibility to return through a free and easy process the terminal equipment, unless the provider demonstrates that the terminal equipment is fully interoperable with the digital TV services of other providers, including those to which the end-user has switched.

Terminal equipment which is in conformity with harmonised standards the references of which have been published in the Official Journal of the European Union or with parts thereof shall be presumed to comply with the requirement of interoperability set out in the previous subparagraph covered by those standards or parts thereof.
Article 106

‘Must carry’ obligations

1. Member States may impose reasonable 'must carry' obligations, for the transmission of specified radio and television broadcast channels and related complementary services, particularly accessibility services to enable appropriate access for end-users with disabilities and data supporting connected TV services and electronic programme guides, on undertakings under their jurisdiction providing electronic communications networks and services used for the distribution of radio or television broadcast channels to the public where a significant number of end-users of such networks and services use them as their principal means to receive radio and television broadcast channels. Such obligations shall only be imposed where they are necessary to meet general interest objectives as clearly defined by each Member State and shall be proportionate and transparent.

1a. The obligations referred to in the first paragraph shall be reviewed by the Member States at the latest within one year of date of entry into force of this Directive, except where Member States have carried out such a review within the previous four years. Member States shall review ‘must carry’ obligations at least every five years.

2. Neither paragraph 1 of this Article nor Article 57(2) shall prejudice the ability of Member States to determine in their legislation appropriate remuneration, if any, in respect of measures taken in accordance with this Article while ensuring that, in similar circumstances, there is no discrimination in the treatment of providers of electronic communications networks and services. Where remuneration is provided for, Member States shall ensure that the obligation to remunerate is clearly set out in national law, including, where relevant, the criteria for calculating such remuneration. Member States shall also ensure that it is applied in a proportionate and transparent manner.
Article 107

Provision of additional facilities

1. Without prejudice to Article 83(2), Member States shall ensure that competent authorities in coordination, where relevant, with national regulatory authorities are able to require all providers that provide internet access services and/or publicly available number-based interpersonal communications services to make available free of charge all or part of the additional facilities listed in Part B of Annex VI, subject to technical feasibility, as well as all or part of the additional facilities listed in Part A of Annex VI.

1a. Member States may extend the list of additional facilities in parts A and B of Annex VI in relation to paragraph 1 to ensure a higher level of consumer protection.

2. A Member State may decide to waive paragraph 1 in all or part of its territory if it considers, after taking into account the views of interested parties, that there is sufficient access to these facilities.

Article 108

Adaptation of annexes

The Commission is empowered to adopt delegated acts in accordance with Article 109 concerning the adaptations of amending Annexes V, VI, VIII, IX, and X in order to take account of technological and social developments or changes in market demand.
Part IV. FINAL PROVISIONS

Article 109

Exercise of the delegation

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 40, 60, 73, 102 and 108 shall be conferred on the Commission for an indeterminate period of time from the date of entry into force of the basic legislative act or any other date set by the co-legislators. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.

3. The delegation of power referred to in Articles 40, 60, 73, 102 and 108 may be revoked at any time by the European Parliament or by the Council. A decision to revoke 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. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016.

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
6. A delegated act adopted pursuant to Article(s) 40, 60, 73, 102, and 108 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two 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 two months at the initiative of the European Parliament or of the Council.

Article 110

Committee

1. The Commission shall be assisted by a Committee (‘the Communications Committee’), established by Directive 2002/21/EC. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. For the implementing measures referred to in the second subparagraph of Article 28(4) 45(2), the Committee shall be the Radio Spectrum Committee established pursuant to Article 3(1) of Decision No 676/2002/EC.

3. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply. Where the opinion of the committee is to be obtained by a written procedure, the procedure shall be terminated without result when, within the time limit for delivery of the opinion, the chair of the committee so decides or a committee member so requests. In such a case, the chair shall convene a committee meeting within a reasonable time.
4. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply, having regard to the provisions of Article 8 thereof.

5. Where the opinion of the committee is to be obtained by a written procedure, the procedure shall be terminated without result when, within the time limit for delivery of the opinion, the chair of the committee so decides or a committee member so requests. In such a case, the chair shall convene a committee meeting within a reasonable time.

Article 111
Exchange of information

1. The Commission shall provide all relevant information to the Communications Committee on the outcome of regular consultations with the representatives of network operators, service providers, users, consumers, manufacturers and trade unions, as well as third countries and international organisations.

2. The Communications Committee shall, taking account of the Union's electronic communications policy, foster the exchange of information between the Member States and between the Member States and the Commission on the situation and the development of regulatory activities regarding electronic communications networks and services.
Article 112

Publication of information

1. Member States shall ensure that up-to-date information pertaining to the application of this Directive is made publicly available in a manner that guarantees all interested parties easy access to that information. They shall publish a notice in their national official gazette describing how and where the information is published. The first such notice shall be published before the date of application referred to in Article 118(1), second subparagraph, and thereafter a notice shall be published whenever there is any change in the information contained therein.

2. Member States shall send to the Commission a copy of all such notices at the time of publication. The Commission shall distribute the information to the Communications Committee as appropriate.

3. Member States shall ensure that all relevant information on rights, conditions, procedures, charges, fees and decisions concerning general authorisations, rights of use and rights to install facilities is published and kept up to date in an appropriate manner so as to provide easy access to that information for all interested parties.

4. Where information as referred to in paragraph 3 is held at different levels of government, in particular information regarding procedures and conditions on rights to install facilities, the national regulatory competent authority shall make all reasonable efforts, bearing in mind the costs involved, to create a user-friendly overview of all such information, including information on the relevant levels of government and the responsible authorities, in order to facilitate applications for rights to install facilities.
5. Member States shall ensure that the specific obligations imposed on undertakings under this Directive are published and that the specific product/service and geographical markets are identified. They shall ensure that up-to-date information, provided that the information is not confidential and, in particular, does not comprise business secrets, is made publicly available in a manner that guarantees all interested parties easy access to that information.

6. Member States shall send to the Commission a copy of all such information published. The Commission shall make this information available in a readily accessible form, and shall distribute the information to the Communications Committee as appropriate.

Article 113

Notification and monitoring

1. National regulatory authorities shall notify to the Commission by at the latest by the date of application referred to in Article 115 (1), second subparagraph, and immediately in the event of any change thereafter the names of undertakings designated as having universal service obligations under Articles 84(1) or 85, 80(2), 81 or 82.

2. National regulatory authorities shall notify to the Commission the names of operators deemed to have significant market power for the purposes of this Directive, and the obligations imposed upon them under this Directive. Any changes affecting the obligations imposed upon undertakings or of the undertakings affected under the provisions of this Directive shall be notified to the Commission without delay.
Article 113a

Intra EU Calls

Amendments to Regulation (EU) 2015/2120

Regulation (EU) 2015/2120 is amended as follows:

(1) The title of Regulation (EU) 2015/2120 is replaced by the following:


(2) In Article 1 the following paragraph is inserted:

'3. This Regulation also lays down common rules aimed at ensuring that consumers are not charged excessive prices for making number-based interpersonal communications originating in the Member State of the consumer's domestic provider and terminating at any fixed or mobile number in another Member State than that of their domestic provider.'

