

## Introduction

The FTTH Council welcomes the opportunity to respond to this consultation on Universal Service Principles in eCommunications.

The FTTH Council Europe is an industry organisation with a mission to accelerate the availability of fibre-based, ultra-high-speed access networks to consumers and businesses. The Council promotes this technology because it will deliver a flow of new services that enhances the quality of life, contributes to a better environment and increased competitiveness. The FTTH Council Europe consists of more than 130 member companies. Its members include leading telecommunications companies and many world leaders in the telecommunications industry. Additional information is available at [www.ftthcouncil.eu](http://www.ftthcouncil.eu).

The FTTH Council is a strong supporter of social equality and believes that all European Citizens have equal rights to participate in the digital economy. However, the FTTH Council believes that there should be a more fundamental assessment what Europe should be seeking to achieve in terms of universal services. In the FTTH Council's opinion, all Europe's citizens need to have access to very high speed broadband access. To that end the FTTH Council welcomes the open-ended nature of this consultation.

The Universal Service Directive defines universal service as a *"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."*<sup>1</sup>

Data transfer rates which were only required to permit functional internet capability are now proposed to give Member States far greater discretion to set appropriate rates in national circumstances.

*"which are sufficient to permit functional internet access [...] 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 minimize market distortion."*<sup>2</sup>

The quotes taken above suggest the purpose of a Universal Service declaration and the identification of 'services' falling under this heading is set in order to ensure that citizens in a Member State are not disadvantaged with respect to the 'great majority' of users. It is not about economic development per se but rather about social inclusion and spatial policy.

Elsewhere in the consultation document and indeed in the public workshop on the subject, it is clear that the Commission's consideration of what constitutes an appropriate broadband speed for data transfer is 2Mbps downstream speed. The FTTH Council is concerned that this is a wholly unrealistic target to meet European citizen's

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<sup>1</sup> EP and Council Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services

<sup>2</sup> Recital 5 of the Amending Directive regarding the Universal Service Directive

needs which seems to have been identified for reasons of expediency rather than based on a proper assessment. However, it is clear that such targets are inadequate if Europe's citizens are to enjoy equal access to digital services.

All indications regarding patterns of use by broadband users indicates that in the near future only end-to-end fibre based solutions will be capable of meeting the needs of end users<sup>3</sup>.

- European broadband speeds are rising at 50% + per annum.
- High end broadband usage per home is growing at 20% per annum.
- FTTH broadband homes drive 3x more traffic than ADSL homes in Europe.

Today's usage patterns clearly demonstrate that end-to-end fibre solutions will be needed to meet standard broadband requirements in the near future. Where the competitive market cannot be relied upon, investments in potential transition technologies (which can only deliver low-bandwidth applications) have the potential to raise costs unnecessarily and to delay the ultimate transition to an NGA based network.

This position should not be misinterpreted as an attack on technological neutrality. The FTTH Council fully endorses the principle of technological neutrality and believes that it is appropriate that free market forces determine the winning technology. However, under any reasonable view of the trends in terms of broadband capacity needs, a threshold will soon be passed where certain technologies will not be capable of delivering the necessary bandwidth. A FTTH solution is future-proof to an extent that is unique amongst access technologies. Within an FTTH context there are a large number of solutions, technologies and deployment models which will all vie with each other in the market. Any signals or measures which would delay or impede the momentum to a FTTH solution should be resisted in our view both as being potentially wasteful of public funds and damaging to the market dynamic.

The Council believe that the European Commission needs to recognise the dangers of investing public funds in time-limited infrastructures which are unlikely to be adequate to meet end user needs in the medium term. Therefore, the FTTH Council encourage the European Commission to set an appropriate and ambitious threshold for Universal Broadband and make certain requirements for public funds to ensure that publicly financed access networks are sufficiently future proof. The FTTH Council believes that the European Commission needs to set the initial threshold for Universal Broadband at a guaranteed rate of not less than 70 mbits downstream and 30 mbits upstream. This threshold will allow service providers to deploy existing services such as teleconferencing, home monitoring as well as existing HD TV deployments. The expectation based on current trends<sup>4</sup> is that future internet usage will be more participatory and will therefore require significantly greater upload speeds.

