

QUALCOMM INC. RESPONSE TO THE CONSULTATION ON THE EUROPEAN COMMISSION'S BROADBAND GUIDELINES ON THE APPLICATION OF EU STATE AID RULES TO PUBLIC FUNDING OF BROADBAND NETWORKS

I. Introduction

1. Qualcomm Inc. welcomes the European Commission's initiative to clarify the way European state aid rules apply to the deployment of broadband networks and also welcomes the opportunity given to stakeholders to express their views on this issue.
2. The European Commission (EC) rightly acknowledges that broadband networks and services are crucial for supporting Europe's economic recovery in the short run and for sustainable long term economic growth. As noted in the draft Guidelines, access to state aid for broadband deployment is to be seen in the context of the EC's European Economic Recovery Plan (EERP).
3. In relation to the current consultation Qualcomm Inc. wishes to highlight the following points in particular:
 - The importance of abiding by the principle of Technology Neutrality and of adopting a definition of broadband in the draft Guidelines that reflects the economic priorities facing the European Union;
 - The need to acknowledge the ability of wireless technology to deliver broadband;
 - The need to ensure that the Guidelines do not frustrate the EERP's 'broadband for all' priority and that the Guidelines are consistent with parallel EU initiatives, such as the amendment of the GSM Directive that frees up the 900MHz band for UMTS 3G broadband technologies.

II. Technology Neutrality and the definition of broadband under the draft Guidelines

4. The draft Guidelines recognize and reinforce the principle of technology neutrality, which is welcome. The draft Guidelines require member states not to favour any particular technology or platform (unless objectively justified) and provide that 'bidders should be entitled to propose the provision of the required broadband services using and/or combining whatever technology they deem most suitable'. However, there are unfortunately contradictions in the draft Guidelines which on the one hand stress technology neutrality while on the other hand define NGA networks as 'mainly fibre-based or advanced upgraded cable networks'¹.
5. While Section 2 of the draft defines broadband broadly, to include wireline, wireless, satellite and mobile technologies² Section 3 defines NGA networks as limited to only two wireline technologies and to specific speeds.³ Therefore, as currently drafted, the Guidelines give the impression that the EC not only favours state aid funding for NGA networks as defined in Section 3. Yet under footnote

¹ Paragraph 46 of the draft Guidelines.

² Paragraph (45) sub-paragraph d) of the draft Guidelines.

³ Paragraphs (46) and (48) of the draft guidelines.

44, Section 3 also appears to specifically exclude satellite or mobile network technologies (see further below). This would conflict directly with the principle of technology neutrality and would create significant inconsistencies with critical European policies (see below). As a result this impression should be corrected and the Guidelines should make it clear that, in focusing on funding for specific technologies, Section 3 in no way implies preferential treatment or exclusion of other broadband technologies from state aid funding.

6. In addition it should be noted that, in the draft Guidelines, the terms wireless and mobile are misused which can lead to confusion and even decisions that distort the market. Paragraph(45)d refers to 'wireless (Wi-Fi, WiMAX), satellite and mobile technologies'. However, it is critical to note that mobile technologies, such as UMTS, are a sub-category of wireless and wireless is certainly not limited to more localised technologies such as WiFi or WiMAX. In addition mobile technologies can offer a fixed wireless service, which would effectively compete with wireline for the delivery of broadband services. Indeed as fixed can also be wireless, there is some confusion in the draft Guidelines between fixed and wireline. As such the Guidelines must also be clear about the scope of NGA which should be more appropriately described as wireline under Section 3, rather than fixed. Thus the draft Guidelines must be consistent and accurate in their description of technologies and network infrastructures. More importantly, the draft Guidelines should not discriminate or appear to discriminate between fixed and wireless networks, whether mobile or other.
7. It must also be noted that the EERP does not discriminate between fixed and wireless networks, nor does it limit wireless to Wi-Fi or WiMAX. In the EERP the EC recognizes that broadband must include both fixed and wireless; so should the Guidelines. Indeed, if the EU's strategy is to "accelerate the up-grading and extension of networks" to fulfill the goal of "100% coverage of high speed internet by 2010", broadband delivery must encompass a mix of both fixed and wireless. The Guidelines should support this policy objective.

III. Developments in wireless technology

8. The draft Guidelines, in a footnote, dismiss satellite and mobile technologies as appearing to not being capable of providing very high speed symmetrical broadband services at the current time.⁴ This view does not accurately reflect the current European and national landscape related to mobile broadband and its fast evolution.
9. Today 3G technologies offers competitive broadband services, with more than 750 Million users and 535 commercial networks in 152 countries around the world. In Europe, 3G subscribers reached 146 million users by end 2008, with a 66% increase year on year.⁵ 3G broadband capabilities and performances are continuously evolving to offer enhanced user experience. As an example mobilkom in Austria already provides a speed of 21 Mbps on its existing High Speed Packet Access (HSPA+) Release 7 network. With Release 8 HSPA + it will reach 42 Mbps peak data rate downlink

⁴ Footnote 44 states that "At this stage of technological and market development, neither satellite nor mobile network technologies appear to be capable of providing very high speed symmetrical broadband services although in the future the situation may change especially with regard to mobile services (the next major step in mobile radio communications, 'Long Term Evolution' may theoretically reach, if and when adopted, increased peak data rates of 100Mbps downlink and 50Mbps uplink)".