(3) In Article 2, the following points are added:

‘(3) “regulated intra-EU communications” means any number-based interpersonal communications service originating in the Member State of the consumer's domestic provider and terminating at any fixed or mobile number of the national numbering plan of another Member State, and which is charged wholly or partly based on actual consumption;

(4) “number-based interpersonal communications service” shall have the meaning as defined in Article 2(6) of Directive (EU) XXXX/XXXX of the European Parliament and of the Council establishing the European Communications Code.'
(4) The following Article is inserted:

Article [5a]

Retail charges for regulated intra-EU communications

1. From 15 May 2019, any retail price (excluding VAT) charged to consumers for regulated intra-EU communications shall not exceed a maximum of 0.19€ per minute for calls and 0.06€ per SMS message.

2. Notwithstanding paragraph 1, providers of regulated intra-EU communications may offer in addition, and consumers may deliberately choose, a tariff for international communications including regulated intra-EU communications other than the one set in accordance with paragraph 1 of this Article, by virtue of which consumers benefit from a different tariff for regulated intra-EU communications than they would have been accorded in the absence of such a choice. The provider of regulated intra-EU communications shall inform those consumers of the nature of the advantages which would thereby be lost.

3. Where a regulated intra-EU communications tariff qualifying pursuant to paragraph 2 exceeds the limits set in paragraph 1, consumers of such a tariff who have not confirmed or expressed, within a period of 2 months from 15 May 2019, a choice for any tariff set out pursuant to paragraph 2, shall automatically be provided with the tariffs foreseen in paragraph 1.

4. Consumers may switch from or back to a tariff set in accordance with paragraph 1 within one working day of receipt of the request, free of charge and shall ensure that such switch does not entail conditions or restrictions pertaining to elements of the subscriptions other than intra-EU communications.
5. National regulatory authorities shall monitor the market and price developments for regulated intra-EU and domestic communications and report thereupon to the Commission. They may grant upon request a derogation from paragraph 1 solely to the extent necessary and for a renewable period of one year, to a provider of regulated intra-EU communications, where that provider establishes that due to specific and exceptional circumstances distinguishing it from most other Union providers, the application of paragraph 1 would have significant impact on its capacity to sustain its existing prices for domestic communications. The assessment of the sustainability of the domestic charging model shall be based on relevant objective factors specific to the provider of intra-EU communications, as well as the level of domestic prices and revenues. Where the applicant provider has discharged the applicable evidentiary burden, the national regulatory authority shall determine the maximum price level in excess of one or both of the maximum prices set out in paragraph 1 which would be indispensable in order to ensure the sustainability of the provider’s domestic charging model. BEREC shall publish guidelines on the criteria to be taken into account by national regulatory authorities in their assessment.

6. This Article shall expire five years after its entry into force.

(5) In Article 6 the following Paragraph is inserted:

2. Member States shall lay down the rules on penalties applicable to infringements of Article 5a and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify the Commission of the rules and measures laid down to ensure the implementation of Article 5a by 15 May 2019 and shall notify the Commission without delay of any subsequent amendment affecting them.]
Article 114

Review procedures

1. The Commission shall periodically review the functioning of this Directive and report to the European Parliament and to the Council, on the first occasion not later than five years after the date of application referred to in Article 115 (1), second subparagraph and thereafter every fifth year.

Those reviews shall evaluate in particular the market implications of Art 59(2) and 74 and 76/76bis and whether the ex ante and other intervention powers pursuant to this Directive are sufficient to enable national regulatory authorities to address uncompetitive oligopolistic market structures, and to ensure that competition in all electronic communications markets continues to develop and thrive to the benefit of end-users.

For this purpose, the Commission may request information from the Member States, which shall be supplied without undue delay.

2. The Commission shall periodically review the scope of universal service, in particular with a view to proposing to the European Parliament and the Council that the scope be changed or redefined. A review shall be carried out every five years.

3. This review shall be undertaken in the light of social, economic and technological developments, taking into account, inter alia, mobility and data rates in the light of the prevailing technologies used by the majority of end-users. The Commission shall submit a report to the European Parliament and the Council regarding the outcome of the review.
4. BEREC shall, three years from the entry into force of this Directive and every three years thereafter publish an opinion on the national implementation and functioning of the General Authorisation, and on their impact on the single market.

The Commission, taking utmost account of the BEREC opinion, may, publish a report on the application of Title II, Chapter II and Annex I, and may submit a legislative proposal to amend these provisions, where it considers this necessary to address obstacles to the functioning of the internal market.

*Article 114a*

Specific review procedure on end user rights

1. BEREC shall monitor the market and technological developments regarding the different types of electronic communications services and shall, three years from the entry into force of this Directive and every three years thereafter, or upon a reasoned request from at least two of its members from a Member State, publish an opinion on such developments and on their impact on the application of Title III.

In that opinion BEREC shall assess to what extent Title III meets the objectives set out in Article 3. The opinion shall in particular take into account the scope of Title III as regards the types of electronic communications services covered. As a basis for the opinion, BEREC shall in particular analyse:

a) to what extent end-users of all communication services are able to make free and informed choices, including on the basis of complete contractual information, and are able to switch easily their provider of communication services;

b) to what extent any lack of such abilities has resulted in market distortions or end-user harm;
bb) to what extent effective access to emergency services is appreciably threatened, in particular due to an increased use of number-independent interpersonal communications services, by a lack of interoperability or technological developments.

c) the likely cost of any potential readjustments of obligations in this Title or impact on innovation for providers of electronic communications services.

2. The Commission, taking utmost account of the BEREC opinion, shall publish a report on the application of this Title and submit a legislative proposal to amend Title III where it considers this necessary to ensure that the objectives set out in Article 3 continue to be met.

Article 115

Transposition

1. Member States shall adopt and publish, by two years after [date of publication], the laws, regulations and administrative provisions necessary to comply with Articles … and Annexes …. They shall immediately communicate the text of those measures to the Commission.

Member States shall transpose Articles 2(xx) and 113a by 15 May 2019.

Member States shall apply those measures from two years after [date of publication], with the exception of the measures necessary to comply with Article 53a which shall apply from 31/12/2020.

When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. They shall also include a statement that references in existing laws, regulations and administrative provisions to the Directives repealed by this Directive shall be construed as references to this Directive. Member States shall determine how such reference is to be made and how that statement is to be formulated.
1a. By way of exception to paragraph 1, Article 53(2), (3) and (3a) shall apply from the entry into force of this Directive for bands for which the technical conditions have been harmonised in order to enable their use for wireless broadband electronic communications, pursuant to Article 4 of Decision n°676/2002/EC. In relation to bands for which such conditions have not been adopted upon entry into force of the Directive, Article 53(2), (3) and (3a) shall apply from [day/month/year] the date of the adoption of the technical conditions.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 116

Repeal

Directives 2002/19/EC, 2002/20/EC, 2002/21/EC, 2002/22/EC, listed in Annex XI, Part A, are repealed with effect from [two years after the date of publication of this Directive], without prejudice to the obligations of the Member States relating to the time-limits for the transposition into national law and the dates of application of the Directives set out in Annex XI, Part B.

Article 5 of Decision 243/2012/EU is repealed with effect from [two years after the date of publication of this Directive].

