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Proposal for the review of the Framework Directive, the Access Directive and the Universal Service Directive

30 May 2016

Commissioned by ETNO to:

crids

CENTRE DE RECHERCHE INFORMATION, DROIT ET SOCIÉTÉ

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ANNEX: OVERVIEW OF THE PROVISIONS OF THE EU FRAMEWORK COVERED IN THIS STUDY 112

Under the terms of reference drafted by ETNO, CRIDS is responsible for the translation of ETNO's proposals for the reform of the electronic communications regulatory framework into clear and legally sound proposals that can be presented to the European Commission and the other EU institutions. The present legal opinion does therefore not constitute a position from the CRIDS or the authors of the study, on the material changes proposed.

1. Executive Summary

The Political Guidelines of the Juncker Commission of July 2014[1] have identified the better use of the opportunities offered by digital technologies as a priority objective for promoting growth. The mission letter to Commissioner Oettinger reaffirmed these priorities and called for the setting of long-term strategic goals to offer legal certainty to the telecoms sector and create the right regulatory environment to foster investment and innovative businesses.[2]

The Digital Single Market Strategy (hereinafter "DSM") adopted in spring 2015 focuses on ensuring access and connectivity throughout the EU through new legislative and non-legislative initiatives complementing the regulatory framework. The goal is to bring the Digital Single Market to the level of ambition needed to respond to the existing challenges. The review of the framework itself constitutes a key building block within the strategy.[3] ETNO deems it essential that the new regulatory framework reflects technology, market and legislative evolutions, which took place since 2002:

- The current policy challenge has moved from the opening of existing infrastructures to the deployment of new infrastructures;
- There is growing competition at network level and even more among digital services;
- Most infrastructure and services markets are competitive, partly as a result of the presence of regulation;
- Substitutability between electronic communications services and OTT services is increasing;
- Horizontal law, in particular consumer protection, has been strengthened.

Based on its reply to the 2015 public consultation on the review of the Regulatory Framework for Electronic Communications, ETNO, with the legal expertise of the CRIDS, has proposed the following amendments to the Regulatory Framework. ETNO sees them as necessary to make the new rules fit for the ambition of the DSM, taking into account the market and technical evolutions under way.

Clarifying regulatory objectives and principles

ETNO believes that the objectives and principles of the Regulatory Framework should be adapted to the current challenges of the sector. In particular, they should be aligned with the need for substantial infrastructure upgrade and deployment, the necessity of ensuring a regulatory level playing field between digital services, and the requirement to rely on horizontal legislation such as competition law or consumer protection law as well as commercial negotiations before imposing sector-specific obligations.[4] Regulation should promote the long-term interest of end-users and the competitiveness of the industry.

Modernising access regulation and simplifying the market analysis process

Currently, the market analysis process involves the identification of non-competitive markets, the designation of operators with significant market power and the definition of proportionate access obligations. This procedure is complex, extraordinarily burdensome and no longer adapted to the

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[1] Jean-Claude Juncker, *A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change*, 15 July 2014.
[2] Mission letter to Günther Oettinger, Commissioner for Digital Economy and Society, 1 Nov. 2014, p. 3 et seq.
[3] COM(2015) 192, 6.5.2015, p. 9 et seq.
[4] See recital in the preamble to Directive 2009/140 reminding that '*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 only be imposed where there is no effective and sustainable competition*'.

current challenges of the sector. ETNO therefore proposes to move from the current market review process to the regulation of "key network inputs" in order to focus regulation on cases where access is indispensable to allow effective competition at retail level. The approach should be further simplified by requiring regulators to identify in each relevant geographic area, starting from the smallest possible definition, the single key network input to which the provision of access is the most appropriate to ensure competition and consumer choice in the corresponding retail market. Review periods of mandated access should be longer than today, with a possibility for anticipated revision in case substantial technical or market changes indicate that the conditions for applying regulation are no longer present.

Where regulators decide mandating access to a key network input, they should perform an impact assessment to compare the positive impact expected from the remedy on the long-term consumer welfare, the absence of negative impact of the envisaged remedy on investment and its contribution to incentives to invest in infrastructure. In principle, operators should negotiate on a commercial basis, the conditions for access to the key network input, subject to regulatory oversight by NRAs. The EU should enhance legal predictability and proportionality of the Regulatory Framework taking into account the much more dynamic market environment, by removing cost-orientation, accounting separation and functional separation from the regulatory toolbox of the national regulatory authorities. Applying an economic replicability test should in principle suffice to avoid exclusionary behaviour by the undertakings controlling key network input.

Streamlining the interconnection obligations

Operators of public networks should be granted the right and the obligation to interconnect for providing interpersonal voice communications services at ensured quality based on numbers. Network interconnection is indispensable, among other, to guarantee end-to-end quality throughout the European Union, interoperability of the services concerned as well as reliable emergency services. Where regulatory intervention is required, interconnection conditions should apply symmetrically, as recommended by the Commission since several years.[5] Fixed and mobile communications services have different characteristics that could justify different terms and conditions.

Protecting digital consumers

To be effective and efficient, consumer protection should also adapt to technology and market evolutions. ETNO proposes to re-organise the current sector-specific consumer protection rules included in the Universal Service Directive and in the ePrivacy Directive in the following way:

- Some rules, such as rules on quality of services and access to emergency calls, number portability, electronic directories, should be linked to the provision of interpersonal voice communications at ensured quality based on certain telephone numbers;
- Other rules, for example as regards the transparency of contractual terms, should be repealed as they are already covered by horizontal consumer law, in particular the Consumer Rights Directive which was adopted after the last revision of the electronic communications regulatory framework, or by the recently adopted Open Internet Regulation;
- Rules that were specifically designed for the liberalisation of the traditional public access telephony 18 years ago are outdated and should also be repealed;
- Selected rules currently only applied to telecoms should be moved to laws that cover all services in the digital market, if they are still considered relevant.

[5] Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, OJ L 124, p. 67 (the "*Termination Rates Recommendation*").

Focusing the universal service on what matters today, the broadband internet

The current scope of universal service is centred on voice telephone network access and services. However, a connection to the fixed telephony network is no longer indispensable to avoid social exclusion, among others because mobile penetration has overtaken fixed penetration. On the other hand, broadband internet access has become the tool to participate in social life via e-mail, access to public information, messaging and calls – often at no additional cost –, e-government, e-banking etc., all applications to which access becomes important to avoid social exclusion. The Universal Service Directive should ensure the availability of an affordable basic internet access service as a safety net for all EU citizens and focus on this objective. Where private operators cannot provide this basic internet access at market conditions, Member States should make public funding available.

Protecting disabled users

It is of utmost importance that citizens with special needs, notably citizens with disabilities, can communicate at the same level as all citizens. The obligations of the Universal Service Directive in favour of disabled users, originally designed for the fixed telephone service, should be thoroughly rethought within an overall and horizontal perspective. Future obligations in favour of disabled user's basic services should apply also to service providers beyond traditional telecommunications network operators. The draft directive on accessibility[6] would seem the most appropriate legal instrument to include these future obligations.

*

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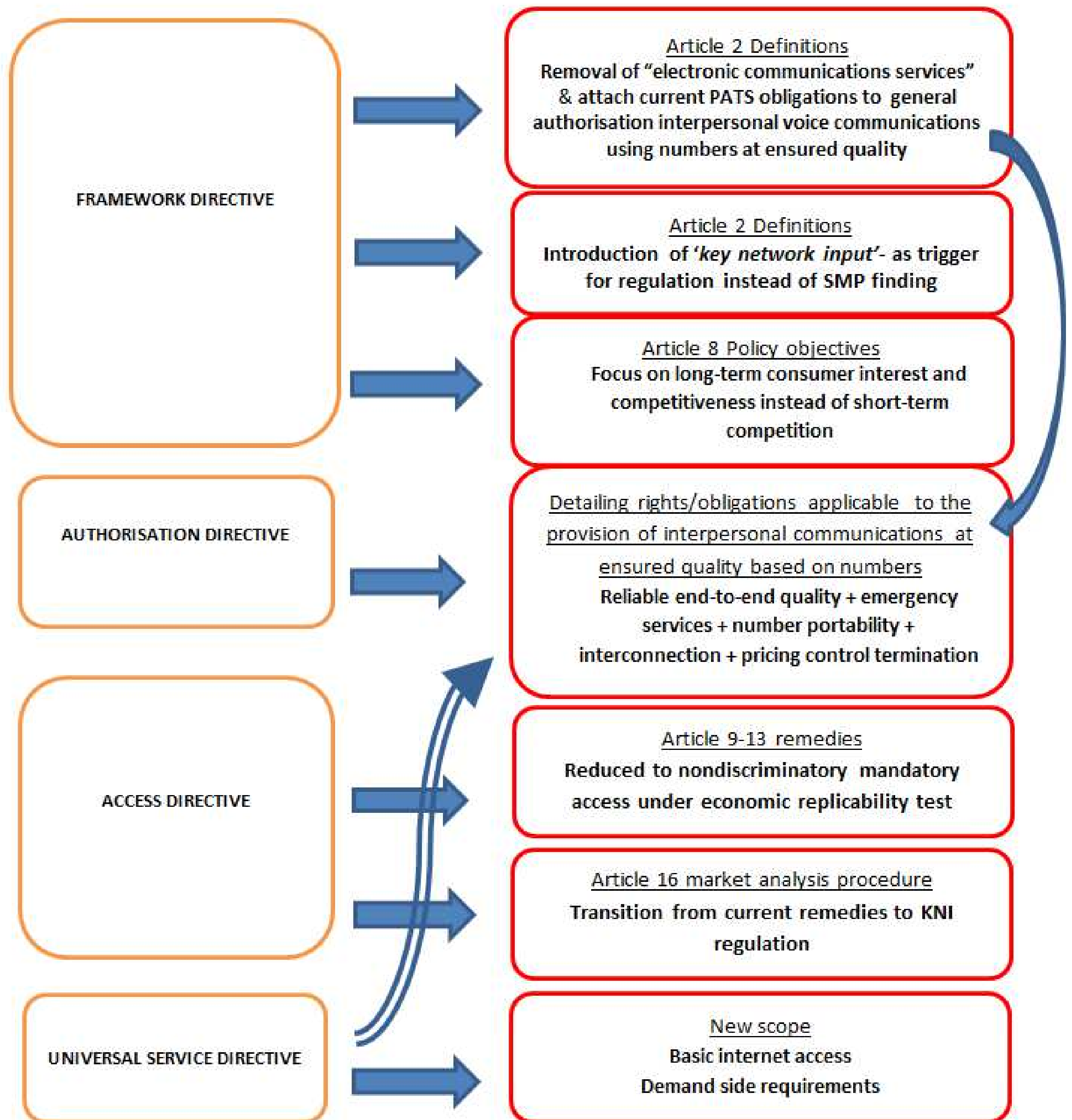
The amendments proposed by ETNO in this report will allow the European Union to progress towards the objective already set out in the 2002 Framework: to progressive phase out regulated intervention in favour of commercial agreements and move from ex-ante sector-specific regulation to competition law.

The main amendments are summarised in the Table below.

[6] Proposal for a Directive on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services (COM/2015/615) of 2 December 2015. This proposal highlights the need for a broad cross sectoral approach on accessibility for disabled end-users.

Figure 1: main amendments proposed



2. Introduction

With the Digital Single Market Strategy adopted on May 2015,[7] the European Commission ("the Commission") launched the most important and comprehensive review of the EU rules applicable to the digital economy since the Nineties, when the telecom sector was liberalised and the Internet was still in its infancy.

The Commission announced proposals to review the EU electronic communications regulatory framework focusing on:

- A consistent single market approach to spectrum policy and management;
- Delivering the conditions for a true single market by tackling regulatory fragmentation to allow economies of scale for efficient network operators and service providers and effective protection of consumers;
- Ensuring a level playing field for market players and consistent application of the rules[8];
- incentivising investment in high speed broadband networks (including a review of the Universal Service Directive), and
- A more effective regulatory institutional framework.

The European Telecommunications Network Operators' Association (ETNO) is the trade association that represents the main European electronic communications network operators. ETNO members are Pan-European operators that also hold new entrant positions outside their national markets. ETNO brings together the main investors in innovative and high-quality e-communications platforms and services, representing 60% of total sector investment. The Association has always advocated for ambitious changes to the current framework, leading to more innovation and investments in state-of-the-art next-generation fixed and mobile infrastructures. ETNO members consider an ambitious review of the access regulation regime particularly important.

ETNO closely contributes to shaping the best regulatory and commercial environment for its members to continue rolling out innovative and high quality services and platforms for the benefit of European consumers and businesses. ETNO therefore advocates that the Commission would take the opportunity of the review to streamline the current rules and procedures. ETNO pleads that the Framework would be amended to guarantee an adequate return on investment in NGA networks and to ensure a level playing field between competing infrastructures. Moreover, ex-ante regulation should be removed as much as possible in favour of a greater reliance on ex-post regulatory oversight. In parallel, ETNO requests that the evidence base of the so-called Article 7 procedure would be strengthened with ex-ante assessment of the impact on investment incentives and innovation of any new regulated access product.

Regarding electronic communications services, ETNO underlines the strong need of modifying the objectives of the framework. The overarching objectives should be fostering European competitiveness, investment and long-term consumer welfare. Moreover, ETNO calls for the

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[7] COM(2015) 192.

[8] The EU regulatory framework on electronic communications services and networks emerged in the context of full liberalisation in the 1990s. At that time voice communications were the focus of attention and distinct from online services. The framework contains provisions for the regulation of both networks and electronic communications services. Services such as so-called over-the–top services (OTTs), providing communications (voice, messaging) and/or other services, do not usually fall within the scope of the current EU regulatory framework's rules on ECS or those on network regulation because these services do not themselves include conveyance of signals. Therefore, the regulatory regimes, which are currently applied to OTTs or comparable services, on the one hand, and electronic communications service and networks, on the other hand, differ considerably.

Commission to take into account the convergence in services and repeal outdated rules as well as provisions that are overlapped by horizontal consumer protection rules. Specific rules should be maintained for interpersonal voice communications services at ensured quality based on numbers and applied selectively, in a proportionate way, to the extent they are necessary to preserve highly valued established standards that end-users rely on.

ETNO also asks for amendments to the current Framework, in particular as regards universal service and end-users' protection obligations, to ensure that consumer protection standards for EU citizens are consistent, proportionate and effective across the digital market, and applied to the various players in the value chain.

ETNO has submitted its reform proposals to the EU Commission on 7 December 2015 in reply to the Commission's Public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services[9]. The report commissioned by ETNO to Plum Consulting[10] further explains the rationale of ETNOs proposals.

On 6 January 2016, ETNO sought external legal advice order to support its advocacy efforts. More specifically, this legal advice was to consist in a legal opinion in which the contracted advisers translate ETNO policy messages on the framework review into concrete amendment proposals to the main legal instruments that form the regulatory framework currently in force.

[9] Available at: http://ec.europa.eu/digital-agenda/en/news/public-consultation-evaluation-and-review-regulatory-framework-electronic-communications

[10] PLUM, 'Fostering investment and competition in the broadband access markets of Europe', February 2016.

3. Explanatory memorandum

3.1. Context

3.1.1. Current rules

The original regulatory framework for electronic communications (RFEC) comprising five Directives was adopted in 2002:

- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive)[11].
- Directive 2002/19/EC (Access Directive)[12] which lists among other the regulatory remedies available to NRAs to tackle the "competition distortion" resulting from the existence of Significant Market Power (SMP).
- Directive 2002/20/EC (Authorisation Directive), which provides a minimal harmonization of national Authorisation procedures for providers of electronic communications networks or services, and in particular for the granting of spectrum rights of use.
- Directive 2002/22/EC (Universal Service Directive) which defines the minimum services that must be available to users at a reasonable price throughout the EU and other consumer rights.
- Directive 2002/58/EC (electronic communications privacy Directive) which requires Member States to ensure a wide range of privacy rights in the framework of the provision of electronic communications services (e.g. relating to cookies).

These rules have subsequently been supplemented by a number of additional legislative instruments specific to the electronic communications sector, such as the BEREC Regulation[13], the Roaming Regulation[14] the broadband Cost-Reduction Directive and the Open Internet Regulation[15] as well as several Commission decisions, such as Decision 243/2012 of 14 March 2012 establishing a multiannual radio spectrum policy programme (RSPP)[16].

All of the directives that make up the RFEC contain provisions aiming to ensure a regular review of their functioning, and the Commission has regularly published observations on the performance of the individual instruments in its application reports on the framework that have been submitted to the co-legislators.
In 2006, based on its 11th implementation report[17], the Commission initiated[18] a review process with the aim of ensuring an effective, future-proof framework. This review led to the adoption of two

[11] Directive 2002/21/EC of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ 2002, L108/33, as amended; Directive 2002/22/EC of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), OJ 2002, L108/51; Directive 2009/136/EC of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector.
[12] http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1422102767946&uri=CELEX:02002L0019-20091219
[13] OJ L 337, 18.12.2009, p. 1.
[14] OJ L 171, 29,6,2007, p. 32, as amended by Regulation (EC) 544/2009, OJ L 167, 29.6.2009, p. 12.
[15] Regulation (EU) 2015/2120 of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union, OJ L 310, 26.11.2015, p. 1–18
[16] OJ L 81, 21.3.2012, p. 7.
[17] COM(2006) 68, 20.2.2006.
[18] COM(2006) 334, 29.6.2006.

amending directives in 2009[19]. Member States had to transpose these amendments into their domestic legal orders by 26 May 2011. Substantively, the review included both measures to improve the framework in its institutional and procedural aspects and to address a number of substantive developments and issues having arisen from its application and in the light of technological and market developments. The impact of the reformed rules was reflected in the implementation reports covering the years 2012, 2013[20] and 2014[21].

The Political Guidelines of the new Commission published in July 2014[22] have identified the better use of the opportunities offered by digital technologies as a priority objective for promoting growth. To this end, the Guidelines envisage breaking down national silos in the regulation of electronic communications and in the management of spectrum resources, as part of a more ambitious reform of the regulatory framework for electronic communications. The mission letter to Commissioner Oettinger reaffirmed these priorities and called for the setting of long-term strategic goals to offer legal certainty to the sector and create the right regulatory environment to foster investment and innovative businesses[23].

The Digital Single Market strategy adopted in spring 2015[24] focuses on fostering connectivity throughout the EU through new legislative and non-legislative initiatives complementing the regulatory framework. The aim is to bring the Digital Single Market up to the level of ambition needed to respond to the existing challenges. The review of the framework itself constitutes a key building block within the strategy[25], for which proposals are to be set forth in the course of 2016[26].

In accordance with the Commission Work Programme for 2015[27], this review is preceded by a Regulatory Fitness and Performance Programme (REFIT) evaluation aimed at assessing whether the current regulatory framework is *'fit for purpose'*.

A key element of the evaluation exercise was an online questionnaire '*Public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services*' published on 11 September 2015[28]. The purpose of this questionnaire was twofold. Firstly, it aimed to gather input to assess the telecoms regulatory framework against the evaluation criteria of the Better Regulation Guidelines[29]. Secondly, the questionnaire was designed to seek stakeholders' views on issues that may need to be reviewed with a view to reforming the regulatory framework in light of market and technological developments, with the objective of achieving the ambitions laid out in the Digital Single Market Strategy.

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[19] Directive 2009/136/EC (Citizens' Rights Directive), OJ L 337, 18.12.2009, p. 11 and Directive 2009/140/EC (Better Regulation Directive), OJ L 337, 18.12.2009, p. 37.

[20] SWD(2014) 249 final, 14.7.2014 (18th monitoring report on the electronic communications market and regulations, covering in particular key market and regulatory developments in 2012 and 2013), available on: http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6473

[21] SWD(2015) 126 final of 19.6.2015 (19th monitoring report on the electronic communications market and regulations, covering in particular key market and regulatory developments in 2014), available on: http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=9990

[22] *A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change*, Opening Statement in the European Parliament, Plenary Session by Jean-Claude Juncker, President-elect of the European Commission, 15.7.2014.

[23] Mission letter to Günther Oettinger, Commissioner for Digital Economy and Society, 1.11.2014, p. 3 et seq.

[24] COM(2015) 192, 6.5.2015.

[25] COM(2015) 192, 6.5.2015, p. 9 et seq.

[26] COM(2015) 192, 6.5.2015, p. 20.

[27] COM(2014) 910 final, 16.12.2014, ANNEX 3, Commission Work Programme 2015 - A New Start.

[28] The consultation lasted until 7 December 2015. The questionnaire was available on : https://ec.europa.eu/digital-agenda/en/news/public-consultation-evaluation-and-review-regulatory-framework-electronic-communications

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

3.1.2. Legislative and market evolutions

The underlying idea of the universal service concept is that certain facilities should be treated like public utilities in order to ensure a 'safety net' in favour of the more vulnerable citizens without regard to their income and location.

The 2002 EU framework sought to restrict the scope of the universal service in order not to hamper investment incentives and competition. The continued extension of the universal service seems to ignore that investments have to be made in the networks that carry internet traffic by the commercial entities deploying the concerned networks and that these entities expect a return on their investment.

Today the balance seems to have shifted too much in the direction of the public utility concept, neglecting the underlying economics of network roll out and innovation.

The existing regulatory practices, originally designed to protect access seekers from a powerful regulated access provider, have started to raise sector costs, delay investment by regulated access providers, and weaken the competitive process in a significant number of cases[30].

- The relatively low level of regulated prices for copper loops has depressed retail prices for both basic and high-speed broadband in the EU. This, in turn, means low revenues from fixed network services in the EU relative to the US – a problem which has worsened as broadband revenues have grown in importance relative to voice telephony revenues. These lower fixed revenues in the EU have led to lower levels of investment in fixed services. As Figure 2 shows, EU operators are investing the same proportion of their fixed revenues in fixed services as their US counterparts. But these fixed revenues are only half as large[31].

- The return on investment and cash flow generated by ETNO members are substantially lower than those generated by other, unregulated, operators in the EU as Figure 3 illustrates. A major factor here is that regulation redistributes risk and returns between the access provider and the access seekers. These differences in investment incentives for regulated and unregulated operators have a substantial impact on overall investment levels. Over the past six years investment by regulated operators[32] in fixed networks has constituted between 60% and 65% of total investment in the fixed sector.

- Qualitative case studies[33] suggest that access regulation has a significant impact on investment by regulated access providers.

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[30] See PLUM, Fostering investment and competition in the broadband access markets of Europe, February 2016.

[31] Economic literature on the impact of cash flows on investment, which draws on both econometric analysis of outcomes (See for example *Financial Constraints, Investment, and the Value of Cash Holdings,* David J. Denis and Valeriy Sibilkov. December 2011, The Review of Financial Studies*, 23(1))* and surveys of chief financial officers (See for example *The real effects of financial constraints: evidence from a financial crisis,* Murillo Campello, John Graham and Campbell R Harvey, December 2009. NBER Working Paper 15552) finds that reduced revenues and reduced cash flows tend to reduce investment.

[32] As measured by investment by ETNO members. See *Annual economic Report 2014,* IDATE for ETNO, December 2014. In 2014, the ETNO members accounted for almost 60% of the total sector investment, what represented a significant €26.6bn investment effort. The remaining part, €20.4bn, was mainly delivered by cable companies (See *Annual economic Report 2015,* IDATE for ETNO, December 2015).

[33] PLUM provides a number of illustrative examples in Appendix C of its February 2016 report.

Figure 2: Fixed capex to fixed revenue ratio

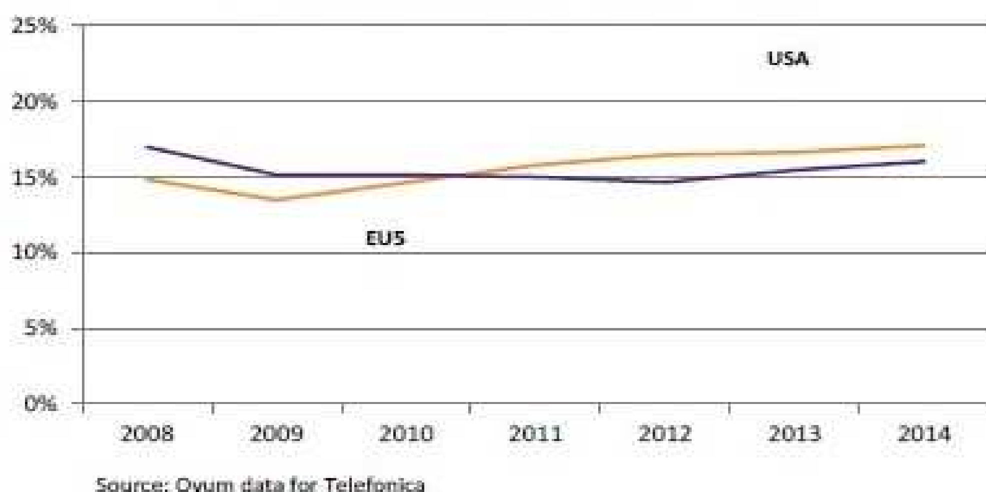

Figure 3: Financial indicators of investment incentives – regulated vs unregulated EU operators[34]

Measure	ETNO members	Other operators	Source
Return on investment pa	9%	21%[18]	Boston Consulting Group
% EBITDA fixed	27%[19]	47%[20]	Analysis of company accounts
Change in fixed capex (€bn) between 2008 and 2013			
2008	17.8	8.5	IDATE Annual Economic Report to ETNO 2014[21]
2013	16.3	10.0	
Difference	-1.5	+1.5	

For example[35]:

- *"In the Netherlands regulation designed to give access seekers first mover advantage stopped KPN from investing further in fibre in business areas;*
- *Regulatory processes have delayed the introduction of higher speed broadband services (through use of vectoring) in Germany;*
- *In France Orange slowed down its investments in FTTH between 2008 and 2011 while government and regulatory policies on NGA were uncertain;*
- *Delays in regulatory decision-making in Malta delayed the deployment of FTTH by almost three years*".

At the same time, PLUM has identified "*examples of how the relaxation of ex-ante regulation has led to greater investment in NGA:*

- *In Sweden and the UK, removal of cost oriented regulation and a move to economic replicability tests has led to increased investment in NGA broadband;*
- *In Spain and Portugal, the move to relatively light regulation of WBA products in return for open duct access has led to substantial deployment of FTTH. In Spain*

[34] The notes in the table refer to: 18: access seekers only, Cable operators are excluded; 19: EU5 and 20: Liberty Global and 21 these data were not available in the 2015 report.

[35] PLUM, o.c., p. 19.

differentiation of regulation by bandwidth allowed relaxation of regulation while in Portugal differentiation by geography supported relaxation of regulation;
- *The use of symmetric regulation, which avoids cost oriented price controls, has led to strong infrastructure-based competition in the supply of next generation broadband in the urban areas of France*".

Existing regulation has supported service-based competition and protected consumers from abuse of market power. However, existing regulation was designed for an era in which copper was present and could be upgraded at comparatively low cost to provide broadband. We are now in an era of transition - from copper to fibre, and from service-based competition to increased infrastructure-based competition. With this transition comes a need for more substantial investment. The regulatory challenge is now fundamentally different.

The scope and extent of *ex-ante* regulation can then be reduced as commercial agreements develop, with the role of the regulator moving from a body which specifies access conditions, to one, which monitors and adjudicates, offering guidance and intervening in disputes as a last resort.

3.1.3. The new regulatory context

The Better Regulation Guidelines

On 19 May 2015, the European Commission published a very comprehensive, ambitious and innovative Better Regulation package, which contains new guidelines on various phases of the policy cycle. The package also sets out the rules and the functioning of entirely new consultation platforms and of a new body in charge of regulatory scrutiny.

Through its Better Regulation agenda, the European Commission has committed among other to design, deliver and support the implementation of interventions of the highest possible quality, including the monitoring and evaluation of existing policies and legislation.

In the section concerning the impact assessment, the Guidelines provide a methodology to assess the proportionality of EU intervention. The following questions are set forward for proportionality assessments:
- What is the problem and why is it a problem?
- Why should the EU act?
- What should be achieved?
- What are the various options to achieve the objectives?
- What are their economic, social and environmental impacts and who will be affected?
- How do the different options compare in terms of their effectiveness and efficiency (benefits and costs)?

