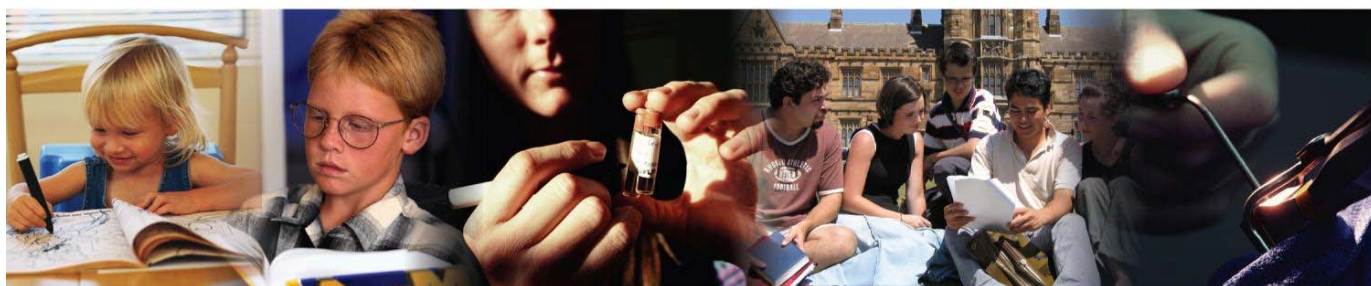


New Directions for Communications

A Broadband Future for Australia – Building a National Broadband Network



March 2007



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March 2007

EXECUTIVE SUMMARY

Australia's small businesses are battling against competitors in countries where superfast broadband is cheap, reliable and widespread.

Our kids are growing up in a world where schoolchildren in other nations enjoy lightning fast broadband in every classroom.

Around the world, a new generation of service industries is multiplying, clustered around the instantaneous transfer of information across global communication networks – but Australia risks being left behind.

Australia's future productivity, competitiveness and wealth creation relies on world class infrastructure. In the global economy of the 21st century, no aspect of infrastructure is more crucial than advanced communications networks.

We cannot afford to miss the opportunity to capitalise on the natural creativity and inventiveness of Australians because of broadband infrastructure that lags our competitors. But without strong and decisive action, we will fall further behind other nations that are now investing billions of dollars into the communications networks of tomorrow.

Small businesses will miss out on a swathe of productivity-raising applications. Our children will miss out on spectacular educational opportunities. Australian entrepreneurs will miss the chance to take part in the earliest stages of industries that will in time be worth billions of dollars.

For Australia to turn around its declining productivity, we must have a national fibre to the node network. This network will replace much of the existing telecommunications network with optical fibre, dramatically increasing broadband speeds to 98 out of every 100 Australian households.

While other nations are well advanced in building fibre to the node networks, the proposals of Telstra and the nine-member consortium of other telecommunications providers still have not gone beyond the planning stage.

This situation has gone on for too long.

Federal Labor will revolutionise Australia's internet infrastructure by creating a new National Broadband Network.

It will connect 98 per cent of Australians to high speed broadband internet services – at speeds over 40 times faster than most current speeds.

With the rollout of a new 'Fibre To The Node' (FTTN) network, Federal Labor will increase speed to a minimum of 12 megabits per second – so fast that household entertainment, business communication and family services will happen in real time.

The remaining two per cent of Australians in regional and rural Australia not covered by the FTTN network will have improved broadband services.

New services and benefits of the network – particularly in rural and regional areas – include:

- **Slashed telephone bills for small business;**
- **Enhanced business services such as teleconferencing, video conferencing and virtual private networks;**
- **Enhanced capacity for services like e-education and e-health; and**
- **High definition, multi-channel and inter-active TV services.**

It is estimated that the new National Broadband Network will deliver national economic benefits including:

- **Up to \$30 billion in additional economic activity every year;**
- **Making Australian small businesses more competitive;**
- **Creating new markets for businesses and new jobs for Australians; and**
- **Extending media diversity.**

A Rudd Labor Government will:

- **Partner with the private sector to deliver the national broadband network over five years;**
- **Undertake a competitive assessment of proposals from the private sector to build the network;**
- **Ensure competition in the sector through an open access network that provides equivalence of access charges and scope for access seekers to differentiate their product offerings;**
- **Put in place regulatory reforms to ensure certainty for investment; and**
- **Make a public equity investment of up to \$4.7 billion.**

This commitment will be financed from existing government investment in communications, including the \$2 billion Communications Fund and through the Future Fund's 17 per cent share in Telstra, which will earn dividends and be sold down to a normal market level after November 2008.