References to the repealed Directives shall be construed as references to this Directive and shall be read in accordance with the correlation table in Annex XII.
Article 117

Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Article 118

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament

For the Council

The President

The President
ANNEX I

ANNEXES
to the
establishing the European Electronic Communications Code

ANNEX I

LIST OF CONDITIONS WHICH MAY BE ATTACHED TO GENERAL
AUTHORISATIONS, RIGHTS OF USE OF RADIO SPECTRUM AND RIGHTS TO USE
NUMBERS

The conditions listed in this Annex provide the maximum list of conditions which may be attached
to general authorisations for electronic communications networks and services, except number-
independent interpersonal communications services, (Part A), electronic communications networks
(Part B), electronic communications services, except number-independent interpersonal
communications services, (Part C) rights to use radio frequencies (Part D) and rights to use numbers
(Part E)
A. General Conditions which may be attached to a General Authorisation

1. Administrative charges in accordance with Article 16 of this Directive.


3. Information to be provided under a notification procedure in accordance with Article 12 of this Directive and for other purposes as included in Article 21 of this Directive.


5. Terms of use for communications from public authorities to the general public for warning the public of imminent threats and for mitigating the consequences of major catastrophes.

6. Terms of use during major disasters or national emergencies to ensure communications between emergency services and authorities.

7. Access obligations other than those provided for in Article 13 of this Directive applying to undertakings providing electronic communications networks or services.

8. Measures designed to ensure compliance with the standards and/or specifications referred to in Article 39.

9. Transparency obligations on public communications network providers providing electronic communications services available to the public to ensure end-to-end connectivity, in conformity with the objectives and principles set out in Article 3 and, where necessary and proportionate, access by national regulatory competent authorities to such information needed to verify the accuracy of such disclosure.


\(^{41}\) OJ L 281, 23.11.1995, p. 31.
B. SPECIFIC CONDITIONS WHICH MAY BE ATTACHED TO A GENERAL AUTHORISATION FOR THE PROVISION OF ELECTRONIC COMMUNICATIONS NETWORKS

1. Interconnection of networks in conformity with this Directive.

2. ‘Must carry’ obligations in conformity with this Directive.

3. Measures for the protection of public health against electromagnetic fields caused by electronic communications networks in accordance with Union law, taking utmost account of Council Recommendation No 1999/519/EC.


6. Conditions for the use of radio spectrum, in conformity with Article 7(2) of Directive 2014/53/EU, where such use is not made subject to the granting of individual rights of use in accordance with Articles 46(1) and 48 of this Directive.

7. Transparency obligations on public communications network providers providing electronic communications services available to the public to ensure end-to-end connectivity, in conformity with the objectives and principles set out in Article 3 and, where necessary and proportionate, access by national regulatory competent authorities to such information needed to verify the accuracy of such disclosure.

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C. SPECIFIC CONDITIONS WHICH MAY BE ATTACHED TO A GENERAL AUTHORISATION FOR THE
PROVISION OF ELECTRONIC COMMUNICATIONS SERVICES, EXCEPT NUMBER-INDEPENDENT
INTERPERSONAL COMMUNICATIONS SERVICES

1. Interoperability of services in conformity with this Directive.

2. Accessibility by end-users of numbers from the national numbering plan, numbers from the
Universal International Freephone Numbers and, where technically and economically feasible, from
numbering plans of other Member States, and conditions in conformity with this Directive.

3. Consumer protection rules specific to the electronic communications sector.

4. Restrictions in relation to the transmission of illegal content, in accordance with Directive
of information society services, in particular electronic commerce, in the internal market and
restrictions in relation to the transmission of harmful content in accordance with Directive
D. CONDITIONS WHICH MAY BE ATTACHED TO RIGHTS OF USE FOR RADIO SPECTRUM

1. Obligation to provide a service or to use a type of technology within the limits of Article 45 of this Directive including, where appropriate, coverage and quality of service requirements.

2. Effective and efficient use of spectrum in conformity with this Directive.

3. Technical and operational conditions necessary for the avoidance of harmful interference and for the protection of public health against electromagnetic fields, taking utmost account of Council Recommendation No 1999/519/EC 43 where such conditions are different from those included in the general authorisation.

4. Maximum duration in conformity with Article of this Directive, subject to any changes in the national frequency plan.

5. Transfer or leasing of rights at the initiative of the right holder and conditions for such transfer in conformity with this Directive.

6. Usage fees in accordance with Article 42 of this Directive.

7. Any commitments which the undertaking obtaining the usage right has made in the framework of an authorisation or authorisation renewal process prior to the authorisation being granted or, where applicable, to the invitation for application for rights of use.

8. Obligations to pool or share radio spectrum or allow access to radio spectrum for other users in specific regions or at national level.

9. Obligations under relevant international agreements relating to the use of frequencies.

10. Obligations specific to an experimental use of radio frequencies.

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E. CONDITIONS WHICH MAY BE ATTACHED TO RIGHTS OF USE FOR NUMBERS

1. Designation of service for which the number shall be used, including any requirements linked to the provision of that service and, for the avoidance of doubt, tariff principles and maximum prices that can apply in the specific number range for the purposes of ensuring consumer protection in accordance with Article 3(2)(d) of this Directive.

2. Effective and efficient use of numbers in conformity with this Directive.

3. Number portability requirements in conformity with this Directive.

4. Obligation to provide public directory end user information for the purposes of Article 104 of Directive.

5. Maximum duration in conformity with Article 46-88 of this Directive, subject to any changes in the national numbering plan.

6. Transfer of rights at the initiative of the right holder and conditions for such transfer in conformity with this Directive, including that any conditions attached to the right of use for a number should be binding also on all those right holders to whom the rights are transferred.

7. Usage fees in accordance with Article 42-89 of this Directive.

8. Any commitments which the undertaking obtaining the usage right has made in the course of a competitive or comparative selection procedure.

9. Obligations under relevant international agreements relating to the use of numbers.

10. Obligations concerning the extraterritorial use of numbers within the Union to ensure compliance with consumer protection and other number-related rules in Member States other than that of the country code.
PART I: CONDITIONS FOR CONDITIONAL ACCESS SYSTEMS TO BE APPLIED IN ACCORDANCE WITH ARTICLE 60(1)

In relation to conditional access to digital television and radio services broadcast to viewers and listeners in the Union, irrespective of the means of transmission, Member States must ensure in accordance with Article 60 that the following conditions apply:

(a) all operators of conditional access services, irrespective of the means of transmission, who provide access services to digital television and radio services and whose access services broadcasters depend on to reach any group of potential viewers or listeners are to:

– offer to all broadcasters, on a fair, reasonable and non-discriminatory basis compatible with Union competition law, technical services enabling the broadcasters’ digitally-transmitted services to be received by viewers or listeners authorised by means of decoders administered by the service operators, and comply with Union competition law,

– keep separate financial accounts regarding their activity as conditional access providers.

