

Business
Council of
Australia



Business Council of Australia

Submission to the

**House of Representatives Standing Committee on
Infrastructure and Communications**

on the

**Inquiry into the role and potential of the National
Broadband Network**

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OVERVIEW

- Fast, reliable, accessible and affordable broadband is important for productivity and for delivering the online consumer services of the future. But we need to get the industry model right to provide consumers in Australia's cities, towns and regions with the broadband services and speeds they demand at the lowest cost.
- The National Broadband Network (NBN) is a wholesale access network that will play just one part of a much wider market of fixed and wireless broadband suppliers and products. The committee should take a broad perspective on how the government's NBN investment will contribute to efficient markets for information and communications technology (ICT) products that will deliver better outcomes for consumers, productivity and economic growth.
- A range of interdependent factors should be considered for determining the effective adoption and use of communications technologies:
 - The cost and quality of fixed and wireless broadband products and, usage trends and levels of take-up by consumers and business.
 - Regulatory frameworks that provide the right incentives for investment and use of productivity-enhancing ICT technologies.
 - Organisational capacity for making the best use of technological advancements (e.g. through process re-engineering).
- The BCA continues to advocate for the NBN investment to be subjected to a cost-benefit analysis to demonstrate it is the best way forward for the development of the communications sector. It stands to reason that if alternative industry models can provide broadband services to consumers and businesses at a lower cost it will result in higher take-up and use, with greater flow-on benefits.
- It will be important that NBN Co complies with the government's competition policy obligations to assure other wireless and fixed line network operators that NBN Co will operate on a level playing field. This will encourage competing investments and innovation to the benefit of consumers and productivity. The government is yet to report on NBN Co's compliance with competition policy.

- To date, potential gains from ICT deployment in services sectors such as health and ageing have arguably not been held back so much by bandwidth limitations as by over-regulation, gaps in organisational capacity and a lack of a clear framework for private sector investment. We should seek to make better use of current fixed and wireless broadband networks to hold us in good stead to reap further benefits from more ubiquitous, higher bandwidth networks in future.

ABOUT THE BUSINESS COUNCIL OF AUSTRALIA

The Business Council of Australia is an association of the CEOs of around 100 of Australia's leading corporations with a combined workforce of over 1.2 million people. It was established in 1983 as a forum for Australia's business leaders to contribute to public policy debates to build Australia as the best place in the world in which to live, learn, work and do business.

AUSTRALIA'S GROWING BROADBAND MARKET

The inquiry into the role and benefits of the National Broadband Network (NBN) should take a broad perspective on how efficient markets for communications products can support better outcomes for consumers, productivity and economic growth. The NBN will be a monopoly wholesale access network operated by NBN Co and just one part of a much wider market of fixed and wireless broadband suppliers and products.

The Australian broadband market has experienced significant growth in recent years in line with the growing sophistication and mobility of broadband technology and its applications. At June 2010, there were 9.6 million active internet subscribers (both fixed and wireless) with only 8 per cent of these being dial-up subscriptions compared to 47 per cent just four years earlier.¹

Wireless and mobile broadband services in particular have experienced considerable growth. Mobile broadband subscriptions made up 31 per cent of total broadband

¹ ABS, *Internet Activity, Australia*, Catalogue No. 8153.0, June 2010.

connections at the end of 2008–09, up from 17 per cent a year earlier.² This does not include data services accessed on 3G handsets, which now account for around a third of major mobile carriers' revenue.³ Fixed broadband subscriptions delivered via Digital Subscriber Line (DSL) and hybrid fibre-coaxial (HFC) networks make up 68 per cent of total broadband connections.⁴

Observing the relatively short time in which dial-up has become effectively obsolete and the already changing mix of broadband delivery technologies, it is reasonable to expect that changes in broadband usage and technologies will be at least as rapid in the future. This underlines the need to think broadly about ICT and the ways in which various broadband technologies can deliver new applications over both fixed and wireless connections and the preferences of consumers for each mode of delivery.

THE ROLE OF ICT IN SUPPORTING PRODUCTIVITY AND GROWTH

Productivity will be a key determinant of future living standards. ICT in its various forms, including those applications and technologies delivered through broadband networks, will continue to make an important contribution to productivity across the economy. There are potential productivity gains to be made from the better use of the fixed and wireless bandwidth available now, as well as the many ICT products we have access to such as smartphones, software applications and the rapidly expanding scope of the internet.