The National Broadband Network is crucial to Australia's future wealth creation. This network will help position Australia as a competitive, innovative, knowledge-based economy that can compete and win in global markets.

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1. The Importance of broadband

Access to true broadband is of critical importance to:

- Australia's future economic prosperity;
- The competitiveness of Australian small business;
- Creating new markets for businesses and new jobs for Australians;
- Australian families' access to services like e-health and e-education; and
- Media diversity.

Broadband is Important for the Economy

Broadband is a critical enabling technology that is currently driving substantial productivity gains around the world. Broadband infrastructure represents the new growth platform for productivity and business development for Australia's economic future. Broadband will not only make Australian businesses more efficient at what they already do, but will also open up completely new ways of doing things (eg through Voice over Internet Protocol, Internet Protocol TV, Virtual Private Networks etc). Broadband can help reduce costs and create new markets for Australian businesses.

The Federal government's own Broadband Advisory Group has stated that "*next generation broadband could produce economic benefits of \$12-30 billion p.a. to Australia*"¹.

Broadband and the economy

- Productivity enabling infrastructure;
- Transport infrastructure for knowledge economy; and
- Opening up new markets for Australian business.

Broadband infrastructure is the foundation for productivity enhancing information and communications technology (ICT) innovation throughout the Australian economy. ICT spurs innovation by giving researchers access to new tools, enabling small firms to significantly expand and facilitating increased collaboration. Broadband infrastructure is an essential pre-requisite for this data intensive ICT innovation. As broadband facilitates ICT innovation across the Australian economy, this infrastructure has a multiplying effect on productivity.

For example, recent research has suggested that ICT innovation has been responsible for up to 85 per cent of productivity growth in the manufacturing sector and up to 78 per cent of productivity growth in the service sector². Similarly, labour productivity growth has been shown to have been strongest in industry sectors that are heavy users of ICT³.

True broadband is also a crucial tool for the commercialisation of Australian intellectual property and content. True broadband will be the highway that Australian ICT and digital content companies use to deliver their products to the international market place. Broadband gives Australian knowledge economy businesses the chance to break down the tyranny of distance and connect with the global economy on an equal footing.

¹ [Australia's Broadband Connectivity: The Broadband Advisory Group's Report to Government, 2003, available online from http://www.dcita.gov.au/_data/assets/pdf_file/21288/BAG_report.pdf.](http://www.dcita.gov.au/_data/assets/pdf_file/21288/BAG_report.pdf)

² [Estimating Aggregate Productivity Growth for Australia: The Role of Information and Communications Technology DCITA 2005 and ICT and Australian productivity: methodologies and measurement, DCITA 2005 available online from http://www.dcita.gov.au/_data/assets/pdf_file/37150/Estimating_Paper_low_res.pdf.](http://www.dcita.gov.au/_data/assets/pdf_file/37150/Estimating_Paper_low_res.pdf)

³ [Forecasting productivity growth: 2004 to 2024 DCITA, 2006 available online from http://www.dcita.gov.au/_data/assets/pdf_file/37831/Forecasting_Productivity_Growth_2004_to_2024.PDF.](http://www.dcita.gov.au/_data/assets/pdf_file/37831/Forecasting_Productivity_Growth_2004_to_2024.PDF)

In fact, the importance of broadband in the modern economy is so great that the United Nations Conference on Trade and Development's 2006 Information Economy Report went so far as to describe broadband as a *'utility'* that is *'just as necessary as water and electricity'*⁴.

A range of studies from both Australia and abroad have reinforced the potential for broadband to stimulate future economic growth.

In Australia:

- Economic modelling by Victoria's Department of Infrastructure shows that by 2015, an IT industry with 21st century broadband has the potential to add \$15 billion to the Victorian economy and create 153,000 new jobs.⁵
- True broadband in Queensland would boost the state economy by \$4 billion and create 1,200 new jobs⁶; and
- A state wide broadband network in NSW would boost the state's economy by \$1.4 billion a year, increase employment by 3,400 jobs after 10 years and raise exports by \$400 million over its first decade⁷;
- The Australian Local Government Association 2006-07 State of the Regions Report highlighted high speed broadband as a key economic driver in regional communities and estimated that the failure to address inferior internet access quality could cost regions up to \$2.7 billion in foregone gross products and up to 30,000 jobs in 2006.

