RESPONSE TO THE PUBLIC CONSULTATION ON UNIVERSAL SERVICE PRINCIPLES IN E-COMMUNICATIONS

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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?

ITU data from 2008 shows that mobile phone penetration in nearly all EU member states is greater than 100%. That is to say, the number of GSM subscriptions is greater than total population (suggesting that many people have more than one mobile phone). In addition, a map published by the GSM Association shows that, except for rural Iceland and northern parts of Sweden and Norway, Europe in 2009 is entirely covered by GSM networks. This virtually complete coverage was achieved without "universal service obligations" being imposed on mobile phone network operators. It suggests that the market *may* be able to meet demand for basic e-communications services -- *if* the cost to end-users is comparable to the cost of a GSM subscription, the cost of network roll-out and operation is comparable to GSM, and the public values the service at least as much as GSM.

However, it does *not* indicate that GSM companies will voluntarily provide high quality, affordable broadband Internet access to everyone in Europe. For that we need to examine the business case for broadband more critically, to identify its limits.

In order to achieve social inclusion through universal access to affordable broadband services in today's competitive environment, *policymakers must focus on the availability of broadband in areas where it is currently unprofitable.*

There are several ways to tackle this problem. One is by adopting an "anti-competition policy", so firms can grow large and profitable enough to cross-subsidize their services to sparsely populated, low-income areas with surplus income from richer urban areas. This points back to the time of integrated telecom monopolies, and a strategy of high-cost stasis, which Europe has wisely rejected. We do not suggest a return to that approach.

Another tactic is state aid - which inevitably brings problems of market distortion and unsustainability - not to mention high costs to public budgets. These negatives are enough for state aid to be treated as a "last ditch" measure, not a preferred solution.

We see much more promise in trying to change the economic variables making broadband access networks unprofitable today in poor rural areas. Our answer to **Question 2**, provides concrete suggestions.

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?

This answer focuses on the provision of broadband access to low-income people living in geographically remote or isolated areas.

As mentioned in our answer to **Question 1**, one reason why businesses do not voluntarily invest in the development of rural broadband infrastructure is that costs are increased by regulations which are not in fact necessary. The Questionaire launching this consultation points out that

> "wireless technologies allow more flexible and effective delivery of broadband in [isolated and sparsely populated] areas, with new subscribers being connected to wireless networks at very low marginal cost.
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> "The release of spectrum resulting from the switch-off of analogue TV services (the digital dividend) opens the significant prospect of widespread roll-out of mobile and other wireless broadband services, which can in particular benefit remote or inaccessible areas of the Union not covered by legacy copper networks, as well as some of the newer Member States where fixed penetration has been historically low."

According to Canada's Communications Research Centre[1], the cost of building and operating wireless broadband networks utilising frequencies around 700 MHz is about 75% less per user than DSL when the population density is 60 per square kilometre. (That population density is typical of Scandinavia, Ireland, the Baltic countries, Poland and Spain.) UHF’s cost advantage is even greater at lower densities - and at lower frequencies. Thus, opening the TV "white spaces" below 790 MHz, especially in rural areas where there are few TV signals, could make rural broadband both profitable and sustainable. The business case for such networks would be strengthened even without a "universal service obligation" or license conditions requiring rural coverage.

License exempt radio equipment based on open standards normally costs less – often very much less – than similar equipment with proprietary designs for licensed channels. In addition, the cost of spectrum usage rights in the license-exempt bands is zero. Therefore, to improve the business case for broadband in remote settlements, the Commission should encourage the use of license exempt radio equipment over longer paths – and in more diverse contexts – than current regulations allow. This can be achieved by recommending that national regulatory authorities (NRAs)

- increase the radiated power limits for equipment operating in sparsely populated areas under general authorisations;
- allow more freedom in the choice of antenna configurations for license exempt equipment in areas where the risk of interference is low;
- allow additional types of equipment to operate under general authorisation when deployed in rural areas (if geo-location databases are created to

[1] “Bringing broadband access to rural and remote areas: the Canadian experience” by Gérald Chouinard, *ITU News*, issue 3 (2006) - http://www.itu.int/itunews/manager/display.asp?lang=en&year=2006&issue=03&ipage=canadian&ext=html

support cognitive use of TV “white spaces”, they could be expanded to serve this purpose, too); and
- allow the use of TV “white spaces” by license exempt wireless broadband access networks.