(b) when granting licences to manufacturers of consumer equipment, holders of industrial property rights to conditional access products and systems are to ensure that this is done on fair, reasonable and non-discriminatory terms. Taking into account technical and commercial factors, holders of rights are not to subject the granting of licences to conditions prohibiting, deterring or discouraging the inclusion in the same product of:

– a common interface allowing connection with several other access systems, or

– means specific to another access system, provided that the licensee complies with the relevant and reasonable conditions ensuring, as far as he is concerned, the security of transactions of conditional access system operators.
PART II: OTHER FACILITIES TO WHICH CONDITIONS MAY BE APPLIED UNDER ARTICLE 59(1)(BD)

(a) Access to application program interfaces (APIs);

(b) Access to electronic programme guides (EPGs).
ANNEX III

CRITERIA FOR THE DETERMINATION OF WHOLESALe CALL TERMINATION RATES

Principles, criteria and parameters for the determination of rates for wholesale call termination on fixed and mobile markets, referred to in Article 73 (14):

(aa) rates shall be based on the recovery of costs incurred by an efficient operator; the evaluation of efficient costs shall be based on current cost values; the cost methodology to calculate efficient costs shall be based on a bottom-up modelling approach using long-run incremental traffic-related costs of providing the wholesale voice call termination service to third parties;

(a) the relevant incremental costs of the wholesale voice call termination service shall be determined by the difference between the total long-run costs of an operator providing its full range of services and the total long-run costs of that operator not providing a wholesale voice call termination service to third parties;

(b) only those traffic related costs which would be avoided in the absence of a wholesale voice call termination service being provided shall be allocated to the relevant termination increment;

(c) costs related to additional network capacity shall be included only to the extent that they are driven by the need to increase capacity for the purpose of carrying additional wholesale voice call termination traffic;

(d) radio spectrum fees shall be excluded from the mobile termination increment;

(e) only those wholesale commercial costs shall be included which are directly related to the provision of the wholesale voice call termination service to third parties;

(f) all fixed network operators shall be deemed to provide voice call termination services at the same unit costs as the efficient operator, regardless of their size;
(g) for mobile network operators, the minimum efficient scale shall be set at a market share not below 20%;

(h) the relevant approach for asset depreciation shall be economic depreciation; and

(i) the technology choice of the modelled networks shall be forward looking, based on an IP core network, taking into account the various technologies likely to be used over the period of validity of the maximum rate. In the case of fixed networks, calls shall be considered to be exclusively packet switched.
ANNEX IV

CRITERIA FOR ASSESSING CO-INVESTMENT OFFERS

When assessing a co-investment offer pursuant to Article 74 (1) (d), the national regulatory authority shall verify whether the following criteria have at a minimum been met. National regulatory authorities may consider additional criteria to the extent they are necessary to ensure accessibility of potential investors of the co-investment, in light of specific local conditions and market structure:

(a) The co-investment offer shall be open to any undertaking over the lifetime of the network built under a co-investment offer on a non-discriminatory basis. The SMP operator may include in the offer reasonable conditions regarding the financial capacity of any undertaking, so that for instance potential co-investors need to demonstrate their ability to deliver phased payments on the basis of which the deployment is planned, the acceptance of a strategic plan on the basis of which medium-term deployment plans are prepared, etc.

(b) The co-investment offer shall be transparent:

- the offer is available and easily identified on the website of the SMP operator;
- full detailed terms must be made available without undue delay to any potential bidder that has expressed an interest, including the legal form of the co-investment agreement and - when relevant - the heads of term of the governance rules of the co-investment vehicle; and
- The process, like the road map for the establishment and development of the co-investment project must be set in advance, it must clearly explained in writing to any potential co-investor, and all significant milestones be clearly communicated to all undertakings without any discrimination.

(c) The co-investment offer shall include terms to potential co-investors which favour sustainable competition in the long term, in particular:
– All undertakings have to be offered fair, reasonable and non-discriminatory terms and conditions for participation in the co-investment agreement relative to the time they join, including in terms of financial consideration required for the acquisition of specific rights, in terms of the protection awarded to the co-investors by those rights both during the building phase and during the exploitation phase, for example by granting indefeasible rights of use (IRUs) for the expected lifetime of the co-invested network and in terms of the conditions for joining and potentially terminating the co-investment agreement. Non-discriminatory terms in this context do not entail that all potential co-investors must be offered exactly the same terms, including financial terms, but that all variations of the terms offered must be justified on the basis of the same objective, transparent, non-discriminatory and predictable criteria such as the number of end user lines committed for.

– The offer must allow flexibility in terms of the value and timing of the commitment provided by each co-investor, for example by means of an agreed and potentially increasing percentage of the total end user lines in a given area, to which co-investors have the possibility to commit gradually and which shall be set at a unit level enabling smaller co-investors with limited resources to enter the co-investment at a reasonably minimum scale and to gradually increase their participation while ensuring adequate levels of initial commitment. The determination of the financial consideration to be provided by each co-investor needs to reflect the fact that early investors accept greater risks and engage capital sooner.

– A premium increasing over time has to be considered as justified for commitments made at later stages and for new co-investors entering the co-investment after the commencement of the project, to reflect diminishing risks and to counteract any incentive to withhold capital in the earlier stages.

– The co-investment agreement has to allow the assignment of acquired rights by co-investors to other co-investors, or to third parties willing to enter into the co-investment agreement subject to the transferee undertaking being obliged to fulfil all original obligations of the transferor under the co-investment agreement.

– Co-investors have to grant each other reciprocal rights on fair and reasonable terms and conditions to access the co-invested infrastructure for the purposes of providing services downstream, including to end-users, according to transparent conditions which have to be made transparent in the co-investment offer and subsequent agreement, in particular where co-investors are individually and separately responsible for the deployment of specific parts of the network. If a co-investment vehicle is created, it has to provide access to the network to all co-investors, whether directly or indirectly, on an equivalence of inputs basis and according to fair and reasonable terms and conditions, including financial conditions that reflect the different levels of risk accepted by the individual co-investors.

(d) The co-investment offer shall ensure a sustainable investment likely to meet future needs, by deploying new network elements that contribute significantly to the deployment of very high capacity networks.
ANNEX V

MINIMUM SET LIST OF SERVICES WHICH THE FUNCTIONAL ADEQUATE BROADBAND INTERNET ACCESS SERVICE SHALL BE CAPABLE OF SUPPORTING IN ACCORDANCE WITH ARTICLE 79(2) SHALL BE CAPABLE OF SUPPORTING

(1) E-mail

(2) search engines enabling search and finding of all type of information

(3) basic training and education online tools

(4) online newspapers/news

(5) buying/ordering goods or services online

(6) job searching and job searching tools

(7) professional networking

(8) internet banking

(9) eGovernment service use

(10) social media and instant messaging

(11) calls and video calls (standard quality)
ANNEX VI

DESCRIPTION OF FACILITIES AND SERVICES REFERRED TO IN ARTICLE 83 (CONTROL OF EXPENDITURE), ARTICLE 107 (ADDITIONAL FACILITIES) AND ARTICLE 99 (CHANGE OF PROVIDER SWITCHING AND NUMBER PORTABILITY)

PART A: FACILITIES AND SERVICES REFERRED TO IN ARTICLE 83 AND 107

Part A is applicable to consumers when applied on the basis of Article 83, and other groups of end-users where Member States have extended the beneficiaries of certain provisions of Part A. When applied on the basis of Article 107, Part A is applicable to those groups of end-users determined by Member States, except for pre-payment systems, phased payment of connection fees and cost control which are applicable only to consumers.

(a) Itemised billing

Member States are to ensure that national regulatory competent authorities in coordination, where relevant, with national regulatory authorities, subject to the requirements of relevant legislation on the protection of personal data and privacy, may lay down the basic level of itemised bills which are to be provided offered by undertakings providers to end-users free of charge in order that they can:

(i) allow verification and control of the charges incurred in using the public communications network at a fixed location internet access and/or voice communications services, or number-based interpersonal communications services in the case of Article 107; and

(ii) adequately monitor their usage and expenditure and thereby exercise a reasonable degree of control over their bills.