It is useful to note that the guidelines refer to economic and social impact and do not limit the assessment to the consumer welfare. The benchmark is the societal welfare, which is the sum of

consumer welfare[36] and producer welfare. Consumer welfare – on which the Commission centres its merger control assessments - is important, but it is not the whole story[37].

The Better Regulation Guidelines constitute '*soft law',* which is not directly binding. However, the basic thrust of the guidelines reflects the principle of proportionality that is binding. The Case law of the EU Court of Justice stated nearly half a century ago "*the individual should not have his freedom of action limited beyond the degree necessary in the public interest*"[38]. Protocol no. 2 on the application of the principles of subsidiarity and proportionality to the TEU and the TFEU that requires "*constant respect*" for the principle of proportionality. The proportionality principle applies to all levels of EU Legislation and quasi-legislation:

- Across the Directives;
- Not only to those Articles with explicit or implicit reference to proportionality;
- To Delegated Acts from the Commission;
- To Technical Standards, Guidelines and Recommendations;
- To Implementing legislation and obligations imposed at Member State level; and
- When the Commission exercises its supervisory powers under the Article 7 procedure.

Are all obligations under the current Framework still compliant to the principle of proportionality?

The current regulatory framework was strongly inspired by competition lawyers. It is centred on market definitions and market assessments.

An objective that ETNO considers a priority, fostering investment in electronic communications networks, is hardly mentioned by the Framework Directive. This reflects the technical-economic context in which these measures were adopted. In 1998, in Western Europe the copper networks rolled out from 1950 until the 1970s had reached a quasi-universal coverage and were already depreciated to a large extent. The aim of the EU telecom liberalization was to provide interconnection and access to this existing infrastructure.

In fact, the 2002 Framework codified the measures adopted to liberalize the telecommunications sector in the 1990s, retaining their main aim: fostering market entry and the duty to "*safeguard competition*". Similar references were already made in the 1990 directives: for instance, Article 9(5) of Directive 97/33 (Interconnection Directive) provides that one of the NRAs' missions is the *promotion of competition*. This generally formulated mission is specified under the 2002 Framework by means of two Commission Recommendations. The first, the Recommendation on relevant markets, identifies markets that the Commission considers potentially problematic from the point of view of competition. The second, the SMP Guidelines, provide NRAs with a theoretical methodology to prove the absence of effective competition, which the Framework Directive equates to the existence of market dominance.

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[36] Consumer welfare refers to the individual benefits derived from the consumption of goods and services. It is typically measured using the concept of consumer surplus, i.e. the difference between what a consumer is willing to pay for a product and what he actually has to pay. When measured over all consumers, consumers' surplus is a measure of aggregate consumer welfare. See http://stats.oecd.org/glossary/detail.asp?ID=3177

[37] "*In anti-trust economics, there is some debate over the appropriate welfare measure to be applied. Some argue that lost consumer surplus (i.e. including both deadweight loss and producers' surplus) should be considered on the grounds that a transfer from consumers to firms does not improve social welfare. Others argue that this represents a value judgment and all decisions should be based only on the deadweight welfare loss (allocative efficiency), with judgments regarding transfers of income left to the political process. Still others argue that producers' surplus should be considered because much of it is dissipated in the quest for monopoly profits*" http://stats.oecd.org/glossary/detail.asp?ID=3187

[38] As formulated by the advocate general Dutheillet de Lamothe in his opinion of 2 December 1970 in Case 11/7 0, *Internationale Handelsgesellschaft v Einfuhr- und Vorratsstelle Getreide*.

The Directives were reformed in 2009, although without affecting their main thrust. The key provisions of the Framework remain Articles 14 and 15 Framework Directive, requiring NRAs to impose ex-ante remedies on dominant undertakings to ensure effective competition.

Directive 2014/61 on measures to reduce the cost of deploying high-speed electronic communications networks seems to herald a shift in concerns. The Directive seeks to promote the deployment of new networks whereas, until then, the focus was on ensuring access to existing infrastructures.

The underlying idea was that entrants needed to be provided access to the network of the incumbent telecom operators in order to allow them to build a customer base and generate revenue streams allowing them to deploy their own networks (*"ladder of investment").* The ladder of investment approach aims to promote end-to-end infrastructure duplication in a progressive manner. NRAs imposed different kinds of access to the incumbent's operator copper network, beginning with a resale model, continuing with bitstream (wholesale broadband access), and proceeding to local loop unbundling. These alternative forms of access were presented as a succession of 'rungs' which new entrants were expected to 'climb' until they had built out their own networks.

Since then, a number of studies[39] assessing the cost of local access found that its high costs might make duplication of the fixed local access unviable except in specific localised circumstances. This suggests that local access in many parts of Europe would be a natural monopoly or duopoly. Translated into the concepts of the current Framework, this means that local fixed access is an enduring bottleneck; that its owners will forever be considered to enjoy significant market power (SMP) and will forever have to provide regulated access.

This is not the right signal in order to attract investments in the EU, in particular outside the dense areas. Another approach is required to attract investments and ensure that fibre networks are deployed.

Two of the three pillars of the 6 May 2015 Digital Single Market for Europe (DSM) strategy are: creating the right conditions for digital networks and services to flourish and maximising the growth potential of our European Digital Economy.

In this regard, the business case for infrastructure investment by network operators is strongest where:

- Regulation is simple and certain;
- The access provider is free to choose how, where and when to invest;
- The access provider has maximum pricing freedom at the wholesale and retail level;
- The access provider can close legacy services with the minimum of regulatory constraints.

Investment incentives of integrated operators providing also electronic communications services are strongly impacted by the contribution of the retail services margins to their operating revenues and consequently their future earnings before interest, taxes and amortization (EBITA). EBITA shows the ability of undertakings to service debt and thus the capacity to invest. However, under the current electronic communications services regulation, network operators' revenues on electronic communications services markets are increasingly under pressure because of (a) new competition from other telecommunications' undertakings and internet-based service providers, (b) new technological challenges, and (c) a lack of a level playing field.

[39] See Analysis Mason (2008a), The business case for subloop unbundling in Belgium, report for BIPT; Analysis Mason (2007), The business case for sub-loop unbundling in Dublin, Final Report for Comreg, at http://www.comreg.ie/_fileupload/publications/ComReg0810a.pdf; and Elixmann, D., Ilic, D., Neumann, K.-and T. Plückebaum (2008), The Economics of Next Generation Access, study for ECTA, at http://www.ectaportal.com/en/upload/ECTA%20NGA_masterfile_2008_09_15_V1.zip.

To be successful, the DSM strategy will therefore also need to remove the disproportionate obligations resting on electronic communications services providers in order to create '*the right conditions for digital networks and services to flourish*'.

3.2. The amendments proposed

In order to align the current rules with the above-mentioned DSM strategy, a limited number of targeted amendments suffice:

- Regulate using an overarching objective for NRAs – promoting the competitiveness of the EU industry and maximising the long-term interest of end-users. In applying this principle to economic regulation, devise rules that optimise the combination of dynamic, productive and allocative efficiency to maximise (total) economic welfare. Changing objectives in this way should incentivise NRAs to consider the extent to which proposed regulations promote investment and innovation, promote infrastructure-based competition, and preserve sustainable choice for consumers. Establishing an overarching regulatory objective should also lead to more harmonised regulation across the EU.

- Restrict ex-ante regulation to the minimum required to deal with the competition problems identified. The existing framework already contains a number of features that reflect the principle of minimum regulation – that markets that are effectively competitive should not be regulated; that remedies should be implemented at the wholesale rather than the retail level; and that remedies should be proportionate. These are important principles. But it is clear that the regulatory practice by NRAs not always follows these principles.

- Recognise and encourage use of voluntary commercial agreements. Where infrastructure-based competition is strong, the interests of the regulated access provider and access seekers are increasingly aligned. This has led to voluntary long-term agreements that are superior from a public interest perspective to ex-ante regulation. Voluntary agreements can increase investment incentives and infrastructure-based competition. As such, they are an important innovation that should be encouraged and considered when reviewing the effectiveness of retail market competition and when assessing the need for ex-ante regulation.

- Give access providers the maximum commercial freedom. Where retail markets are not effectively competitive, regulation may be required to preserve effective service-based competition. This regulation needs to be carefully crafted if the case for infrastructure investment, especially by the regulated access provider, is not to be undermined. There are two main ways to do this:
  - By moving away from cost oriented price regulation regulators give access providers greater pricing freedom at the wholesale level and concomitantly at the retail level thereby strengthening the case for infrastructure investment. This is possible through a range of alternative measures which include investment-friendly economic replicability tests and reliance on voluntary agreements between the access provider and access seekers;
  - By simplifying wholesale remedies. Regulation at multiple wholesale levels is complex and costly[40], and discourages investment and innovation. In particular, NRAs should impose a single wholesale remedy per subnational geographic area to deal with the competition problem identified in a retail market.

[40] The experience in several Member States, among which France, shows that access at a single network layer (in the relevant LLU or WBA) is sufficient to achieve effective competition.

- Move from ex-ante to ex-post sector-specific regulation where possible. It is now 15 years since EU telecommunications markets were opened to competition. As a result, ex-ante measures which were designed to promote market entry have become increasingly irrelevant. Over the past five years in particular we have seen substantial consolidation between entrant market players and little new entry. At the same time, it is clear that ex-ante regulatory measures have reduced infrastructure investment in the EU. In these circumstances, NRAs should give priority to use ex-post intervention and use ex-ante regulation only as a last resort.

The specific provisions of the Framework, Access and Universal Service Directive that need to be amended are listed in the following chapters with a justification for the various amendments proposed.

3.2.1. Simplifying the aims and the scope of the Framework

Taking into account the evolutions set out above and in order to make the rules sustainable for the future, a priority should be to extend the current narrow regulatory focus of the Framework – currently the pure consumer surplus. The Framework should aim at maximising European social welfare as a whole, including the producers' surplus. To achieve this overarching vision the following objectives should become the objectives of the future Framework:

- The promotion of sustainable investment and innovation, to maximize the quality, availability and sustainable choice for EU citizens;
- Ensuring a level playing field on the whole digital value chain, taking into account the converging technologies and services;
- Encouraging the development of open and interoperable innovative services, and supporting and securing industrial and commercial cooperation between market players for that purpose;
- Bringing about harmonized, common, effective and proportionate consumer protection standards for EU citizens across the whole digital single market.
- Complying with the principle of technological neutrality.

In addition, the future regulatory framework should support R&D, standardisation and EU technological leadership. It should in particular encourage the cooperation between market players, necessary to launch end-to-end, open, and interoperable innovative services, on top of the R&D and standardisation phases. The Framework should stress the principle that cooperation between (potentially) competing market players relating to additional facilities and services delivers a positive outcome for consumers.

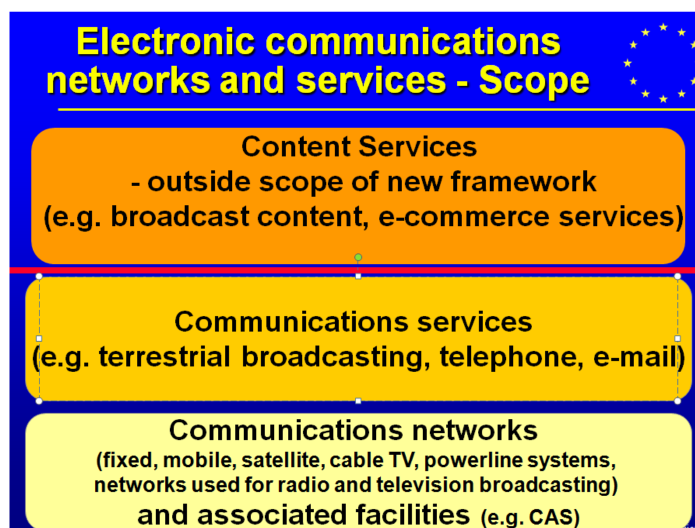
Regulation of services instead of regulation of operators

The definition of '*electronic communication services*' is a legacy from the technical and market structures of the 1990s. In 2002, legal definitions had to be created to distinguish the regulation of, on the one hand, content and information society services and, on the other, electronic communications networks and services. At the time, the problem was how to subdivide and justify different regulatory treatment of different categories of services offered over electronic communications networks.

The solution found was to create a *sui generis* category of services: the electronic communications services, carved out from the generic category of services normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services. The rationale of the creation of this category was first that these services were provided by the undertakings controlling the economic communications networks concerned (public access telephony or Cable TV distribution)

as opposed to for example services offered over the internet. The second reason was more practical: ensure a smooth transfer of rights and obligations in force at the time of adoption of the Framework. For example, the e-commerce Directive referred to and exempted from its obligations services covered by the Framework Directive'[41]. The 2002 Review built on the existing silos.

Figure 4: the layered approach of electronic communications invented in 2002[42]



Since 2002, the legal category of electronic communications services defined as services "*normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks*" and which are not "*information society services*", co-exists with information society services. The latter are defined[43] as *"any service normally provided for remuneration[44], at a distance, by electronic means and at the individual request of a recipient of services"* and aimed to cover websites. However, with the exponential success of apps and social networks, certain information services have increasingly become alternatives to electronic communications services. For many consumers, these services have become substitutes.

ETNO proposes to abandon the legal distinction. Instead, the definition of information society services should be extended to include also the publicly available telephone services, text messaging and TV distribution services (over cable, other mobile and fixed IP networks, satellite or terrestrial digital broadcasting). The problem that the 2002 creation of a distinct service category sought to solve was mainly the continuation of the quality of service and interoperability requirements in force regarding publicly available telephone services[45]. For the same reason, several Member States, associations of broadcasters, of cable operators and of alternative operators, consumer associations, cable players and OTTs replied to the Commission's public consultation on the review that sector–specific services

[41] Directive 97/13/EC of the European Parliament and of the Council of 10 April 1997 on a common framework for general authorisations and individual licences in the field of telecommunications services.
[42] Peter Scott, "The new regulatory framework for Electronic Networks and Services", PwP presentation, 2006, available on: < http://www2.gov.si/mid/emcis.nsf/V/KCB09DFDF2A57EE7BC1256BCD004CDBC8/$file/PPT_TS_2_1_Peter_Scott.ppt>
[43] by Directive 98/48/EC amending Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations.
[44] In its judgment of 23 March 2010 in Case *Google France SARL, Google Inc v Louis Vuitton Malletier SA and others*, the CJEU found that "*An internet referencing service constitutes an information society service consisting in the storage of information supplied by the advertiser*".
[45] Under Directive 98/10/EC of 26 February 1998 on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment, O.J. L 101 of 01/04/1998, p.24.

regulation is still needed[46]. However, beyond the rules set in the Open Internet Regulation regarding Internet access services and roaming, any further rules should be updated and only apply to services of providing interpersonal voice communications at ensured quality based on numbers, and as far as necessary to guarantee interoperability, number portability and end-to-end quality of service requirements throughout the EU.

Moreover, the rationale for regulating communications services between individuals does not apply to the vast majority of services where machines are involved. Future M2M services are not clear yet. Some of the current telecoms rules are still relevant (e.g. in regard to interoperability, numbers etc.), whereas others are not (e.g. consumer protection rules). An updated framework for services needs to allow flexibility for the emerging M2M services. Only information society services for the purposes of providing interpersonal voice communications at ensured quality based on numbers should be regulated in selected areas.

The internet society services category – of which the services for the purposes of providing interpersonal voice communications at ensured quality based on numbers would be part of - would co-exist with (and not overlap) internet access services (IAS) as defined by Regulation 2015/2120 of 25 November 2015 laying down measures concerning open internet access[47].

3.2.2. Mandate network access only to key inputs

Principles

Asymmetric access network regulation should be limited to fixed access infrastructures. Moreover, the future Regulatory Framework should provide for ex-ante intervention only under strict conditions:

- The existence of robust objective grounds (indispensability) in the light of the specific objectives of the Framework. This means that the wholesale offer concerned is necessary to foster effective competition in the retail market. In the case commercial wholesale offers are in place which are appropriate in terms of economic and technical replicability, no further regulatory analysis would be justified and existing ex-ante obligations on transparency, accounting separation and price control must be lifted;
- Be proportional (i.e. the least intrusive possible intervention);
- Justified by an impact assessment, examining the positive impact expected from the remedy on the long-term consumer welfare, the absence of negative impact of the envisaged remedy on investment and its contribution to incentives to infrastructure competition; and
- Applied on a transitory basis.

The procedure to identify key network inputs

Ex-ante regulation should be limited to "*Key Network Input (KNI)*" and avoid hampering the development of full infrastructure competition where it is feasible.

The '*test*' performed by NRA would start from a bottom-up assessment of the retail market, to determine which type of geographic areas in a country show similar competitive characteristics. Areas with sufficiently similar competitive characteristics that are different from other areas should be grouped together and analysed separately (geographic segmentation). In areas where the retail

[46] Synopsis Report on the public consultation on the evaluation and review of the regulatory framework for electronic communications, April 2016, p.12. Retail Internet access services, numbering, end-user protection, universal service obligations, roaming and downstream availability and accessibility of a wide variety of audio-visual services are given as examples of reasons to maintain sector-specific regulation of electronic communications services.

[47] '*a publicly available digital service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used*'.

market has become *sustainably* competitive (i.e. not where the competition is the result of the regulation in place), NRAs should lift wholesale obligations leaving to market forces the negotiation of access agreements under market conditions. In areas where the retail market is not *sustainably* competitive, the NRA should identify the KNI to which access is required in order to enable competition in these retail markets.

Alternatively, if the NRA has strong evidence that a retail market is national and is not prospectively competitive absent regulation, the NRA should assess whether there are no substantial differences in competitive pressure from region to region, for example "*as a consequence of the presence of alternative platforms, i.e. technologies other than xDSL, including cable, Wi-Fi, mobile broadband or competing high-speed fibre networks (inter-platform competition)*"[48] in certain areas and not in others. In such case, the NRA should, under the proportionality principle, consider identifying, for those geographic areas, a KNI different of the KNI identified for other areas within the same national geographic market, in particular as regards the network layer to which access is mandated.

Conditions under which access to key network inputs can be imposed

The NRA would first examine whether the owner of the KNI concluded voluntary wholesale commercial agreements with entrants and whether other entrants had the opportunity to enter into similar agreements. In the relevant case, the concerned network input would continue to be potentially subject to mandatory access, but not necessarily at the same conditions[49]. The non-discrimination obligation does not prevent terms and conditions to vary. Knowing that the NRA will not grant regulated access at better conditions than those accepted by market players would incentivize alternative operators to share the investment risks and afterwards the investment benefit.

In the case the network operator does not make a satisfactory, voluntary wholesale offer, the NRA could mandate access to KNIs at a single, specified access level, which needs not necessarily to correspond with the access level sought by the access seeker.

NRAs should show that the imposed access/access conditions are indispensable for the provision of competitive services in the retail market, based on a genuine impact assessment of the envisaged measure. Access conditions could encompass the economic conditions of the access imposed, for example taking account the pricing level on the retail markets concerned – replicability test - but cost orientation would no longer be part of the toolbox of NRAs.

The introduction of a new technology would not warrant, as such, access remedies. The introduction of new technologies is decided by operators in order to decrease costs and introduce new functionalities and thus innovate. If the investor is required to offer these functionalities on a regulated basis, the network differentiation incentive will be removed.

In addition, the Access and Framework Directives could be revised in order to ensure that no further access obligations are imposed where competition is possible based on symmetric remedies, for example as a result of the sharing of the last drop/vertical in-house wiring.

[48] See Staff Working Document Explanatory Note Accompanying the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, p. 13.

[49] The Commission Recommendation of 11.9.2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (C(2013) 5761 final) acknowledges that " (…) *long-term access pricing agreements are an important tool to foster NGA investment*" (point 19).

Review of the mandated access to KNIs

In order to provide regulatory stability and regulatory predictability and boost long-term highly risky investments, NRA decisions should have a duration, which is more compatible with the timeframe of investment decisions. The Directive should determine a range of possible durations, e.g. between five and ten years, leaving thus a margin of appreciation to the NRA to fix the specific review date(s) of its decision taking into account the KNI concerned and the market circumstance. Before the expiry of the review period, the access provider should have the right to ask a review of the access obligations if market circumstances change significantly.

At the same time, NRAs should oversee the implementation of wholesale commercial access arrangements and intervene timely as dispute resolution bodies, in case of disagreement between parties going further than normal commercial price negotiations or issues of interpretation of contractual clauses in the arrangements in force.

Interconnection

Commercial interconnection (termination) agreements should always be given priority to regulated intervention. Where network operator and access seekers do not reach a commercial agreement in a timely manner, interconnection should be regulated as far as necessary for the purpose of providing interpersonal voice communications services at ensured quality based on numbers. Regulated conditions should apply symmetrically to the interconnected undertakings.

Networks are being completely switched to IP. IP-services are delivered completely independent from the network[50]. Nonetheless, it is justified to maintain a process under which NRAs can intervene to ensure termination, in order to preserve two public interests in the case of services provided by undertakings that use numbers for the provision of the mentioned interpersonal voice communications at ensured quality:

- universal interoperability between users of communication services with same quality;
- Reliable connections end-to-end, for example for reliable emergency services.

Taking into account the specific advantages related to traditional voice services, providers of services based on best effort, should, in principle, not be entitled to interconnect to services that ensure end-to-end quality. This also reflects that customers should get the quality they pay for. This principle shall apply irrespective of the kind of provider. Service providers that are no network operators may also get the option to provide numbers that enable any-to-any-connectivity of their services with other similar services, at ensured quality. In addition, only undertakings supporting the costs of an ECN carrying voice service to end-users should be entitled to receive termination fees.

In summary, ETNO proposes the following approach:

- Regulation should set out the baseline elements defining a framework for efficient interconnection, but leave a margin for commercial negotiation;
- The specific conditions for interconnection, including the fees, should thereupon be set by commercial negotiation, which is in the interest of all market players;
- NRAs should intervene, at the request of either party, in the framework of the ex-post dispute resolution procedure, where no agreement can be reached;
- Interconnection obligations, when imposed, should be symmetrical between equivalent operators (e.g. same fixed termination rates between fixed networks and same mobile termination rates between mobile networks). Fixed and mobile networks have different characteristics that justify distinct interconnection conditions;

[50] Networks are required as basic layer. However, networks do not impact services (with the exception of managed services)

- European service providers should not incur any disadvantage with third countries operators; European service providers should be enabled to manage efficiently agreements with operators established in third countries.

3.2.3. Regulation of digital services

Linking regulatory obligations to the authorisation of services based on numbering plan resources for interpersonal voice communications at ensured quality

ETNO acknowledges that specific regulation continues to be necessary for interpersonal voice communications at ensured quality based on numbers. However, the specific rules should focus on the kind of the specific service provided and not on the category of provider. A distinct legal category of electronic communications services would no longer be required, because rights and obligations in view of any-to-any connectivity, and to guarantee reliable emergency calls, can be imposed under the general authorisation as far as these services are based on numbering resources and ensured end-to-end quality.

The same holds true for the specific publicly accessible telephone service-related provisions of the ePrivacy Directive, for example the provisions on calling line identification (Articles 8 and 10), automatic call forwarding (Article 11) and directories (Article 12). There should be a thorough assessment on whether these provisions are still relevant. To the extent in which it is concluded that there is still a need to keep any of these provisions, they should be transferred to legislation that covers all relevant services equally, except when their object is related exclusively to specific characteristics of services at ensured quality based on numbers. In that case, it may be considered to include these obligations in the Authorisation Directive[51].

All these obligations should be applied in a proportionate way and only where objectively indispensable. While any service provider needs to have the possibility to offer quality services, providers of such quality standards must not be overly burdened, considering that they particularly contribute to consumers' and public benefit.

Universal Service obligations adapted to the digital society

The current obligations should be completely revised, given that the objectives pursued have been achieved:

- Availability: as of today, every demand for local access within closed development is satisfied. New housing areas are covered by at least one network operator, besides mobile coverage.
- Affordability: prices for local access with the same service level have been dramatically decreasing over the last 20 years. Thanks to the increasing competitiveness of European telecommunication markets, including for mobile services, it has become superfluous to preserve tools for regulatory intervention on retail prices. Socially excluded customers are better addressed by national social systems.
- Accessibility of electronic communications services: for all services, today customers can widely choose between offers of different providers including substituting services.

The universal service obligations should be replaced by a funding system based on public finances.

[51] See ETNO's position paper 'ePrivacy Directive: Forthcoming Review', March 2016, p. 4.

Moreover, the scope of the universal 'service' should be limited to the availability of broadband internet access[52], at the exclusion of any broadband service. Universal service should remain an instrument to ensure that end-users are safeguarded from the risk of social exclusion, but should not be used as a policy tool for broadband penetration and access to digital services. These should be attained by other means such as the incentives to take-up, a more investment-friendly regulatory framework and public funding, where appropriate.

The universal internet access guaranteed at EU level would primarily consist in a mandatory political objective to be achieved by the Member States. The tools to fulfil this objective would be:

- Creating an investment-friendly regulatory framework incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of non-profitable areas;
- Supporting coverage in non-profitable areas via public subsidies;
- Guaranteeing the benefit of a competitive retail market to all customers, including those of non-profitable areas;
- Using demand-side instruments, such as affordability schemes (e.g. vouchers), digital literacy programs and other types of social policies aimed at fostering service penetration and usage amongst relatively disadvantaged groups of citizens.

A guaranteed basic access to the internet to fight social exclusion

The basic universal internet access would be harmonized at EU level, but would be filled in at national level taking into account the services to which access needs to be enabled in the concerned Member State to avoid social exclusion (safety net). Given the rapid technological evolution, the service would not be defined according to technical characteristics, like bandwidth, but *functionally*. The guaranteed access should be defined in terms of the possibility to *use certain services* – i.e. services that a customer should access in order to avoid social exclusion – without referring to any technical solution. Services such as web browsing and messaging services, access to basic e-government, e-banking may be considered as essential for the standard citizen. At the same time, any decision on the range and type of services to be included should carefully and duly take into account the costs of the provision of such services.

The Universal Service Directive as it now stands should therefore be substantially simplified. The current obligations of its end user interest and rights chapter that aim to guarantee an ensured quality of interpersonal voice communications based on numbers would be transferred to the Authorisation Directive to become conditions attached to the general authorisation.

Consumer protection

End users' protection should be based on horizontal rules without additional sector-specific regulation, which leads to fragmented consumer protection standards. Only if indispensable, service specific rules are possible and have to be of limited scope, applicable to all similar services irrespective of the provider.

In addition, complete or maximum harmonization of national rules should have precedence over minimum harmonization. Minimum harmonization – as currently applied to network providers' services – does not allow to achieve a high degree of harmonisation across the EU and facilitate cross-border services provision. Provisions imposing minimal harmonization should be repealed and, where necessary, replaced by less intrusive instruments like co- or self-regulation.

[52] As defined by Regulation 2015/2120 of 25 November 2015 laying down measures concerning open internet access "*a publicly available electronic communications service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used*".

In concrete terms, aligning the current rules in the end user interest and rights chapter of the Directive on the horizontal consumer protections rules would mean retaining only selected specific obligations going beyond the current horizontal rules and some obligations in the case of the basic universal broadband internet access.

Obligations in favour of disabled users would be transferred to the future Directive on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services, taking into consideration that, today, the dynamic and innovative market already delivers efficient solutions, providing a variety of offerings that may replace the earlier dedicated systems facilitating voice telephony for disabled users and can even provide better solutions.

The following measures would be abolished

- Transparency: the obligation to publish standardized information, to provide before and within contract, and after contract conclusion, e.g. for cost control and on contract duration, beyond those provided by the Open Internet Regulation.
- Technical cost control measures: the mandatory provision of technical tools that support consumers to control expenses, e.g. through spending caps and warning signals.
- Contract duration and termination: the provision for each service of at least one contract with minimum duration time of no more than 12 months.

ETNO considers that self-regulatory tools can be as an efficient solution to address the concerns that the above obligations seek to meet, if anything is necessary beyond what market delivers.

4. Scope, Aims and Definitions

4.1. Definitions

The scope of the Framework as currently defined is outdated due to technology and market evolutions and leads to different rules being applied to services depending on who provides them - network operators or *Over-The-Top* (OTT) players – even though they are largely substitutable from the demand side. The category of '*electronic communication services*' should therefore be abandoned. Current obligations relating to these services should be maintained irrespective of the providers concerned:

- when still indispensable for public interest objectives and
- concerning interpersonal voice communications related to the granting of telephone numbers, and ensuring end-to-end quality (ensured quality[53] as opposed to best-efforts services), or
- related to the basic internet access that will be the subject of the new universal service obligation.