Once an appropriate threshold for broadband connectivity has been chosen, a means of financing that ambition must be found. At the end of the day, the European Universal Service Directive permits Member States to set whatever targets they wish,

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<sup>3</sup> See research undertaken by Ventura Team LLP for the FTTH Council.

<sup>4</sup> For example social networking sites, tele-presence while working from home



however making such targets ‘universal service’ obligations permits Member States to oblige industry to pay for the achievement of those targets rather than society as a whole (through general taxation). The FTTH Council believes, for reason set out below, that making the industry and its users pay is not appropriate and that reaching an appropriate broadband threshold that is universally available is something which should be financed from general taxation.

**Question 1:** In today's competitive environment, can the market be relied on to meet demand for basic e-communications services from all sections of society, thereby ensuring social inclusiveness?

The FTTH Council believes that normal market forces and in particular competitive forces should be able to deliver appropriate broadband speeds to the mass market; however certain areas will not commercially support such broadband speeds without some form of public intervention. The FTTH Council further notes that the problem of service provision may not be limited to the access network and that Government support in white and certain grey areas to strengthen the necessary backhaul capacity may be also required. Social and economic considerations justify the use of public funds to finance broadband developments.

There is a growing appreciation of the important role that very high capacity fibre to the home networks will play in the future but there is also a concern that such networks are being deployed more slowly in Europe than should be the case.

The FTTH Council fully endorses the principle of technological neutrality and believes that it is appropriate that market forces determine the winning technology and technologies, however the trends in terms of broadband capacity point to fibre as the only technology capable of delivering the necessary bandwidth in the future. Therefore, while the mechanism for delivering very high speed networks should be left to the market to the greatest extent possible, the FTTH Council believes that the European Commission should place significant emphasis on fibre to the home as the most likely future solution and the most future-proof mechanism.

The FTTH Council believes that as a general principle, public subsidies cannot be recurring with periodic, iterative investments as particular technologies become outdated or insufficient to meet demand and need to be upgraded further. Therefore the FTTH Council believes that the European Commission should set requirements so that publicly financed investments which are likely to become outdated relatively quickly are resisted. It is clear that fibre end-to-end solutions are a long term investment capable of meeting the needs of end user over the long term. Large scale investments made in alternative solutions run the risk of quickly becoming stranded and leaving behind the very problems they were meant to address such as digital divide.

**Question 2:** If not, what is the best policy to allow disabled consumers, those on low incomes and those living in geographically remote or isolated areas to access and use basic ecommunications services?

The FTTH Council believes that eCommunications services should be available to all European citizens at an affordable price.

Furthermore the FTTH Council believes that an appropriate target in terms of speeds, scope and roll-out of services should be set at a European level and implemented at Member State level. However, this does not mean that a classification as 'universal service' under the Universal Service Directive is appropriate since this implies that the industry and its users would bear the burden of financing these networks. As

discussed below, the benefits of ubiquitous networks accrue to society more generally and therefore ought to be financed out of general taxation.

**Question 3:** Broadband for all is a widely-stated policy objective at national and European level. What role if any should universal service play in meeting this objective?

The FTTH Council notes that classification as ‘universal service’ would make the industry and its users the principle financiers of non-market driven networks. This is not appropriate since the nature of the benefits cuts across all members of society. Nevertheless, the FTTH Council notes that research it did in relation to the benefits of fibre connections point to an interesting confluence of arguments justifying public investments in remote fibre networks.