While services sectors such as health and education are often singled out, ICT-enabled process and product transformations are an important way for all businesses to compete. As the Productivity Commission has noted, ICT was critical to Australia's improved productivity performance during the 1990s, with a 'competitively-driven acceleration in ICT use' across the economy, including most notably in the wholesale trade, finance and insurance sectors.⁵ More recent innovations extend from the automation of production and better targeting of mineral deposits via GPS in the mining sector to the use of satellite technology to guide and control spraying and cultivation equipment in agriculture.

² Australian Competition and Consumer Commission, *Telecommunications Reports 2008–09*, June 2010.

³ *ibid.*

⁴ *ibid.*

⁵ Productivity Commission, *Submission to the Senate Select Committee on the National Broadband Network*, 30 July 2009.

There have been numerous studies on the specific impact of broadband on productivity growth. A recent study prepared for Nokia Siemens Networks found that broadband generally has a positive impact on productivity across different countries but the magnitude of the impact on productivity growth is not universal.⁶ The study concludes that broadband's impact on productivity is dependent on the nature of the ICT and wider economic environment:

'In the past, too much policy-making in both the United States and Europe has concentrated on the supply side of the market – that is, attempting to ensure that broadband is available and affordable – without quite realising that the speed of broadband adoption and the uses to which broadband is put are quite contingent on several other factors present in the economy. Failure to adequately recognise the role of the “demand-side” (the skills and habits of people that might use broadband) might result in policies that distort markets and weaken the telecommunications market without achieving much social benefit.'⁷

REALISING THE BENEFITS OF BROADBAND

In assessing the capacity of broadband to contribute to increased productivity and better consumer outcomes, the committee should explore a number of interdependent factors set out below.

Competitive and efficient telecommunications sector

The competitiveness and efficiency of the telecommunications sector will determine the cost and quality of fixed and wireless broadband services and ultimately the benefits that businesses and consumers can achieve from their use.

Rigorous and sound policy development should ensure that government regulation and spending measures are supportive of competitive outcomes, resulting in efficient investments that serve the long-term interests of end users. As the Productivity Commission has suggested:

'... policies or regulations that unnecessarily inflate the costs of using new ICTs, or that limit competition among potential users, will reduce or at least delay uptake and the associated benefits.'

⁶ LECG, *Economic Impact of Broadband: An Empirical Study*, February 2009.

⁷ *ibid.*, p.10.

So too will prescriptive or otherwise inefficient regulations that limit the ways in which ICTs can be provided.⁸

The BCA has consistently advocated that the government should subject the NBN investment to a cost–benefit analysis to ensure the NBN investment provides a net benefit to Australia and is demonstrated to be the best way forward for the development of the sector. It stands to reason that if alternative industry models can provide broadband services to consumers and businesses at a lower cost it will lead to higher take-up and use, with greater flow-on benefits.

This inquiry into the benefits of the NBN could feasibly provide input to a cost–benefit analysis, but the benefits would need to be tightly defined. Identified benefits would need to result specifically from the NBN policy and not count benefits that would have happened anyway using existing broadband networks or from the increase in broadband capacity and use that would have happened under alternative policy approaches.

We start from a position of extensive broadband coverage in many parts of Australia with 96 per cent of small and medium enterprises and 86 per cent of households with internet access already using broadband services.⁹ Many of the purported benefits from the NBN policy will arise from better servicing regional and rural areas, however, a cost–benefit analysis would tell us whether alternative policy approaches could achieve similar results at a lower cost.

The impact of the NBN policy on competition also requires further assessment. Competition policies agreed at COAG require governments to ensure their Government Business Enterprises (GBEs) do not gain an unfair competitive advantage due to public ownership. These policies are important for improving GBE performance, promoting efficient investment and encouraging competition from other providers with the aim of supporting innovation and better consumer outcomes.

⁸ Productivity Commission, *Submission to the Senate Select Committee on the National Broadband Network*, 30 July 2009, p. 2.

⁹ Sensis, *e-Business Report*, September 2010; ABS, *Household Use of Information Technology*, Catalogue No. 8146.0, December 2009.