Where appropriate, additional levels of detail may be offered to end-users at reasonable tariffs or at no charge.
Such itemised bills shall include an explicit mention of the identity of the supplier and of the duration of the services charged by any premium numbers unless the end-user has requested this information not to be mentioned.

Calls which are free of charge to the calling end-users, including calls to helplines, are not to do not need be identified in the calling end-user's itemised bill.

National regulatory authorities may require operators to provide calling-line identification (CLI) free of charge.

(b) Selective barring for outgoing calls or premium SMS or MMS, or, where technically feasible, other kinds of similar applications, free of charge

i.e. the facility whereby the end-users can, on request to the undertaking that provides providers of voice communications services, or number-based interpersonal communications services in the case of Article 107, bar outgoing calls or premium SMS or MMS or other kinds of similar applications of defined types or to defined types of numbers free of charge.

(c) Pre-payment systems

Member States are to ensure that national regulatory competent authorities in coordination, where relevant, with national regulatory authorities may require undertakings providers to offer means for consumers to pay for access to the public communications network and use of voice communications services, or adequate broadband internet access, or number-based interpersonal communications services in the case of Article 107, on pre-paid terms.

(d) Phased payment of connection fees

Member States are to ensure that national regulatory competent authorities in coordination, where relevant, with national regulatory authorities may require undertakings providers to allow consumers to pay for connection to the public communications network on the basis of payments phased over time.
(e) Non-payment of bills

Member States are to authorise specified measures, which are to be proportionate, non-discriminatory and published, to cover non-payment of telephone bills issued by undertakings providers. These measures are to ensure that due warning of any consequent service interruption or disconnection is given to the end-users beforehand. Except in cases of fraud, persistent late payment or non-payment, these measures are to ensure, as far as is technically feasible that any service interruption is confined to the service concerned. Disconnection for non-payment of bills should take place only after due warning is given to the end-users. Member States may allow a period of limited service prior to complete disconnection, during which only calls that do not incur a charge to the end-users (e.g. ‘112’ calls) and minimum service level of functional internet access, defined by Member States in the light of national conditions, are permitted.

(f) Tariff advice

i.e. the facility whereby end-users may request the undertaking provider to provide information regarding alternative lower-cost tariffs, if available.

(g) Cost control

i.e. the facility whereby undertakings providers offer other means, if determined to be appropriate by national regulatory competent authorities in coordination, where relevant, with national regulatory authorities, to control the costs of voice communications or adequate broadband internet access services, or number-based interpersonal communications services in the case of Article 107, including free-of-charge alerts to consumers in case of abnormal or excessive consumption patterns.

(h) facility to deactivate third party billing

i.e. the facility for end-users to deactivate the ability for third party service providers to use the bill of a provider of an internet access service or a provider of a publicly available interpersonal communications service to charge for their products or services.
PART B: FACILITIES REFERRED TO IN ARTICLE 107

(a) Calling-line identification

i.e. the calling party’s number is presented to the called party prior to the call being established.

This facility should be provided in accordance with relevant legislation on protection of personal data and privacy, in particular Directive 2002/58/EC (Directive on privacy and electronic communications).

To the extent technically feasible, operators should provide data and signals to facilitate the offering of calling-line identity and tone dialling across Member State boundaries.

(b) e-mail forwarding or access to e-mails after termination of the contract with a provider of an internet access service.

i.e. the facility whereby end-users who terminate their contract with a provider of an internet access service can, on request, either access their e-mails received on the e-mail address(es) based on the commercial name or trade mark of his former provider, during a period the national regulatory authority deems necessary and proportionate, or to transfer e-mails sent to this (or these) address(es) during the said period to a new email address the end-user specifies. The facility under point b has to be offered free-of-charge.
PART C: IMPLEMENTATION OF THE NUMBER PORTABILITY PROVISIONS REFERRED TO IN ARTICLE 99

The requirement that all end-users with numbers from the national numbering plan, who so request can retain their number(s) independently of the undertaking providing the service shall apply:

(a) in the case of geographic numbers, at a specific location; and

(b) in the case of non-geographic numbers, at any location.

This Part does not apply to the porting of numbers between networks providing services at a fixed location and mobile networks.
ANNEX VII

CALCULATING THE NET COST, IF ANY, OF UNIVERSAL SERVICE OBLIGATIONS AND ESTABLISHING ANY RECOVERY OR SHARING MECHANISM IN ACCORDANCE WITH ARTICLES 84 AND 85

PART A: CALCULATION OF NET COST

Universal service obligations refer to those obligations placed upon an undertaking by a Member State which concern the provision of universal service as set out in Articles 79, 81 and to 82.

National regulatory Competent authorities are to consider all means to ensure appropriate incentives for undertakings (designated or not) to provide universal service obligations cost efficiently. In undertaking a calculation exercise, the net cost of universal service obligations is to be calculated as the difference between the net cost for any undertaking of operating with the universal service obligations and operating without the universal service obligations. Due attention is to be given to correctly assessing the costs that any undertaking would have chosen to avoid had there been no universal service obligation. The net cost calculation should assess the benefits, including intangible benefits, to the universal service operator.
The calculation is to be based upon the costs attributable to:

(i) elements of the identified services which can only be provided at a loss or provided under cost conditions falling outside normal commercial standards.

This category may include service elements such as access to emergency telephone services, provision of certain public pay telephones, provision of certain services or equipment for disabled people with disabilities, etc;

(ii) specific end-users or groups of end-users who, taking into account the cost of providing the specified network and service, the revenue generated and any geographical averaging of prices imposed by the Member State, can only be served at a loss or under cost conditions falling outside normal commercial standards.

This category includes those end-users or groups of end-users which would not be served by a commercial operator which did not have an obligation to provide universal service.

The calculation of the net cost of specific aspects of universal service obligations is to be made separately and so as to avoid the double counting of any direct or indirect benefits and costs. The overall net cost of universal service obligations to any undertaking is to be calculated as the sum of the net costs arising from the specific components of universal service obligations, taking account of any intangible benefits. The responsibility for verifying the net cost lies with the national regulatory competent authority.

**Part B: Recovery of any net costs of universal service obligations**

The recovery or financing of any net costs of universal service obligations may require designated undertakings with universal service obligations to be compensated for the services they provide under non-commercial conditions. Because such a compensation involves financial transfers, Member States are to ensure that these are undertaken in an objective, transparent, non-discriminatory and proportionate manner. This means that the transfers result in the least distortion to competition and to user demand.
In accordance with Article 85 43(3), a sharing mechanism based on a fund should use a transparent and neutral means for collecting contributions that avoids the danger of a double imposition of contributions falling on both outputs and inputs of undertakings.