Even with such cost saving measures, some areas may not be able to attract sufficient investment for a commercial broadband access network. However, there are other economic models which may be more suitable. Large numbers of not-for-profit wireless networks have appeared in recent years, operated and financed voluntarily by communities of end-users for their own benefit. (The most recent list we have seen – not updated since 2005, unfortunately – shows 174 community wireless networks in the EU member states.) Most are co-operatives with no formal relationship with any public authority or subsidy from any public budget. Yet they are wellsprings of practical know-how and social commitment – authentic, positive models of self-help. Some are members of the Open Spectrum Alliance:

- **Athens Wireless Metropolitan Network** (http://www.awmn.net/) - founded in 2002, and now with 2,889 Wi-Fi links connecting 12,500 active nodes, AWMN is the largest of the 21 community networks in Greece.
- **Funkfeuer.at** (http://www.funkfeuer.at/) – Founded in 2003, Funkfeuer.at is a free experimental network with 600 mesh links covering about one-third ofVienna and parts of Graz.
- **Freifunk.net** (http://freifunk.net/) - Founded in 2003, Freifunk now connects about 6000 people in Berlin, Leipzig and Weimar to the Internet.
- **Guifi.net** (http://guifi.net/) – founded in 2004 and now serving about 10,000 households throughout Catalonia, Guifi.net is one of the largest noncommercial Internet access networks in Europe. Users pay for the equipment needed to join the net but once connected, service is free. Its membership is particularly large and strongly committed in rural areas. Where it has a significant presence, digital inclusion is boosted to higher levels even than metropolitan areas in the same region which have good commercial broadband coverage. Guifi.net won Spain's National Telecommunications Award in 2007.

We believe strongly that the Commission should encourage such grassroots initiatives, and not only where broadband cannot be made profitable through technical rule changes.

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?

As indicated in our answer to **Question 1**, it *might* be necessary to expand universal service obligations to include high-speed broadband, but only after the Commission has done what it can to reduce the number and size of the geographic areas where broadband is currently unprofitable. That includes eliminating regulations which keep deployment and operating costs higher than they need to be. If that is done, the business case for expanding broadband access in currently unserved regions should produce the desired result (inclusion) by itself. For those areas remaining unprofitable after the reduction of regulatory burdens, facilitating the creation of local community networks owned by the users is preferable to subsidizing large commercial operators.

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?

The impact will depend in how "universal service" is implemented. If it means state aid going to firms with significant market power, that will decrease competition, increase de-localization and be generally harmful. However, if the obligations (and access to Universal Service Funds) are extended in a way that enables everyone to build locally owned broadband networks, that would be a good thing. As the Organisation for Economic Co-operation & Development expressed it:

> “The main message for OECD policy makers is to give the market time to develop broadband access... A delay in the availability of service for rural users should not be taken to be an automatic sign of market failure.... The main objective for governments... should be to facilitate competitive entry in rural areas. This approach is likely to be far more conducive to the roll out of broadband availability than funding in the form of subsidies...”[2]

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?

Right now, the member states set quality of service and bandwidth goals. Since different technologies are capable of delivering different speeds and QOS, there is a risk that the member states setting easy (low speed) targets like 512kb/s – in order to reach their goals quickly – will encourage their service providers to invest in a "dead end" technology like DSL, which cannot provide high speed data transfers over the long distances needed in rural areas or evolve toward higher future requirements like 100MB/s. To avoid such problems, minimum targets gradually raised at the EU level should be considered, along with "network neutrality" for broadband throughout the EU.

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?

Yes, because there are already significant differences between member states in their starting points.

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?

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[2] “The Development of Broadband Access in Rural and Remote Areas,” by Sam Paltridge, OECD Working Party on Telecommunication and Information Services Policies (DSTI/ICCP/ TISP(2003)7/Final, 10 May 2004) - http://www.oecd.org/dataoecd/38/40/31718094.pdf

If funding is linked to results rather than size, yes.

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 e-communications 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?

There are other alternatives, like enabling local public administrations and regional governments to facilitate the deployment of broadband networks. They are already in positions to ensure the interoperability of public service networks, to supervise nondiscriminatory access to public domain assets like underground conduits and street lamps, to run training programs for SMEs and last-mile installers, to promote user-owned neighborhood networks, etc.