Under the COAG agreement, the government is required to assess and publicly report on NBN Co's compliance against its competition policy commitments. The government is yet to report on NBN Co's compliance with competitive neutrality policy or release its *Statement of Corporate Intent*, a document that set out NBN Co's corporate objectives and which is required to be tabled in parliament within 15 days of the beginning of each financial year.¹⁰

There are a number of aspects to the NBN policy requiring assessment. The NBN Co Corporate Plan suggests that the viability of the NBN could rest on a number of important government policy decisions in support of NBN Co – for example in relation to 'cherry picking' prohibitions and other legislative protections. In addition, the corporate plan suggests that NBN Co will only earn a return above bond rate (around 7 per cent per annum), while competitive neutrality and GBE requirements stipulate that GBE rates of return should reflect market risk (requiring a return closer to 10 to 12 per cent per annum). The NBN Implementation Study suggested that the viability of the NBN could rest on the government retaining regulatory flexibility.

These policy options could confer a competitive advantage for NBN Co and create uncertainty and regulatory risk for other businesses, with wider consequences for innovation and investment that ultimately impact on our ability to realise benefits from the use of broadband products. Full and transparent compliance with competition policy will impose a commercial discipline on NBN Co's operations and support a more competitive broadband market that is fundamental to realising the long-term benefits from broadband services.

Regulatory frameworks

Australia's regulatory frameworks should provide appropriate incentives for firms to actively compete and improve their productivity through the use of ICT. As Professor Fred Hilmer suggests, 'just because firms and individuals can improve

¹⁰ *Governance Arrangements for Commonwealth Government Business Enterprises*, Department of Finance and Deregulation, June 1997.

productivity does not mean that they will necessarily do so, particularly if there is no incentive for this to occur.’¹¹

The first step in using ICT as an enabler for productivity growth should be to ensure that Australia’s taxation system and regulatory frameworks adequately support ICT innovation and investment. The regulatory framework encompasses not just regulations but the wide range of government settings that affect the incentives of firms, such as funding arrangements, supply quotas and price caps. As discussed in the following section, in sectors with high potential benefits from microeconomic reform like health and ageing, investment in productivity-enhancing ICT has often been held back by regulatory barriers rather than technological ones.

The government’s seamless national economy agenda and the Prime Minister’s proposal of applying microeconomic reform to previously untouched sectors will be critical in driving increased investment in ICT to increase productivity. Similarly, trade and investment liberalisation will continue to give Australian businesses access to the latest technologies around the world and support the transfer of information on advances in new broadband technologies within the communications sector. Australia’s workplaces should be able to adapt to accommodate technological improvements through changing staff roles and improving operational processes.

Organisational Capacity

A firm’s ability to quickly adopt new technology will in part depend on its experience from past innovations and ability to engage in process re-engineering. ICT investments may also bring greater benefits and be implemented more easily where complementary investments have already been made in skills and interacting technologies.

A key element of this is investing in the full life-cycle of technology rather than one-off capital investments. To provide a simple illustration, an investment in a computer should be accompanied by a provision for longer-term maintenance and depreciation as well as initial and ongoing training to update skills as the technology changes.

¹¹ F. Hilmer, ‘What’s Wrong with Microeconomic Reform Today?’, Address to the Sydney Institute, 31 August 2010.

The skills base necessary to drive ICT-led productivity growth is not just limited to the technical skills necessary to bring new technology online. As the Productivity Commission has suggested, strong management skills and strategic vision are required, in order to ‘... identify and implement the investments in organisational and other changes that bring about performance improvements.’¹²

POTENTIAL FOR ICT-DRIVEN INNOVATION IN HEALTH AND AGEING

This section draws on recent publications and submissions by the BCA exploring the potential for productivity improvements in the health and ageing sectors, with ICT playing a key role.

Better utilisation of ICT in areas like health, ageing and education demands a shared policy agenda across federal and state governments to support the greater use of electronic networks for information management and delivery of key services. It will also require government actions to establish national standards, update certification processes, implement national privacy legislation and provide seed funding for pilot projects. The health and ageing sectors are both illustrative of the significant opportunities to use ICT to improve service delivery on the one hand, and considerable regulatory barriers and gaps in organisational capacity holding back innovation on the other.

