



Creating a brighter future

FTTH Council Europe Response to the UK House of Lords' Select Committee on Communications Call for Evidence

.

13 March 2012

Introduction

1. The FTTH Council Europe (hereinafter the FTTH Council) welcomes the opportunity to participate in this enquiry from the House of Lords Select Committee.
2. The FTTH Council 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 consists of more than 150 member companies. Its members include leading telecommunications companies and many world leaders in the telecommunications industry (additional information is available at www.ftthcouncil.eu). Telecoms operators are not members of the FTTH Council and we have our own perspectives regarding the appropriate regulatory policies to accelerate NGA deployments.
3. The FTTH Council believes that the future needs of broadband users can only be met by bringing fibre directly to the subscriber. Thus, Fibre to the Home (FTTH) is perceived by the FTTH Council as the clear end game. While other solutions including fibre hybrids and wireless solutions will play an important role as complements, they will in no way act as demand substitutes. The need for a FTTH solution relates to the realistic future needs of end users in terms of capacity and is entirely consistent with the need for technological neutrality. It is important not to set a false version of technological neutrality which understates future capacity requirements so as to include as many platforms as possible.
4. The FTTH Council believe that the widespread deployment of FTTH will facilitate enormous benefits for the economic and social development of Europe. Many of the potential uses of FTTH, such as home working and the extensive use of cloud based applications will have significant impacts with them which can be classified as positive externalities. In the case of home-working, this could be relief of traffic congestion allowing other commuters to save time as well as positive environmental impacts. In the case of cloud applications, lowering the costs of developing and delivering innovative services, including public services, can be anticipated in addition to the direct benefits. In these circumstances, the benefits accruing to society often go far beyond the direct economic benefits identified by investors. These spill-over benefits which are not recognised by private actors justify State intervention.
5. If the UK wishes to develop services for delivery in the presence of FTTH networks but such services cannot be used or delivered because of network capacity constraints, this will act as a major barrier to the market developing.

Setting appropriate targets

6. What exactly constitutes ‘superfast broadband’ remains largely undefined. The EU sets targets of 100mbits for 50% of subscribers and 30mbits for 100% of subscribers in its EU2020 Strategy Proposal¹. In the UK the definition is even looser but appears

¹http://ec.europa.eu/europe2020/index_en.htm

to refer to a 50mbits download speed². While a specific speed is not so important to the FTTH Council, certain aspects are and a particular concern for the FTTH Council is the absence of upload speeds in most targets being set. The presence of networks which can support viable two way speeds is a key enabler of cloud services for example. Even basic cloud services such as data storage are constrained by the current networks available and they have been identified as a constraint already³. Amazon has a basic offer to their users which gives data storage which can be used for network back-up. However, with an average connection a 5GB back-up will take over 5 hours compared to less than 7 minutes on a 100Mbps fibre connection. The viability of such a basic service will depend on such differences. The UK is currently ranked 56th in terms of upload speeds⁴.

7. However, the Council believe that insufficient consideration is being given to upload speeds. When Japan set its network goals in 2004 it set a 30mbits upload universal target. Any network supporting 30mbits upload will inevitably support a far greater download speed.
8. Upload speeds will be even more important in the context of real time high capacity data applications that reside in the cloud. This perspective is supported by an established body of work⁵ which has shown over time that much of the benefits of ICT investments come not from the investments themselves, but from firms and industries ability to reorganise their means of production around these new technologies. The implications for economic systems are that the manner in which services are delivered in many areas may need to be completely rethought. This may be particularly important in relation to the deliver and production of public services such as education and health.
9. Other research shows that the economic and societal benefits of very high speed internet access (particularly high upload speeds)⁶, and that the availability of such connectivity, changes the way consumers react to the internet. One of the biggest functional differences between FTTH and DSL options is speed but in particular, upload speeds. The many business cases put forward by different analysts looking at future cloud services rely on a variety of services which require radically different upload speeds. Key Cloud services such as IaaS (Infrastructure as a Service), SaaS (Software as a Service) and so on require upload speeds if their potential is to be realised. The indirect benefits in terms of service development and the efficient

² <http://www.culture.gov.uk/images/publications/10-1320-britains-superfast-broadband-future.pdf>

³ <http://www.bsa.org/country/News%20and%20Events/News%20Archives/BE/2012/BE-01262012-cloud.aspx>

⁴ <http://www.netindex.com/upload/2,4/United-Kingdom/>

⁵ 'FOR A GROWING EUROPE Making the EU Economic System Deliver' Report of an Independent High-Level Study Group established on the initiative of the President of the European Commission, André Sapir *et al.* July 2003.

'Catching Up or Getting Stuck? Europe's Troubles to Exploit ICT's Productivity Potential', Bart van Ark and Robert Inklaar, July 2005

⁶ See for example, http://www.ftthcouncil.eu/documents/studies/Socio-Economics_Study.pdf

allocation of resources at a time of rising demand is clear but is unlikely to factor in private investor considerations.