The repeal of the definition of 'electronic communication services' in the Framework Directive will require editorial adjustments in legal acts, referring to this definition (e.g. Open Internet Regulation).

Electronic communications services consist already partly in machine-to-machine communications[54] and that share will increase. It would be disproportionate to regulate these new services[55] in the same way of interpersonal communications. Flexibility is thus required[56].

Current provision	Proposed amendment
Article 2 Framework Directive **Definitions**	**Article 2 Framework Directive** **Definitions**
For the purposes of this Directive: (…)	For the purposes of this Directive, **the definition set out in Article 2 (2) of Regulation 2015/2120 shall apply.** **The following definitions shall also apply**:
(c) 'electronic communications service' means a service normally provided for remuneration which consists wholly or mainly in the	(c) ~~'electronic communications service' means an information society service normally provided for remuneration which consists~~

[53] Aiming, as the managed services referred to in Article 3(5) and recital 16 of Regulation 2015/2120 do, "(…)*to meet requirements of the content, applications or services for a specific level of quality*" and "(…) *for which specific levels of quality, that are not assured by internet access services, are necessary. Such specific levels of quality are, for instance, required by some services responding to a public interest (…)*".

[54] Some Member States have introduced a special range of numbers for M2M communications. These special ranges typically have number blocks, which use a longer number sequence (up to the full 15 digits) in the E.164 format. For example, Belgium, Bulgaria, Croatia, Denmark, Finland, France, Netherlands, Norway, Spain, and Sweden.

[55] E.g. specific rules have been adopted for eCall transactions (i.e. the establishment of a mobile wireless communications session across a public wireless communications network and the transmission of the minimum set of data (MSD) from a vehicle to an eCall public safety answering point (PSAP) and the establishment of an audio channel between the vehicle and the same eCall PSAP). See Regulation (EU) 2015/758 of 29 April 2015 concerning type-approval requirements for the deployment of the eCall in-vehicle system based on the 112 service and amending Directive 2007/46, *O.J.* L 123 of 19.5.2015, p.77.

[56] There may be a need to ensure M2M service providers equal exercise of the right of access and interconnection to the network, without regard to the volumes of M2M services (see e.g. AGCOM, Fact-finding survey concerning Machine to Machine (M2M) communication services, Final report, Annex A to decision no. 120/15/CONS, p. 56). Nevertheless, in the early stage of development of the activity, there is no justification to impose a common approach without having observed whether competition law does not suffice to address possible problems and what the various possible national solutions are.

conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks; (..)	~~wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks;~~

4.2. Objectives for the Framework

Policy objectives and regulatory principles for NRAs are set out in the Framework Directive. These objectives are: promoting competition, contributing to the development of the internal market, and promoting the interests of the citizens of the European Union. These goals are reflected in the remedies provided in the Access Directive and in the Universal Service Directive, which together allowed NRAs to pursue these goals in a balanced manner. The provision has been considered on a number of occasions by the Court of Justice of the European Union[57].

Regulatory principles

The regulatory framework assumes that the telecommunications sector has become competitive except in those cases where an operator has been identified as having significant market power in the relevant market susceptible of ex-ante regulation or in a market added by the NRA to the list of the markets in the Commission recommendation concerned.[58] In a market with competing network providers, the objectives in Article 8 of the Framework Directive are to be achieved through commercial negotiation in good faith, with the minimum of regulatory interference[59].

In case of abusive refusal to provide access to key network inputs, national and EU competition law provide means of redress, except in specific situations where for instance the compliance requirements of an intervention to redress persistent market failure(s) are extensive or where frequent and/or timely intervention is indispensable[60]. In those cases, competition law remedies are likely to be insufficient and regulatory intervention should be considered an appropriate complement

57 Case C-227/07 *Commission v Poland* of 13 Nov. 2008 In particular point 6: "*the Court has interpreted Article 8 as placing on the Member States the obligation to ensure that the national regulatory authorities take all reasonable measures aimed at promoting competition in the provision of electronic communications services, ensuring that there is no distortion or restriction of competition in the electronic communications sector and removing remaining obstacles to the provision of those services at European level*" and Case C-192/08 *TeliaSonera Finland Oyj* of 12 Nov. 2009.

[58] Commission Recommendation 2014/710 of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation, OJ L 295, 11.10.2014, p. 79.

[59] Recital 5 Access Directive: "*In the context of achieving a more efficient, truly Pan-European market, with effective competition, more choice and competitive services to consumers, undertakings which receive requests for access or interconnection should in principle conclude such agreements on a commercial basis, and negotiate in good faith*".

[60] See Commission Recommendation 2014/710/EU of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation in accordance with Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, OJ L 295, 11.10.2014, p. 79–84, recital 16

to competition law to adequately address the persistent market failure(s) identified. According to the proportionality principle, imposing access remedies is thus a *second-best*, fall-back option.

The amendment proposed would specify that ex-ante regulation of networks is a last resort intervention in the market, where commercial agreements failed and where horizontal law, in particular competition law, consumer protection law and soft law (self- or co-regulation) cannot achieve the objectives of the Framework. This does not mean that ex-ante intervention should be completely phased out to the benefit of ex-post competition law. The NRAs will continue to play an important role in identifying key network inputs, supervising the implementation of commercial agreements and settling disputes.

In parallel, the objective of technology neutrality should be strengthened for several reasons[61]:

- Market players have far more information than regulators on both the incremental costs of deploying new technologies and the incremental revenues, which might flow from investing. Market players also have stronger incentives to assess all available options in terms of costs and current and future customer demand;
- There is a range of technology choices available to market players to meet end-users demands for higher speeds. As well as FTTH there are technologies such as g.fast (for upgrading copper loops) and DOCSIS 3.1 (for upgrading HFC access networks). Both offer very substantial broadband speed increases over existing technologies. FTTH may offer higher speeds but may be more expensive and slower to deploy than other technologies;
- The cost of deploying high-speed broadband using any given technology varies considerably by member state. For example, it depends on the availability of high-quality ducts and the extent to which overhead cabling is allowed. That means that in some countries, like Malta, Portugal and Spain, FTTH might be the right technology to deploy while in other member states alternative technologies may represent the efficient investment choice;
- Attempting to favour technology choices that do not correspond to the assessment by market players would be likely to drive investment to other world regions and industry sectors and prove counterproductive;
- Technology neutrality allows the market to make the greatest possible contribution to achieving broadband policy goals and minimises the need for public subsidy.

On the other hand, electronic communications services are characterised by innovation and competition. Specific rules are no longer justified, beyond consistent protection standards that consumers can rely on – applicable to all digital services. The current obligations applied to telecoms operators, should, if they are still required to be necessary, equally apply to all service providers, particularly if services are comparable or, when related to end-to-end quality communications making use of numbers, be linked to the service concerned, irrespective of the provider.

Third, the reference to content related objectives needs to be removed to make the objectives of the Framework Directive consistent with the thrust of Regulation 2015/2120, which imposes net neutrality on IAS providers and prohibits the promotion, by the provider of the concerned electronic communications service, of certain content at the expense of other.

Competition

The objectives of Article 8(2) of the Framework Directive assume, on the one hand, that consumer welfare will generally be achieved with competition. On the other hand, this still requires national

[61] listed in the ETNO- Plum study (2016) p. 30-31.

regulatory authorities to promote both. Promoting competition as such was a legitimate transitory objective when moving from a monopoly situation to liberalized markets, but the current model is no longer adapted to the Europe's current aim to promote competitiveness[62].

In a study for the European Parliament, WIK noted that "*The EU telecommunications framework contains a number of potentially conflicting objectives which may be the source of policy tensions*"[63] "(…) *a number of concerns should be immediately evident to the reader:*

- *There are a rather large number of distinct objectives.*
- *It is by no means ensured that all of the objectives are fully mutually consistent (…).*
- *There is no prioritisation among objectives, nor among groups of objectives. Is promotion of competition more important than promotion of the internal Single Market? Is competition more important than consumer rights?*"[64]

Reformulating the objectives so that they become operational and predictable is therefore crucial to assist NRAs, provide legal certainty to investors and promote the single market.

It is therefore proposed to further specify what is meant with '*the promotion of competition'*. Promoting competition is a means to maximise general welfare and the longer-term interest of the consumers, i.e. maximizing the consumer welfare in terms of choice and quality. In the longer term, the growth in living standards will depend on a nation's or firm's ability to improve productivity. Improvements in the quality and quantity of inputs and technological progress - i.e. a sector's propensity to innovate – will, on their turn, determine productivity growth. For this reason, infrastructure competition, innovation and unit price reduction are all means to increase consumer choice, when sufficient investment incentives are guaranteed to innovators and first movers. Conversely, in the absence of investment and dynamic efficiency, consumers will over time be confronted with obsolete services, less innovation and reduced choice. The framework should therefore focus on competition to innovate and competition to invest in networks without penalizing first mover advantages.

Internal market

The objective of Article 8(3a) of removing the remaining obstacles dates back from the liberalisation of the sector. It does no longer seem to correspond to the priorities for the next decade.

Article 8(5b) referring to the non-discrimination principle needs also to be updated. Today, services at various levels of the value chain increasingly compete among each other. Regulators should also consider such competition when exercising their powers.

Moreover, discrimination, like price discrimination, can have benefits and improve efficiency, if discrimination is not merely the exploitation of market power to extract rents from customers, and if the strategies pursued are transparent and understood by customers.

End-users interests

A framework conducive to competition for investment and innovation best promotes the interests of the citizens of the EU. Retaining the current, distinct, objective of promoting consumer interest would

[62] "*Industrial competitiveness refers on one side to the ability of companies to compete in domestic and global markets. On the other side, it relates to the capacity of EU countries to support the development of businesses. Competitiveness is a key determinant for growth and jobs in Europe and it is very important for small and medium-sized companies (SMEs), the backbone of the EU economy*".

[63] WIK, *How to Build a Ubiquitous EU Digital Society*, 2013, p. 49.

[64] Idem, p. 55.

therefore be confusing. In addition, issues like protection of personal data and privacy or the needs of specific social groups are more effectively dealt with under horizontal legislation. Where no adequate horizontal rules are established yet, such rules need to be swiftly adopted. Overall, this will increase protection standards that consumers can rely on, irrespective of the kind of provider or the digital service concerned.

Current provision	Proposed amendments
Article 8 Framework Directive **Policy objectives and regulatory principles**	**Article 8 Framework Directive** **Policy objectives and regulatory principles**
1. Member States shall ensure that in carrying out the regulatory tasks specified in this Directive and the Specific Directives, the national regulatory authorities take all reasonable measures which are aimed at achieving the objectives set out in paragraphs 2, 3 and 4. Such measures shall be proportionate to those objectives.	1. Member States shall ensure that in carrying out the regulatory tasks specified in this Directive and the Specific Directives, the national regulatory authorities take all reasonable measures which are aimed at achieving the objectives set out in paragraphs 2, 3 ~~and 4~~. Such measures shall be proportionate to those objectives. **Regulatory intervention should only be implemented where parties could not reach freely negotiated commercial agreements, where self- or co-regulatory instruments offer no appropriate solution and where competition law and general consumer protection law remedies do not suffice to adequately address the problem.**
Member States shall ensure that in carrying out the regulatory tasks specified in this Directive and the Specific Directives, in particular those designed to ensure effective competition, national regulatory authorities take the utmost account of the desirability of making regulations technologically neutral.	Member States shall ensure that in carrying out the regulatory tasks specified in this Directive and the Specific Directives, ~~in particular those designed to ensure effective competition~~, national regulatory authorities **shall seek to make** ~~take the utmost account of the desirability of making~~ regulations technologically neutral.
National regulatory authorities may contribute within their competencies to ensuring the implementation of policies aimed at the promotion of cultural and linguistic diversity, as well as media pluralism.	~~National regulatory authorities may contribute within their competencies to ensuring the implementation of policies aimed at the promotion of cultural and linguistic diversity, as well as media pluralism.~~
2. The national regulatory authorities shall promote competition in the provision of electronic communications networks, electronic communications services and associated facilities and services by inter alia:	2. The national regulatory authorities shall **promote the competitiveness of the EU industry and the long term interest of end-users in terms of quality** and **choice** ~~the provision of electronic communications networks~~, ~~electronic communications services and associated facilities and services~~ by inter alia~~:~~
(a) ensuring that users, including disabled users, derive maximum benefit in terms of choice, price, and quality;	(a) **promoting** ~~ensuring that users, including disabled users, derive maximum benefit in terms of choice, price, and quality;~~

(b) ensuring that there is no distortion or restriction of competition in the electronic communications sector; (c) encouraging efficient investment in infrastructure, and promoting innovation; and (d) encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources.	~~(b) ensuring that there is no distortion or restriction of competition in the electronic communications sector;~~ ~~(c) encouraging~~ efficient investment in ~~infrastructure~~ **high-speed networks**~~,~~ and ~~promoting~~ innovation and (~~d~~ **b**) encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources, c) **cooperating with other competent authorities to ensure that the universal basic fixed internet access, specified in Directive 2002/22 (Universal Service Directive), is adequate to prevent social exclusion.**
3. The national regulatory authorities shall contribute to the development of the internal market by inter alia: (a) removing remaining obstacles to the provision of electronic communications networks, associated facilities and services and electronic communications services at European level;	3. The national regulatory authorities shall contribute to the development of the internal market by inter alia: (a) **ensuring a level playing field on the whole digital value chain, taking into account the converging technologies and services** ~~removing remaining obstacles to the provision of electronic communications networks, associated facilities and services and electronic communications services at European level~~;
(b) encouraging the establishment and development of trans-European networks and the interoperability of Pan-European services, and end-to-end connectivity;	(b) **encouraging the development of open and interoperable innovative services, and to support and secure industrial and commercial cooperation between market players for that purpose** ~~encouraging the establishment and development of trans-European networks and the interoperability of Pan-European services, and end-to-end connectivity~~;
(d) cooperating with each other and with the Commission in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of this Directive and the Specific Directives.	(d) cooperating with each other and with the Commission in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of this Directive and the Specific Directives.
4. The national regulatory authorities shall promote the interests of the citizens of the European Union by inter alia: (a) ensuring all citizens have access to a universal service specified in Directive 2002/22/EC (Universal Service Directive); (b) ensuring a high level of protection for consumers in their dealings with suppliers, in particular by ensuring the availability of simple and inexpensive dispute resolution procedures carried out by a body that is independent of the parties involved;	~~4. The national regulatory authorities shall promote the interests of the citizens of the European Union by inter alia:~~ ~~(a) ensuring all citizens have access to a universal service specified in Directive 2002/22/EC (Universal Service Directive);~~ ~~(b) ensuring a high level of protection for consumers in their dealings with suppliers, in particular by ensuring the availability of simple and inexpensive dispute resolution procedures carried out by a body that is independent of the parties involved;~~

(c) contributing to ensuring a high level of protection of personal data and privacy; (d) promoting the provision of clear information, in particular requiring transparency of tariffs and conditions for using publicly available electronic communications services; (e) addressing the needs of specific social groups, in particular disabled users; and (f) ensuring that the integrity and security of public communications networks are maintained. (g) promoting the ability of end-users to access and distribute information or run applications and services of their choice;	~~(c) contributing to ensuring a high level of protection of personal data and privacy;~~ ~~(d) promoting the provision of clear information, in particular requiring transparency of tariffs and conditions for using publicly available electronic communications services;~~ ~~(e) addressing the needs of specific social groups, in particular disabled users; and~~ ~~(f) ensuring that the integrity and security of public communications networks are maintained.~~ (e) ~~(g)~~ promoting the ability of end-users to access and distribute information or run applications and services of their choice;
5. The national regulatory authorities shall, in pursuit of the policy objectives referred to in paragraphs 2, 3 and 4, apply objective, transparent, non-discriminatory and proportionate regulatory principles by, inter alia: (a) promoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods; (b) ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services;	5. The national regulatory authorities shall, in pursuit of the policy objectives referred to in paragraphs 2, 3 ~~and 4~~, apply objective, transparent, non-discriminatory and proportionate regulatory principles by, inter alia: (a) promoting regulatory predictability by ensuring a consistent regulatory approach over ~~appropriate review periods~~ **time**; (b) ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and **interpersonal voice communications** services **at ensured quality based on numbers and undertakings providing similar services**;
(c) safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition; (d) promoting 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) taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within a Member State; (f) imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled.	(c) safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition; (d) promoting 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) taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within a Member State; (f) imposing ~~ex-ante regulatory obligations~~ **mandated access to a key network input** only where there is no effective ~~and sustainable~~ competition **in the retail markets concerned absent regulation** ~~and relaxing~~ or lifting such obligations as soon as that condition is fulfilled.

5. Streamlining the mandatory network access regime

Under Articles 14 to 16 of the Framework Directive, NRAs are required to impose ex-ante access remedies, which are further, detailed in the Access Directive, i.e. access obligations going from the obligation to publish a reference offer, to price controls on undertakings, which individually or jointly hold significant market power.[65]

The EU regulatory model is however not merely requiring NRAs to ensure that dominant undertakings provide access to their network facilities, but requires that wholesale access is provided at different levels of their networks. The aim of this approach is to provide '*stepping stones*' to entrants to foster parallel infrastructure deployment.[66] It is achieved by identifying markets – in certain cases purely notional - susceptible to ex-ante regulation at different levels of the existing networks of the operators with significant market power.

ETNO proposes a fundamental reform of the system, which is summarised in Figure 6 below and explained in the following sections.

5.1. The trigger for economic regulation

The complex administrative procedures to define markets, market power and designate operators with significant market power are not justified and those successive steps can be strongly simplified. The usage of wholesale relevant markets for regulatory purposes proved having many drawbacks, and in particular:

- Regulators have struggled in several cases to adjust the scope of the wholesale markets to the evolution of technologies and of players active on the markets.
- Wholesale market regulation had a negative impact on incentives to invest in networks, both on the access provider's side[67] and on the access seeker's one. On the access provider's side, because it forecloses the opportunity of benefitting from competitive advantages as a result of investment; on the access seeker's side because access regulation allows it to enjoy the benefit of network investment without having to invest itself.
- The narrow[68] definition of wholesale relevant markets has contributed to the development of service competition instead of infrastructure competition.
- Impact on the take-up of high quality services by the end-users has been very limited also because of this type of regulation.
- The specific definition of wholesale markets (particularly notional markets) and corresponding access obligations have restricted network architecture flexibility and required numerous specific functions and interfaces in operators' Information Systems. This represents a significant burden for the industry as a whole.

[65] In line with the approach of competition authorities when applying the antitrust rules, the sector-specific market power assessment does not, for the finding of SMP in a wholesale market, require that there should also be a finding of SMP in the retail market. However, under antitrust, there is an additional test: an abuse must be identified on the wholesale market. Under the sector-specific approach, there is no second test. An undertaking enjoying significant market power on the wholesale market can be imposed access obligations, even in the absence of market power on the retail market.

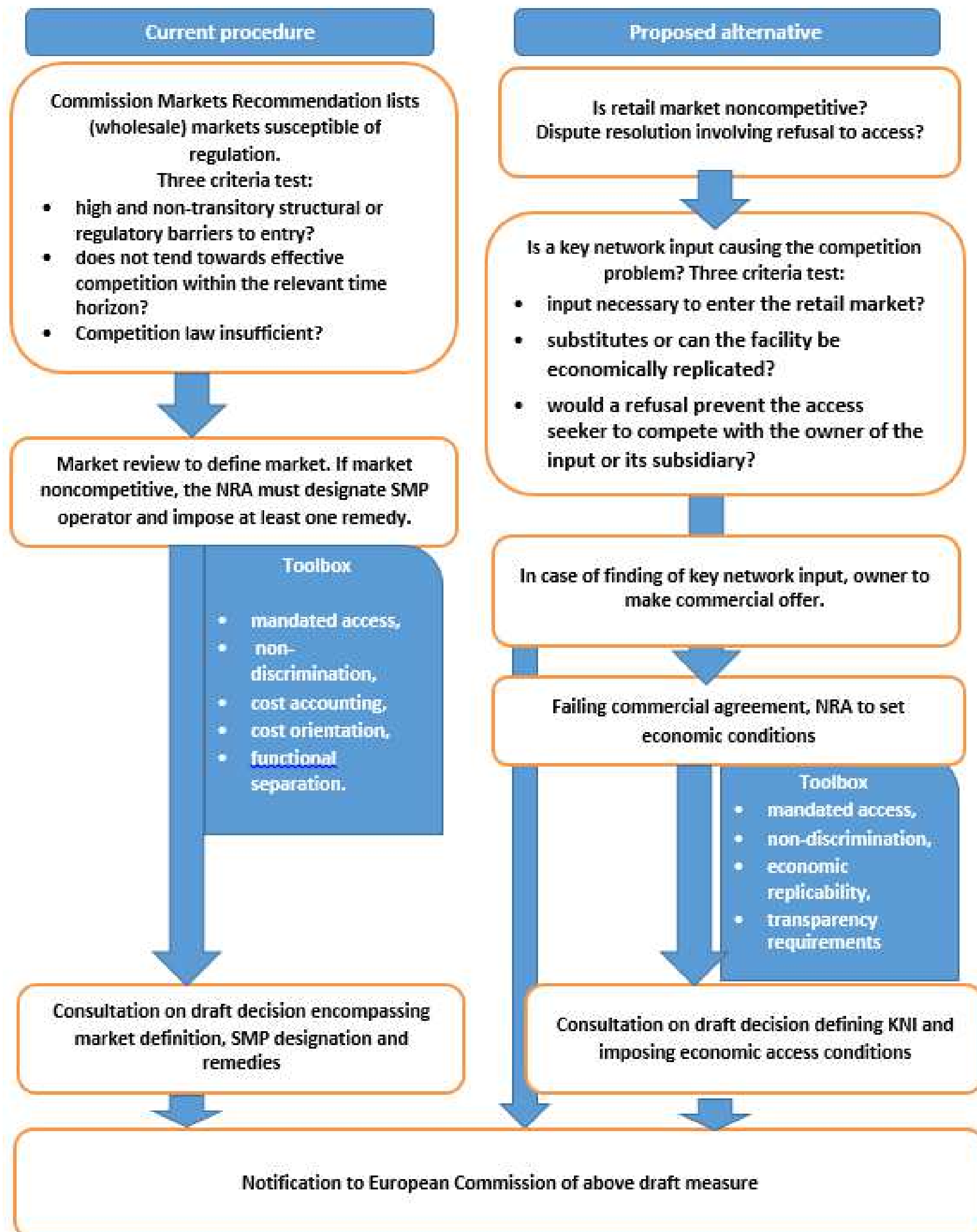
[66] This approach was supported by the economists Martin Cave and Ingo Vogelsang who coined the term *'ladder of investment*: M. Cave and I. Vogelsang (2003), "How Access Pricing and Entry Interact", *Telecommunications Policy* 27, 717–727.

[67] In particular, where NRAs have extended historic networks (PSTN/xDSL) wholesale access rules to the new types of networks/services offered by the same historic operators (FTTx).

[68] wholesale broadband markets, for example, have generally been defined in a '*non technology-neutral'* way, by excluding retail-substitutable services such as HFC cable-based networks and services.

- A more succinct market review process based on a "*modified greenfield approach*"[69] is therefore proposed.

Figure 5: access regulation procedure



[69] The modified Greenfield approach consists in answering the following question: would the retail market be prospectively competitive if the current wholesale regulation was not applied?

A new test for economic regulation: key network inputs

Where ex-post enforcement of competition law against the abuse of such market power is not likely to be effective, ex-ante mandatory access to the key network inputs concerned is justified. Despite possible scarcity of certain key bands, spectrum ownership can hardly be considered as a key network input given that in the medium term other spectrum bands or more effective usage of the spectrum bands concerned are likely to offer an alternative to the claimed access bottleneck. Consequently, the concept of key network input does, in practice, only cover access to fixed network elements.

Article 2 Framework Directive should be amended to introduce a definition of '*key network input*'.

- The input is necessary to compete on a retail market;
- Access is indispensable. The '*indispensability*' criterion would not be met if other access seekers are satisfied with a commercial wholesale offer, which they consider appropriate in terms of economic and technical replicability;
- There are no less intrusive access remedies allowing the provision by the access seeker of the envisaged innovative end-user services;

Moreover, the possibility to impose access to software systems of the network provider, including operational support systems is technically obsolete[70] and should be removed. In view of the transition to software-defined networks (SDN) access to software system would interfere with the network provisioning of the regulated operator and strongly undermine incentives to advances in network modernisation.

Current provisions	Proposed amendments
Article 2 Framework Directive **Definitions**	**Article 2 Framework Directive** **Definitions** **The following definitions shall also apply**: **(u) 'key network input' means an electronic communications network facility, including the ancillary services necessary for its provision, that fulfils the following three criteria:** **- access to the network facility concerned is necessary to enter and or compete in retail markets,** **- there is no actual or potential substitute and the facility concerned cannot be economically replicated in a reasonable timeframe in the geographic area or areas concerned; and** **- a refusal to provide access to the facility concerned, at reasonable conditions, would result in the unfeasibility for access seekers to compete at retail level with the owner or owners of the network resources concerned or related undertakings.**

[70] In view of the transition to software-defined networks (SDN) access to software system would interfere with the network provisioning of the regulated operator and strongly undermine incentives to advances in network.

Current provisions	Proposed amendments
Article 2 Access Directive **Definitions**	**Article 2 Access Directive** **Definitions**
For the purposes of this Directive the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) shall apply.	For the purposes of this Directive the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) shall apply.
The following definitions shall also apply: (a) '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;	The following definitions shall also apply: (a) 'access' means the making available of facilities **including ancillary** services **necessary for its provision, constituting key network inputs** to another undertaking, under defined conditions, on either an exclusive or non-exclusive basis, for the purpose of providing ~~electronic communications~~ **information society** services, including when they are used for the delivery of ~~information society services or~~ broadcast content services**, to customers of the access-seeker**. It covers inter alia: access to network elements and associated facilities **including virtual access**, 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 **as well as access to in-house wiring**); 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~~;

Transition to the new framework (new Article 16 Framework Directive)

As soon as the revised Directive would become applicable, the NRAs would review the remedies in place at the date of the entry into force of the amended Framework starting with the assessment of the retail markets. NRAs would identify the possible retail competition problems, starting from the smallest possible geographical areas, in order to assess the need of regulation at wholesale level. Areas with sufficiently similar competitive characteristics that are different from other areas would be grouped together and analysed separately (geographic segmentation).

- In areas where *infrastructure competition* is in place, and would be sustainable in the absence of the existing regulatory obligations (modified greenfield approach) the NRA would assume

the absence of key network inputs and, in principle, lift wholesale obligations leaving market players to negotiate access agreements under market conditions.

- In the other areas, the NRA should first examine whether *wholesale commercial agreements have been concluded* for access to the key network input. In those cases, regulated access should also be lifted.