HEALTH

Following the pattern of productivity improvements in the knowledge-intensive service sectors, investment in information and communication technologies has great potential to enable productivity improvement in the health sector. As detailed in the BCA’s recent publication *Using Microeconomic Reform to Deliver Patient-Centred Health Care*, the way in which the health sector generates, develops and applies knowledge and information will impact on the effectiveness and efficiency of the sector.

There has been a notable lack of appropriate investment in ICT in the sector, partly because of the way in which the sector is structured and regulated. For example:

- Fee schedules in the health system often do not recognise innovative electronic modes of delivering services.

¹² Productivity Commission, *ICT Use and Productivity: A Synthesis from studies of Australian Firms*, 2004, p.6.

- General Practitioners have been incentivised to automate records and communications systems and have invested in technologies accordingly, but specialists have not, preventing more efficient consultations between these two important parts of the health system.

The fundamental foundation for e-health will be the implementation of a healthcare identifier service and electronic health record system. While future e-health applications may require significant bandwidth, as the head of the National E-Health Transition Authority has acknowledged, reliability rather than bandwidth is the main technical requirement for taking these critical early steps to establish the foundation for better knowledge and information management.¹³

What is necessary to support greater progress in e-health is:¹⁴

- coordinated investment by governments in e-health national infrastructure; and
- a strongly coordinated framework basis of inter-operability, national functionalities and new models of care that will drive a mix of public and private investments.

A number of key building blocks of the project are now in place or close to being in place, including the strategy, financial arrangements, legislation and governance oversight. The focus should now be on effective implementation of the Healthcare Identifier Service and following this providing a clear commitment to the next critical steps in moving towards a national e-health record system. This will provide a further important signal to the private sector to facilitate future investment and participation.

AGEING

In its current inquiry into the aged care sector, the Productivity Commission has noted that the sector is characterised by a highly regulated system with restrictions in types of services that can be offered leading to unmet demand.¹⁵ As the BCA suggested in its submission to the inquiry, this is largely due to short-term regulatory frameworks that

¹³ M. Sharma, 'NBN Speeds Not Necessary for Healthcare Identifier Service', *Computerworld*, 27 August 2010.

¹⁴ See for example Booz and Company, *E-Health: Enabler for Australia's Health Reform*, October 2008.

¹⁵ Productivity Commission, *Caring for Older Australians*, Draft Report, January 2011.

have accumulated over time and often in response to particular issues rather than being updated to reflect changing demands and policy aims.

It is therefore not surprising that private sector investment including in new technologies has been largely stagnant based on ongoing low returns, barriers to entry and limitation of prices and services that can be provided. A current project auspiced by the Aged Care IT Council on electronic medication management reflects the mix of interdependent factors that must be addressed to encourage greater take-up of technology in the sector:

‘Some aged care facilities and the people within them have already made positive progress in implementing IT. However, for the most part, the sector has found this step to be an extremely difficult one, particularly in small and regional facilities where resources are stretched and IT expertise is limited. In the vast majority of Australian aged care facilities, the reality is that the level of technology is minimal. Typically, a small number of unconnected computers are shared across an entire facility. Often, staff are not proficient at using them to their full capacity, furthermore many residents have limited or no access to computers.’¹⁶

Technologies that assist daily living and monitor health to improve the safety of those living independently can provide greater continuity of care between sectors (e.g. health and ageing), increase capacity and reduce investments in other physical infrastructure.

International studies illustrate the kind of technologies that can already be delivered over existing telecommunications networks. In 2003, the United States Veteran’s Health Administration introduced a national home ‘telehealth’ program to coordinate the care of veteran patients with chronic conditions with the aim of avoiding unnecessary admission to long-term institutional care. In the first four years of the program there was a 25 per cent reduction in the number of days of bed care and a cost per patient of \$1,600 per annum compared to over \$13,000 per annum for home-based primary care.¹⁷

¹⁶ KPMG, *Golden Opportunity – How Information Technology Can Rejuvenate The Aged Care Sector*, 2009.

¹⁷ Darkins et al., ‘Care Coordination/Home Telehealth: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions’, *Telemedicine and e-Health*, December 2008, pp. 1118–1126.