The independent body administering the fund is to be responsible for collecting contributions from undertakings which are assessed as liable to contribute to the net cost of universal service obligations in the Member State and is to oversee the transfer of sums due and/or administrative payments to the undertakings entitled to receive payments from the fund.
ANNEX VII bis

INFORMATION REQUIREMENTS TO BE PROVIDED IN ACCORDANCE WITH ARTICLE 95 (INFORMATION REQUIREMENTS FOR CONTRACTS)

A. INFORMATION REQUIREMENTS FOR PROVIDERS OF PUBLICLY AVAILABLE ELECTRONIC COMMUNICATIONS SERVICES OTHER THAN TRANSMISSION SERVICES USED FOR THE PROVISION OF MACHINE TO MACHINE SERVICES

Providers of publicly available electronic communications services other than transmission services used for the provision of machine to machine services shall provide the following information:

(1) as part of the main characteristics of each service provided:

   (i) any minimum service quality levels to the extent that these are offered and, for services other than internet access services within the meaning of Article 3(5) of Regulation 2015/2120/EU, the specific quality parameters assured.

   Where no minimum service quality levels are offered, a statement to this effect shall be made.

(1a) as part of the information on price, where and to the extent applicable, the respective prices for activating the electronic communications service and for any recurring and/or consumption-related charges,
(2) as part of the information on the duration of the contract and the conditions for renewal and termination of the contract, including possible termination fees, where relevant to the extent that such conditions apply:

(i) any minimum usage or duration required to benefit from promotional terms,

(ii) any charges related to switching and compensation and refund arrangements for delay or abuse of switching, as well as information about the respective procedures,

(iia new) information on the right of consumers using pre-paid services to a refund, upon request, of any remaining credit in the event of switching, as set out in Article 99(5a).

(iii) any charges due on early termination of the contract, including information on unlocking the terminal equipment and any cost recovery with respect to terminal equipment and other promotional advantages,

(3) any compensation and refund arrangements, including, where applicable, explicit reference to rights of consumers, which apply if contracted service quality levels are not met or if the provider responds inadequately to a security incident, threat or vulnerability;

(4) the type of action that might be taken by the provider in reaction to security or integrity incidents or threats and vulnerabilities.
B- INFORMATION REQUIREMENTS FOR PROVIDERS OF INTERNET ACCESS SERVICES AND PUBLICLY AVAILABLE INTERPERSONAL COMMUNICATIONS SERVICES

I. In addition to the requirements set out in Part A, providers of internet access services and publicly available interpersonal communications services shall provide the following information:

(1) as part of the main characteristics of each service provided:

(i) any minimum service quality levels to the extent that the provider these are offered, controls at least some elements of the network either directly or by virtue of a service level agreement to that effect, and taking utmost account of the BEREC guidelines to be adopted in accordance with Article 97(2) after consultation of stakeholders and in close cooperation with the Commission, regarding:

– for internet access services: at least latency, jitter, packet loss;

– for publicly available number-based interpersonal communications services, where relevant who exert control over at least some elements of the network or have a service level agreement to that effect with undertakings providing access to the network: at least the time for the initial connection, failure probability, call signalling delays in accordance with Annex IX of this Directive; and

(ii) without prejudice to the right of end-users to use terminal equipment of their choice in accordance with Article 3(1) of Regulation 2015/2120/EC, any restrictions conditions, including fees, imposed by the provider on the use of terminal equipment supplied;
(2) as part of the information on price, where and to the extent applicable, the respective prices for activating the electronic communications service and for any recurring and/or consumption-related charges:

(i) details of specific tariff plan or plans under the contract and, for each such tariff plan the types of services offered, including where applicable, the volumes of communications (such as MB, minutes, SMS-messages) included per billing period, and the price for additional communication units,

(ia) in the case of tariff plan or plans with a pre-set volume of communications, the possibility for consumers to defer any unused volume from the preceding billing period to the following billing period, where this option is included in the contract,

(ib) facilities to safeguard bill transparency and monitor the level of consumption,

(ii) tariff information regarding any numbers or services subject to particular pricing conditions; with respect to individual categories of services, competent authorities in coordination, where relevant, with national regulatory authorities may require in addition such information to be provided immediately prior to connecting the call or to connecting to the providing provider of the service,

(iii) for bundled services and bundles including both services and terminal equipment the price of the individual elements of the bundle to the extent they are also marketed separately,

(iv) details and conditions, including fees, of any after-sales service and, maintenance, and customer assistance charges, and

(v) the means by which up-to-date information on all applicable tariffs and maintenance charges may be obtained;
(2a) without prejudice to Article 13 of the Regulation 2016/679, information on what personal data shall be provided before the performance of the service or collected in the context of the provision of the service

(3) as part of the information on the duration of the contract for bundled services and the conditions for renewal and termination of the contract, where relevant applicable, the conditions of termination of the bundle or of elements thereof;

(3a) without prejudice to Article 13 of the Regulation 2016/679, information on what personal data shall be provided before the performance of the service or collected in the context of the provision of the service

(4) details on products and services designed for disabled end-users with disabilities and how updates on this information can be obtained;

(5) the means of initiating procedures for the settlement of disputes including national and cross-border disputes in accordance with Article 25;

II. In addition to the requirements set out in part A and under I, providers of publicly available number-based interpersonal communications services shall also provide the following information:

(1) any constraints on access to emergency services and/or caller location information due to a lack of technical feasibility insofar as the service allows end-users to originate national calls to a number in a national or international telephone numbering plan;

(2) the end-user's right to determine whether or not to include his or her personal data in a directory, and the types of data concerned, in accordance with Article 12 of Directive 2002/58/EC;

III. In addition to the requirements set out in part A and under I, providers of internet access services shall also provide the information required pursuant to Article 4(1) of Regulation (EU) 2015/2120.
ANNEX VIII

INFORMATION TO BE PUBLISHED IN ACCORDANCE WITH ARTICLE 96

(TRANSPARENCY AND PUBLICATION OF INFORMATION)

The *competent authority in coordination, where relevant, with the national regulatory authority* has a responsibility to ensure that the information in this Annex is published, in accordance with Article 96. It is for the *competent authority in coordination, where relevant, with the national regulatory authority* to decide which information is *relevant* to be published by the *providers of internet access services and/or publicly available interpersonal communication services*, and which information is to be published by the *competent authority* itself *in coordination, where relevant, with the national regulatory authority*, so as to ensure that *all end-users/consumers* are able to make informed choices. If deemed appropriate, *competent authorities in coordination, where relevant, with national regulatory authorities* may promote self- or co-regulatory measures prior to imposing any obligation.

1 Contact details of the undertaking

2. Description of the services offered

2.1. Scope of the services offered and the main characteristics of each service provided, including any minimum service quality levels *where* offered and any restrictions imposed by the provider on the use of terminal equipment supplied.

2.2. Tariffs of the services offered, including information on communications volumes (*such as restrictions of data usage, numbers of voice minutes, numbers of messages*) of specific tariff plans and the applicable tariffs for additional communication units, numbers or services subject to particular pricing conditions, charges for access and maintenance, all types of usage charges, special and targeted tariff schemes and any additional charges, as well as costs with respect to terminal equipment.
2.3. After-sales, and maintenance and customer assistance services offered and their contact details.

2.4. Standard contract conditions, including contract duration, charges due on early termination of the contract, rights related to the termination of bundled offers or of elements thereof, and procedures and direct charges related to the portability of numbers and other identifiers, if relevant.

2.5. If the undertaking is a provider of number-based interpersonal communications services, information on access to emergency services and caller location information, or any limitation on the latter. If the undertaking is a provider of number-independent interpersonal communications services, information on the degree to which access to emergency services may be supported or not;

2.6. Details of products and services, including any functions, practices, policies and procedures and alterations in the operation of the service, specifically designed for end-users with disabilities, in accordance with Directive EAA Union law harmonising accessibility requirements for products and services.

