



## Broadband Communications

### Bridging the economic and social digital divide

**It is Intel's mission to make affordable and high-quality global broadband deployment a reality, allowing us to bridge the economic and social digital divide.**

The revolutionary convergence of the computing and communications industries is poised to bring great benefits to consumers worldwide. In the future, all computers will communicate and all communications devices will compute. Essential for this convergence is the availability of affordable and high-quality broadband communication, wired and wireless. Broadband enables many benefits<sup>1</sup>, and enhances active participation in society: e-health, distance learning, government services and communication between people rely on high speed internet access. However, there are still obstacles in the path to Europe bringing broadband to all.

#### **Broadband for all policy – bridging the economic and social digital divide**

Making high quality, affordable broadband communications service universally available is an essential societal goal. A significant part of Intel's strategy involves utilising our manufacturing and technology leadership to bridge the digital divide around the world. Intel's World Ahead program<sup>2</sup> has spent years working to accelerate PC ownership and enable an incremental one billion people to access the Internet by 2012. To realise its "broadband for all" vision, Europe needs to further develop policies to encourage competitive provision of broadband services coupled with broadband ubiquity policies to address the digital divide.

- We believe that a fundamental discussion should take place on how to use universal service provisions as a complementary tool to address a digital divide between those with access to high speed broadband and those without.
- Continued attention and investment is needed in local/regional initiatives which combine public (national and EU) and private funding aimed at deploying broadband infrastructure with the most cost-effective technology adapted to the needs of each concerned geographical area.

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<sup>1</sup> Widespread deployment of broadband could contribute up to an extra \$500 billion annually to the US GDP (Crandall and Jackson 2001). By 2015, the productivity benefits of broadband could be as much as 2.5% resulting in an annual increase to the UK Gross Domestic Product (GDP) of £21.9 billion CEGR (2003).

<sup>2</sup> The Intel World Ahead Program aims to enhance lives by accelerating access to uncompromised technology for everyone, everywhere. Focused on developing communities, it integrates and extends our efforts to use technology to help people improve their lives, societies, and economies. For more information: [www.intel.com/intel/worldahead/](http://www.intel.com/intel/worldahead/)

- Access to broadband should be coupled with sufficient focus on increasing PC penetration and enhancing eSkills through demand stimulation measures such as training for students, low skilled groups, professionals and subsidizing equipment/installation/subscription costs.

## **Spectrum reform – crucial for wireless broadband**

One of the biggest obstacles in the path towards affordable and high-quality global wireless broadband is the artificial scarcity created by outdated spectrum management in many countries. A move towards a sound, modern spectrum built on the overarching principles of technology neutrality, service neutrality and flexible tradability is crucial to the provision of wireless electronic communications services.

### **What do EU citizens, businesses and public services gain from a more flexible spectrum management?**

- Opening up under-utilised spectrum will allow for new wireless innovative solutions such as WiMAX and LTE to help reduce the digital divide, especially in rural areas.
- Spectrum flexibility can open opportunities for new players to enter the market, with lower infrastructure costs, bringing greater choice and reducing the price of communications.
- New innovative services will deliver solutions for societal gains including healthcare, active ageing, education, etc. plus environmental challenges including monitoring, sensors, etc.

### **Which actions are needed to achieve this?**

The European Commission already made a significant step towards a more flexible spectrum management with its WAPECS (Wireless Access Policy for Electronic Communications Services) recommendation, on which it based several measures to allow more flexible access to certain spectrum bands in particular the 2.6 GHz band which is well suited for wireless broadband services. The Radio Spectrum Policy Programme also proposes very important deadlines for Member States to make available the 800MHz, 2.6 GHz and 3.5 GHz bands.

- We see the actual implementation being held up by different factors. There is a need to speed up this process so new and innovative technologies can enter the market.

Some Member States are already making the transition to a more flexible system and have acknowledged the importance of this move to their economy.

- A majority of Member States are still lagging behind. So, additional educational efforts should be made to raise awareness about the benefits of spectrum management reform.

Digital Dividend: the transition from analogue to digital broadcasting will free up valuable spectrum for re-use by other services.

- Europe should move ahead as soon as possible to make this spectrum available.