A report by Ovum<sup>5</sup> undertaken for the FTTH Council indicated that those who will benefit most from the NGA services are the people that live in rural and more remote areas. Therefore the very people least likely to get very high speed connectivity delivered by fibre and the very people who would benefit most from having such access! This clearly points to the need for public policy makers to calibrate their interventions to ensure that FTTH networks are universally available.

**Question 4:** What impacts could an extension of the role of universal service to advance broadband development have in relation to other EU and national policies and measures to achieve full broadband coverage in the EU? What other impacts would be likely to arise regarding competition, the single market, competitiveness, investment, innovation, employment and the environment?

In economics, an externality of an economic transaction is an impact on a party that is not directly involved in the transaction. In such a case, prices do not reflect the full costs or benefits in production or consumption of a product or service. Producers and consumers in a market may either not bear all of the costs or not reap all of the benefits of the economic activity. Probably the best known network externality is the case of the standard telephone where the more people that own telephones, the more valuable the telephone is to each owner. Over time, positive network effects can create a bandwagon effect as the network becomes more valuable and more people join, in a positive feedback loop.

In a competitive market, the existence of externalities would cause either too much or too little of the good to be produced or consumed in terms of overall costs and benefits to society. If there exist external costs such as pollution, the good is overproduced by a competitive market, as the producer does not take into account the external costs when producing the good. If there are external benefits, such as in areas of education or public safety, too little of the good would be produced by private markets as producers and buyers do not take into account the external benefits to

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<sup>5</sup> Ovum ‘Fibre: the socio-economic benefits’

others. Here, overall cost and benefit to society is defined as the sum of the economic benefits and costs for all parties involved<sup>6</sup>.

Many of the potential uses of high speed broadband such as cloud computing (which could have big economic impacts depending on the number of participants), home working, tele-medicine and -care, have significant impacts beyond their direct effects which can be classified as positive externalities, such as relief of traffic congestion or making long trips from rural areas to commercial or administrative centres unnecessary, allowing other commuters to save time with further positive impacts on the environment etc. It should be stressed that the very high bandwidths available under FTTH scenarios are likely to be used in a very large number of ways which may or may not be conceivable today.

With such uses, the use of non-market driven mechanisms may be even more justified than would otherwise be the case. However, it still carries the risk of crowding out other private investments which might otherwise be made. It could effectively discourage investment by market players or could simply lead to inefficient choices of technology or poor delivery solutions if the form of financing is not chosen carefully. Whatever solutions are being proposed must be set in a way which is as future proof as possible and does not seek to predict technology or market outcomes. In general terms however, such solutions require 100% coverage so as not to re-establish a digital divide or create social disadvantage.

Together with the universal deployment of such broadband networks, Governments need to consider how to reorganise the delivery of public services in a way that maximises their usage, to deliver better services and also to lower cost. Recent research in the UK (Rural Research Network –RSN- March 2010<sup>7</sup>) found that the costs of delivering services in sparsely populated areas are up to 90% more expensive than even in rural areas. While the EU 2020 strategy document correctly identifies an aging population as a major long term concern in Europe, this concern is much more acute in rural areas where the number of older people in rural areas requiring some kind of social care is projected to grow by 70% over the next 20 years (much faster than in urban areas).

Taken together with the fact that the RSN found that roughly 50% of households in villages and hamlets are without a nearby regular bus services (an hourly or better service within 13 minutes walk) which is down from 60% in the mid-1990s, a more ambitious and better specified Universal Service for Broadband has the capacity to deliver enormous benefits and savings to society across the entire spectrum of society.

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<sup>6</sup> Alfred Edward Kahn 'The economics of regulation Principles and Institutions' MIT Press 1990.

<sup>7</sup> <http://www.rsnonline.org.uk/images/files/ruralreviewofpublicservices2010.pdf>



**Question 5:** If universal service obligations should prove necessary to achieve the policy objective of broadband for all, at what level (EU or national) should such obligations be defined, taking into account the different levels of market development across the current Union of 27 Member States?