⁵ Source: Wireless Intelligence

and 11 Mbps uplink in a 5 MHz carrier. HSPA+ Release 9 will provide 84 Mbps peak data rate downlink and 23 Mbps uplink in a 10 MHz carrier and LTE 73 -150 Mbps peak data rate downlink and 36 – 75 Mbps uplink for carriers of respectively 10 and 20 MHz. By aggregating multiple carriers 20 MHz carriers LTE Advanced can reach or even exceed peak data rates 300 Mbps. Additional evolutions for HSPA and LTE are currently planned and under development.

10. The Guidelines must accurately reflect market realities, or risk flawed market analyses, in particular when it comes to the analysis of broadband coverage of a particular geographic area (the white, black or grey area analysis) or where aid is being proposed with the intention of correcting market failures. As such, mobile broadband cannot be simply excluded from the competitive landscape. The EC should not only remove footnote 44 of the draft Guidelines but should also acknowledge the ability of existing and future mobile technologies to provide very high speed broadband services that rival fixed broadband.

IV. Fulfilling the EERP

11. The EERP sets out the ambitious goal of providing “100% coverage of high speed internet by 2010”.⁶ The EERP therefore recognizes the need for member states to provide support for upgrading the performance of existing networks and for freeing up appropriate spectrum for wireless broadband.⁷
12. The EERP also stresses the importance of developing high value added services. In this perspective, as well as for stimulating the usage of broadband networks, there are strong arguments for making state aid available for pan-European broadband services and applications in areas such as healthcare, public or road safety, e-government, education, etc. Due to the personal character of mobile devices and the mobility they provide, mobile broadband networks are particularly suitable and convenient for such public interest services. There is great potential for mobile communications technologies to minimize environmental impacts as well.
13. Yet by focusing on fibre deployment, the EC will create significant hurdles for achieving broadband for all especially as fibre deployment is more costly and slower than wireless deployment. Indeed, there is a significant difference between the time, effort, money and risk involved in rolling-out fixed networks in the ground and the deployment of a mobile base station (in particular since mobile

⁶ The Commission has additionally noted that support under the EERP would include “*creation of new broadband infrastructure including backhaul facilities (e.g. fixed, terrestrial wireless, satellite-based or combination of technologies)*”, as well as infrastructure upgrades and broadband infrastructure rollout. It is therefore clear that part of the EERP package is wireless deployment.

⁷ Indeed, the revision of the GSM Directive is specifically aimed at ensuring that the benefits of mobile broadband are provided to the European market. The new Directive which allows the use of the 900 MHz spectrum band for UMTS 3G technology ensures the cost efficiency of mobile broadband networks because lower frequencies travel further and penetrate buildings more easily than the higher frequencies (2100 MHz) which 3G systems currently use. UMTS in the 900 MHz band provides the ideal coverage to extend broadband access for rural areas and smaller towns and communities in a cost-efficient manner, with the resulting positive impacts on productivity, employment and bridging the social divide. The release of the Digital Dividend, 800 MHz band, will allow further efficiencies by increasing network capacities, fostering the development of new services and competition, including in rural areas.

networks already cover almost the entire population with at least voice⁸). From this perspective wireless networks may actually be better suited to providing 'higher levels of broadband coverage and penetration, or doing so in a more timely manner', which is the objective of state aids in the field of broadband.⁹

14. As highlighted by a recent Radio Spectrum Policy Group (RSPG) Position Paper "*wireless broadband access will often play a key role in bringing broadband to all, first because its cost effectiveness may exceed that of wired broadband especially where population densities become low and second because of the distinct value offered by mobility and wireless connectivity in general*". According to the RSPG, the EC and member states should focus on, amongst other things, exploring roll-out of fixed and mobile broadband to rural areas, based on stakeholder consultations and clear feasibility studies and cost-benefit analyses.¹⁰
15. In order to reap the benefits of mobile broadband and enhance its contribution to economic recovery, long term economic growth, bridging the digital divide and general public welfare, the EC should therefore emphasize the importance of respecting technology neutrality and avoiding discrimination against any technology in the area of State aids, especially if such technologies are critical in assisting in the EU's economic recovery.

⁸ Although these networks might require access and backhaul upgrades to deliver large quantities of data, this is a far less capital intensive exercise than rolling out new fixed networks.

⁹ Paragraph (5) of the draft Guidelines.

¹⁰ RSPG Working Group on Wireless Broadband, Final Position Paper, RSPG09-284 Final, Brussels, 14 May 2009. The RSPG also considers that "*it is important to avoid introducing distortions in the competition between platforms (e.g. between wired and wireless) if projects benefit from subsidies or other support*".