

ETNO response to the European Commission public consultation on “The needs for Internet speed and quality beyond 2020”



December 2015

ETNO welcomes the opportunity to respond to the “Public consultation on the needs for Internet speed and quality beyond 2020”, launched by the European Commission in the context of the Digital Single Market Strategy.

We understand that the consultation is essentially addressed to users of communications services and to their connectivity needs. Therefore, as an Association of telecom operators, we consider it is more appropriate to provide the Commission with a dedicated position paper, rather than replying to the online survey. In this way we expect to better convey the views of the suppliers, based on the relevant market and technological evolution, on the current use of networks, as well as on the feedback from users, which are essential factors to anticipate the needs for fixed and mobile digital networks beyond 2020.

In our position paper we address some of the issues raised in the questionnaire further to proposing some additional remarks.

Introduction

ETNO members are providers of connectivity and Internet services, with related devices. They operate on both the mass and business markets as well as on the wholesale market and often in various countries. ETNO members are committed to provide the best possible connections to their customers, be they residential customers or business users, in line with market demand, which is increasingly sophisticated in terms of volume, variety and quality.

Connectivity is becoming more and more a cross-sector issue, with several industries like finance, energy, automotive, health and government e-services, all of them requiring specific connectivity needs beyond speed and volume.

ETNO companies are committed to satisfy these needs, which can only be ensured sustainably within a regulatory framework that allows adequate returns on investments in order to enable the potential of the EU digital economy to flourish.

Evolution and rise in the number of devices connected to the Internet (Q. 3 of the questionnaire)

In the near future the number of unconnected devices will rapidly decrease and ultimately disappear as finally almost everything will be connected. As an association of electronic communications network operators providing Internet Access Services (IAS) and other digital

services, ETNO anticipates that residential and business customers will both use an increasing number of connected devices: smartphones, tablets, laptops, connected TVs, connected watches, connected cars, home applications, etc.

In addition, the fast development of Internet of Things (IoT) and M2M will generate a very large additional increase in the demand for connectivity. IoT devices are growing faster than traditional connected devices. IoT is expected to add some 8.5 billion connected machines, sensors, data collectors and other devices to the installed base in Europe by 2018 and contribute almost EUR 330 billion new revenues by 2020.

A recent Boston Consulting Group study for ETNO has also estimated the following:

“Smart device penetration in Europe is projected to climb from 33 percent in 2014 to 70 percent in 2019. Total data consumption will more than triple from 12,000 petabytes per month to 38,000 petabytes per month, driven mostly by rising consumer demand. Much of this demand will be for video traffic, which is projected to represent 75 percent of all digital traffic in Europe in 2019, up from 53 percent in 2014”¹.

Evolution in the usage of Internet services and applications (Q. 4a, 4b, 4c and 6a of the questionnaire)

ETNO expects a significant and continuous growth of digital services’ usage both on fixed and mobile networks and devices. This global growth does not mean that the usage of some specific services may not decrease. For instance, volumes of legacy voice calls and of SMS may continue to decrease as has been the case in the past years.

In addition, it is likely that messaging, voice and video communication functionalities will be more and more bundled and embedded in different digital applications. This opens new use cases and will attract a growing proportion of communications needs at the expense of the growth of the usage of services purely dedicated to communications.

As recognised by Cisco in its 2015 Visual Networking Index Forecast, globally, IP video will represent 80 percent of all traffic by 2019, up from 67 percent in 2014². This also includes video communication.

Evolution of the number of Internet services and applications connected to the Internet (Q. 7 of the questionnaire)

The growing number of connected individuals and of digital devices used by each individual, the general evolution from occasional to permanent connections, the growing complementarities between mobile and fixed data usages, the parallel development of IoT: All these evolutions contribute to a fast and continuous growth of services and applications to be used on each fixed connection by 2025.

¹ The Boston Consulting Group, “Five Priorities for Achieving Europe’s Digital Single Market”, October 2015, p. 7, available at this [link](#).

² The 2015 Visual Networking Index is available at this [link](#).

This trend will also be supported by the growth of network and device capacity and performances, and by innovation at all levels of the digital value chain.

Important features of fixed and mobile connectivity (Q. 8 and 9 of the questionnaire)

Discussions on quality of fixed and mobile broadband lines need to be broader, considering not only speeds and coverage, but the overall customers' experience. It is therefore important to have a broader view on customer experience and not just single out those parameters. In any case, a proper assessment of speed performance needs to ensure specific criteria in order to ensure reliable results, and taking into account that technology-neutral measurement is challenging.

In ETNO's view, the following features of fixed connectivity are already important today, and will be even more important in 2025: download speed, upload speed, latency, network congestion, security, uninterrupted access and ubiquity.

As regards mobile connectivity, the following features are already important today and will be even more important in 2025: download speed, latency, network congestion, resilience, reliability, fall back or seamless integration with other wireless technologies (i.e WiFi, Het-Nets, 2G/3G/4G/5G), security and uninterrupted access.

In this context, we would like to underline that there is no "one size fits all" commercial connectivity offer to satisfy each and every customer's needs. In the context of a more complex and sophisticated demand, specialised services are required in order to meet the diverse demand and requirements of the market.

Aspects not covered by the questionnaire (Q. 12 of the questionnaire)

In the questionnaire the Commission is asking people/companies how fast they want their broadband access in the future, without asking at the same time how much would they pay for it.