The FTTH Council believes that the broadband specification should be set at a European level and implemented through measures taken at the Member State level.

However, the FTTH Council is asking that universal broadband targets be set at an appropriate level of a guaranteed 70Mbps downstream and 30Mbps upstream outside the universal service directive parameters but as a target set by Member States themselves.

Therefore, given the dispersion of responsibility a very strong co-ordination role by the European Commission will be required to ensure that Member States act in parallel. The European Commission needs to work with Member States not only on setting an over-arching requirement in terms of broadband functionality but also needs to assist and plan for network delivery.

**Question 6:** If a common harmonised universal service needs to be defined at EU level, should a mechanism be put in place to balance the need for national flexibility and a coherent and coordinated approach in the EU?

The FTTH Council does not believe that a 'common harmonised universal service needs to be defined'. However, the FTTH Council does believe that the European Commission needs to set out a common vision for what types of networks need to be ubiquitously available in Member States.

Since it will ultimately be Member States which choose exactly what networks they will demand and ultimately pay for, the EU needs to adopt a strong co-ordination role to ensure that there is a coherent approach.

**Question 7:** Irrespective of the scope of universal service, are mechanisms whereby funding is provided by the sector appropriate in the context of a regulatory environment that seeks to eliminate distortions of competition and promote market entry?

No. The FTTH Council do not believe that either industry or any other interest group should have the obligation to finance a universal service delivery obligation. The answers to questions 1, 3 and 4 in particular all refer to the societal benefits of having a ubiquitous or close to ubiquitous broadband network deployed in Europe.

Indirect benefits (economic externalities) can often be captured by the market where the benefits are observable and where they are relevant to the companies concerned. For instance, handset subsidies in the mobile telephony market are a reflection of the positive benefits of having marginal users on a network and creating a 'community of interest'. The increased benefits of having larger networks of users translated into more

developed networks and greater pricing power and therefore the firms in question had an incentive to bring these users onto the network by internalising the externality through the use of handset subsidies.

However, the positive externalities from making significant investments in fibre networks are dispersed and diffused over many market segments. They are also less likely to be relevant to the firms in question and so the probability of the market internalising these benefits by the firms themselves is very limited.

The question then arises as to what the State's role should be. Should it be one of co-ordination or one of direct actor? The FTTH Council believe that the role of the State should be that of direct actor, that is, the State should finance the achievement of any universal broadband target since it is the State (Society) which is the primary beneficiary of these marginal fibre investments.

The kinds of services which could benefit most from ubiquitous broadband networks such as cloud computing, home working, tele-medicine and –care, remote and interactive education modules and so on all benefit society at large rather than the industry operators per se. Unlike the mobile telephony example given earlier, the indirect benefits are not especially relevant to the industry but rather accrue in the general economy.

However, significant investments by non-market actors have the potential to distort a competitive market if not carried out under a clear and transparent framework. While the activities of public bodies are bound by obligation not to use public funds to crowd out private investments under State Aid rules, such obligations will inevitably create doubt in the minds of private investors unless those obligations are clearly specified.

The FTTH Council believes that State subsidies cannot be recurring with periodic, iterative investments as particular technologies become outdated or insufficient to meet demand and need to be upgraded further. Therefore the FTTH Council believes that the Commission must warn against State investments which are likely to become outdated relatively quickly. The Commission needs to stress the fact that fibre end-to-end solutions are a long term investment capable of meeting the needs of end user over the long term. Large scale investments made in alternative solutions run the risk of quickly becoming stranded and leaving behind the very problems they were meant to address such as digital divide.

**Question 8:** In the context of the roll-out of broadband in Europe, is it still appropriate to limit the financial arrangements of universal service to market players in the ecommunications sector, while this provision would have wide-ranging benefits outside the sector, for instance, the delivery of information society services and digital content? Are other means of financing more appropriate?

Please see the answer to question 7 above.