10. That is why the FTTH Council believes that it is appropriate for the State sector to recognise the positive externalities that arise from very high speed networks. The UK government's allocation of £530million to enhance the UK's networks outside competitive areas is therefore wholly justified.
11. It can be argued that rural communities will benefit the most from the best network performance, as demonstrated by numerous case studies taken from the experience in Scandinavian countries. These are also the areas where customer demand is highest, many communities are requesting a FTTH network and the communities are willing to support the installation, reducing the build costs. We suggest for these areas it is inappropriate to set short term solutions and a 2Mbps minimum performance target.

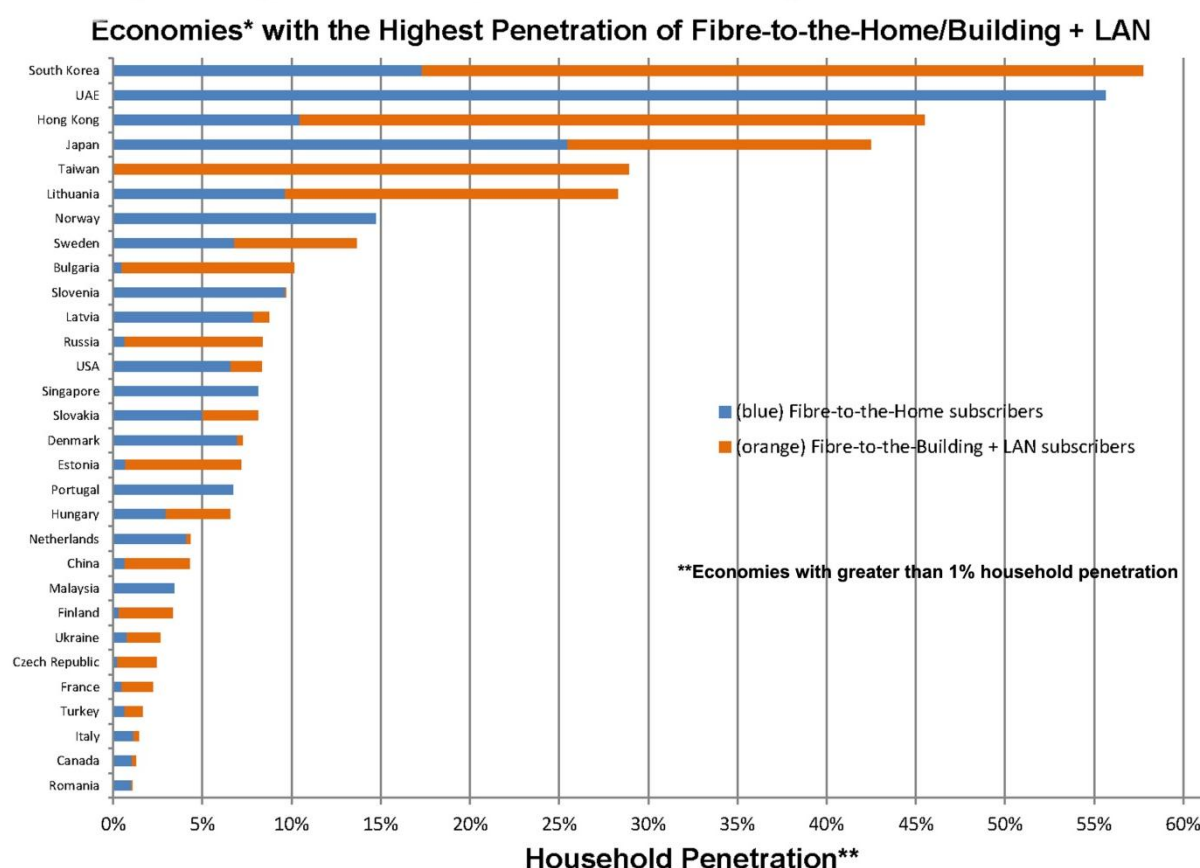
The need to invest in future proof networks

12. While the future needs of society cannot really be fully anticipated, a network which has theoretically almost infinite capacity is preferable to networks which are already constrained. Analysys Mason, a UK consultancy conducting a review of public expenditures in Europe found that the largest single project, a fibre to the cabinet project in South Yorkshire, had been overtaken by the market. While many issues arise in the project the fact that the local authority had chosen an interim technology such as FTTC points to the danger of thinking short term. There is therefore a concern that certain investments which may have a cost advantage in the short term may actually prove significantly more expensive when they need to be further developed and upgraded in subsequent years and become wary of such investments.
13. The Council believes that there dangers of investing public funds in time-limited infrastructures which are unlikely to be adequate to meet end user needs in the medium term. Short terms solutions such as FTTC are unlikely to be adequate and will most likely delay the ultimate migration for these users to FTTH since second and third rounds of public finance are not likely. Rushing to a quick and cheap short term solution which would delay or impede the momentum to a FTTH solution should be resisted in our view, both because such investments are potentially wasteful of public funds and are damaging to the market dynamic which is likely to see digital divide issues exacerbated rather than ameliorated. The FTTH Council notes that certain countries such as France are adopting criteria themselves that requires a path to FTTH if public sector finance is to be invested (see for instance <http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000024473100&dateTexte=&categorieLien=id>) such that a clear path to FTTH is required where public funds are used. Such criteria should be encouraged and standardised at EU level in the Council's opinion. The FTTH Council believe that a similar requirement would be appropriate in the UK.