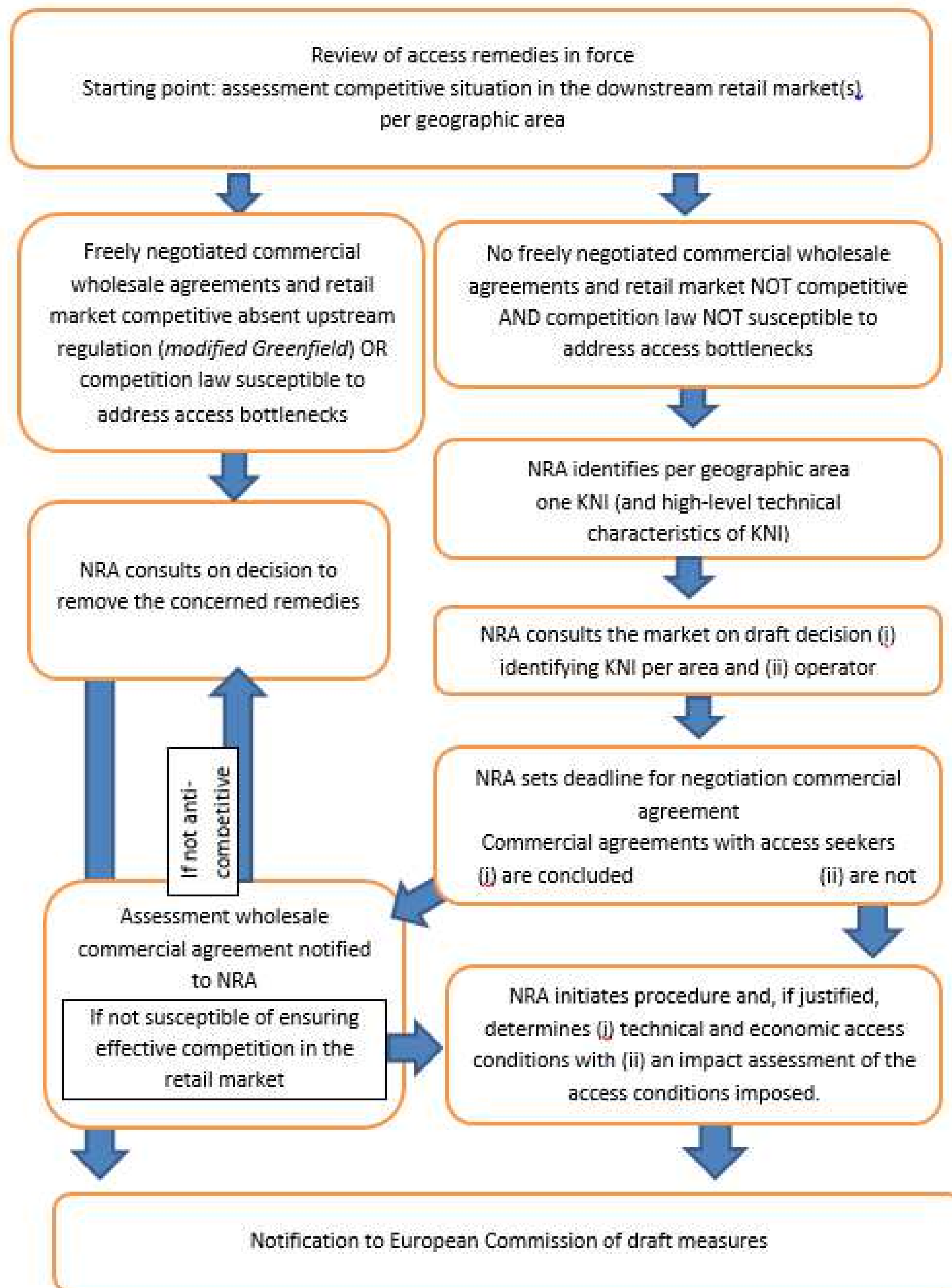
- In areas where no alternative infrastructures exist and where owners of key network inputs do *not make satisfactory, voluntary wholesale offers*, NRAs would maintain regulated access products. However, based on the proportionality principle, NRAs would only mandate access at a single, specified access level, which needs not necessarily to correspond with the access level requested by the access seeker. NRAs should grant access to *key network inputs* only in view of the objectives referred to in the amended Article 8 Framework Directive, i.e. promoting efficient investment in infrastructure and innovation. The granting of access should be justified by an impact assessment of mandated access, including the positive impact expected from the remedy on the long-term consumer welfare, the absence of negative impact of the envisaged remedy on investment and its contribution to incentives to infrastructure competition. A strict enforcement of the indispensability test would incentivize alternative operators to share the investment risks and afterwards the investment benefit, instead of seeking to benefit from regulated access. Operators not sharing the investment risk would not be eligible to benefit from the investment, at the same terms and conditions.

The NRAs, when mandating access to a key network input, should set the time period of application of the access obligation. Depending on the market circumstances and the exact nature of the issue at hand, longer or shorter review periods could both be appropriate. At the same time, the access provider should have the right to ask a review of the access obligations if market circumstances change significantly before the expiry of the review period.

There is a clear need for regulatory stability and regulatory predictability to boost long-term highly risky investments. Indeed, investors in such projects prefer to have clear visibility on what to expect as external constraints, and this over a longer period of their investment timeframe.

NRAs should lift regulation when the conditions for mandating access are no longer met, notably when voluntary agreements have been signed or the asset in question has lost its character as a key network input, for example, where infrastructure-based competition develops rapidly.

Figure 6: proposed revised Article 16: review existing obligations



Current provisions	Proposed amendments
Article 16 Framework Directive **Market analysis procedure**	**Article 16 Framework Directive** **Market analysis procedure**
1. As soon as possible after the adoption of the recommendation or any updating thereof, national regulatory authorities shall carry out an analysis of the relevant markets, taking the	1. As soon as possible after [**the date of the entry into force of the amended Directive]** ~~adoption of the recommendation or any updating thereof~~, national regulatory authorities

utmost account of the guidelines. Member States shall ensure that this analysis is carried out, where appropriate, in collaboration with the national competition authorities.	shall carry out an analysis of the ~~relevant~~ **retail** markets, corresponding to the access remedies in force ~~taking the utmost account of the guidelines~~. **In its assessment, the national regulatory authority shall also take into account the impact of obligations imposed that are not subject to this assessment and the existence of any freely negotiated commercial agreements.** Member States shall ensure that this analysis is carried out, where appropriate, in collaboration with the national competition authorities.
2. Where a national regulatory authority is required under Articles 16, 17, 18 or 19 of Directive 2002/22/EC (Universal Service Directive), or Articles 7 or 8 of Directive 2002/19/EC (Access Directive) to determine whether to impose, maintain, amend or withdraw obligations on undertakings, it shall determine on the basis of its market analysis referred to in paragraph 1 of this Article whether a relevant market is effectively competitive.	~~2. Where a national regulatory authority is required under Articles 16, 17, 18 or 19 of Directive 2002/22/EC (Universal Service Directive), or Articles 7 or 8 of Directive 2002/19/EC (Access Directive) to determine whether to impose, maintain, amend or withdraw obligations on undertakings, it shall determine on the basis of its market analysis referred to in paragraph 1 of this Article whether a relevant market is effectively competitive.~~
3. Where a national regulatory authority concludes that the market is effectively competitive, it shall not impose or maintain any of the specific regulatory obligations referred to in paragraph 2 of this Article. In cases where sector-specific regulatory obligations already exist, it shall withdraw such obligations placed on undertakings in that relevant market. An appropriate period of notice shall be given to parties affected by such a withdrawal of obligations.	3. Where a national regulatory authority concludes that ~~a~~ **retail** market is **prospectively competitive absent the wholesale regulation in force**, ~~it shall not impose or maintain any of the specific regulatory obligations referred to in paragraph 2 of this Article. In cases where sector specific regulatory obligations already exist, it~~ shall withdraw ~~such~~ **the related regulatory** obligations placed on undertakings ~~in that relevant market~~. An appropriate period of notice shall be given to parties affected by such a withdrawal of obligations.
4. Where a national regulatory authority determines that a relevant market is not effectively competitive, it shall identify undertakings with significant market power on that market in accordance with Article 14 and the national regulatory authority shall on such undertakings impose appropriate specific regulatory obligations referred to in paragraph 2 of this Article or maintain or amend such obligations where they already exist.	4. Where a national regulatory authority determines that a ~~relevant~~ **retail** market is not effectively competitive **and is likely to remain so in the absence of mandated access and competition law is not susceptible to remedy the problem,** it shall **identify the key network input. It shall for that purpose aggregate geographical areas with similar competitive characteristics and for each geographical area, determine a single key network input, including its basic technical characteristics, to which access must be granted.** ~~undertakings with significant market power on that market in accordance with Article 14 and the national regulatory authority shall on such undertakings impose appropriate specific regulatory~~

	~~obligations referred to in paragraph 2 of this Article or maintain or amend such obligations where they already exist.~~ **4a. The decision on access to a key network input shall be taken for a fixed time period, the duration of which shall be determined by objective elements. The access provider shall have the right to ask for a revision of the decision, referred to in paragraph 4b of this Article, if circumstances and state of the art technologies are evolving significantly during the time period set in the decision, so as to allow for economically viable alternatives to the key network input concerned.** **4b. In its decision under paragraph 4 of this Article the national regulatory authority shall request the undertaking controlling the key network input to negotiate access within a reasonable time period, including the technical and economic conditions under which access will be provided. If within that period no commercial wholesale agreement is concluded and notified to the national regulatory authority or if the conditions set in the concluded agreements are not susceptible of ensuring effective competition in the retail market, the authority shall, upon request of any of the market parties or on its own initiative, initiate a procedure, as far as necessary determining appropriate specific regulatory conditions under Articles 10 to 13 of Directive** [Access Directive] ~~or amend such obligations where they already exist~~.

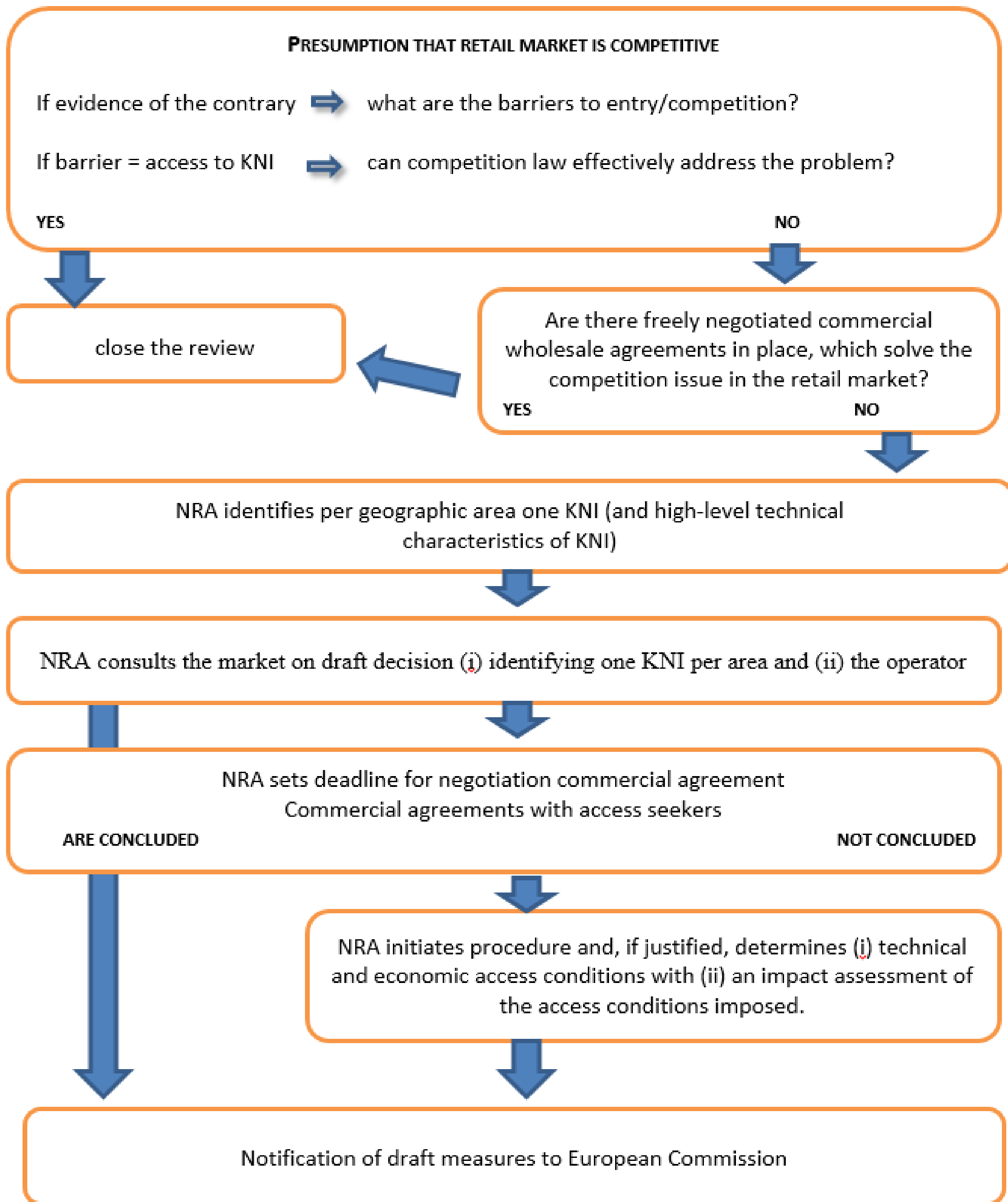
Periodic review of the retail markets

Depending on the market circumstances and the exact nature of the issue at hand, longer or shorter review periods will be appropriate.

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

At the end of the period of validity of the access obligation, the NRA shall initiate a review of the retail markets concerned.

Figure 7: Periodic retail market review



The starting point should be the assumption that the market became competitive. However, if strong evidence demonstrates that the retail market is not prospectively competitive absent the regulated access to the KNI concerned, and competition law will not be able to deal with the problem, the NRA should identify, per geographic area, whether access to the regulated KNI should be continued or whether access at another level would better correspond to the competition problems identified and the objective of promoting infrastructure competition. Where the NRA considers that mandatory access can be repealed, the NRA will specify a transitory regime for the existing commercial agreements based on the former KNI finding taking into account the principle of legitimate expectations.

The access would also be granted for a specific time period, the duration of which could vary with the nature of the access concerned. The duration set by the NRA should ensure that the regulatory framework to provide regulatory stability and predictability to boost long-term highly risky investments.

The introduction of a new technology by the electronic communications network operator should not warrant, as such, new access remedies. The introduction of new technologies is decided by operators in order to decrease costs and introduce new functionalities and thus innovate. If the investor would be required to offer these functionalities on a regulated basis, the network differentiation incentive will be removed.

Current provisions	Proposed amendments
	New Article 16a Framework Directive **Periodic review of the retail markets** **1. Before the expiry of the time period set in the decisions adopted by the national regulatory authority under Article 16 paragraph 4 of this Directive, the national regulatory authority shall examine the corresponding retail market or markets, aggregating where justified geographical areas with similar competitive characteristics. The national regulatory authority shall assume that the markets are competitive absent access remedies. If the national regulatory finds evidence showing the contrary, it shall examine whether competition law is not sufficient to deal with the problems identified. Member States shall ensure that this analysis is carried out, where appropriate, in collaboration with the national competition authorities.** **2. In its assessment, the national regulatory authority shall also take into account the impact of obligations imposed that are not subject to the assessment of the retail market or markets concerned and the existence of any freely negotiated commercial agreements. The national regulatory authority shall have the power to request all relevant market data and existing contracts necessary for the purpose of its assessment.** **3. If the national regulatory authority finds that one or more retail markets are not prospectively competitive absent regulation, it shall apply the procedure defined in Article 16 paragraph 4, 5 and 6.**

	New Article 16b Framework Directive commitments **1. Member States shall give the national regulatory authority the power to make commitments regarding access to a key network input, received before the adoption of a decision under Article 16 paragraph 4 of this Directive from the undertaking controlling the key network input, binding.** **2. Decisions referred to in paragraph 1 of this Article shall be implemented in accordance with the procedures referred to in Articles 6 and 7a of this Directive.**

5.2. The remedies in case of key network input

Proportionality principle

Access to key network inputs should be imposed only after an impact assessment, aiming at corroborating:

- Its positive impact of a regulatory intervention on longer term consumer welfare,
- The absence of negative impact of a regulatory intervention on investments;
- Its contribution to the maximisation of incentives for infrastructure competition, to ensure that infrastructure competition would not be jeopardised by regulation.

NRAs should retain most of the '*toolbox'* contained in Articles 9 to 13 of the Access Directive, with the exception of price regulation, accounting separation and functional separation. The proposal is to allow the NRA to differentiate geographically remedies to take account of specific local conditions such as network architectures, degree of replicability of the network assets, etc. Functional separation does not fit in such approach. The envisaged economic conditions of the mandatory access imposed is an important element in this assessment. The economic conditions could for example refer to a medium term replicability test taking account investments carried out in the network, risk-sharing agreements and the future price level on the retail markets concerned. On the other hand, NRAs would no more be empowered to impose cost orientation given its possible detrimental effect on investment incentives.

Remedies should be proportional, focused on the identified problem, transitory (only for as long as the market failure persists). An obligation to disaggregate key network inputs, entailing full externalization of servicing certain key network inputs (with direct relationships between the access seeker and the external enterprises) should, in principle, not be possible when other less intrusive remedies are possible. For example, pricing controls under a replicability test or key performance indicators linked to equivalence of output comparisons would be, on the one hand, less intrusive and would, on the other, allow to attain the same objective. The objective is in this case preventing the access provider to transfer the burden of possible inefficiencies on the access seekers.

Currently, a possibility exists for NRAs to impose "*in exceptional circumstances*" obligations for access or interconnection other than those of the toolbox of Articles 9 to 13 Access Directive on operators

with significant market power. This vaguely defined possibility is no longer required and should be deleted to increase investor's confidence in the access framework applicable to key network inputs.

Current provisions	Proposed amendments
Article 8 Access Directive Imposition, amendment or withdrawal of obligations	**Article 8 Access Directive Imposition, amendment or withdrawal of obligations**
1. Member States shall ensure that national regulatory authorities are empowered to impose the obligations identified in Articles 9 to 13a.	1. Member States shall ensure that national regulatory authorities are empowered to impose the obligations identified in Articles 9 to 13~~a~~.
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 16 of Directive 2002/21/EC (Framework Directive), national regulatory authorities shall impose the obligations set out in Articles 9 to 13 of this Directive as appropriate.	***Deleted***
3. Without prejudice to: — the provisions of Articles 5(1) and 6, — the provisions of Articles 12 and 13 of Directive 2002/21/EC (Framework Directive), Condition 7 in Part B of the Annex to Directive 2002/20/EC (Authorisation Directive) as applied by virtue of Article 6(1) of that Directive, Articles 27, 28 and 30 of Directive 2002/22/EC (Universal Service Directive) and the relevant provisions of Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) containing obligations on undertakings other than those designated as having significant market power, or — the need to comply with international commitments, national regulatory authorities shall not impose the obligations set out in Articles 9 to 13 on operators that have not been designated in accordance with paragraph 2.	3. Without prejudice to: — the provisions of Articles 5(1) and 6, — the provisions of Articles 12 and 13 of Directive 2002/21/EC (Framework Directive), Condition 7 in Part[47] B of the Annex to Directive 2002/20/EC (Authorisation Directive) as applied by virtue of Article 6(1) of that Directive, Articles 27, 28 and 30 of Directive 2002/22/EC (Universal Service Directive) and the relevant provisions of Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) containing obligations on undertakings other than those designated as having significant market power, or — the need to comply with international commitments, national regulatory authorities shall ~~not~~ impose the **access** obligations ~~set out in Articles 9 to 13 on operators that have not been designated in accordance with paragraph 2~~ **only to key network inputs. National authorities shall impose access at a single, specified access level, per geographic area. The access imposed needs not necessarily to correspond with the access level requested by potential access seekers.**
In exceptional circumstances, when a national regulatory authority intends to impose on	~~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 9 to 13 in this Directive, it shall submit this request to the Commission. The Commission shall take utmost account of the opinion of the Body of Europeans Regulators for Electronic Communications (BEREC). The Commission, acting in accordance with Article 14(2), shall take a decision authorising or preventing the national regulatory authority from taking such measures.	~~operators with significant market power obligations for access or interconnection other than those set out in Articles 9 to 13 in this Directive, it shall submit this request to the Commission. The Commission shall take utmost account of the opinion of the Body of Europeans Regulators for Electronic Communications (BEREC). The Commission, acting in accordance with [Article 14(2)][71], 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 based on the nature of the problem identified, proportionate and justified in the light of the objectives laid down in Article 8 of Directive 2002/21/EC (Framework Directive). Such obligations shall only be imposed following consultation in accordance with Articles 6 and 7 of that Directive.	***Idem para 4***
	4a. National regulatory authorities shall undertake an impact assessment of envisaged access obligations. This impact assessment should identify and if possible quantify the positive impact expected from the remedy on the long-term consumer welfare, the absence of negative impact of the envisaged remedy on investment and its contribution to fostering to infrastructure competition.
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 7 of Directive 2002/21/EC (Framework Directive).	***Idem para 5***

Transparency

The current transparency obligations should be simplified. Article 9(4) and (5) of the Access Directive and the Annex related to the unbundling of the copper local loop could be repealed. The aim of the Annexes was to harmonize local loop unbundling reference offers from the SMP players in this market across the EU. Today, local loop unbundling is a well-established remedy in most of the Member States and it is not expected that unbundling copper lines would grow during the lifetime of the revised rules. The harmonization achieved its objective and the corresponding rules can be phased out. At the same time, the national regulatory authorities should further have the power to request the notification of agreements concerning key network inputs to monitor the evolution of the regulated market.

[71] Refers to the comitology procedure. The numbering should be updated in the future consolidated wording of the proposals.

Current provisions	Proposed amendments
Article 9 Access Directive **Obligation of transparency**	**Article 9 Access Directive** **Obligation of transparency**
1. National regulatory authorities may, in accordance with the provisions of Article 8, 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, terms and conditions for supply and use, including any conditions limiting access to and/or use of services and applications where such conditions are allowed by Member States in conformity with Community law, and prices.	1. National regulatory authorities may, in accordance with the provisions of Article 8, 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, terms and conditions for supply and use, including any conditions limiting access to and/or use of services and applications where such conditions are allowed by Member States in conformity with Community 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.	2. **In particular where an operator has obligations of non-discrimination, national regulatory authorities may require that operator to notify all agreements concluded to the national regulatory authority including a description of the relevant facilities broken down into components, and the associated terms and conditions including prices.**
3. National regulatory authorities may specify the precise information to be made available, the level of detail required and the manner of publication.	3. National regulatory authorities may, **while respecting the principle of proportionality,** specify the precise information to be made available and the level of detail required.
Taken over from Article 13(4)	3a. National regulatory authorities shall ensure that, where implementation of a cost accounting system is mandated in order to support **non-discrimination**, 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.

4. Notwithstanding paragraph 3, where an operator has obligations under Article 12 concerning wholesale network infrastructure access, national regulatory authorities shall ensure the publication of a reference offer containing at least the elements set out in Annex II.	***To be deleted***
5. The Commission may adopt the necessary amendments to Annex II in order to adapt it to technological and market developments. The measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 14(3). In implementing the provisions of this paragraph, the Commission may be assisted by BEREC.	***To be deleted***

Non-discrimination

Any application of the non-discrimination obligation should be made in accordance with its underlying goal and aim, which is to ensure competition among operators to the benefit of end users. This also requires that its application be proportionate with this goal, i.e. be relevant for achieving the objective and not go beyond what is necessary. In particular, there should be flexibility for better conditions granted to undertakings willing to assume risk-sharing schemes.

The national regulatory authorities should avoid micro-management of operational non-discrimination measures. It should not be seen as an *a priori* requirement for providing access products on a strictly equivalent basis but as a tool for addressing real problems in a balanced way, taking into account the costs for the operator concerned and the benefits for access seekers. A different approach could lead to artificial and inefficient situations. Where a form of equivalence is deemed necessary to create a level playing field, equivalence of output is an efficient and sufficient approach. The equivalence of output indeed implies that the wholesale products provided by the access provider to access seekers allow the latter to provide equivalent retail services.

Current provisions	Proposed amendments
Article 10 Access Directive **Obligation of non-discrimination**	**Article 10 Access Directive** **Obligation of non-discrimination**
1. A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations of non-discrimination, in relation to interconnection and/or access.	1. A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations of non-discrimination, in relation to **mandated** ~~interconnection and/or~~ access **to a key network input**.
2. Obligations of non-discrimination shall ensure, in particular, that the operator applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and provides services and	2. Obligations of non-discrimination shall ensure, in particular, that the operator **controlling the key network input** applies equivalent technical **and operational** conditions in equivalent circumstances to other undertakings providing

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.	equivalent services, and provides ~~services and~~ information **relating to the input** 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. **3. Obligations of non-discrimination do not prevent the application over time of different conditions for the provision of access to a key network input.**

Accounting separation

Taking into account the proposed amendment of Article 13 to replace cost orientation by economic replicability, the obligation of accounting separation has become obsolete.

Accounting separation is not necessary to enforce the principle of non-discrimination, since the latter relates mainly to operational and technical aspects of the access provided to the KNI concerned. In the framework of a qualitative assessment of the access conditions in comparison to self-provision of the relevant facilities, accounting separation (a quantitative exercise) is of little use.
As regards the need to identify retail costs for the application of the economic replicability test, the accounting obligations, which are part of Article 13 (1) Access Directive, are sufficient.

Current provisions	Proposed amendments
Article 11 Access Directive **Obligation of accounting separation** 1. A national regulatory authority may, in accordance with the provisions of Article 8, 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 10 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 5 of Directive 2002/21/EC (Framework Directive), 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	**Article 11 Access Directive** **Obligation of accounting separation** **delete**

provided on request. National regulatory authorities may publish such information as would contribute to an open and competitive market, while respecting national and Community rules on commercial confidentiality.	

Compulsory access

An amendment to Article 12 of the Access Directive is necessary to refer to the new concept of KNI and to specify that access to, and use of, specific network facilities should be limited to just one layer, according to the principle of proportionality. The aim is to have only the least disruptive and most proportional access remedy imposed per area.

There is a consensus that sustainable competition is a positive market outcome. In a forward-looking assessment, it is important to examine whether competition would be sustainable absent the current regulation. However, the references to '*sustainable'* competition is ambiguous in the specific context of designing access remedies: does it refer to sustainable in the absence of access remedies or sustainable in the sense that access based players are granted a margin to move up the investment ladder? The latter could justify burdensome intrusive intervention in the margin of manoeuvre of the network owner to decide on the technology/topology used (multi-fibre, WDM technology). NRAs should not be required to introduce a bias in the KNI they define. The access remedy should have a neutral focus on creating competition in the retail market in case it is not competitive absent regulation. The duty of the NRA should be limited to maintain competition and choice at the retail level to the benefit of end-users.

Article 12 should specify expressly that the intervention many not be to the detriment of end-users to make a clear link with to article 8 where end-user benefit is the overarching goal.

Current provisions	Proposed amendments
Article 12 Access Directive **Obligations of access to, and use of, specific network facilities** 1. A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations on operators to meet reasonable requests for access to, and use of, specific network elements and associated facilities, *inter alia* 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, or would not be in the end-user's interest.	**Article 12 Access Directive** **Obligations of access to, and use of, specific network facilities** 1. A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations on operators to meet reasonable requests for access to, and use of, ~~specific~~ **key** network **inputs** ~~elements~~ and associated facilities, ~~inter alia~~ 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, ~~, or would not be in~~ **to** the **detriment of the long-term interest of the** end-users, ~~interest~~ **and that the obligations under Article 9 to 11 of this Directive are not sufficient to allow the emergence of effective competition**.

Operators may be required *inter alia*: (a) to give third parties access to specified network elements and/or facilities, including access to network elements which are not active and/or unbundled access to the local loop, to, inter alia, allow carrier selection and/or pre-selection and/or subscriber line resale offers;	Operators may be required *inter alia*: (a) to give third parties access to a specified key network input **at a single network layer per geographic area depending on local conditions such as: network architectures or degree of replicability of the network assets**~~ including access to network elements which are not active and/or unbundled access to the local loop, to, inter alia, allow carrier selection and/or pre-selection and/or subscriber line resale offer~~s;
(b) to negotiate in good faith with undertakings requesting access;	(b) to negotiate in good faith with undertakings requesting access;
(c) not to withdraw access to facilities already granted;	(c) not to withdraw access to ~~facilities~~ **a key network input** already granted;
(d) to provide specified services on a wholesale basis for resale by third parties;	~~(d) to provide specified services on a wholesale basis for resale by third parties;~~
(e) 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 grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;
(f) to provide co-location or other forms of associated facilities sharing;	(f) to provide co-location or other forms of associated facilities sharing;
(g) to provide specified services needed to ensure interoperability of end-to-end services to users, including facilities for intelligent network services or roaming on mobile networks;	~~(g) to provide specified services needed to ensure interoperability of end-to-end services to users, including facilities for intelligent network services or roaming on mobile networks;~~
(h) to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services;	~~(h) to provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services;~~
(i) to interconnect networks or network facilities;	~~(i) to interconnect networks or network facilities;~~
(j) to provide access to associated services such as identity, location and presence service.	~~(j) 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.	National regulatory authorities may attach to those obligations conditions covering fairness, reasonableness and timeliness.
2. When national regulatory authorities are considering the obligations referred in paragraph 1, and in particular when assessing how such obligations would be imposed proportionate to the objectives set out in Article 8 of Directive 2002/21/EC (Framework Directive), they shall take account in particular of the following factors:	2. When national regulatory authorities are considering the obligations referred in paragraph 1, and in particular when assessing how such obligations would be imposed proportionate to the objectives set out in Article 8 of Directive 2002/21/EC (Framework Directive), they shall **undertake an impact assessment of the envisaged remedies according to Article 8 of this Directive** and take into 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	(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

other upstream access products such as access to ducts; (b) the feasibility of providing the access proposed, in relation to the capacity available; (c) the initial investment by the facility owner, taking account of any public investment made and the risks involved in making the investment; (d) the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure-based competition; (e) where appropriate, any relevant intellectual property rights; (f) the provision of Pan-European services. 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 17 of Directive 2002/21/EC (Framework Directive).	access involved, including the viability of other upstream access products such as access to ducts; (b) the feasibility of providing the access proposed, in relation to the capacity available; (c) the initial investment by the facility owner, taking account of any public investment made and the risks involved in making the investment; (d) the need to safeguard competition in the long term, with particular attention to economically efficient infrastructure-based competition; (e) where appropriate, any relevant intellectual property rights; ~~(f) the provision of pan-European services.~~ 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 17 of Directive 2002/21/EC (Framework Directive).