Therefore, the outcome of the consultation could indicate a huge potential demand, which will not actually exist. There is the risk that, as a result, very challenging broadband targets will be set which market forces will not be able to reach due to absence of demand.

In this case, the public authorities should envisage the use of public funds, whose cost would be borne by the whole society, to cover those needs which cannot be satisfied by the market.

Is inadequate connectivity a risk (Q. 13 of the questionnaire)?

ETNO believes that seamless and robust connectivity is a quintessential building block of the European Digital Single Market and that the EU should therefore enable all the conditions to maximise private investments in state-of-the-art fixed and mobile network infrastructures.

Improved connectivity will be more and more important to foster the competitiveness of the overall EU economy, to tackle social exclusion and to improve consumer welfare, to name only some of the main policy goals.

Potential actions to be undertaken by the European Commission (Q. 16 of the questionnaire, and “other comments”)

a) The role of a more investment-friendly regulatory environment

According to the Boston Consulting Group, the above-mentioned trends will entail important decisions to be taken by private investors and by policy-makers. The study notes that:

“There will be approximately 100 million new network users in Europe by 2020. By 2019, 75 percent of network traffic will be video. Another 8.5 billion connected devices will come online by 2019. Multiple improvement in network infrastructure are needed to meet growing and evolving digital demand if Europe is to realize its full digital potential.

In addition, the rise of IoT will put its own significant demands on networks.

Rising and evolving demand creates a host of new requirements.

- *More capacity – up to 10 times more in mobile and three times more in fixed access;*
- *Improved latency – latency of less than 40 milliseconds is essential for many apps, such as the security of connected homes and VoIP;*
- *The ability to handle more uploads, which requires network reconfiguration in many cases;*
- *Improved security and reliability for the IoT, especially critical applications such as self-driving cars;*
- *New spectrum needs for IoT, including low- and high-frequency bands”³.*

To meet the rising demand for connectivity and all the above-mentioned specific requirements, policy and regulation are critical factors.

In order to satisfy the rising connectivity needs, the EU should create the right policy and regulatory conditions to allow its electronic communications sector to maximise investment in future-proof NGA networks. The creation of a favourable climate for investment and innovation and the encouragement of investment in high-speed broadband infrastructure should therefore be key areas of focus for policy-makers and regulators.

To this end, it is extremely important that the EU does not miss the opportunity provided by the ongoing review of the European regulatory framework for electronic communications.

To maximise the potential for European citizens and businesses to meet their connectivity needs, the new framework should clearly set the promotion of investment in high-speed fixed and mobile electronic communications infrastructures as one of its main objectives, allowing investors to earn a reasonable return on investment, appropriately remunerating the underlying risks-taking activities.

The cited study by the Boston Consulting Group has identified the existence of an investment gap of 106 billion euros, which cannot be bridged by public finances. And this is the gap that needs to be met to achieve the existing Digital Agenda targets, set in 2010. Should these targets be revised upwards, the amount of investments needed would rise as well.

In ETNO’s view, a pro-investment regulatory framework for electronic communications should be grounded on the following objectives:

³ The Boston Consulting Group, id., pp. 14-16

- A radical simplification of wholesale access regulation, with the emphasis on infrastructure competition as a key driver of innovation and investment;
- A regulatory system which can allow adequate return on investment in NGA networks, ensuring a level playing field between competing infrastructures;
- A more efficient spectrum management framework, which meets the spectrum requirements determined by the predicted explosion of mobile data traffic;
- A more equitable and fair set of rules in the field of consumer protection;
- A competition and regulatory perspective which safeguards and promotes innovation and investments.

The new framework should also recognise that the principle of technological neutrality should not be abandoned, as it is not the task of policy-makers to mandate specific technical solutions. Regulation should be based on outcomes, and in this case it should aim at the fulfilment of Europe's connectivity needs. Consumers are not interested in the type of technology being used to cater their needs, but only that their demands are met by market players.

ETNO's detailed recommendations on how to establish a more investment-friendly regulatory framework to meet the EU current and future connectivity needs can be drawn from our response to the parallel "Public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services".

b) The role of demand-side policies and public funding

ETNO believes that demand-side policies need to go hand in hand with supply-side policies in order to optimise the impact of broadband promotion policies. Some demand-side policies appear to be relevant to improve the business case of network roll-out to encourage broadband availability, while other demand-side policies are relevant to increasing user take-up, in cases where network availability exists.

Also, we would like to emphasise that public subsidies, and not the undue and unbalanced extension of the universal service regime, are the fairest and most effective way to cover the fixed investment costs in scarcely populated and remote areas. As enhanced connectivity is a societal goal, the pursuit of this goal should be financed by the society as a whole where this cannot be viably guaranteed by private investors.

Since universal service obligations should mainly be used as a safety net to prevent social exclusion through ensuring availability of a minimum set of services at an affordable price, the universal service obligation is not the right instrument to reach Digital Agenda Targets. Hence, a broader discussion on required high-speed internet should be kept separated from the universal service debate.

Alternative means of financing broadband roll out in unprofitable areas should be made available. As repeatedly stated by the Commission in the past, where costs exceed expected returns of a regular business case based decision, the remaining funds should be provided by Member States or EU institutions. In order to make further funds available, general taxation (outside of the e-communications sector and beyond network providers) seems to be the appropriate solution, as broadband rollout in remote areas would benefit society as a whole.