The need for a holistic view

14. The FTTH Council notes across the countries of its members that many public financing initiatives are seeking to use public finance as a catalyst for private sector investment in more marginal areas. Portugal represents a good example of such a project where the regulator has divided the country into two regions, competitive and non-competitive. Currently, in the competitive region operators have regulated access to civil engineering (passive) infrastructure and the main operators are obliged to deploy their own networks (and some alternative operators are co-investing). In the non-competitive areas, where there is currently no other basic broadband infrastructure besides the network of the incumbent operator, a single FTTH infrastructure which is independently owned and operated and open to all operators is being built with State support. The aim therefore is to have ubiquitous FTTH access and already 55% of homes have FTTH available compared to less than 3% in the UK. A coherent objective and a path to achieve that objective is critical for success in long term infrastructural projects such as FTTH deployments.
15. On the demand side, the public sector needs to completely rethink the organisation of public service delivery organised around new technologies and delivery platforms. This should be included in a much broader plan (national plans) which needs joined up thinking across a large number of service areas. Use of the Cloud to enable such service delivery is critical to achieving key development targets in a range of areas. As noted already, exploiting the Cloud requires adequate networks to be in place in order to have sufficient capacity so that its potential can be reached.
16. When considering the case for FTTH networks other industrial policy motivations should also be considered.
17. If the UK's competitors in other parts of the world have fibre and the UK does not, where are Cloud solutions, applications and job opportunities likely to be developed? Experience to date suggests that applications will be developed where the network capable of supporting service delivery is available. Once developed, those firms and research centres that lead the way are likely to maintain their lead if developments in other areas of ICT are to be our guide.
18. This is why the FTTH Council believes that new developments such as Cloud computing represents part of a much broader paradigm shift in this sector but also in the broader economy. The FTTH Council believes that any such paradigm needs to clearly incorporate the functionality of FTTH and recognise the indirect benefits that such networks can enable in this sector. These very high speed networks can enable a set of services which are capable of completely changing certain aspects of service delivery in a range of areas from healthcare delivery to SaaS.
19. There are many other enablers that are required to support this shift which concern factors such as data protection and the legislative framework governing such service delivery. The FTTH Council endorses these measures and believes that increasing interoperability, cross border legal regimes and legal certainty for users, and R&D are all clear enablers of a future Cloud environment. Nevertheless, without the underlying infrastructures in place, these measures will have limited impact in practice and that is why the FTTH Council believes it is critical that all parts of the State coordinate to highlight the overall benefit that FTTH networks can bring in a range of areas.

20. The UK is well behind in the deployment and adoption of FTTH deployment and take up. By comparison with G7 countries (refer to graph of subscribers based on Dec 2012 figures) the UK ranked last in terms of availability of FTTH networks⁷ and the future forecasts of firms like Heavy Reading suggest that the UK will remain last beyond 2020⁸.



Conclusions

21. The FTTH Council Europe believes that where possible competitive markets are best enabled to deliver the required networks and services to the mass market. However, there should be National targets for performance and these should be no less than the standards set out in the Digital Agenda by the Commission. However these targets should support existing and future services and be as future proof as possible and therefore include uploading capabilities necessary to deliver existing Cloud performance levels and beyond. These targets must be a pre-condition for networks benefitting from public finance. The present ill-defined target of “superfast broadband” is at best misleading.

⁷OECD (2011), "Fibre Access: Network Developments in the OECD Area", *OECD Digital Economy Papers*, No. 182, OECD Publishing.

⁸<http://www.heavyreading.com/>

22. The FTTH Council believe that several incremental investment cycles in broadband networks will be prohibitively expensive and would urge appropriate network targets to be set from the outset. The consequence of not doing so will be a deepening and a prolonging of the digital divide in the UK
23. The FTTH Council sees very significant positive externalities flowing from these networks and these spill-over benefits to society justify public investment to see these networks built.
24. These investments should form part of a holistic national plan which envisions ubiquitous availability of connectivity across the UK as well as a private and public sector reorientation on the production and delivery of services to end users.
25. The FTTH Council Europe would welcome any opportunity to provide further supporting technical information.

Yours sincerely,

FTTH Council Europe



Chris Holden
President of the Board



Hartwig Tauber
Director General

FTTH COUNCIL EUROPE ASBL

Avenue Louise 214 box 12
1050 Brussels, Belgium
info@ftthcouncil.eu