Pricing

Cost oriented prices should give way to an approach based on economic replicability. This amendment will enable a variety of wholesale pricing regimes, under which operators contribute to investment either through co-investment/financing or long-term bulk access commitments. Pricing obligations should only be considered when necessary to avoid margin squeezes or excessive prices (economic replicability test).

Ex-ante economic replicability test should specify at least the following parameters:

(i) The relevant downstream cost taken into account;
(ii) The relevant cost standard;
(iii) The relevant regulated wholesale inputs concerned and the relevant reference prices;
(iv) The relevant retail products; and
(v) The relevant time period for running the test.

In carrying out the economic replicability test, it is important to bear in mind that a KNI can be needed to provide a bundle of retail services (for example voice, broadband services and television distribution in the case of the local loop). It will be important to take into account a bundle of the most relevant retail products and to define their relative weight in a realistic manner.

In order to ensure consistency between the economic replicability tests[72] (ex-ante margin squeeze test) that NRAs will apply in each of the 28 Member States, the Access Directive should set common principles, while leaving sufficient discretion to the NRAs to define their own models taking into consideration the specific competitive situation of the markets under their jurisdiction.

Moreover, the current Commission recommendations on NGA and non-discrimination[73] should be reviewed after the adoption of the proposed amendments, and in particular be simplified (among other by removing the requirements of 'equality of input') and more broadband investment enhancing, by further detailing the parameters to be used in economic replicability tests, in line with the recommendations made in the Charles River Associates' study on Economic Replicability Testing for NGA Services[74]. Defining the economic replicability test for NGA services must be accurate in order to avoid discouraging investment because "*NGA economics are incompatible with the conventional margin squeeze test used by regulators*"[75].

Current provisions	Proposed amendments
Article 13 Access Directive **Price control and cost accounting obligations**	**Article 13 Access Directive** **Economic replicability ~~Price control and cost accounting obligations~~**
1. A national regulatory authority may, in accordance with the provisions of Article 8, impose obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and/or access, in situations where a market analysis indicates that a lack of effective competition means that the operator concerned may sustain prices at an excessively high level, or may apply a price squeeze, to the detriment of end-users. To encourage investments by the operator, including in next generation networks, national regulatory authorities shall take into account the investment made by the operator, and allow him a reasonable rate of return on adequate capital employed, taking into account any risks specific to a particular new investment network project.	1. A national regulatory authority may, in accordance with the provisions of Article 8, impose the obligation to enable **economic replicability** ~~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 the key network input or inputs concerned ~~specific types of interconnection and/or access~~, in situations where the national regulatory authority'**s assessment** ~~a market analysis~~ indicates that the **absence of economically viable alternative for the key network input concerned** ~~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' long term interest. To encourage investments by the operator, including in next generation networks, national regulatory authorities shall take into account the investment made by the operator,

[72] See also BEREC Guidance on the regulatory accounting approach to the economic replicability test (i.e. ex-ante/sector-specific margin squeeze tests), BoR (14) 190 of 5 December 2014, which concluded, "*At this stage, the Guidance document cannot develop 'best practices'*".

[73] Commission Recommendation 2010/572 of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), O.J. [2010] L 251/35 and Commission Recommendation 2013/466 of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment, O.J. [2013] L 251/13.

[74] ETNO, Economic Replicability Testing for NGA Services, stud, A consistent and proportionate approach to promote efficient investment and safeguard competition, by Charles River Associates, 18 March 2015, available on https://www.etno.eu/datas/publications/studies/FinalCRAreport_18032015.pdf

[75] L. Jaunaux and M. Lebourges, Economic replicability tests for next-generation access networks, Florence School of Regulation, EUI Working Paper RSCAS 2014/75, p.16.

	and allow him a reasonable rate of return on adequate capital employed, taking into account any risks specific to a particular new investment network project.
2. National regulatory authorities shall ensure that any cost recovery mechanism or pricing methodology that is mandated serves to promote efficiency and sustainable competition and maximise consumer benefits. In this regard national regulatory authorities may also take account of prices available in comparable competitive markets.	2. National regulatory authorities shall ensure that **any economic replicability obligation** ~~cost recovery mechanism or pricing methodology~~ that is mandated **is based on the methodology set in the Annex to this Directive.** ~~serves to promote efficiency and sustainable competition and maximise consumer 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.	***To be deleted***
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.	***Moved to Article 9 (transparency)***

New Annex Access Directive
Parameters for the implementation of Article 13 Access Directive

Relevant downstream costs	The costs of an equally efficient operator (EEO) with no adjustments.
Relevant downstream cost standard	Avoidable cost or if incremental cost is used, long run incremental cost (LRIC) *excluding* shared costs and, if necessary, a combinatorial approach to confirm shared cost recovery).

Relevant wholesale inputs	The "most relevant regulated inputs" should reflect an *efficient* mix of inputs that national regulatory authorities deem realistic for access seekers to use during the market review period.
Relevant wholesale prices	Where there are volume discounts, model the discount achievable by the largest access seeker. Where there are commitment arrangements: If an ERT is to be conducted, it should be at an aggregated level and use a time period that reflects the length of the commitments. If fixed wholesale charges are modelled, an ERT should only be conducted on a prospective basis; and there is no need to apply an ERT to "no-commitment" wholesale charges if the commitment arrangements allow for effective competition.

Functional separation

When it was introduced in the toolbox of the NRAs in 2009, functional separation was already considered as a remedy of last resort, because of the difficulty to make such intrusive remedy match the proportionality and appropriateness requirements. In a context where the objectives pursued by the regulatory intervention would be significantly altered, functional separation would even become less proportional as a remedy given that the regulatory objective of long term consumers interest can be achieved through less intrusive regulatory means, and in particular targeted mandated access to the key network input necessary to support retail competition and consumers' interests.

In the UK, where functional separation was introduced several years ago, there is no evidence pointing to enduring competition problems that require such a remedy of last resort, let alone point to more intrusive structural separation arrangements being proportionate and necessary over and above less intrusive ex-ante regulatory remedies.
The removal of Article 13b (voluntary separation) would not prevent undertakings to introduce on a voluntary basis or in the framework of commitments in antitrust cases such separation. Such separation once implemented would constitute a significant change of the context that the NRA took into account when reviewing obligations. The regulated undertaking would therefore be entitled under Article 16(6) of the FWD, as revised (see above).

Current provisions	Proposed amendments
Article 13a Access Directive **Functional separation** 1. Where the national regulatory authority concludes that the appropriate obligations imposed under Articles 9 to 13 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 8(3), impose an obligation on vertically integrated undertakings to place activities related to the	***To be deleted***

wholesale provision of relevant access products in an independently operating business entity.	
Article 13b Access Directive **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 16 of Directive 2002/21/EC (Framework Directive) shall inform the national regulatory authority 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…..	***To be deleted***

Regulatory control on retail services

Over the last years, asymmetric obligations on retail markets were progressively phased out. This should be reflected in the Directives. In practice, certain undertakings will continue to control specific key network inputs that affect competition in retail markets. However, under the proposed amendments, where this control is likely to constitute a barrier to entry and to competition in these retail markets, the NRAs will have the power to regulate access to these inputs in order to foster competition and consumer choice in the related retail markets.

Current provisions	Proposed amendments
Article 17 Universal Service Directive **Regulatory controls on retail services** 1. Member States shall 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 14 of Directive 2002/21/EC (Framework Directive) where: (a) as a result of a market analysis carried out in accordance with Article 16 of Directive 2002/21/EC (Framework Directive), a national regulatory authority determines that a given retail market identified in accordance with	***To be deleted***

Article 15 of that Directive is not effectively competitive; and (b) the national regulatory authority concludes that obligations imposed under Articles 9 to 13 of Directive 2002/19/EC (Access Directive) would not result in the achievement of the objectives set out in Article 8 of Directive 2002/21/EC (Framework Directive). 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 8 of Directive 2002/21/EC (Framework Directive). 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 9(2) and Article 10, 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.	

5.3. Notification procedure

The streamlined procedure to define access remedies will free resources of the NRAs, which will be, used for market surveillance and '*ex-post*' intervention, in particular dispute resolution. In the case of disagreement between parties going further than normal commercial price negotiations or issues of interpretation of contractual clauses in the arrangements in force, either party could submit the matter for dispute resolution to the NRA concerned. The result will likely be a more fragmented picture of access remedies, reflecting national and sub-national market specificities. In this context, the notification procedure provided by Article 16 of the Access Directive will retain all its importance.

Current provisions	Proposed amendments
Article 16 Access Directive **Notification**	**Article 16 Access Directive** **Notification**
1. Member States shall notify to the Commission by at the latest the date of application referred to in Article 18(1) second subparagraph the national regulatory authorities responsible for the tasks set out in this Directive.	1. Member States shall notify to the Commission by at the latest the date of application referred to in Article 18(1) second subparagraph the national regulatory authorities responsible for the tasks set out in this Directive.
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.	2. National regulatory authorities shall notify to the Commission the names of operators **which were required to provide access to key network inputs** ~~deemed to have significant market power for the purposes of this Directive,~~ and the obligations imposed upon them under this Directive, **including the beneficiaries making use of the regulated access**. 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.

5.4. Dispute resolution

Articles 20 and 21 of the Framework Directive, which set the obligations and the timeframe for NRAs to settle disputes, govern the sector specific dispute settlement procedures. The provisions should be amended to reflect the new categories of *'internet access services'* and '*information society services'*. Moreover, the procedure should also be available for disputes between EU based undertakings and non-European companies, regarding services provided in the EU: i.e. an NRA would be competent to deal with any dispute concerning services targeting consumers in its jurisdiction irrespective of the country of establishment of the service provider.

Disputes may be based on the failure of the other party to negotiate. However, operators may see the frequent intervention of the NRA in dispute resolution as taking away the incentives to negotiate in good faith and, in the medium term, generate an excessive workload for the NRA. Systematic initiation of disputes may also be a means by market players to delay the provision of access.

Current provisions	Proposed amendments
Article 20 Framework Directive **Dispute resolution between undertakings**	**Article 20 Framework Directive** **Dispute resolution between undertakings**
1. In the event of a dispute arising in connection with obligations arising under this Directive or the Specific Directives between undertakings providing electronic communications networks or services in a Member State, the national regulatory authority concerned shall, at the request of either party, and without prejudice to the provisions of paragraph 2, issue a binding decision to resolve the dispute in the shortest possible time frame 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.	1. In the event of a dispute **relating to a service or facilities in the territory of a Member State** ~~arising in connection with obligations arising under this Directive or the Specific Directives~~ between undertakings providing electronic communications networks, **internet access services** or **information society** services, the national regulatory authority concerned shall, at the request of either party, and without prejudice to the provisions of paragraph 2, issue a binding decision to resolve the dispute in the shortest possible time frame 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 the provisions of Article 8. 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.	***Idem***
3. In resolving a dispute, the national regulatory authority shall take decisions aimed at achieving the objectives set out in Article 8. Any obligations imposed on an undertaking by the national regulatory authority in resolving a dispute shall respect the provisions of this Directive or the Specific Directives.	***Idem***
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	***Idem***

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.	 ***Idem***

5.5. Review procedure

The Framework Directive requires a review no later than three years after the date of application. In view of the need for legal certainty, this time period is too short. A longer period should be provided for the review of the amended rules.

Current provisions	Proposed amendments
Article 25 Framework Directive **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 three years after the date of application referred to in Article 28(1), second subparagraph. For this purpose, the Commission may request information from the Member States, which shall be supplied without undue delay.	**Article 25 Framework Directive** **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 **[6]** years after the date of application referred to in Article 28(1), second subparagraph. For this purpose, the Commission may request information from the Member States, which shall be supplied without undue delay.

6. Regulation of services

ETNO believes that the regulation of the electronic communications services needs important amendments along three main directions:

First, the **interconnection obligations**, currently in the Access and Interconnection Directive, should be related to services that provides interpersonal voice communications at ensured quality based on telephone number and the need to ensure end-to-end quality call.

Second, the **sector-specific consumer protection rules**, currently in the Chapter IV of the Universal Service Directive and in the ePrivacy Directive, should be split:

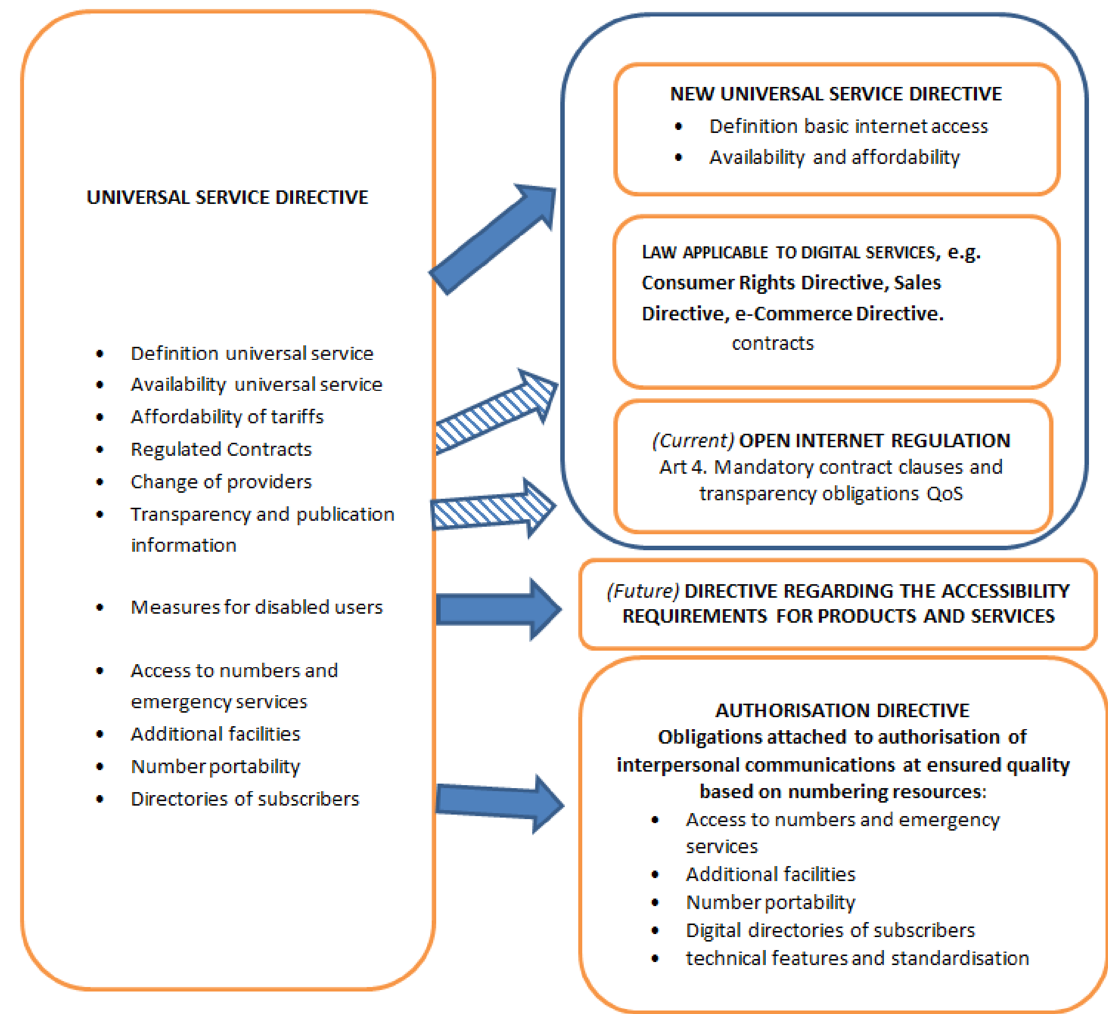
- Some rules should be attached to services, including services that provides interpersonal voice communications at ensured quality based on telephone numbers, and included in the new Authorisation Directive;
- Other rules should be attached to the redefined universal service and be maintained in the Universal Service Directive;
- Other rules should be repealed as they are already covered by horizontal consumer law, in particular the Consumer Rights Directive which was adopted after the last revision of the electronic communications regulatory framework;
- Rules that were specifically designed for the liberalisation of the traditional public access telephony 18 years ago are outdated and should also be repealed;
- Selected rules currently only applied to telecoms should be transferred to laws that cover all services in the digital market, if the obligations concerned are still required.

Third, the **universal service rules**, currently in Chapter II of the Universal Service Directive, should be adapted to the redefinition of the universal service centred on the functional Internet access and be kept in the new Universal Service Directive.

Consumer expectations are changing. The consumer protection obligations of the Universal Service Directive date back from the end of the 1990 when the telephone service was the main means of communication and social integration in Western Europe. Today, the internet has taken over this role. Multiple social communication tools are available on the internet, often free of charge for the user: the 'over the top services' (OTT) such as WhatsApp, Facebook, Skype … For that reason, it is proposed to limit the scope of the universal service to the availability of basic internet access.

The recently adopted Open Internet Regulation has addressed *'ex-ante'* the consumer issues that could occur in this new context by imposing on the internet access service (IAS) providers, which hold a gatekeeper position: obligations on non-discrimination and net neutrality as well as transparency on quality of service. The current consumer protection obligations imposed on electronic communications network and service providers listed in Chapter IV of the Universal Service Directive can therefore be substantially simplified.

Figure 8: Universal guaranteed internet access at fixed location, irrespective of the consumer or provider's location.



6.1. Definitions and scope

Scope of the Universal Service Directive

Currently, the Universal Service Directive covers three different issues: (i) the scope, the characteristics and the means of provision of the universal service as such, (ii) the obligations which can be imposed on the retail market in case of non-effective competition, and (iii) the sector-specific consumer protection rules. This is very misleading and does not correspond to the technology, market and legislative evolutions.

The directive should deal only with a redefined universal service. The other provisions should either be deleted as they are no longer justified due to market evolution (e.g. the retail market obligations), by legislative evolution (e.g. some sector-specific consumer protection) or transferred to the Authorisation Directive. Therefore, the scope of the directive should be redefined and focus on internet access service.

Current provisions	Amendments
Article 1 Universal Service Directive **Subject-matter and scope**	**Article 1 Universal Service Directive** **Subject-matter and scope**
1. Within the framework of Directive 2002/21/EC (Framework Directive), this Directive concerns the provision of electronic communications networks and services to end-users. The aim is to ensure the availability throughout the Community of good-quality publicly available services through effective competition and choice and to deal with circumstances in which the needs of end-users are not satisfactorily met by the market. The Directive also includes provisions concerning certain aspects of terminal equipment, including provisions intended to facilitate access for disabled end-users.	1. Within the framework of Directive 2002/21/EC (Framework Directive), this Directive concerns the provision **of access to broadband internet** ~~electronic communications networks and services~~ to **consumers** ~~end-users~~. The aim is to ensure the availability throughout the ~~Community~~ **European Union** of good-quality publicly available ~~services~~ **internet access** through effective competition and choice and to deal with circumstances in which the **consumer** needs ~~of end-users~~ are not satisfactorily met by the market. ~~The Directive also includes provisions concerning certain aspects of terminal equipment, including provisions intended to facilitate access for disabled end-users.~~
2. This Directive establishes the rights of end-users and the corresponding obligations of undertakings providing publicly available electronic communications networks and services. With regard to ensuring provision of universal service within an environment of open and competitive markets, this Directive defines the minimum set of services of specified quality to which all end-users have access, at an affordable price in the light of specific national conditions, without distorting competition. This Directive also sets out obligations with regard to the provision of certain mandatory services.	2. ~~This Directive establishes the rights of end-users and the corresponding obligations of undertakings providing publicly available electronic communications networks and services.~~ With regard to ensuring provision of universal basic broadband **internet access** ~~service~~ **and prevent social exclusion** within an environment of open and competitive markets, this Directive **requires Member State to** define the minimum set of **information society** services ~~of specified quality~~ to which all **consumers** ~~end-users~~ **need to** have access **via internet connections at fixed location** at an affordable price in the light of specific national conditions, without distorting competition. ~~This Directive also sets out obligations with regard to the provision of certain mandatory services.~~
3. This Directive neither mandates nor prohibits conditions, imposed by providers of publicly available electronic communications and services, limiting end-users' access to, and/or use of, services and applications, where allowed under national law and in conformity with Community law, but lays down an obligation to provide information regarding such conditions. National measures regarding end-users' access to, or use of, services and applications through electronic communications networks shall respect the fundamental rights and freedoms of	3. ~~This Directive neither mandates nor prohibits conditions, imposed by providers of publicly available electronic communications and services, limiting end-users' access to, and/or use of, services and applications, where allowed under national law and in conformity with Community law, but lays down an obligation to provide information regarding such conditions.~~ National measures regarding ~~end-users~~ access **to the internet**, ~~or use of, services and applications through electronic communications networks~~ shall respect the

natural persons, including in relation to privacy and due process, as defined in Article 6 of the European Convention for the Protection of Human Rights and Fundamental Freedoms.	fundamental rights and freedoms of natural persons, including in relation to privacy and due process, as defined in Article 6 of the European Convention for the Protection of Human Rights and Fundamental Freedoms.
4. The provisions of this Directive concerning end-users' rights shall apply without prejudice to Community rules on consumer protection, in particular Directives 93/13/EEC and 97/7/EC, and national rules in conformity with Community law.	***Para to be deleted***

Definitions

The current scope of universal service consists of (1) a connection to the public telephone network at a fixed location and (2) access to publicly available telephone services where the connection enables voice and data communications services - at narrowband speeds – with functional access to the Internet. The definitions in Article 2 of the Universal Service Directive reflect this scope. However, *'functional access to the internet'* is not defined[76].

Directive 2009/140 stresses that "*the Internet is essential for education and for the practical exercise of freedom of expression and access to information*" which are considered fundamental human rights, protected under the European Convention for the Protection of Human Rights and Fundamental Freedoms. The Directive therefore provided flexibility to the Member States in 2009 to mandate the provision of a broadband connection within the scope of universal service in light of their national circumstances. Some Member States (Belgium, Croatia, Finland, Malta, Spain, Sweden and, only for disabled end-users, Latvia) have decided to include broadband connections within the scope of universal service (from 144kbps up to 1 and 4 Mbps). Defining 'functional access' in terms of download speeds fails however to take into account that other parameters than speed can be critical. "*For example, app-based universal access to eHealth information will be as much critically dependent on geographic coverage, security, and latency, as it is on speed of connection or bandwidth*"[77].

Moreover, any definition in terms of download speed confuses the legitimate political objective to reach more ambitious broadband targets with the essence of the EU universal service, which is to guarantee internet access for the sake of social and economic inclusion. To avoid this confusion, the universal service should therefore be defined as '*basic access to the internet*'[78], the minimum to avoid

[76] Recital 5 of the Citizens' Rights Directive amending the Universal Service Directive on functional internet access states: "*Data connections to the public communications network at a fixed location should be capable of supporting data communications at rates sufficient for access to online services such as those provided via the public Internet. 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. The data rate that can be supported by a connection to the public communications network depends on the capabilities of the subscriber's terminal equipment as well as the connection. For this reason, it is not appropriate to mandate a specific data or bit rate at Community level. Flexibility is required to allow Member States to take measures, where necessary, to ensure that a data connection is capable of supporting satisfactory data rates which are sufficient to permit functional Internet access, as defined by the Member States, taking due account of specific circumstances in national markets, for instance the prevailing bandwidth used by the majority of subscribers in that Member State, and technological feasibility, provided that these measures seek to minimise market distortion (…)*".

[77] The UK government's response to Commission Consultation: "Public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services", December 2015, p.22.

[78] While the telephone access was used to access the internet at the time of the drafting of the Universal Service Directive, today broadband internet access is used to access telephone services and audio-visual content.

social exclusion. The definition should moreover refer to the demand for the access and the cost of providing it.

The definitions of '*public pay telephone*' and '*publicly available telephone service*' should be removed since there is no longer any demand for these services and these services are no longer crucial for social inclusion. In any case, availability, affordability and accessibility of these services have been mostly achieved by market forces**.** In particular, prices for local fixed access with the same service level have been dramatically decreasing over the last 20 years, besides mobile offers.

The definition of geographic and non-geographic numbers should be transferred to the Authorisation Directive as specific rights and obligations should be maintained on providers of services at ensured quality for interpersonal voice communications based on numbering resources, notably regarding number portability or reliable emergency calls. These obligations would become conditions for the provision of interpersonal voice communications services at ensured quality based on numbers.

Current provisions	Amendments
Article 2 Universal Service Directive	**Article 2 Universal Service Directive**
For the purposes of this Directive, the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) shall apply.	For the purposes of this Directive, the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) **and Article 2 of Regulation 2015/2120** shall apply.
The following definitions shall also apply:	The following definitions shall also apply: (a) basic **access to the internet means an access capable of providing an access with satisfactory consumer experience to services that are necessary to avoid social exclusion taking into account demand and the cost of providing the access concerned.**
(a) 'public pay telephone' means a telephone available to the general public, for the use of which the means of payment may include coins and/or credit/debit cards and/or pre-payment cards, including cards for use with dialling codes;	***Delete***
(c) 'publicly available telephone service' means a 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;	***Delete***
(d) '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);	***Transfer in Article 2 of the Authorisation Directive***

(f) ‘non-geographic number’ means a number from the national telephone numbering plan that is not a geographic number. It includes, inter alia, mobile, freephone and premium rate numbers.	***Transfer in Article 2 of the Authorisation Directive***

Availability of services

Legacy PSTN networks offer very high levels of resilience to consumers, particularly in the event of a power failure to the home. This has been particularly important given the historic role of the PSTN providing access to emergency services. Where this level of network-based resilience is not available, OFCOM[79] has for example provided guidance that battery backup sufficient to support operation for one hour should be deployed to allow emergency calls in the event of a power failure.

Reliable access to the emergency services is of fundamental importance, and this objective is shared by all market players, but should be imposed only as regards services at ensured quality based on numbers for the purpose of interpersonal voice communications (see above).

In addition, Article 23 only imposes obligations on providers of publicly available telephone services, while today calls are increasingly made over OTT services. Best effort communication services that lack end-to-end quality and phone numbers and, thus, cannot provide reliable emergency call functionality. OTT provides need to be required to clearly informing users about the limitations of services.

Costs related to the provisioning of emergency call functionality should be publicly funded. At least, the burden, which is currently, only borne by telecom operators, should be shared among the various service providers in the digital market.

Current provisions	Amendments
Article 23 Universal Service Directive **Availability of services** Member States shall take all necessary measures to ensure the fullest possible availability of publicly available telephone services 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 publicly available telephone services take all necessary measures to ensure uninterrupted access to emergency services.	**Article 23 Universal Service Directive** **Availability of services** ***Deleted in the Universal Service Directive. However the main obligations of the provision would be linked to interpersonal voice communications services at ensured quality based on numbers and transferred to Authorisation Directive***

6.2. Interconnection

ETNO believes that operators of public networks should be granted the right and the obligation to interconnect for providing interpersonal voice communications services at ensured quality based on numbers. Network interconnection is indispensable, among other, to guarantee end-to-end quality

[79] Guidelines on the use of battery back-up to protect lifeline services delivered using fibre optic technology, December 2011.

throughout the European Union, interoperability of the services concerned as well as emergency services. There is no need to extend network providers' rights and obligations on interconnection to service providers to achieve these objectives.