3. Dispute settlement mechanisms, including those developed by the undertaking.
ANNEX IX

QUALITY OF SERVICE PARAMETERS

Quality-of-Service Parameters, Definitions and Measurement Methods referred to in Article 97

For undertakings providing providers of access to a public communications network

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For providers of number-based interpersonal communications services who exert control over at least some elements of the network or have a service level agreement to that effect with undertakings providing access to the network

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Version number of ETSI EG 202 057-1 is 1.3.1 (July 2008)

For **providers of** Internet access services

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Note 1

Parameters should allow for performance to be analysed at a regional level (i.e. no less than level 2 in the Nomenclature of Territorial Units for Statistics (NUTS) established by Eurostat).

Note 2

Member States may decide not to require up-to-date information concerning the performance for these two parameters to be kept if evidence is available to show that performance in these two areas is satisfactory.
ANNEX X

INTEROPERABILITY OF CAR RADIO AND DIGITAL CONSUMER DIGITAL TELEVISION EQUIPMENT REFERRED TO IN ARTICLE 105

1. COMMON SCRAMBLING ALGORITHM AND FREE-TO-AIR RECEPTION

All consumer equipment intended for the reception of conventional digital television signals (i.e. broadcasting via terrestrial, cable or satellite transmission which is primarily intended for fixed reception, such as DVB-T, DVB-C or DVB-S), for sale or rent or otherwise made available in the Union, capable of descrambling digital television signals, is to possess the capability to:

- allow the descrambling of such signals according to a common European scrambling algorithm as administered by a recognised European standards organisation, currently ETSI,
- display signals that have been transmitted in the clear provided that, in the event that such equipment is rented, the renter is in compliance with the relevant rental agreement.

2. INTEROPERABILITY FOR DIGITAL TELEVISION SETS

Any digital television set with an integral screen of visible diagonal greater than 30 cm which is put on the market for sale or rent in the Union is to be fitted with at least one open interface socket (either standardised by, or conforming to a standard adopted by, a recognised European standards organisation, or conforming to an industry-wide specification) permitting simple connection of peripherals, and able to pass all relevant elements of a digital television signal, including information relating to interactive and conditionally accessed services.
2A3. FUNCTIONALITY INTEROPERABILITY FOR CAR RADIO EQUIPMENT

Any radio equipment integrated in a new car vehicle of category M which is put on the market for sale or rent in the Union from [date of transposition] shall comprise a receiver capable of receiving and reproducing at least radio services provided via digital terrestrial radio broadcasting.

Receivers which are in conformity with harmonised standards the references of which have been published in the Official Journal of the European Union or with parts thereof shall be presumed to comply with the requirement set out in the previous subparagraph covered by those standards or parts thereof.
ANNEX XI

Part A

Repealed Directives

with [list of the successive amendments thereto/the amendment thereto]

(referred to in Article 116)


(OJ L 171, 29.6.2007, p. 32)


Article 3 & Annex


Article 2


Article 1 & Annex I


Article 8

(OJ L 310, 26.11.2015, p. 1)
Part B

Time-limits for transposition into national law [and date(s) of application]

(REFERRED TO IN ARTICLE 116)

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## ANNEX XII

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ANNEX 2

Alternative proposal to regulate intra-EU calls in the BEREC Regulation


[Article 0

Subject matter and scope

1. This Regulation establishes the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office).

2. This Regulation sets-up common rules aimed at ensuring that consumers are not charged excessive prices for making number-based interpersonal communications originating in the Member State of the consumer's domestic provider and terminating at any fixed or mobile number in another Member State]

Article 39a

Amendments to Regulation (EU) 2015/2120

Regulation (EU) 2015/2120 is amended as follows:
(1) The title of Regulation (EU) 2015/2120 is replaced by the following:


(2) In Article 1 the following paragraph is inserted:

‘3. This Regulation also lays down common rules aimed at ensuring that consumers are not charged excessive prices for making number-based interpersonal communications originating in the Member State of the consumer's domestic provider and terminating at any fixed or mobile number in another Member State.’

(3) In Article 2, the following points are added:

‘(3) “regulated intra-EU communications” means any number-based interpersonal communications service originating in the Member State of the consumer's domestic provider and terminating at any fixed or mobile number of the national numbering plan of another Member State, and which is charged wholly or partly based on actual consumption;

(4) The following Article is inserted:
Article [5a]

Retail charges for regulated intra-EU communications

1. From 15 May 2019, any retail price (excluding VAT) charged to consumers for regulated intra-EU communications shall not exceed a maximum of 0.19€ per minute for calls and 0.06€ per SMS message.

2. Notwithstanding paragraph 1, providers of regulated intra-EU communications may offer in addition, and consumers may deliberately choose, a tariff for international communications including regulated intra-EU communications other than the one set in accordance with paragraph 1 of this Article, by virtue of which consumers benefit from a different tariff for regulated intra-EU communications than they would have been accorded in the absence of such a choice. The provider of regulated intra-EU communications shall inform those consumers of the nature of the advantages which would thereby be lost.

3. Where a regulated intra-EU communications tariff qualifying pursuant to paragraph 2 exceeds the limits set in paragraph 1, consumers of such a tariff who have not confirmed or expressed, within a period of 2 months from 15 May 2019, a choice for any tariff set out pursuant to paragraph 2, shall automatically be provided with the tariffs foreseen in paragraph 1.

4. Consumers may switch from or back to a tariff set in accordance with paragraph 1 within one working day of receipt of the request, free of charge and shall ensure that such switch does not entail conditions or restrictions pertaining to elements of the subscriptions other than intra-EU communications.

4a. Where the maximum prices in accordance with paragraph 1 are denominated in currencies other than the euro, the initial limits shall be determined in those currencies by applying the average of the reference exchange rates published on 15 January, 15 February and 15 March 2019 by the European Central Bank in the Official Journal of the European Union. The limits in currencies other than the euro shall be revised annually as from 2020. The annually revised limits in those currencies shall apply from 15 May using the average of the reference exchange rates published on 15 January, 15 February and 15 March of the same year.
5. National regulatory authorities shall monitor the market and price developments for regulated intra-EU communications and report thereupon to the Commission. They may grant, upon request, a derogation from paragraph 1 solely to the extent necessary and for a renewable period of one year, to a provider of regulated intra-EU communications, where that provider establishes that due to specific and exceptional circumstances distinguishing it from most other Union providers, the application of paragraph 1 would have significant impact on its capacity to sustain its existing prices for domestic communications. The assessment of the sustainability of the domestic charging model shall be based on relevant objective factors specific to the provider of intra-EU communications, as well as the level of domestic prices and revenues. Where the applicant provider has discharged the applicable evidentiary burden, the national regulatory authority shall determine the maximum price level in excess of one or both of the maximum prices set out in paragraph 1 which would be indispensable in order to ensure the sustainability of the provider's domestic charging model. BEREC shall publish guidelines on the criteria to be taken into account by national regulatory authorities in their assessment.