Internationally:

- A recent study at the Massachusetts Institute of Technology found that "The assumed (and oft-touted) economic impacts of broadband are real and measurable". The study concluded that "Broadband does matter to the economy. Broadband is clearly related to economic well-being and is thus a critical component of our national communications infrastructure"⁸;
- "True broadband" (over 10 Mbps) could incrementally increase US GDP by up to \$US500 billion for each of the next 10 years⁹;
- Business and government efficiencies could produce \$US500 billion in savings by 2010¹⁰;
- Broadband deployment throughout the US could produce 1.2 million jobs¹¹; and
- In 2015, broadband will increase productivity by 0.5-2.5 per cent and increase GDP by £22 billion in the UK¹².

⁴ United Nations Conference on Trade and Development, 'Information Economy Report', 2006, see

<http://australianit.news.com.au/articles/0,7204,20773285%5e15318%5e%5enbv%5e,00.html>.

⁵ DOI, *Spend/Demand – Telecommunications in Regional and Rural Victoria 2007* available online from <http://www.mmv.vic.gov.au/uploads/downloads/Media/2007/news-Broadbandinvestment080307.pdf> ..

⁶ Allen Consulting Group, *"True Broadband: Exploring the Economic Impacts"*, 2003 available online from

http://www.smartcommunity.nl/content/download/286/2933/file/ERN01_Final_Report_2_Broadbandproductivity_1.pdf.

⁷ Allen Consulting, 2003 cited in "Leaders or Laggards, Australia's Broadband Future" KPMG, 2004 available online at

<http://www.kpmg.com.au/Default.aspx?TabID=70&KPMGArticleItemID=655>.

⁸ *"Measuring Broadband's Economic Impact"*, MIT, 2006 available online from http://itc.mit.edu/itel/docs/2005/MeasuringBB_EconImpact.pdf

⁹ Gartner Dataquest, *"Telecom Regulation Has Failed: Now What?"* 26 August 2002 available online from http://www.gartner.com/5_about/press_releases/2002_08/pr20020826a.jsp

¹⁰ Momentum Group and Brookings Institution, *"The Net Impact Study"* Jan 2002.

¹¹ *"Understanding Broadband Demand: A review of critical issues"* Office of Technology Policy, US Dept of Commerce, 2002.

The Internet Industry Association has stated that in order for the Australian economy to remain internationally competitive, 80 per cent of Australians need to have access to 10 mbps broadband by 2010¹³. In a similar vein, Citigroup have predicted that average household demand for broadband will exceed 10 mbps by 2010¹⁴.

Broadband is Important for Small Business

Government leadership to facilitate the roll out of true broadband is essential to ensure that small businesses are kept on a level playing field with big business.

Modern businesses have the ability to significantly reduce their costs and improve their productivity through the use of information and communications technology. But only if they have access to the necessary broadband infrastructure.

With access to true broadband infrastructure, small business can take advantage of:

- Teleworking and remote access enabling a more flexible workplace;
- Online stock ordering and management logistics services;
- Cheaper internet based phone calls enabling significant cost savings;
- Virtual Private Networks and Wide Area Networks allowing for the centralisation of small business resources improving resources and reducing costs;
- Low cost internet based video-conferencing services saving on transport costs; and
- Off-site managed backup and recovery services of valuable data for small businesses, providing improved security and piece of mind.

However, at present, Australian small businesses are being cut off from major productivity enhancing applications of true broadband. A recent survey of small business broadband use by Pacific Internet found that:

*One-half of respondents have speeds between 512kbps and 1.5mbps suggesting they do not have the necessary bandwidth to move to the next level of internet applications. Australian SMBs operate at a comparative disadvantage to our Asian competitors who have access to much faster Internet connection speeds. This may be a potential barrier to innovation and competitiveness.*¹⁵

It is clear that Australian small business is being held back by the lack of access to high speed broadband in this country.

Broadband offers small business:

- Productivity gains;
- Lower costs;
- Increased revenue opportunities; and
- Equal access to global markets

Broadband means cost savings

Research has shown that internet phone calls (VOIP) enabled by broadband can save small businesses up to 75 per cent on their phone bills, improving small business owners' bottom line.

Source: [ATUG/ENGIN Voip Survey](http://www.atug.org.au/pres/DavidWaterhouseEnginPresentation23Feb06.pdf) Available online from:
<http://www.atug.org.au/pres/DavidWaterhouseEnginPresentation23Feb06.pdf>

¹² [UK Broadband Stakeholders Group Report, 2003](http://www.broadbanduk.org/) available online from <http://www.broadbanduk.org/>.