In the Access Directive, the definition of interconnection should accordingly be amended to link it to any-to-any connectivity and interoperability of information society services.

Current provisions	Proposed amendments
Article 2 Access Directive	**Article 2 Access Directive**
For the purposes of this Directive the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) shall apply.	For the purposes of this Directive the definitions set out in Article 2 of Directive 2002/21/EC (Framework Directive) shall apply.
The following definitions shall also apply: (b) '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;	The following definitions shall also apply: (b) 'interconnection' means the physical and logical linking of public communications networks used by ~~the same or a~~ different undertaking**s** in order to allow the users of one undertaking to communicate with users of the ~~same or an~~other 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~~;

Interconnection covers different realities, going from the direct or indirect interconnection of fixed and a mobile network to provide mutual access to each other's end-users, to agreements between Internet backbones. The aim of interconnection of fixed and mobile networks is to ensure that any caller may call or SMS the called party's network. Numbers from the numbering plans identify the caller and called party. On the other hand, numbers can be used for services in principle not requiring interconnection, such as IoT applications. Interconnection rights and obligations should therefore be reserved to undertakings providing services using numbers for the purposes of providing interpersonal voice communications at ensured end-to-end quality regardless of technology.

Such obligations should include the requirement to comply with possible NRA decisions fixing terms and conditions for interconnection. These terms and conditions should, in principle, be the same for all operators being granted these numbering resources. Accordingly, the current references to the Article 7 procedure should be deleted. Moreover, the wording of Article 5 Access Directive should clarify that regulatory intervention is only justified to ensure interoperability of services of equivalent quality, i.e. that a specification of quality requirements can be required in order to ensure end-to-end-quality.

In the data networks, the TCP/IP (Transmission Control Protocol / Internet Protocol) defines a boundary between what is 'below the IP layer', namely the infrastructure of data flows transport, and 'above the IP layer', namely the command network and all Internet services[80] and applications: access, browsers, applets…

[80] The issuance of new E.164 numbers will be phased out when IPv6 becomes widely available for those devices that do not need to rely on PSTN-based addressing.

In 2010[81], BEREC highlighted the fact that peering and transit interconnection arrangements "*developed without any regulatory intervention, although the obligation to negotiate for interconnection applies to IP networks as well. These agreements have been largely outside the scope of activity of NRAs. This appeared justified in particular due to the competitiveness of the transit market on IP backbones*". Network operators which do not make use of dedicated numbering resources for interpersonal voice communications would no longer be subject to ex-ante obligations. In case of abusive refusal to interconnect or discrimination, competition law would apply[82]. NRAs would nevertheless retain a possibility to use Article 5 of the Access Directive to intervene in interconnection disputes (e.g. peering disputes) "*to the extent that is necessary to ensure end-to-end connectivity*",

Current provisions	Proposed amendments
Article 4 Authorisation Directive **Minimum list of rights derived from the general authorisation** 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 Community under the conditions of and in accordance with Directive 2002/19/EC (Access Directive); (b) (…)	**Article 4 Authorisation Directive** **Minimum list of rights derived from the general authorisation** 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 Community under the conditions of and in accordance with Directive 2002/19/EC (Access Directive); (b) (…)
Article 4 Access Directive **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 4 of Directive 2002/20/EC (Authorisation 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 Community. Operators shall offer access and interconnection to other undertakings on terms and conditions consistent	**Article 4 Access Directive** **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 4 of Directive 2002/20/EC (Authorisation Directive), an obligation to negotiate interconnection with each other for the purpose of providing ~~publicly available electronic~~ **interpersonal voice** communications services **at ensured quality based on numbers**, in order to ensure provision and interoperability of **these** services **at ensured quality based on numbers,** throughout the

[81] BEREC's Response to the Commission Questionnaire on Net Neutrality (BEREC (10) 42, p.15.

[82] See e.g. Autorité de la concurrence, 'Internet Traffic – Peering Agreements', press release 20 September 2012, available on: http://www.autoritedelaconcurrence.fr/user/standard.php?id_rub=418&id_article=1971

with obligations imposed by the national regulatory authority pursuant to Articles 5 to 8.	**European Union** ~~Community~~. Operators shall offer ~~access and~~ interconnection to other undertakings on terms and conditions consistent with obligations imposed by the national regulatory authority pursuant to Article~~s~~ 5 ~~to 8.~~
Article 5 Access Directive **Powers and responsibilities of the national regulatory authorities with regard to access and interconnection** 1. National regulatory authorities shall, acting in pursuit of the objectives set out in Article 8 of Directive 2002/21/EC (Framework Directive), 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, efficient investment and innovation, and gives the maximum benefit to end-users. In particular, without prejudice to measures that may be taken regarding undertakings with significant market power in accordance with Article 8, national regulatory authorities shall be able to impose: (a) to the extent that is necessary to ensure end-to-end connectivity, obligations on undertakings that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case; (ab) in justified cases and to the extent that is necessary, obligations on undertakings that control access to end-users to make their services interoperable; (b) to the extent that is necessary to ensure accessibility for end-users to digital radio and television broadcasting services specified by the Member State, obligations on operators to provide access to the other facilities referred to in Annex I, Part II on fair, reasonable and non-discriminatory terms. 2. Obligations and conditions imposed in accordance with paragraph 1 shall be objective, transparent, proportionate and non-discriminatory, and shall be implemented in accordance with the procedures referred to in Articles 6, 7 and 7a of Directive 2002/21/EC (Framework Directive).	**Article 5 Access Directive** **Powers and responsibilities of the national regulatory authorities with regard to access and interconnection** 1. National regulatory authorities shall, acting in pursuit of the objectives set out in Article 8 of Directive 2002/21/EC (Framework Directive), 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~~,~~ efficient investment and ~~i~~innovation, and gives the maximum benefit to end-users. In particular, ~~without prejudice to measures that may be taken regarding undertakings with significant market power in accordance with Article 8,~~ national regulatory authorities shall be able to impose: (a) to the extent that is necessary to ensure end-to-end connectivity of services **of equivalent quality**, obligations on undertakings that control access to end-users, including in justified cases the obligation to interconnect their networks where this is not already the case; (ab) in justified cases and to the extent that is necessary, obligations on undertakings that control access to end-users to make their services interoperable; (b) to the extent that is necessary to ensure accessibility for end-users to digital radio and television broadcasting services specified by the Member State, obligations on operators to provide access to the other facilities referred to in Annex I, Part II on fair, reasonable and non-discriminatory terms. ***Idem***

3. 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 8 of Directive 2002/21/EC (Framework Directive), in accordance with the provisions of this Directive and the procedures referred to in Articles 6 and 7, 20 and 21 of Directive 2002/21/EC (Framework Directive).	***Idem***

6.3. Obligations attached to numbers and services for interpersonal voice communications at ensured quality

Article 10 of the Framework Directive still contains the wording enacted[83] at the time of the liberalisation of the sector aiming to ensure that adequate numbers were available and assigned to entrants, for example by changes in the national numbering plans consisting of a change of maximum number length. ETNO believes that such requirements are now obsolete and should be updated, including to reflect the end of the regulation of providers of electronic communications service and the regulation instead of services for interpersonal voice communications at ensured quality based on numbers.

Current provisions	Proposed amendments
Article 10 Framework Directive **Numbering, naming and addressing**	**Article 10 Framework Directive** **Numbering, naming and addressing**
1. Member States shall ensure that national regulatory authorities control the assignment of all national numbering resources and the management of the national numbering plans. Member States shall ensure that adequate numbers and numbering ranges are provided for all publicly available electronic communications services. National regulatory authorities shall establish objective, transparent and non-discriminatory assigning procedures for national numbering resources.	1. Member States shall ensure that national regulatory authorities control the assignment of all national numbering resources and the management of the national numbering plans. ~~Member States shall ensure that adequate numbers and numbering ranges are provided for all publicly available communications services~~. National regulatory authorities shall establish objective, transparent and non-discriminatory assigning procedures for national numbering resources.
2. National regulatory authorities shall ensure that numbering plans and procedures are applied in a manner that gives equal treatment to all providers of publicly available electronic communications services. In particular, Member States shall ensure that an undertaking	2. National regulatory authorities shall ensure that numbering plans and procedures are applied in a manner that gives equal treatment to all providers of ~~publicly available electronic communications~~ services **requesting numbers**. In particular, Member States shall ensure that

[83] Among other from Directive 98/61/EC of the European Parliament and of the Council of 24 September 1998 amending Directive 97/33/EC with regard to operator number portability and carrier pre-selection.

allocated a range of numbers does not discriminate against other providers of electronic communications services as regards the number sequences used to give access to their services. (…)	an undertaking allocated a range of numbers does not discriminate against other providers of similar services as regards the number sequences used to give access to their services. (…)

6.3.1. Quality of service requirements for interpersonal voice communications at ensured quality

The Universal Service Directive and the ePrivacy Directive contain certain obligations of public access telephone service operators, such as an obligation on (end-user) access to numbers and to additional facilities, which will continue to be relevant in the future. ETNO proposes to transfer these obligations, which are in essence conditions for the provision of the services concerned, to the Authorisation Directive.

Access to services, including emergency services

The first of these obligations is the single European emergency call number, which was introduced in 1991[84]. At the time, there was a need to require Member States to amend their legislation so as to ensure that a single number would be available across the EU that citizens could remember even under the pressure of an emergency situation.

Article 26 of the Universal Service Directive carried over the obligations of the 1991 Decision. Under Article 26 of the Universal Service Directive:

- Member States must ensure that users of fixed and mobile telephones, including payphones, are able to call 112 free of charge;
- 112 calls must be appropriately answered and handled, irrespective of whether other emergency numbers exist in a specific country;
- Member States must ensure that emergency services are able to establish the location of the person calling 112;
- All EU countries must inform their own citizens and visitors of the existence of 112 and in which circumstances they should call it.

Moreover, the Roaming Regulation obliges roaming service providers to send an SMS to people travelling to another EU country with information about the European emergency number 112.

Today, legal obligations are in place in all Member States. Harmonisation of national legislations is no more an issue. The priority is working together to further improve the operation of the systems in place.

Current provisions	Amendments
Article 26 Universal Service Directive **Emergency services and the single European emergency call number**	

[84] Council Decision 91/396/EEC of 29 July 1991 on the introduction of a single European emergency call number, O.J. L 217, 6.8.1991, p. 31–32.

1. Member States shall ensure that all end-users of the service referred to in paragraph 2, including users of public pay telephones, are able to call the emergency services free of charge and without having to use any means of payment, by using the single European emergency call number '112' and any national emergency call number specified by Member States.	***To be deleted***
2. Member States, in consultation with national regulatory authorities, emergency services and providers, shall ensure that undertakings providing end-users with an electronic communications service for originating national calls to a number or numbers in a national telephone numbering plan provide access to emergency services.	***To be included in an amended form in a new Article of the Authorisation Directive (see below)***
3. Member States shall ensure that calls to the single European emergency call number '112' are appropriately answered and handled in the manner best suited to the national organisation of emergency systems. Such calls shall be answered and handled at least as expeditiously and effectively as calls to the national emergency number or numbers, where these continue to be in use.	***To be deleted***
4. Member States shall ensure that access for disabled end-users to emergency services is equivalent to that enjoyed by other end-users. Measures taken to ensure that disabled end-users are able to access emergency services whilst travelling in other Member States shall be based to the greatest extent possible on European standards or specifications published in accordance with the provisions of Article 17 of Directive 2002/21/EC (Framework Directive), and they shall not prevent Member States from adopting additional requirements in order to pursue the objectives set out in this Article.	***To be deleted***
5. Member States shall ensure that undertakings concerned make caller location information available free of charge to the authority handling emergency calls as soon as the call reaches that authority. This shall apply to all calls to the single European emergency call number '112'. Member States may extend this obligation to cover calls to national emergency numbers. Competent regulatory authorities shall lay down criteria for the accuracy and reliability of the caller location information provided.	***To be included in an amended form in a new Article of the Authorisation Directive (see below)***

6. Member States shall ensure that citizens are adequately informed about the existence and use of the single European emergency call number '112', in particular through initiatives specifically targeting persons travelling between Member States.	***To be deleted***
7. In order to ensure effective access to '112' services in the Member States, the Commission, having consulted BEREC, may adopt technical implementing measures. However, these technical implementing measures shall be adopted without prejudice to, and shall have no impact on, the organisation of emergency services, which remains of the exclusive competence of Member States. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 37(2).	***To be deleted***

In addition to these two provisions from Article 26 Universal Service Directive, the new Article in the Authorisation Directive would carry over also the main obligations under Articles 28 Universal Service Directive.

Current provisions	Proposed amendments
Article 28 Universal Service Directive **Access to numbers and services**	**New Article Authorisation Directive** **Access to numbers and services**
1. Member States shall ensure that, where technically and economically feasible, and except where a called subscriber has chosen for commercial reasons to limit access by calling parties located in specific geographical areas, relevant national authorities take all necessary steps to ensure that end-users are able to: (a) access and use services using non-geographic numbers within the Community; and (b) access all numbers provided in the Community, regardless of the technology and devices used by the operator, including those in the national numbering plans of Member States, those from the ETNS and Universal International Freephone Numbers (UIFN).	***Idem***
2. Member States shall ensure that the relevant authorities are able to require undertakings providing public communications networks and/or publicly available electronic communications services to block, on a case-by-case basis, access to numbers or services where	2. Member States shall ensure that the relevant authorities are able to require undertakings **making use of numbering resources for the provision of interpersonal voice communications at ensured quality** ~~providing public communications networks and/or publicly available electronic communications services~~ to

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.	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~~ **interpersonal voice** communications services **at ensured quality based on numbers** withhold relevant interconnection or other service revenues.
Art. 26 Universal Service Directive 2. Member States, in consultation with national regulatory authorities, emergency services and providers, shall ensure that undertakings providing end-users with an electronic communications service for originating national calls to a number or numbers in a national telephone numbering plan provide access to emergency services.	**3.** Member States, in consultation with national regulatory authorities, emergency services and providers, shall ensure that undertakings ~~providing end-users with an electronic communications service~~ **making use of numbering resources** for originating national calls to a number or numbers in a national telephone-numbering plan **for the provision of interpersonal voice communications at ensured quality** provide access to emergency services.
5. Member States shall ensure that undertakings concerned make caller location information available free of charge to the authority handling emergency calls as soon as the call reaches that authority. This shall apply to all calls to the single European emergency call number '112'. Member States may extend this obligation to cover calls to national emergency numbers. Competent regulatory authorities shall lay down criteria for the accuracy and reliability of the caller location information provided.	**4.** Member States shall ensure that undertakings concerned make caller location information available free of charge to the authority handling emergency calls as soon as the call reaches that authority. This shall apply to all calls to the single European emergency call number '112'. Member States may extend this obligation to cover calls to national emergency numbers. Competent regulatory authorities shall lay down criteria for the accuracy and reliability of the caller location information provided **taking into account the technology deployed by the operators concerned. Member States may also provide obligations on handset manufacturers with GPS functionalities for making caller location information available.**

Additional facilities

Article 29 should be deleted, in line with the deletion of Article 10 Universal Service Directive (Control of expenditure).

Article 29 Universal Service Directive **Provision of additional facilities**	**Article 29 Universal Service Directive** **Provision of additional facilities**
1. Without prejudice to Article 10(2), Member States shall ensure that national regulatory authorities are able to require all undertakings that provide publicly available telephone	**To be deleted**

services and/or access to public communications networks to make available all or part of the additional facilities listed in Part B of Annex I, subject to technical feasibility and economic viability, as well as all or part of the additional facilities listed in Part A of Annex I. 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.	

Moreover, ETNO believes that Annex I of the Universal Service Directive should be deleted, taking into account that the obligations listed are obsolete or disproportionate in the current market conditions. For example, the obligation to provide tone dialing or DTMF (dual-tone multi-frequency operation) or to provide calling-line identification. The provision of these services does not require prescriptive regulation, given that best-effort communications services providers do not ensure these standards either, which obviously does not appear to be an issue for consumers.

Annex I Universal Service Directive DESCRIPTION OF FACILITIES AND SERVICES REFERRED TO IN ARTICLE 10 (CONTROL OF EXPENDITURE), ARTICLE 29 (ADDITIONAL FACILITIES) AND ARTICLE 30 (FACILITATING CHANGE OF PROVIDER)	**Annex I Universal Service Directive DESCRIPTION OF FACILITIES AND SERVICES REFERRED TO IN ARTICLE 10 (CONTROL OF EXPENDITURE), ARTICLE 29 (ADDITIONAL FACILITIES) AND ARTICLE 30 (FACILITATING CHANGE OF PROVIDER)**
Part A: Facilities and services referred to in Article 10 (a) Itemised billing Member States are to ensure that 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 by undertakings to subscribers 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 and/or related publicly available telephone services; 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 subscribers at reasonable tariffs or at no charge. Calls which are free of charge to the calling subscriber, including calls to helplines, are not to be identified in the calling subscriber's itemised bill.	***Delete part A***

(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 subscriber can, on request to the designated undertaking that provides telephone services, 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 authorities may require designated undertakings to provide means for consumers to pay for access to the public communications network and use of publicly available telephone services on pre-paid terms.

(d) Phased payment of connection fees
Member States are to ensure that national regulatory authorities may require designated undertakings 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. These measures are to ensure that due warning of any consequent service interruption or disconnection is given to the subscriber 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 subscriber. 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 subscriber (e.g. '112' calls) are permitted.

(f) Tariff advice
i.e. the facility whereby subscribers may request the undertaking to provide information

regarding alternative lower-cost tariffs, if available. (g) Cost control i.e. the facility whereby undertakings offer other means, if determined to be appropriate by national regulatory authorities, to control the costs of publicly available telephone services, including free-of-charge alerts to consumers in case of abnormal or excessive consumption patterns.	
Part B: Facilities referred to in Article 29 (a) Tone dialling or DTMF (dual-tone multi-frequency operation) i.e. the public communications network and/or publicly available telephone services supports the use of DTMF tones as defined in ETSI ETR 207 for end-to-end signalling throughout the network both within a Member State and between Member States. (b) 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.	***Delete part B***
Part C: Implementation of the number portability provisions referred to in Article 30 The requirement that all subscribers 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.	***Delete part C***

Quality of Services

Today Articles 11 and 22 of the Universal Service Directive refer to a number of quality of service parameters and measurement methods aimed at ensuring end-to-end quality of the publicly accessible telephone service. These quality of service parameters are listed in Annex III of the Universal Service Directive.

Certain of these obligations could be maintained, as an optional catalogue for NRAs where they would deem it necessary to impose quality of service requirements to draw a clear borderline between '*end-to-end quality'* of services that use numbers vs. best effort services.

Current provisions	Proposed amendments
ANNEX III USD **QUALITY OF SERVICE PARAMETERS** **Quality-of-Service Parameters, Definitions and Measurement Methods referred to in Articles 11 and 22**	**ANNEX II Authorisation Directive** **QUALITY OF SERVICE PARAMETERS** **Quality-of-Service Parameters, Definitions and Measurement Methods referred to in Article XX**
(…) For undertakings providing a publicly available telephone service Call set up time (Note 2) ETSI EG 202 057 ETSI EG 202 057 Response times for directory enquiry services ETSI EG 202 057 ETSI EG 202 057 Proportion of coin and card operated public pay-telephones in working order ETSI EG 202 057 ETSI EG 202 057 Bill correctness complaints ETSI EG 202 057 ETSI EG 202 057 Unsuccessful call ratio (Note 2) ETSI EG 202 057 ETSI EG 202 057 Version number of ETSI EG 202 057-1 is 1.3.1 (July 2008) (…)	For undertakings providing **services using numbers for the provision of interpersonal voice communications at ensured quality** Call set up time (Note 2) ETSI EG 202 057 ETSI EG 202 057 ~~Response times for directory~~ ~~enquiry services~~ ~~ETSI EG 202 057 ETSI EG 202 057~~ ~~Proportion of coin and card~~ ~~operated public pay-telephones in~~ ~~working order~~ ~~ETSI EG 202 057 ETSI EG 202 057~~ ~~Bill correctness complaints ETSI EG 202 057 ETSI EG 202 057~~ Unsuccessful call ratio (Note 2) ETSI EG 202 057 ETSI EG 202 057 Version number of ETSI EG 202 057-1 is 1.3.1 (July 2008) **delay** **jitter** **packet loss**
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.	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.

6.3.3. Number portability

Article 30 (1) to (4) of the Universal Service Directive requires Member States to ensure number portability, i.e. the facility that allows the subscribers of Publicly Available Telephone Services (PATS) to change their service provider while retaining their original number, which today, in reality, constitute conditions attached to the right of being assigned E.164 numbering resources.[85] The number portability provisions do however not cover IP addresses, for which no portability requirement exists.

The concept of portability will possibly become important beyond communications services making use of telephone numbers. Other communications services use also personal identifiers for their customers, while not offering the portability of these identifiers to competing providers. Beyond identifiers, portability of content or data becomes relevant, e.g. "*for cloud services which involve storing customer data or content and applications owned by the customer. In these cases, the lack of the ability to readily move data can create significant issues for competition and for the ability of new entrants to gain a foothold in established markets. Relevant examples include:*

- *Cloud computing facilities such as online office or personal locker facilities;*
- *Social networking sites in which a large amount of user-generated content such as contacts, messages, photos and videos might be stored; or*
- *Online digital media services where customers purchase music, video and other media on one platform and may wish later to access and play such services on other platforms"*[86].

Article 20 of the General Data Protection Regulation as adopted by the Council in April 2016[87] establishes a right to data portability. However, the obligation concerns only personal data and is limited to the obligation for the undertaking to provide the personal data to the consumer.

It should be considered that portability obligations become a general principle applicable to all relevant digital services. As regards mobile and fixed telephony services, number porting continues to be one key facilitator of consumer choice and effective competition. It is proposed to attach number portability obligations as a condition to the granting of numbering resources in the Authorisation Directive for interpersonal voice communications services at ensured quality and to increase some flexibility as regards to the pricing and the duration of number portability. The current requirement that the maximal interruption of service should not exceed one working day would be maintained and provide a sufficient safeguard for the end-user. Further obligations at EU level are not necessary.

Number portability must be distinguished from switching IAS. Porting numbers can happen independently from switching the IAS. Particularly for fixed IAS, there is not any more a necessary technical link between the IAS and numbers – consumers may e.g. conclude a Data-Only contract without requiring a phone number. Paragraph 1 to 4 of Article 30 are thus covering a reality distinct from the subject of paragraphs 5 and 6 of that Article.

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[85] E.g. other service providers do not even offer any portability, since they lack standard identifiers and any-to-any-connectivity/ interoperability

[86] European Parliament, Over-the-Top (OTTs) players: Market dynamics and policy challenges, IP/A/IMCO/FWC/2013-046, December 2015, p.82

[87] "*1. The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided, where: the processing is based on consent pursuant to point (a) of Article 6(1) or point (a) of Article 9(2) or on a contract pursuant to point (b) of Article 6(1); and the processing is carried out by automated means.*

2. In exercising his or her right to data portability pursuant to paragraph 1, the data subject shall have the right to have the personal data transmitted directly from one controller to another, where technically feasible".

An obligation included in horizontal EU consumer protection law should ensure that also customers of IAS can rely on a smooth switching process.

Current provisions	Proposed amendments
Article 30 Universal Service Directive **Facilitating change of provider**	**New Article Authorisation Directive** **Number Portability** ~~**Facilitating change of provider**~~
1. Member States shall ensure that all subscribers with numbers from the national telephone numbering plan who so request can retain their number(s) independently of the undertaking providing the service in accordance with the provisions of Part C of Annex I.	1. Member States shall ensure that **operators using numbers for the purposes of providing interpersonal voice communications at ensured quality**, **arrange that when their subscribers change their subscription to subscribe to the services of a competitor and** the subscribers ~~with numbers from the national telephone numbering plan who~~ so request, **they** ~~can~~ retain their number(s) independently of the undertaking providing the service ~~in accordance with the provisions of Part C of Annex I~~.
2. 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 direct charges to subscribers, if any, do not act as a disincentive for subscribers against changing service provider.	2. National regulatory authorities shall ensure that pricing between operators and/or service providers related to the provision of number portability is **fair, reasonable and non-discriminatory** ~~cost-oriented,~~ and that direct charges to subscribers, if any does not act as a disincentive for subscribers against changing service provider.
3. 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.	***delete***
4. Porting of numbers and their subsequent activation shall be carried out within the shortest possible time. In any case, subscribers who have concluded an agreement to port a number to a new undertaking shall have that number activated within one working day. Without prejudice to the first subparagraph, competent national authorities may establish the global process of porting of numbers, taking into account national provisions on contracts, technical feasibility and the need to maintain continuity of service to the subscriber. In any event, loss of service during the process of porting shall not exceed one working day. Competent national authorities shall also take into account, where necessary, measures ensuring that subscribers are protected	4. Porting of numbers and their subsequent activation shall be carried out within the shortest possible time. ~~In any case, subscribers who have concluded an agreement to port a number to a new undertaking shall have that number activated within one working day.~~ Without prejudice to the first subparagraph, competent national authorities may establish the global process of porting of numbers, taking into account national provisions on contracts, technical feasibility and the need to maintain continuity of service to the subscriber. In any event, loss of service during the process of porting shall not exceed one working day. Competent national authorities shall also take into account, where necessary, measures ensuring that subscribers are protected

throughout the switching process and are not switched to another provider against their will. Member States shall ensure that appropriate sanctions on undertakings are provided for, including an obligation to compensate subscribers in case of delay in porting or abuse of porting by them or on their behalf.	throughout the switching process and are not switched to another provider against their will. Member States shall ensure that appropriate sanctions on undertakings are provided for, including an obligation to compensate subscribers in case of delay in porting or abuse of porting by them or on their behalf.

6.3.4. Directories

Extensive smart and mobile phone penetration and access to the Internet has indeed reduced the need for directory services although there is still widespread use. Research by Comres[88] for ETNO found that telephone directories and inquiries are becoming less and less essential for society, as they are generally much less used or are auxiliary services.

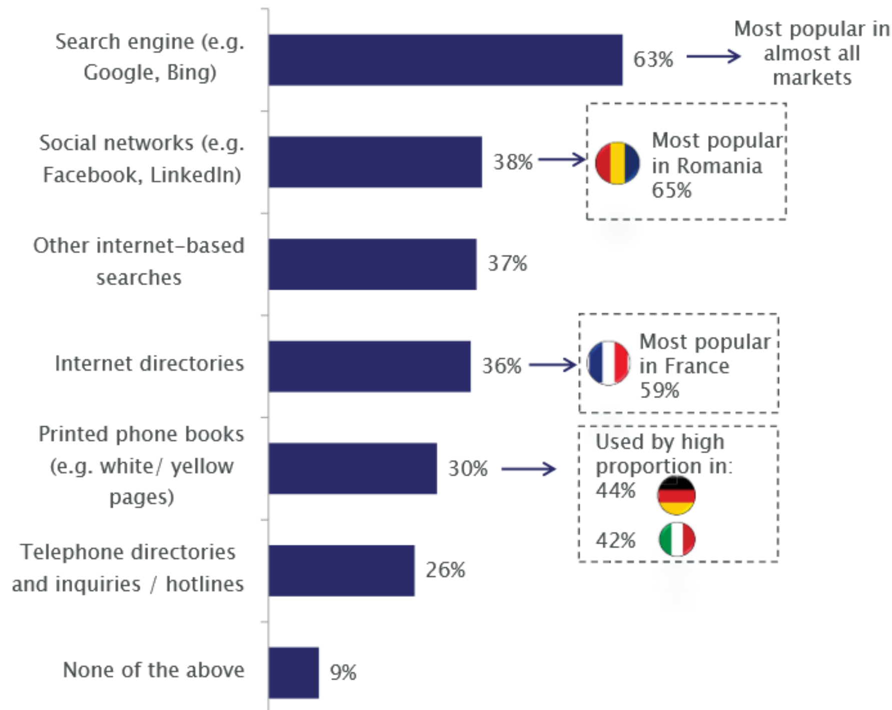
ETNO therefore propose to substantially simplify the current obligations of the Universal Service and the ePrivacy Directives relating to directories and limit the mandated service to the provision of information to the publisher or publishers of electronic directories. The obligation should be a prerequisite linked to the granting of rights of use of dedicated numbering resources allocated for services using numbers for the purposes of providing interpersonal voice communications at ensured quality (usually E.164 and E.212).

