



Broadband benefits: DRIVING PRODUCTIVITY, EFFICIENCY AND ECONOMIC GROWTH

Access to broadband communications has a real and positive effect on the productivity and efficiency of individuals, enterprises and government bodies – leading to a positive overall contribution to economic growth.

Our studies have shown that broadband connectivity truly benefits society – providing tangible benefits to individuals, enterprises and governments. It not only delivers services that are entertaining and fun for individuals, it also generates economic growth, new business opportunities and increases efficiency.

Studies undertaken by a wide variety of organizations have consistently demonstrated a proportional relationship between access to broadband and GDP growth – and, the higher the proportion of people who have access to broadband, the greater the economic benefits.

Furthermore, as more and more mobile broadband networks are rolled out around the world, the economic benefits of

cost-effective broadband access are being enjoyed by more people, faster than ever before.

Economic growth and new business opportunities

Increasing broadband adoption provides a number of macro-economic benefits in terms of productivity gains, job creation and opening up new markets.

In 2008, the American non-profit organization Connected Nation Inc. concluded in its report, *The Economic Impact of Stimulating Broadband Nationally*, that a seven percentage point increase in broadband adoption across the USA could result in: an additional 2.4 million jobs per year; savings of USD6.4 billion per year from reduced road travel; a time saving of 3.8 billion hours per year from accessing broad-

band at home; and a USD134 billion per year direct economic boost from accelerating broadband across the country.

As broadband becomes an increasingly important aspect of the economy, productivity gains are expected to rise. A 2008 report from industry analyst Ovum, *The Increasingly Important Impact of Wireless Broadband Technology and Services on the US Economy*, estimates that productivity gains will generate almost USD860 billion in additional GDP in the USA over the next decade.

According to a report from Australia's Centre of International Economics (CIE), *Impact of genuine broadband for Australia*, fast and accessible broadband would deliver a 1.4 per cent increase on the country's 2007/2008 GDP after 5–6 years – equivalent to AUD15 billion.

Broadband also has a positive effect on employment.

A 2007 study undertaken by the Brookings Institution in the USA, *The Effects of Broadband Deployment on Output and Employment: A Cross-sectional Analysis of US Data* found that for every one percentage point increase in broadband penetration in a state, employment is projected to increase by 0.2–0.3 per cent per year. For the entire American private non-farm economy, this suggests 300,000 additional jobs.

New global production chains enable businesses to specialize in their core competences and achieve economies of scale.

Broadband contributes to economic growth by opening up whole new customer bases for companies that would otherwise not be accessible, and making the market larger and more competitive. In addition, entrepreneurs and potential investors can get connected easier through online matching

services like the Angel Investment Network, an online platform that connects entrepreneurs and investors. Today there are 30 networks covering over 50 countries, with over 60,000 members, in Europe, the Americas, Africa, Asia and Australia. These have brought entrepreneurs and investors much closer together by enabling entrepreneurs to contact local, national and international investors directly (and *vice versa*).

New businesses are enabled as broadband continues to get faster and cheaper, and it becomes easier for niche companies and new innovations to find their markets. One example is the Bambuser service, which lets people stream live video from their mobile phones or web cameras to the Bambuser site using 3G or WiFi.

Existing businesses benefit too. For example, Key Stages Online is a UK web-based learning system that offers online assessment and learning system for school children.

According to the US National Farmers Union (NFU), access to broadband is vital to renewing the rural landscape. Broadband services provide the link between collective entrepreneurial businesses in rural areas to consumers throughout the USA. The NFU has established an innovative web portal to enable purchasers to directly locate and buy food products, and other goods and services, online from hundreds of agricultural producers and their cooperatives. Both producers and consumers are able to search for family farms, ranches, cooperatives and rural businesses according to location, type of business, growing practices, available products, specialty goods and niche items.

Enterprise efficiency

Broadband enables more efficient ways of working for enterprises of all kinds. For example, companies can link

Personal efficiency

Broadband provides means to make people's everyday life easier. Online shopping save time and money. According to research firm Nielsen, more than 85 per cent of the world's online population has used the Internet to make a purchase.

With access to broadband, people can work anytime from anywhere – helping them to be more flexible and efficient, and have more time for family and friends. With broadband connections increasingly available on public transport, people can use travel time more efficiently. For example, the availability of on-board broadband on the UK east coast main line railway contributed to 22 per cent extra journeys being made by rail rather than by air, according to Icomera, a provider of broadband gateways for transport applications.

Broadband also enables people to efficiently monitor their homes, children and older family members.



Government efficiency

Significant efficiency gains – and financial savings – can be realized by governments through broadband. For example, in the USA, USD2.15 is saved for each tax return filed electronically, as well as a reduction in errors from 20 per cent to less than one per cent.

The online purchase and acquisition system 'GSA Advantage' provides USD90–240 in savings on administrative costs per transaction. In addition to greater ease and convenience, citizens can also save money by using online government services. In the USA for example, it costs USD1 to renew a driver's license online compared with USD8 for an in-person renewal. (Source: 'Broadband and the Economy', OECD, 2007).

Broadband enables more openness between government and citizens, and can be used for e-services like online voting.



data-processing systems to work more closely with suppliers and partners, and to better satisfy customer needs.

Skanska (one of the world's leading construction groups) is using mobile broadband to be more efficient at sites from day one. According to an Ericsson case study, *Building productivity and service cost-effectively through mobile broadband*, timely and actionable field reports have improved client satisfaction and project start-up at each new construction site has been reduced by around 25 days on average.

By using mobile broadband, golf company TaylorMade reduced inventory time by 75 per cent, according to the 2008 Ovum report, *The Increasingly Important Impact of Wireless Broadband Technology and Services on the US Economy*. TaylorMade's forecasting also improved, and each salesperson's sales volume increased by 10–20 per cent per customer order, and by 15 per cent overall.

Flexible working locations enabled by broadband delivers many benefits to society as a whole, enterprises and employees.

For enterprises, flexible working location leads to increased productivity and efficiency, lower real-estate costs, more competitive recruitment, reduced employee turnover and better job satisfaction and morale.

According to a 2007 report from the Yankee Group, *US mobility and business applications* survey, there are 55 million mobile workers in the USA. Workers are spending an average of 39 per cent of their time working away from their primary office and almost half of these mobile workers are knowledge

workers. Nearly 75 per cent of the workers believe that allowing them to work from home benefits their employer.

According to Gartner, the Western European corporate teleworking population will grow at a compound annual rate of 3.8 per cent between 2007 and 2011, topping 27 million by the end of the forecast period.

A study of Australian operator Telstra's Next G™ network demonstrated that the HSPA network (provided by Ericsson) delivers direct business benefits across the country. The study identified average productivity gains of 9.3 per cent – rising to as much as 27 per cent in some areas. The video telephony and high-speed mobile broadband capabilities delivered by HSPA are put to good use, especially by businesses operating in outlying areas or with staff who are frequently away from their offices.

According to statistics from the Environmental Defense Fund's Innovation Exchange program, IBM saves USD100 million a year on site costs alone by having 40 per cent of its global workforce telecommuting, and Sun Microsystems saves 104 hours in commuting time per year by having 55 per cent of its workforce either based primarily at home or dividing their time between a Sun office and a home office.