6. This Article shall expire five years after its entry into force.

(5) In Article 6 the following Paragraph is inserted:

2. Member States shall lay down the rules on penalties applicable to infringements of Article 5a and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify the Commission of the rules and measures laid down to ensure the implementation of Article 5a by 15 May 2019 and shall notify the Commission without delay of any subsequent amendment affecting them.
Recitals

New recitals

1) A significant number of consumers in most Member States continue to rely on traditional international communications such as telephony calls and SMS, in spite of an increasing number of them having access to number-independent interpersonal communications services for their international calling needs at lower charges than traditional services or without monetary payment.

2) In 2013 the Commission proposed an impact-assessed Regulation which included a provision with regulatory measures applicable to intra-EU communications. Additional data on the intra-EU communication market was collected in 2017-2018 by BEREC\(^44\) and by the Commission through a Commission study\(^45\) and the Eurobarometer\(^46\). As shown by this information significant price differences continue to prevail, both for fixed and mobile communications, between domestic voice and SMS communications and those terminating in another Member State in a context of substantial variations of prices between countries, operators and tariff packages, and between mobile and fixed voice communications. Providers often charge consumption based intra-EU communication prices that largely exceed the prices for domestic tariffs plus additional costs. On average, the standard price of a fixed or mobile intra-EU call tends to be three times more expensive than the standard price of a domestic call and the standard price of an intra-EU SMS more than two times more expensive than a domestic one. However, these arithmetic averages hide significant differences across Member States. In some cases the standard price of an intra-EU call can be up to eight times higher than the standard price for domestic calls. As a consequence, customers in several Member States are exposed to very high prices for intra-EU communications. Those high prices affect mainly consumers, in particular those placing such communications infrequently or having a low volume of consumption, which represent the vast majority of the consumers making intra-EU communications. At the same time, several providers propose special offers particularly attractive for business customers and consumers with a significant consumption of intra-EU communications. Such offers are often not charged based on actual consumption and may consist in a certain number of intra-EU minutes or SMS for a fixed monthly fee (add-on offers) or in the inclusion of a certain number of intra-EU minutes or SMS in the monthly allowance of call minutes or SMS, either without any surcharge or with a small surcharge. However, the terms of those offers are often not attractive for consumers with only occasional, unpredictable or relatively low volumes of intra-EU communications. Consequently those consumers are exposed to a risk of paying excessive prices for their intra-EU communications and should be protected.

\(^{44}\) BEREC Preliminary analysis of intra-EU calls BOR(18)41 and BEREC supplementary analysis of intra-EU calls BoR (18)75

\(^{45}\) Actual consumer practices and operators’ offers for intra-EU calls” (SMART 2017/0012, not yet published)

\(^{46}\) Special Eurobarometer report 462 on E-Communications and Digital Single Market (not yet published)
3) Moreover, high prices for intra-EU communications present a barrier to the Single Market as they discourage seeking and purchasing goods and services from a provider located in another Member State. It is hence necessary to set specific and proportionate limits to the price that providers may charge on consumers for intra-EU communications in order to eliminate such high prices.

4) When providers of publicly available number-based interpersonal communications services charge their consumers for intra-EU communications at rates wholly or partly based on the consumption of such services, including in cases of consumption-based deduction from a monthly or prepaid allowance for such services, those rates should not exceed a maximum of EUR 0.19 per minute for calls and EUR 0.06 per SMS message; those correspond to the maximum prices which currently apply to regulated roaming calls and SMS, respectively. When roaming in the Union, consumers benefit from the protection of the Euro-tariff that has been progressively replaced by roaming like at home. Those ceilings are considered as a suitable benchmark also for setting the maximum rate for intra-EU communications for five years starting from 15 May 2019. The current level of the cap represents a simple, transparent and proven safety-net for protection against high prices and is suitable as a maximum ceiling for retail prices of all cross border EU communications. Both intra EU roaming calls and intra-EU calls share similar cost structure. The caps should allow the providers to recoup their costs thus ensuring a proportionate intervention on both the mobile and fixed calls market. The ceiling will directly apply only to rates based on actual consumption. They should have a disciplining effect [also on those offers where a certain volume of intra-EU communications is included without being charged separately as consumers have the choice to switch to a consumption-based tariff for their intra-EU communications. Intra-EU communication volumes which go beyond those included in a bundle and are charged separately should be subject to the ceiling. The measure should ensure in a proportionate way that consumers with a low level of consumption of intra-EU communications are protected against high prices and at the same time should have only a moderate impact on providers.
5) Providers should be able to propose to their consumers alternative tariff offers for international communications with different rates for regulated intra-EU communications and consumers should be free to opt for such offers deliberately, and to switch back any time and free of charge, even for offers to which consumers subscribed before the entry into force of this provision. Only alternative offers for international communications, for instance covering all or some countries of the world other than Member States, where accepted by a consumer, should be able to free a provider from its obligation not to exceed the maximum prices for intra-EU communications. Other advantages, such as subsidised terminal equipment or discounts on other electronic communications services, offered by providers to consumers are part of the regular competitive interaction and should not affect the applicability of the price ceilings for intra-EU communications.

6) Some providers may be significantly more affected than the majority of other providers in the Union by a price ceiling for intra-EU communications. This could, in particular, be the case for those providers which generate a particularly high share of their revenues or operational profits with intra-EU communications and/or whose domestic margins are low relative to industry benchmarks. As a consequence of margin compression as regards intra-EU communications, a provider might not be able to sustain its domestic pricing model. Such scenarios should be very exceptional as the maximum prices are clearly above the costs for providing intra-EU communications. Nevertheless, in order to address such scenarios in a proportionate way, national regulatory authorities should be empowered to grant a derogation at the request of the provider in justified and exceptional cases. Any derogation should only be granted where a provider can demonstrate, against a relevant benchmark defined by BEREC, that it is significantly more affected than most other providers in the Union and where that impact would significantly weaken that provider's capacity to maintain its charging model for domestic communications. Where a national regulatory authority grants a derogation, it should determine the maximum price level that a provider could apply for regulated intra-EU communications and which would enable it to maintain a competitive price level for domestic communications. Any such derogation should be limited to one year and be renewable if the provider demonstrates that the conditions for a derogation continue to be fulfilled.
7) In light of the principle of proportionality, the applicability of the price cap for intra-EU communications should be limited in time and should expire five years after its entry into force. Such a limited duration should allow a proper assessment of the effects of the measures and to evaluate to what extent there is an ongoing need to protect consumers.

8) In order to ensure a Union-wide consistent, timely and most effective protection of consumers negatively affected by the significant price differences of intra-EU communications, this provision should be directly applicable, by making it part of a Regulation. The most suitable act for this purpose should be Regulation (EU) 2015/2120 of the European Parliament and of the Council. That Regulation was adopted on the basis of an impact-assessed Commission proposal which had proposed *inter alia* a provision on intra-EU communications as a necessary means to complete the single market for electronic communications. Compared to that proposal of 2013 the likely impacts on operators' revenues generated by the provision of intra-EU communications are further mitigated, by the application in the present measure of the amount of the roaming Euro-tariff as a safety cap to both fixed and mobile communications; and by the evidence, provided by BEREC's 2018 analysis, of a considerable decline in relevant fix traffic volumes affected by the measure in the intervening period. This provision should hence be introduced as an amendment to Regulation (EU) 2015/2120, which should also be adapted to ensure that Member States adopt rules on penalties for the infringement of this provision.