The current Article 5 of the Universal Service Directive requires Member States to ensure that there would be at least one comprehensive directory available on their territory. This obligation is outdated as explained in section 6.4 below. At the same time, it remains crucial for publishers of online directories to be entitled to receive the data from all operators of services making use of numbers for interpersonal communications, required to publish an exhaustive directory.

On the other hand, the current obligations on directories in the ePrivacy Directive should be reviewed in the light of the new General Data Protection Regulation.

[88] ComRes, Digital Consumer Survey, September 2015, p. 17.

Figure 9: most used directory services in the Member States



Current provisions	Proposed amendments
Article 25 Universal Service Directive Telephone directory enquiry services	**New Article Authorisation Directive Telephone directory enquiry services**
1. Member States shall ensure that subscribers to publicly available telephone services have the right to have an entry in the publicly available directory referred to in Article 5(1)(a) and to have their information made available to providers of directory enquiry services and/or directories in accordance with paragraph 2.	1. Member States shall ensure that subscribers to **services using numbers for the purposes of providing interpersonal voice communications at ensured quality** ~~publicly available telephone services~~, have the right ~~to have an entry in the publicly available directory referred to in Article 5(1)(a) and~~ to have their information made available to providers of electronic directory enquiry services and/or directories in accordance with paragraph 2.
2. Member States shall ensure that all undertakings which assign telephone numbers to subscribers 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.	***Idem***
3. Member States shall ensure that all end-users provided with a publicly available telephone	3. Member States shall ensure that all end-users provided with a ~~publicly available~~ service **using**

service can access directory enquiry services. 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 5 of Directive 2002/19/EC (Access Directive). Such obligations and conditions shall be objective, equitable, non-discriminatory and transparent.	**numbers for the purposes of providing interpersonal voice communications at ensured quality**, can access electronic directory enquiry services. National regulatory authorities shall be able to impose obligations and conditions on undertakings that control access of end-users for the provision of electronic directory enquiry services in accordance with the provisions of Article 5 of Directive 2002/19/EC (Access Directive). Such obligations and conditions shall be objective, equitable, non-discriminatory and transparent.
4. 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 28.	***Idem***
5. Paragraphs 1 to 4 shall apply subject to the requirements of Community legislation on the protection of personal data and privacy and, in particular, Article 12 of Directive 2002/58/EC (Directive on privacy and electronic communications).	***Para to be deleted***

6.3.5. Common EU numbering space

European telephone access code

Article 27 of the Universal Service Directive imposes obligations regarding European telephone access codes. The first obligation – the use of the '00' dialling code – has been implemented since many years. The application for a European 'country' code from International Telecommunications Union (ITU) can be submitted only by ITU members. At the end of the 1990s, the ETNS country code assignment was supported by the 15 European Union nations, plus Bulgaria, Czech Republic, Croatia, Slovenia, Slovakia and Switzerland.

The other obligations concern the European numbers (European Telephony Numbering Space, ETNS)[89], which failed. The context has changed. "*A European Telephony Numbering Space (ETNS) was less needed few years ago. It was not a great success, I must say. Perhaps it was a solution looking for a problem. But now the issue of a single European numbering plan has become relevant again with the rapid development of M2M communications and large scale pan-European applications like eCall. One car with its own chassis number, unique number and unique address*"[90].

[89] This European E.164 number range had not been used sufficiently and was cancelled by ITU in 2010

[90] Roberto Viola, Machine to machine connectivity in a Digital Single Market, published in DAE blog on 04/09/2015, available on: < https://ec.europa.eu/digital-single-market/en/blog/machine-machine-connectivity-digital-single-market>

However, support for a new European country code does not seem unanimous[91] because the introduction of such code would be technically complicated and costly to implement. Moreover, "*NRA-administered number schemes for mobile phones (so called E.164 and E.212 numbers) are by no means the only ones that are being used to uniquely identify objects in networks. In fact, other industries such as automotive, avionics and retail already track objects in their global supply chains and their specialised numbering schemes are implemented in IT systems around the world*"[92].

For this reason, ETNO proposes to delete the reference to the ETNS in Article 27 of the Universal Directive.

Current provisions	Amendments
Article 27 Universal Service Directive **European telephone access codes**	**Article 27 Universal Service Directive** **European telephone access codes**
1. Member States shall ensure that the '00' code is the standard international access code. Special arrangements for making calls 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.	1. Member States shall ensure that the '00' code is the standard international access code. Special arrangements for making calls 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.
2. A legal entity, established within the Community and designated by the Commission, shall have sole responsibility for the management, including number assignment, and promotion of the European Telephony Numbering Space (ETNS). The Commission shall adopt the necessary implementing rules.	***To be deleted***
3. Member States shall ensure that all undertakings that provide publicly available telephone services allowing international calls handle all calls to and from the ETNS at rates similar to those applied for calls to and from other Member States.	***To be deleted***

Harmonised telephone number for harmonised services

Article 27a USD establishes harmonised telephone numbers for harmonised services. In 2007, the Commission adopted a decision[93] establishing the 116 number[94]. The Decision lays down the rules on

[91] In the 1990s, some early reactions to the approval of the ETNS country code were already "*concerned that the ETNS would be made obsolete by Internet websites*" see < http://www.wtng.info/wtng-reg.html >. Today, this objection is likely even stronger.

[92] Roberto Viola, idem

[93] Decision 2007/116/EC of 15 February 2007 on reserving the national numbering range beginning with '116' for harmonised numbers for harmonised services of social value, OJ L 17 February 2007, 49 p.30.

[94] *Member States shall support the harmonisation of numbering resources within the Community where that is necessary to support the development of pan European services. The Commission may (…) take the appropriate technical implementing measures on this matter.*

the scope of the 116 numbers, the reservation of 116 numbers and their assignment to operators, and, in its annex, the numbers themselves. The aim of the Decision is that EU citizens would be able to reach certain services that have a social value by using the same recognisable numbers in all Member States.

In 2009 a specific provision was added to the Universal Service Directive requiring Member States to guarantee that citizens have access to a missing children hotline under the number 116000, promote the specific 116 numbers, ensure that disabled end-users are able to access the 116 numbers, ensure that citizens are adequately informed of the existence and use of the 116 numbers, in particular targeting persons travelling in the EU.

The European Commission has reserved five short numbers with a single format 116 + 3 digits for helplines that should be accessible to everyone in Europe. The 116 numbers designated so far are: 116 000 = missing children hotline; 116 006 = helpline for victims of crime; 116 111 = children's helpline; 116 117 = for non-emergency medical on-call services; 116 123 = emotional support helpline. The selected services tie in with wider EU objectives aimed at improving the wellbeing of European citizens, such as the European strategy for children's rights in the case of 116 000 and 116 111.The Commission regularly publishes a report on the state of implementation of 116 numbers.

ETNO considers that Article 27a USD could be deleted, Pan-European services of social interest with harmonized numbers having not risen a significant interest in Europe. Such services are adequately addressed at national or local level.

Instead of a binding requirement, the European Commission may encourage national governments to the provision of services harmonized as to their object but unique numbers are not needed at EU level. The identification of unique telephone numbers in all national numbering plans is complex and indirect costs fall on operators without an interest at the level of potential users while social networks, like Twitter, increasingly take over the envisaged role of harmonized numbers.

Current provisions	Amendments
Article 27a Universal Service Directive Harmonised numbers for harmonised services of social value, including the missing children hotline number	
1. Member States shall promote the specific numbers in the numbering range beginning with '116' identified by Commission Decision 2007/116/EC of 15 February 2007 on reserving the national numbering range beginning with '116' for harmonised numbers for harmonised services of social value. They shall encourage the provision within their territory of the services for which such numbers are reserved.	***To be deleted***
2. Member States shall ensure that disabled end-users are able to access services provided under the '116' numbering range to the greatest extent possible. Measures taken to facilitate disabled end-users' access to such services whilst travelling in other Member States shall be based on compliance with	

relevant standards or specifications published in accordance with Article 17 of Directive 2002/21/EC (Framework Directive). 3. Member States shall ensure that citizens are adequately informed of the existence and use of services provided under the '116' numbering range, in particular through initiatives specifically targeting persons travelling between Member States. 4. Member States shall, in addition to measures of general applicability to all numbers in the '116' numbering range taken pursuant to paragraphs 1, 2, and 3, make every effort to ensure that citizens have access to a service operating a hotline to report cases of missing children. The hotline shall be available on the number '116000'. 5. In order to ensure the effective implementation of the '116' numbering range, in particular the missing children hotline number '116000', in the Member States, including access for disabled end-users when travelling in other Member States, the Commission, having consulted BEREC, may adopt technical implementing measures. However, these technical implementing measures shall be adopted without prejudice to, and shall have no impact on, the organisation of these services, which remains of the exclusive competence of Member States. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 37(2).	

6.4. Universal service: Internet Access Services

6.4.1. Scope of universal service

A 2007 survey showed that: "*The majority of Europeans thought that having a colour television and fixed telephone were necessary. Having a mobile phone, a computer and an internet connection were mainly regarded as being 'desirable but not necessary"*[95].

Until now, the focus was too much on the supply side only. Under the Universal Service Directive, obligations must be imposed on one or more suppliers which are subsequently remunerated for the resulting net costs calculated on an ex-post basis. This approach may have been reasonable in the transition from fixed telephony monopoly to competition. At the time, mobile telephony was an expensive luxury for a minority of citizens.

However, the approach has led to repeated legal disputes[96] and is questionable to ensure global public interest policies[97]. It is no longer appropriate.

EU policy tools addressing the needs of users, in particular the deployment of broadband and access to digital services, were developed outside the universal service regime. For instance the Directive 2014/61 on measures to reduce the cost of deploying high-speed electronic communications networks; promotion of and usage of public funding from Structural Funds or from the Connecting Europe Facility; promotion of stability of prices for regulated wholesale access to SMP copper networks, and pricing flexibility for non-discriminatory regulated access to SMP NGA networks; advocacy of broadband coverage requirements in less densely populated areas as part of the spectrum assignment conditions; and adoption of the EU state aid rules to support the deployment of broadband networks in areas where there is a market failure.

This confirms that public policy tools other than Universal Service obligations are better suited to foster broadband deployment in case the market fails or the outcome is unsatisfactory. The need to guarantee internet access for the sake of social and economic inclusion should be distinguished from the objective to reach more ambitious broadband targets. The objective of a universal service obligation for functional internet access is to ensure social and economic inclusion. Any universal service obligations with regard to internet access should remain limited to the provision of a basic safety net, to avoid any disruptive effects.

It is most appropriate to define the scope and characteristics of functional internet access at a national level.

Taking into account the societal evolution under way[98] the future universal service regime, as long as maintained, should be limited to guaranteed *functional internet access at fixed locations*. The provision

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[95] Special Eurobarometer 279 report, quoted in Antje Kreutzmann-Gallasch e.a., Criteria to define essential telecoms services, ESRC Centre for Competition Policy, November 2013, p.20.

[96] 19 infringement procedures and several requests for preliminary ruling

[97] Vodafone, *Vodafone comments on European Commission questionnaire for the public consultation on universal service principles in e-communications*, May 2010, p. 7

[98] As highlighted by the Commission in the same question 150 of its consultation on the evaluation of the regulatory framework for electronic communications and on its review: "*Technological and market evolution has brought networks to move to internet protocol technology, and consumers to choose between a range of competing voice service providers. 36% of Europeans use voice over IP applications from a connected device to make cheaper or free phone calls (see "Special Eurobarometer 414: E-communications and telecom single market household survey of January 2014")".*

of telephony services at a fixed location, public payphones, directories and directory enquiry services should be removed from the scope of the universal service.

It is already possible under the current Framework to use wireless technology to provide '*access at a fixed location'*, but mobile services cannot currently be included within the scope of a national USO. There is no reason to change the approach. Research shows that despite the raise in mobile usage, internet access continues to occur predominantly via fixed networks, and in particular via Wi-Fi connections[99].

Functional Internet Access Services should be defined in terms of '*use of certain services'* – i.e. services that a customer should access in order to avoid social exclusion - and not in terms of speed. Services such as web browsing, social media and messaging services, access to basic e-government, e-banking may be considered as essential for the standard citizen. An approach based on categories of services has the advantage of avoiding picking technical solution.

The list of services to which access is indispensable to avoid social exclusion may vary between the Member States. NRAs should therefore draw up a list of the online services to which access is essential in their country taking into account the prevailing technical circumstances and the cost of providing this basic internet access, after having consulted the interested organizations and national welfare bodies. In a second step, the Commission would define the common EU basic internet access. The Commission Decision would constitute a maximum harmonization, to avoid too wide national interpretations of what scope of USO could be in their Member State and a further fragmentation of the internal market.

At the same time, any decision on the range and type of services to be included should carefully and duly take into account the costs of the provision of access to such services[100].

There is no reason to provide for a revision of the scope of the universal functional access. The scope as defined appears sufficient to address possible new social needs in terms of access to applications and content over the internet during the lifetime of the revised framework.

The Directive should set political objectives for Member States, including as regards demand side measures. These objectives for Member States would consist in:

- requiring their NRAs to apply the regulatory framework in an investment-friendly manner, incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of non-profitable areas;
- promoting regional and local schemes to support coverage in non-profitable areas;
- encouraging the inclusion in their social policies of affordability schemes (e.g. vouchers), digital literacy programs and other demand-side instruments aimed at fostering service penetration and usage amongst relatively disadvantaged groups of citizens.

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[99] Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2015–2020 White Paper, p.1: "*Mobile offload exceeded cellular traffic for the first time in 2015. Fifty-one percent of total mobile data traffic was offloaded onto the fixed network through Wi-Fi or femtocell in 2015. In total, 3.9 exabytes of mobile data traffic were offloaded onto the fixed network each month*".

[100] The financing of the services to which access is provided – e.g. e-edu, e-health and e-gov - would, as now, remain outside the scope of the universal service defined under the Universal Service Directive. Certain of these services could as far they are of public interest be financed by public funding.

Current provisions	amendments
Article 3 Universal Service Directive **Availability of universal service**	**Article 3 Universal Service Directive** **Availability of universal service**
1. Member States shall ensure that the services set out in this Chapter are made available at the quality specified to all end-users in their territory, independently of geographical location, and, in the light of specific national conditions, at an affordable price.	1. Member States shall ensure that **basic access to** the ~~services~~ ~~**functional**~~ **internet at fixed locations** ~~set out in this Chapter are~~ **is** made available ~~at the quality specified~~ to all ~~end-users~~ **consumers** in their territory, independently of geographical location, and, in the light of specific national conditions, at an affordable price. **This basic access shall enable functional access to all services that must be accessible in order to prevent social exclusion.**
	1a. the scope and the characteristics of the basic access to the internet will be set as follows: **- National regulatory authorities shall define the list of online services to which access is indispensable to avoid social exclusion taking into account technological feasibility and the cost of provision;** **- National regulatory authorities shall consult all interested parties on the list according to Article 6 of the Framework Directive;** **- National regulatory authorities shall submit these lists to the Commission at the latest twelve months after the date for transposition of this Directive.** **- the Commission shall adopt and publish a decision establishing the characteristics of the basic functional internet access at the latest 6 months after the deadline set in the previous paragraph.**
2. Member States shall determine the most efficient and appropriate approach for ensuring the implementation of universal 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	2. Member States shall determine the most efficient and appropriate approach for ensuring the implementation of **the basic** universal ~~service~~ **internet access**, 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

Article 4 Universal Service Directive **Provision of access at a fixed location and provision of telephone services**	**Article 4 Universal Service Directive Promoting supply and demand for internet access at a fixed location** ~~and provision of telephone services~~
1. Member States shall ensure that all reasonable requests for connection at a fixed location to a public communications network are met by at least one undertaking.	1. Member States shall **apply national legislation in an investment-friendly manner, incentivizing maximum coverage by private undertakings on commercial grounds to minimize the extension and the cost of areas in which there is no perspective of commercial offer of the basic access defined in Article 3.**
2. The connection provided shall be capable of supporting voice, facsimile and data communications at data rates that are sufficient to permit functional Internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility.	**2. Member States shall authorise their national regulatory authority to promote regional and local schemes to support coverage of areas in which there is no perspective of commercial offer of the basic access defined in Article 3.**
3. Member States shall ensure that all reasonable requests for the provision of a publicly available telephone service over the network connection referred to in paragraph 1 that allows for originating and receiving national and international calls are met by at least one undertaking.	3. Member States shall **encourage the inclusion in their social policies of affordability schemes, digital literacy programs and other demand-side instruments aimed at fostering internet access penetration and internet usage amongst relatively disadvantaged groups of citizens**.

Current provisions	amendments
Article 5 Universal Service Directive Directory enquiry services and directories 1. Member States shall ensure that: (a) at least one comprehensive directory is available to end-users in a form approved by the relevant authority, whether printed or electronic, or both, and is updated on a regular basis, and at least once a year; (b) at least one comprehensive telephone directory enquiry service is available to all end-users, including users of public pay telephones. 2. The directories referred to in paragraph 1 shall comprise, subject to the provisions of Article 12 of Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic	***To be deleted***

communications), all subscribers of publicly available telephone services. 3. Member States shall ensure that the undertaking(s) providing the services referred to in paragraph 1 apply the principle of non-discrimination to the treatment of information that has been provided to them by other undertakings.	
Article 6 Universal Service Directive **Public pay telephones and other publics voice telephony access points** 1. Member States shall ensure that national regulatory authorities may impose obligations on undertakings in order to ensure that public pay telephones or other public voice telephony access points are provided to meet the reasonable needs of end-users in terms of the geographical coverage, the number of telephones or other access points, accessibility to disabled end-users and the quality of services. 2. A Member State shall ensure that its national regulatory authority can decide not to impose obligations under paragraph 1 in all or part of its territory, if it is satisfied that these facilities or comparable services are widely available, on the basis of a consultation of interested parties as referred to in Article 33. 3. Member States shall ensure that it is possible to make emergency calls from public pay telephones using the single European emergency call number '112' and other national emergency numbers, all free of charge and without having to use any means of payment.	***To be deleted***
Article 15 Universal Service Directive **Review of the scope of universal service** 1. 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, on the first occasion within two years after the date of application referred to in Article 38(1), second subparagraph, and subsequently every three years. 2. This review shall be undertaken in the light of social, economic and technological developments,	***To be deleted***

taking into account, inter alia, mobility and data rates in the light of the prevailing technologies used by the majority of subscribers. The review process shall be undertaken in accordance with Annex V. The Commission shall submit a report to the European Parliament and the Council regarding the outcome of the review.	

6.4.2. Affordability and cost controls

Affordability is and should remain a central component of the universal service. In particular, universal availability of basic internet access requires that it be available to all citizens, irrespective of their ability to pay, and including those who live in areas which are expensive to serve. The provisions in the Universal Service Directive empowering NRAs to mandate the provision of the basic service should be maintained. Social tariffs have helped to ensure affordability of the telephone service. However, today special tariffs and cost controls appear outdated in view of the generalisation of flat rates and the decreasing price levels.
On the other hand, more targeted measures might remain necessary to promote the penetration of basic internet access services and their use, within broader social inclusion policies.

National regulatory authorities should review the internet access service offers available in their jurisdiction. In the case basic offers are available, national regulatory authorities shall examine, in coordination with the national authorities in charge of social policy, whether the pricing of these offers constitutes a barrier for specific categories of the population. In the relevant case, national authorities in charge of social policy should design schemes or include specific measures in the schemes targeting the social groups concerned to help overcome the identified barriers.

In case no basic offers are available in their jurisdiction, the national regulatory authorities shall consult all internet access providers and examine together possible joint proposals to address the market failure. If no voluntary commitments are obtained within a reasonable time period, Member States should consider the necessary financial appropriation within their social policy budgets.

Consequently, ETNO believes that the complex system, which was put in place in the 1990s to guarantee the provision of the PSTN to all categories of the population during the liberalization process, can be repealed.

Current provisions	Amendments
Article 9 Universal Service Directive **Affordability of tariffs**	**Article 9 Universal Service Directive** **Affordability of tariffs**
1. National regulatory authorities shall monitor the evolution and level of retail tariffs of the services identified in Articles 4 to 7 as falling under the universal service obligations and either provided by designated undertakings or available on the market, if no undertakings are designated in relation to those services, in particular in relation to national consumer prices and income.	**1. National regulatory authorities shall review the offers of basic access to the internet currently available in their jurisdiction. In the case basic offers are available, national regulatory authorities shall examine, in coordination with the national authorities in charge of social policy, whether the pricing or other conditions of these offers constitute a barrier to social inclusion of specific categories**

2. Member States may, in the light of national conditions, require that designated undertakings provide to consumers tariff options or packages which depart from those provided under normal commercial conditions, in particular to ensure that those on low incomes or with special social needs are not prevented from accessing the network referred to in Article 4(1) or from using the services identified in Article 4(3) and Articles 5, 6 and 7 as falling under the universal service obligations and provided by designated undertakings. 3. Member States may, besides any provision for designated undertakings to provide special tariff options or to comply with price caps or geographical averaging or other similar schemes, ensure that support is provided to consumers identified as having low incomes or special social needs. 4. Member States may require undertakings with obligations under Articles 4, 5, 6 and 7 to apply common tariffs, including geographical averaging, throughout the territory, in the light of national conditions or to comply with price caps. 5. National regulatory authorities shall ensure that, where a designated undertaking has an obligation to provide special tariff options, common tariffs, including geographical averaging, or to comply with price caps, the conditions are fully transparent and are published and applied in accordance with the principle of non-discrimination. National regulatory authorities may require that specific schemes be modified or withdrawn.	**of the population. Member States shall ensure that, in the relevant case, the national regulatory authorities may assist the national authorities in charge of social policy, in the design of schemes that could help overcoming the identified barrier, targeting specific social groups.** **2. In case no basic internet access offers are available in their jurisdiction, the National regulatory authorities shall consult all internet access providers and examine together possible joint proposals to address the market failure.**
Article 10 Universal Service Directive **Control of expenditure** 1. Member States shall ensure that designated undertakings, in providing facilities and services additional to those referred to in Articles 4, 5, 6, 7 and 9(2), establish terms and conditions in such a way that the subscriber is not obliged to pay for facilities or services which are not necessary or not required for the service requested.	***To be deleted***

2. Member States shall ensure that designated undertakings with obligations under Articles 4, 5, 6, 7 and 9(2) provide the specific facilities and services set out in Annex I, Part A, in order that subscribers can monitor and control expenditure and avoid unwarranted disconnection of service. 3. Member States shall ensure that the relevant 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.	

6.4.3. Quality of Service and consumer protection

Currently, the Universal Service Directive contains two categories of quality and consumer protection rules, those specifically for the universal service (Article 11) and those for all electronic communications services (Articles 20-30). Beyond the relevant obligations linked to services of interpersonal voice communications at ensured quality based on numbers (cf. supra), consumer protection obligations would further be maintained if indispensable from the consumers' point of view, as far as applicable equally to other services.

Quality of service

Article 22 of the Universal Service Directive requires Member States to empower NRAs to set quality of service requirements. This provision was inspired by the need to ensure high quality telephone calls. The scope of the universal service will be limited to functional internet access. However, quality of service parameters of internet access services is already covered by Article 4 of the Open Internet Regulation[101]. In addition, the Regulation obliges IAS providers to indicate a range of different internet access specific quality parameters.

Moreover, national authorities shall define the universal service by setting specific quality of service requirements, necessary to ensure functional access via the internet to applications indispensable to avoid social exclusion. In this context, ETNO suggests the abolition of Article 22.

The quality of services using numbers for the provision of interpersonal voice communications at ensured quality can be specified by NRAs, if required, based on the modified Annex III - quality of service parameters – that would now become Annex II of the Authorisation Directive.

Current provision	Proposed amendment
Article 22 Universal Service Directive **Quality of service** 1. Member States shall ensure that national regulatory authorities are, after taking account	***To be deleted***

[101] which requires providers of internet access services to specify in their contracts '*the remedies available to the consumer in accordance with national law in the event of any continuous or regularly recurring discrepancy between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated'*.

of the views of interested parties, able to require undertakings that provide publicly available electronic communications networks and/or services to publish comparable, adequate and up-to-date information for end-users on the quality of their services and on measures taken to ensure equivalence in access for disabled end-users. That information shall, on request, be supplied to the national regulatory authority in advance of its publication. 2. National regulatory authorities may specify, inter alia, the quality of service parameters to be measured and the content, form and manner of the information to be published, including possible quality certification mechanisms, in order to ensure that end-users, including disabled end-users, have access to comprehensive, comparable, reliable and user-friendly information. Where appropriate, the parameters, definitions and measurement methods set out in Annex III may be used. 3. In order to prevent the degradation of service and the hindering or slowing down of traffic over networks, Member States shall ensure that national regulatory authorities are able to set minimum quality of service requirements on an undertaking or undertakings providing public communications networks. National regulatory authorities shall provide the Commission, in good time before setting any such requirements, with a summary of the grounds for action, the envisaged requirements and the proposed course of action. This information shall also be made available to the Body of European Regulators for Electronic Communications (BEREC). The Commission may, having examined such information, make comments or recommendations thereupon, in particular to ensure that the envisaged requirements do not adversely affect the functioning of the internal market. National regulatory authorities shall take the utmost account of the Commission's comments or recommendations when deciding on the requirements.	

Article 3 will require NRAs to define the quality of the basic internet access in their jurisdiction. On the other hand, Article 20 Universal Service Directive will require internet access providers to give in a

clear, comprehensive and easily accessible form, contractual information on the quality of service. Additionally, Article 4(1) of the Open Internet Regulation obliges to provide further contractual and public information on the quality of service. Considering these extensive obligations, ETNO suggest the deletion of Article 11 of the Universal Service Directive.

Current provisions	amendments
Article 11 Universal Service Directive **Quality of service of designated undertakings** 1. National regulatory authorities shall ensure that all designated undertakings with obligations under Articles 4, 5, 6, 7 and 9(2) publish adequate and up-to-date information concerning their performance in the provision of universal service, based on the quality of service parameters, definitions and measurement methods set out in Annex III. The published information shall also be supplied to the national regulatory authority. 2. National regulatory authorities may specify, inter alia, additional quality of service standards, where relevant parameters have been developed, to assess the performance of undertakings in the provision of services to disabled end-users and disabled consumers. National regulatory authorities shall ensure that information concerning the performance of undertakings in relation to these parameters is also published and made available to the national regulatory authority. 3. National regulatory authorities may, in addition, specify the content, form and manner of information to be published, in order to ensure that end-users and consumers have access to comprehensive, comparable and user-friendly information. 4. National regulatory authorities shall be able to set performance targets for undertakings with universal service obligations. In so doing, national regulatory authorities shall take account of views of interested parties, in particular as referred to in Article 33. 5. Member States shall ensure that national regulatory authorities are able to monitor compliance with these performance targets by designated undertakings.	***To be deleted***

6. Persistent failure by an undertaking to meet performance targets may result in specific measures being taken in accordance with Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive). National regulatory authorities shall be able to order independent audits or similar reviews of the performance data, paid for by the undertaking concerned, in order to ensure the accuracy and comparability of the data made available by undertakings with universal service obligations.	

End-user contracts

Article 20 of the Directive details the clauses that end-user contracts must contain. These rules constitute a *lex specialis* to the general regime set by Directive 2011/83[102] on consumer rights (Consumer Rights Directive). The Consumer Rights Directive establishes rules on information to be provided for contracts (distance contracts, off-premises contracts and contracts other than distance and off-premises contracts). The Consumer Rights Directive does not exclude contracts for electronic communications services from its scope and consequently overlaps to a certain extent Articles 20 (and 30) of the Universal Service Directive. For example, Articles 6 and 8 of the Consumer Rights Directive adequately address price transparency and information on the main characteristics of a service, when consumers conclude contracts.

Moreover, Article 4 of the Open Internet Regulation obliges providers of internet access services to specify in their contracts, among other, the minimum, normally available, maximum and advertised download and upload speed of the services in the case of fixed networks and how significant deviations from the respective advertised download and upload speeds could affect universal internet access and usage. Moreover, the basic access to the internet should be as affordable as possible with the lightest quality of service requirements, as opposed to more expensive offerings. The current horizontal consumer protection rules applicable to the modification of consumer contracts have proven effective. There is no justification why internet access or communications services should be governed by stricter end-user protection rules, as those of Article 20(2) Universal Service Directive, particularly when considering that consumers are much better informed about their internet access services' qualities.

Taking into account the social objective pursued requesting compensation or refund '*if contracted service quality levels are not met*' and explanations on '*the type of action that might be taken by the undertaking in reaction to security or integrity incidents or threats and vulnerabilities'* would also seem disproportionate.

Contracts with professional end-users, which are in the scope of the current universal service Directive but not of the Consumer Rights Directive, must be excluded from the scope of the universal service Directive. This is a logical evolution considering the evolution of the market of telecom services for business. Business does not need more sector-specific consumer protection for telecommunications

[102] Directive 2011/83/EU of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council, OJ L 304 of 22.11.2011, p. 64.

than it does for other products or services. Besides, several Member States have already developed cross-sector laws protecting B2B contracts from unfair practices. In addition, Article 5 of the e-commerce Directive imposes a series of transparency obligations on information services providers. Consequently, there is no reason to maintain Article 20 of the Universal Service Directive. With regard to contractual information requirements for reliable emergency services, requirements applicable to all providers of interpersonal voice communications (including best-effort services) should be considered.

The reference to dispute settlement procedures in accordance with Article 34 should be replaced by a reference to Directive 2013/11 on alternative dispute resolution for consumer disputes, given that Article 34 would be deleted (see below). There is no reason to maintain specific procedures for internet access services.

Current provisions	Proposed amendment
Article 20 Universal service directive Contracts	**Article 20 Universal service directive Contracts**
1. Member States shall ensure that, when subscribing to services providing connection to a public communications network and/or publicly available electronic communications services, consumers, and other end-users so requesting, have a right to a contract with an undertaking or undertakings providing such connection and/or services. The contract shall specify in a clear, comprehensive and easily accessible form at least: (a) the identity and address of the undertaking; (b) the services provided, including in particular, — whether or not access to emergency services and caller location information is being provided, and any limitations on the provision of emergency services under Article 26, — information on any other conditions limiting access to and/or use of services and applications, where such conditions are permitted under national law in accordance with Community law, — the minimum service quality levels offered, namely the time for the initial connection and, where appropriate, other quality of service parameters, as defined by the national regulatory authorities, — information on any procedures put in place by the undertaking to measure and shape traffic so as to avoid filling or overfilling a network link, and information on how those procedures could impact on service quality, — the types of maintenance service offered and customer support services provided, as well as the means of contacting these services,	**To be deleted**

— any restrictions imposed by the provider on the use of terminal equipment supplied;

(c) where an obligation exists under Article 25, the subscriber's options as to whether or not to include his or her personal data in a directory, and the data concerned;

(d) details of prices and tariffs, the means by which up-to-date information on all applicable tariffs and maintenance charges may be obtained, payment methods offered and any differences in costs due to payment method;

(e) the duration of the contract and the conditions for renewal and termination of services and of the contract, including:

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

— any charges related to portability of numbers and other identifiers,

— any charges due on termination of the contract, including any cost recovery with respect to terminal equipment,

(f) any compensation and the refund arrangements which apply if contracted service quality levels are not met;

(g) the means of initiating procedures for the settlement of disputes in accordance with Article 34;

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

Member States may also require that the contract include any information which may be provided by the relevant public authorities for this purpose on the use of electronic communications networks and services to engage in unlawful activities or to disseminate harmful content, and on the means of protection against risks to personal security, privacy and personal data, referred to in Article 21(4) and relevant to the service provided.

2. Member States shall ensure that subscribers have a right to withdraw from their contract without penalty upon notice of modification to the contractual conditions proposed by the undertakings providing electronic communications networks and/or services. Subscribers shall be given adequate notice, not shorter than one month, of any such modification, and shall be informed at the same time of their right to withdraw, without penalty, from their contract if they do not accept the new

conditions. Member States shall ensure that national regulatory authorities are able to specify the format of such notifications.	

Transparency requirements

The Universal Service Directive requires the Member States to empower their NRAs among other to impose the publication of transparent, comparable, adequate and up-to-date information on applicable prices and tariffs, on any charges due on termination of a contract and on standard terms and conditions in respect of access to, and use of, services provided by them to end-users and consumers in accordance with Annex II of the Directive. These obligations seem disproportionate There is no similar obligations in the EU horizontal consumer protection rules, but consumers can find a broad variety of online tools allowing the comparison of different offerings in many sectors. Many of these online tools also cover services provided by network providers.

Moreover, the obligations under Article 21 Universal Service are redundant because Article 5 of the Consumer Rights Directive imposes sufficient information requirements applicable to consumer contracts, including price, duration, functionality, interoperability, in any sector of the economy. There seems to exist no justification for more stringent transparency rules in the electronic communications sector, beyond those publication requirements already set in Article 4 of the Open Internet Regulation.[103]

In addition, several requirements of Article 21 relate to voice telephony and do not fit to internet access. In any case, there is no reason to require more or less transparency for basic internet access than for other services which are essential to prevent social exclusion (access to bank accounts, energy, water etc.). For these reasons, ETNO suggests the deletion of Article 21.

Current provisions	Proposed amendment
Article 21 Universal service directive **Transparency and publication of information**	**Article 21 Universal service directive** **Transparency and publication of information**
1. Member States shall ensure that national regulatory authorities are able to oblige undertakings providing public electronic communications networks and/or publicly available electronic communications services to publish transparent, comparable, adequate and up-to-date information on applicable prices and tariffs, on any charges due on termination of a contract and on standard terms and conditions in respect of access to, and use of, services provided by them to end-users and consumers in accordance with Annex II. Such information shall be published in a clear, comprehensive and easily accessible form. National regulatory authorities may specify additional requirements	***Deleted***

[103] This provision obliges providers of internet access services to provide "*in their contracts, among other, a clear and comprehensible explanation of the remedies available to the consumer in the event of any continuous or regularly recurring discrepancy between the actual performance of the internet access service regarding speed or other quality of service parameters*" and '*to provide information on any procedures put in place by the provider to measure and shape traffic so as to avoid filling or overfilling a network link, and on how those procedures could impact on service quality*'.

regarding the form in which such information is to be published.	
2. National regulatory authorities shall encourage the provision of comparable information to enable end-users and consumers to make an independent evaluation of the cost of alternative usage patterns, for instance by means of interactive guides or similar techniques. Where such facilities are not available on the market free of charge or at a reasonable price, Member States shall ensure that national regulatory authorities are able to make such guides or techniques available themselves or through third party procurement. Third parties shall have a right to use, free of charge, the information published by undertakings providing electronic communications networks and/or publicly available electronic communications services for the purposes of selling or making available such interactive guides or similar techniques.	***Deleted***
3. Member States shall ensure that national regulatory authorities are able to oblige undertakings providing public electronic communications networks and/or publicly available electronic communications services to inter alia: (a) provide applicable tariff information to subscribers regarding any number or service subject to particular pricing conditions; with respect to individual categories of services, national regulatory authorities may require such information to be provided immediately prior to connecting the call; (b) inform subscribers of any change to access to emergency services or caller location information in the service to which they have subscribed; (c) inform subscribers of any change to conditions limiting access to and/or use of services and applications, where such conditions are permitted under national law in accordance with Community law; (d) provide information on any procedures put in place by the provider to measure and shape traffic so as to avoid filling or overfilling a network link, and on how those procedures could impact on service quality; (e) inform subscribers of their right to determine whether or not to include their personal data in	

a directory, and of the types of data concerned, in accordance with Article 12 of Directive 2002/58/EC (Directive on privacy and electronic communications); and (f) regularly inform disabled subscribers of details of products and services designed for them. If deemed appropriate, national regulatory authorities may promote self- or co-regulatory measures prior to imposing any obligation. 4. Member States may require that the undertakings referred to in paragraph 3 distribute public interest information free of charge to existing and new subscribers, where appropriate, by the same means as those ordinarily used by them in their communications with subscribers. In such a case, that 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 electronic communications services to engage in unlawful activities or to disseminate harmful content, particularly where it may prejudice respect for the rights and freedoms of others, including infringements of copyright and related rights, and their legal consequences; and (b) the means of protection against risks to personal security, privacy and personal data when using electronic communications services.	

Alternative dispute resolution

Article 34 of the Universal Service Directive requires the Member States to ensure that transparent, non-discriminatory, simple and inexpensive out-of-court procedures are available for dealing with unresolved disputes between consumers and undertakings providing electronic communications networks and/or 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 adopt measures to ensure that such procedures enable disputes to be settled fairly and promptly and may, where warranted, adopt a system of reimbursement and/or compensation.

This provision is redundant because Article 5 of the ADR Directive[104] requires Member States to ensure that disputes concerning contractual obligations stemming from sales contracts or service contracts which involve a trader established on their respective territories can be submitted to an alternative dispute resolution entity. The obligation on Member States to ensure the availability of out of court settlement procedures for consumer contracts in the electronic communication sector derives

[104] Directive 2013/11/EU of 21 May 2013 on alternative dispute resolution for consumer disputes (Directive on consumer ADR), OJ L 165, of 18.6.2013, p. 63.

therefore from this ‘horizontal’ obligation. Additional application of sector specific rules may lead in some Member States to legal uncertainty and overlaps. Article 34 should therefore be removed.

Current provisions	Proposed amendments
Article 34 Universal service directive **Out-of-court dispute resolution**	**Article 34 Universal service directive** **Out-of-court dispute resolution**
1. Member States shall ensure that transparent, non-discriminatory, simple and inexpensive out-of-court procedures are available for dealing with unresolved disputes between consumers and undertakings providing electronic communications networks and/or 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 adopt measures to ensure that such procedures enable disputes to be settled fairly and promptly and may, where warranted, adopt a system of reimbursement and/or compensation. Such procedures shall enable disputes to be settled impartially and shall not deprive the consumer of the legal protection afforded by national law. Member States may extend these obligations to cover disputes involving other end-users. 2. Member States shall ensure that their legislation does not hamper the establishment of complaints offices and the provision of on-line services at the appropriate territorial level to facilitate access to dispute resolution by consumers and end-users. 3. 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.	***Delete***

Facilitating change of provider

Article 30(5) and (6) limit maximum contract duration to 24 months and require operators to offer users the possibility to subscribe to a contract with a maximum duration of 12 months. The scope of the current Article 30 (5) and (5) Universal Service Directive is very broad and probably disproportionate. Consumers have today a broad choice of different offerings, including contracts with short minimum duration times, e.g. prepaid contracts for data and communication, and internet-based (best-effort) services for communication most often have no minimum duration times at all.
If consumers still chose a contract with a longer minimum duration time, this would be usually linked to specific benefits, such as lower prices, subsidised devices or cost-free installations. In such circumstances, what can be the public interest that justifies imposing specific durations for contracts?

ETNO believes that there is in principle no justification for a rule on maximum contract duration any longer. However, if stricter rules for network providers are found to be indispensable for consumers, ETNO proposes to limit the current restriction on the duration of contracts to internet service provision. Access to the Internet suffices to allow a broad choice of OTT services, including audio-visual services.

Under the Commission Better Regulation Guidelines, the question should be asked whether self-regulation or co-regulation is sufficient to achieve the objective pursued by the limitation of the duration of contracts. In case of persisting problems – of which there are no indications today - NRAs should examine first whether self-regulation or co-regulation would suffice to attain the objectives pursued.[105] If this is not the case, it could be considered to empower the regulators to impose contractual limits, if so required.[106] NRAs should nevertheless always take into account that more flexibility as regards contractual duration time also entails consumer benefits, such as device subsidies or subsidized CPE installation. Moreover, switching costs may have pro-competitive effects in that they may lengthen the expected customer lifetime (by lowering customer churn), thus making the acquisition of new customers more profitable for firms. This, in turn, could lead companies to invest more. The latter consideration is particularly important in view of the important investments necessary to upgrade the fixed broadband networks and deploy FttH.

On other important positive (pro-competitive) effect of longer duration contracts and lower churn is that they allow for the reduction of entry prices, thus promoting penetration.

This being said, the real switching barriers result from more important factors than contract duration, such as network-effects or lock-in effects. Many service provides in the internet impose such switching barriers, without being regulated at all. Applying strict rules on lowering switching barriers only to some players in the market would appear inappropriate and discriminatory.

Current provisions	Proposed amendments
Article 30 Universal service directive Facilitating change of provider	**Article 30 Universal service directive Facilitating change of provider**
Para 1 to 4	
5. Member States shall ensure that contracts concluded between consumers and undertakings providing electronic communications services do not mandate an initial commitment period that exceeds 24 months. Member States shall also ensure that undertakings offer users the possibility to subscribe to a contract with a maximum duration of 12 months. 6. Without prejudice to any minimum contractual period, Member States shall ensure	***Deleted***

[105] See Department for Media, Culture and Sport, The UK government's response to Commission Consultation: "Public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services" December 2015:" *Many of the welcome successes on consumer rights and protections in the UK in recent years have been achieved through voluntary agreements with industry, but these are often achieved where there is a credible threat of principle-based intervention provided for in the framework. These interventions can be deployed if and when needed (rather than relying on prescriptive rules which could create loopholes and raise the need for additional enforcement action)*".
[106] See Oxera, Agenda, *Harmonising consumer protection in the EU: is it desirable?* June 2014.

that conditions and procedures for contract termination do not act as a disincentive against changing service provider.	

6.4.4. Universal service providers

In case no basic offers are available in their jurisdiction, Member States shall, under the proposed new Article 4(3) encourage the inclusion in their social policies of affordability schemes and other demand-side instruments such as vouchers. If this does not suffice to ensure the availability of basic offers, the NRA shall have, under the proposed new Article 9, the power to impose all internet access providers to propose such basic internet access product, within their offers.

Consequently, Member States would no longer have to designate a universal service provider and calculate the net cost of the provision of the service.

Current provision	Amendments
Article 8 Universal Service Directive Designation of undertakings 1. Member States may designate one or more undertakings to guarantee the provision of universal service as identified in Articles 4, 5, 6 and 7 and, where applicable, Article 9(2) so that the whole of the national territory can be covered. Member States may designate different undertakings or sets of undertakings to provide different elements of universal service and/or to cover different parts of the national territory. 2. When Member States designate undertakings in part or all of the national territory as having universal service obligations, they shall do so using an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no undertaking is a priori excluded from being designated. Such designation methods shall ensure that universal service is 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 12. 3. When an undertaking designated in accordance with paragraph 1 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 authority in a timely	***To be deleted***

manner, in order to allow that authority to assess the effect of the intended transaction on the provision of access at a fixed location and of telephone services pursuant to Article 4. The national regulatory authority may impose, amend or withdraw specific obligations in accordance with Article 6(2) of Directive 2002/20/EC (Authorisation Directive).	
Article 12 Universal Service Directive Costing	***To be deleted***
Article 13 Universal Service Directive Financing **Article 14 Universal Service Directive Transparency**	***To be deleted***
Annex IV: Universal Service Directive Calculating the net cost, if any, of universal service obligations	***To be deleted***

6.5. Services for disabled users

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

Article 7 (and Article 26 concerning emergency numbers) contains measures that Member States have to take in order to ensure that disabled persons have affordable access to fixed telephone services, including emergency services, directory enquiry services and directories. Access should be equal to the services for other end-users. Member States should also ensure that disabled end-users are able to call emergency services. Furthermore, Article 7 gives Member States the option to oblige their NRA to assess inter alia the extent and form of specific measures for disabled end-users. Member States can take measures – in the light of national conditions – to ensure that disabled end-users can also benefit from the choice between undertakings and providers of services, which are available to the majority of end-users.

Articles 21 and 22(1) commit Member States to empower their NRA respectively to impose obligations to inform disabled subscribers regularly and in detail about products and services intended for them and to impose the communication of information for the sake of end-users about the quality of their services, including equal access for disabled end-users. Under Article 23a, NRAs must be granted powers to impose rules on providers to ensure that disabled end-users get access and choices similar to the majority of end-users and to impose measures to promote accessibility of terminal equipment with services and functions necessary for disabled end-users. While NRAs can only impose obligations under Article 7 only on the Universal Service provider, obligations relating to access and choice for disabled end-users can be imposed under Article 23a of the Universal Service Directive, on a much wider scope of undertakings (all undertakings providing electronic communications services).

The BEREC report[107] on equivalent access and choice for disabled end-users gives an overview of the adjustments obtained by Member States in the framework of these provisions. The list shows that adjustments vary strongly between Member States. For example, as regards free directory enquiry service for users with visual impairments the overview mentions "*free directory enquiry service for users with visual impairments (SK) or the possibility of making a certain number of free calls to directory enquiry services, particularly for blind and visually impaired users (EL, PT and UK); telephone directory enquiry service in a form appropriate to meet the needs of disabled end-users free of charge (CY); a call based enquiry service to end-users with visual impairments at a discounted price (0.67 €/call when the average price for calls is around 4–5 €/call) (FI); free directory enquiry service once certification of disability is provided by a registered medical practitioner or an agent (IE); directory enquiry service at the tariff for dialling a geographical number for visually impaired people (NL*)". A majority of Member States have apparently not deemed necessary to intervene in this area. The same holds true for other adjustments listed in the BEREC report. There is likely no 'one size fits all' solution. One the other hand, specific national approaches to assist people with disabilities do not as such affect the single market for electronic communications networks and services. The case for dealing with adaptations at EU level is therefore extremely dubious.

Moreover, Articles 7 and 23 of the Universal Service Directive were drafted at the time that voice telephony service was the main means of communications. Today, the Internet and new capabilities of terminal equipment (such as SIRI on IoS for visually impaired citizens) multiplied the possibilities for users with disabilities. In addition, telephony services and related consumer terminal equipment with advanced computing capability will be covered by the requirements in Section III of Annex I of the future directive[108] on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services, once adopted.

The wording of Article 23 - Member States shall "*encourage*" the availability of terminal equipment, rather than require it – stresses the difficulty to micro-manage at EU level the diverse solutions proposed by the sector players. In addition, players other than internet access providers develop the applications and solutions that will ensure the basic access to the internet by persons with disabilities (and internet access providers are moreover bound by a network-neutrality obligation). It would therefore not be proportional to maintain obligations only on the providers of networks and managed voice telephone services[109].

Under the Convention on the Rights of Persons with Disabilities, signed and ratified by the European Union and by most of the Member States[110], the Parties have an obligation to ensure that Information and Communication Technologies and Services are made accessible to persons with disabilities[111]. The most proportional and effective means to conceive and make available specific solutions for disabled end-users and achieve that public objective is to promote initiatives from across the whole digital value chain, where required with subsidies from local authorities of the national social security schemes.

[107] BoR (15) 135, Update of the report on equivalent access and choice for disabled end-users, 01.10.2015, in particular pp 9 and 10.

[108] COM(2015) 615 final of 2.12.2015.

[109] Moreover, telecom equipment are covered by the Commission proposal of 2 December 2015 for a Directive on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services, COM(2015) 615.

[110] For example, Finland, Ireland and the Netherlands have not ratified the convention. The list of signatories can be consulted on: https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-15&chapter=4&lang=en

[111] Under Article 9 of the Convention: "*1. To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas*;"

NRAs should play in cooperation measures with public authorities in charge of the social policy concerned at national, regional and local level, where required, a coordinating role to prioritize, test and promote new applications that could increase the accessibility of the internet by the various categories of people with disabilities. Such initiatives do not require mandatory legal obligations set under EU Directives. If necessary, less intrusive means could be considered, such as recommendations or best practices.

Obligations in favour of disabled users would be transferred to the future Directive on the approximation of the laws, regulations and administrative provisions of the Member States as regards the accessibility requirements for products and services, taking into consideration that today, the dynamic and innovative market already delivers efficient solutions, providing a variety of offerings that may replace the earlier dedicated systems facilitating voice telephony for disabled users.

Current provision	amendments
Article 7 Universal service directive **Measures for disabled end-users** 1. Unless requirements have been specified under Chapter IV which achieve the equivalent effect, Member States shall take specific measures to ensure that access to, and affordability of, the services identified in Article 4(3) and Article 5 for disabled end-users is equivalent to the level enjoyed by other end-users. Member States may oblige national regulatory authorities to assess the general need and the specific requirements, including the extent and concrete form of such specific measures for disabled end users. 2. Member States may take specific measures, in the light of national conditions, to ensure that disabled end-users can also take advantage of the choice of undertakings and service providers available to the majority of end-users. 3. In taking the measures referred to in paragraphs 1 and 2, Member States shall encourage compliance with the relevant standards or specifications published in accordance with Articles 17 and 18 of Directive 2002/21/EC (Framework Directive).	~~Article 7 Universal service directive~~ ~~Measures for disabled end-users~~ ***To be deleted***
Article 23a Universal Service Directive **Ensuring equivalence in access and choice for disabled end-users** 1. Member States shall enable relevant national authorities to specify, where appropriate, requirements to be met by undertakings providing publicly available electronic communication services to ensure that disabled end-users:	***To be deleted***

(a) have access to electronic communications services 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 order to be able to adopt and implement specific arrangements for disabled end-users, Member States shall encourage the availability of terminal equipment offering the necessary services and functions.	

Conclusion

In the past seven years, ETNO member companies have collectively invested almost € 190 billion across Europe. When it comes to fixed investment, ETNO companies represent over 70% of the total sector investment. They plan to do more, they want to do more. Europe needs them to do more. Investment decisions are a result of several factors. Policymakers have a crucial role in making sure telecommunications undertakings do not come across barriers to innovating and investing. The Digital Single Market Strategy, launched by the Commission in 2015, has the right focus. But the devil is in the detail. Eventually, what will impact investment and innovation decisions are the specific amendments to the current rules and procedures that will be adopted at national level to transpose the measures that the Commission will put forward.

The amendments to the telecoms regulatory framework must put users at the core and refocus the regulation of the sector on essentials such as the competitiveness of retail markets and infrastructure competition. A regulation that allows more space for commercial freedom and innovation. Simplicity, rather than legal complexity, is what the industry expects.

ETNO hopes that this report will be useful to the Commission and the EU co-legislators when drafting and negotiating the reform of the telecoms regulatory framework.

The proposed amendments were drafted by CRIDS under supervision of two expert working groups set up by ETNO to build on the expertise acquired by its member companies in the day-to-day implementation of the current rules.

The first working group – the 'Digital Infrastructure' Working Group - brings together experts on network technologies and access as well as on the implementation of the universal service. The second working group – the 'Digital Economy and Consumer' Working Group – consists of experts in the broader information society issues, on top of the mere connectivity layer of the digital networks and the challenges of the future service regulation.

These working groups will remain available during the whole reform process of the EU regime to assist the Commission and its services in the delicate task of re-drafting the rules that will govern our fast evolving and increasingly complex industry from 2020 onwards. These rules will have a dramatic influence on investment and innovation decisions. and consequently on the state of the art of the networks and services that will be available to the European citizens in the next decades.

Annex: Overview of the provisions of the EU Framework covered in this study

A. Amendments to the Framework Directive

Current provisions	amendments
Article 1: Scope and aim	Not included
Article 2: Definitions	p. 27 eCom services to be deleted p. 37 new definition KNI
Article 3: NRAs	Not covered
Article 4: right of appeal	(outside the scope of the opinion)
Article 5: Provision of information	Not covered
Article 6: Consultation and transparency mechanism	Not covered
Article 7 – 7b: Consolidating the internal market for electronic communications	p. 52
Article 8: policy objectives	p. 31
Article 8a: Strategic planning and coordination of radio spectrum policy	(outside the scope of the opinion)
Article 9	Not covered
Article 9a: Review of restrictions on existing rights	(outside the scope of the opinion)
Article 9b: Transfer or lease of individual rights to use radio frequencies	(outside the scope of the opinion)
Article 10: Numbering, naming and addressing	p. 71
Article 11: Rights of way Article 12: Co-location Article 13: Accounting separation Articles 13a and 13b: network security	Not covered
Articles 14	Not covered
Article 15:	Not covered
Article 16 Market analysis procedure	p. 40
New 16a Periodic review of the retail markets	p. 44
New 16b commitments	p. 45
Article 17: Standardisation	Not covered
Article 18: digital interactive television services	Not covered
Article 19: Harmonisation	(outside the scope of the opinion)
Article 20: Dispute resolution	p. 60
Article 21: cross-border disputes Article 21a: Penalties Article 22: Committee Article 23: Exchange of information Article 24: Publication of information	(outside the scope of the opinion)
Article 25: Review	p. 61

Articles 26 - 30	Not covered
ANNEX II joint dominance	Not covered

B. Amendments to the Universal Service Directive

Current provisions	amendments
Article 1: Subject-matter and scope	p. 64
Article 2: Definitions	p. 65
Article 3: Availability of universal service	p. 90
Article 4: Provision of access at a fixed location and provision of telephone services	p. 91
Article 5: Directory enquiry services and directories	p. 91
Article 6: Public pay telephones and other publics voice telephony access points	p. 92
Article 7: Measures for disabled end-users	P 109
Article 8: Designation of undertakings	p.106
Article 9: Affordability of tariffs	p. 93
Article 10: Control of expenditure	p. 94
Article 11: Quality of service of designated undertakings	p. 97
Article 12: Costing	p. 107 Delete
Article 13: Financing	p. 107 Delete
Article 14: Transparency	p. 107 Delete
Article 15: Review of the scope	p. 92
Article 17: Regulatory controls	p. 57
Articles 20: Contracts	p. 99
Articles 21: Transparency and publication of information	p. 101
Articles 22: Quality of service (net neutrality)	p. 95
Articles 23: Availability of services	p. 67
Article 23a: Ensuring equivalence in access and choice for disabled end-users	p. 109
Article 24: Interoperability of consumer digital television equipment	Not covered
Article 25: Telephone directory enquiry services	p. 83
Article 26: single European emergency call number	p. 72+75
Article 27: European telephone access codes	p. 85
Article 27a: services of social value,	p. 86
Article 28: Harmonised numbers for services of social value, including the missing children hotline number	p. 74
Article 29: Provision of additional facilities	p. 75
Article 30: number portability	p. 81 p. 105
Articles 31: ‘Must carry’ obligations	Not covered

Articles 32: Additional mandatory services	Not covered
Articles 33: Consultation with interested parties	(outside the scope of the opinion)
Articles 34: Out-of-court dispute resolution	p. 104
Articles 35 - 40: committee procedures, entry into force etc.	(outside the scope of the opinion)
Annex I: description of facilities and services referred to in article 10 (control of expenditure), article 29 (additional facilities) and article 30 (facilitating change of provider)	p. 76
Annex II: information to be published in accordance with article 21	Not covered
Annex III: quality of service parameters	p. 79
Annex IV: calculating the net cost, if any, of universal service obligations	p. 107
Annex V: process for reviewing the scope of universal service in accordance with article 15	p. 107
Annex VI: interoperability of digital consumer equipment referred to in article 24	Not covered

C. Amendments to the Access Directive

Current provisions	amendments
Article 1: Scope and aim	Not covered
Article 2: Definitions	p. 38 + p. 68
Article 3: General framework for access and interconnection	Not covered
Article 4: Rights and obligations for undertakings	p. 69
Article 5: Powers and responsibilities of the NRAs with regard to access and interconnection	p. 70
Article 6: Conditional access systems and other facilities	Not covered
Article 8: Imposition, amendment or withdrawal of obligations	p. 46
Article 9: Obligation of transparency	p. 48
Article 10: Obligation of non-discrimination	p. 49
Article 11: Obligation of accounting separation	p. 50
Article 12: Obligations of access to, and use of, specific network facilities	p. 51
Article 13: Price control and cost accounting obligations Articles 13a and 13b: Functional separation	p. 54 p. 56 + 57
Article 14	Not covered
Article 15	Not covered
Article 16 Notification	p. 59

Article 17- 20:	Not covered
Annex I: conditions for access to digital television and radio services broadcast to viewers and listeners in the community	Not covered
Annex II: minimum list of items to be included in a reference offer for wholesale network infrastructure access, including shared or fully unbundled access to the local loop at a fixed location to be published by notified operators with significant market power (SMP)	Not covered

D. Amendments to the Authorisation Directive

Article 4 Minimum list of rights derived from the general authorisation	p. 69
New: number portability	p. 81
New: Access to numbers and services	p. 74
New Annex II: DESCRIPTION OF FACILITIES AND SERVICES REFERRED TO IN ARTICLE XX ADDITIONAL FACILITIES	p. 76