¹³ Internet Industry Association, "[2010 National Broadband Targets](http://www.iaa.net.au/files/IIA_Broadband_Targets_2010_%20(for_release).pdf)", 2006 available online from [http://www.iaa.net.au/files/IIA_Broadband_Targets_2010_%20\(for_release\).pdf](http://www.iaa.net.au/files/IIA_Broadband_Targets_2010_%20(for_release).pdf).

¹⁴ Citigroup, "[In the Loop](#)", 15 May 2006.

¹⁵ [Pacific Internet, "Broadband Barometer", 2006](http://www.pacific.net.au/broadbandbarometer/index.php) available online from <http://www.pacific.net.au/broadbandbarometer/index.php>.

Today small businesses need access to affordable, high speed broadband in order to participate in the modern economy.

In the modern economy, small businesses are increasingly forming part of the supply chains of larger businesses. Often these supply chains cross national borders. Increasingly the use of automated supply chain management programs means that small businesses need access to high quality broadband in order to be integrated in these supply chains.

In fact, access to high speed broadband is increasingly becoming a contractual requirement for franchisees.

If small businesses are unable to access high speed broadband, they will increasingly lose business to those larger corporations who have access to this infrastructure. In addition, professional service businesses, a large sector of the small business community, are increasingly relying on sophisticated technology that demands ever increasing amounts of bandwidth.

Professional service firms requiring high bandwidth include graphic designers, software programmers, architects transmitting fully rendered 3D models of buildings, engineers transmitting geo-spatial models, and doctors examining data intensive patient test results. If given access to world class broadband, Australian small businesses can finally break down the tyranny of distance and sell their products and services on the world stage on an equal footing.

Broadband is Important for Families

Broadband is important for families because it means:

- Better access to services - though applications like e-education and e-health.
- Better entertainment – through Internet TV, video on demand, and online computer games.

E-education

Broadband enables e-education – giving students a connection that plugs them into the world and brings every book ever written into their home and classroom. Online educational resources can engage students more deeply and build their enthusiasm for learning.

Broadband has also been shown to improve children's research and problem solving skills by allowing their learning strategies to be readily identified and rewarded. Giving our children access to true broadband will allow them to instantly download documentaries, educational software and digital books.

E-education

Allows:

- A more interactive and effective learning experience;
- Kids to develop the IT skills they need in the modern economy; and
- Regional Australians to pursue further education and training while remaining in their communities.

Broadband also increases access to education for kids in suburban and regional Australia. It allows them to communicate and collaborate with students and teachers in other towns, suburbs and even nations, bringing the world's best libraries, museums and cultural events into the home in an engaging and media rich environment.

E-health

Broadband in e-health offers the potential for a range of cost savings and service improvements to Australian citizens. Services like tele-radiology, tele-psychiatry and remote patient monitoring are already being utilised in Australia, however, increased access to true broadband will significantly increase the potential of these services.

The [Centre for Online Health](#) at the University of Queensland has identified a range of e-health services that can increase access to services while also reducing costs. The Centre for Online Health has already identified opportunities in the areas of telepaediatrics, neo-natal patient assessment, teledermatology and tele-homecare for chronic disease management¹⁶.

By enabling health care services to be delivered into the home, e-health has the potential to significantly improve access to health care services to Australians living in rural and regional areas as well as those Australians who find it difficult to leave their homes (eg the elderly and disabled).

There are health workforce shortages in many rural and regional communities in Australia. E-health has the potential to alleviate some of the difficulties caused by these workforce shortages, through allowing doctor-patient teleconferencing, and in particular by enabling rural GPs to case conference with specialists located in metropolitan areas. For patients in rural areas, e-health can reduce the burden of having to travel long distances to see specialists.

E-health

Allows:

- More convenient access to specialised medical services for people in rural and regional areas; and
- Patients to return home from hospital sooner.

Broadband is Important for the Regions

High speed broadband is the most critical infrastructure investment Australia must make for our regions.

The last two Australian Local Government Association State of the Regions Reports show that those regions that have broadband access are doing well and are more productive than those that do not have access.

Indeed, the Australian Local Government Association 2006-07 State of the Regions Report highlighted high speed broadband as a key economic driver in regional communities and estimated that the failure to address inferior internet access quality could cost regions up to \$2.7 billion in foregone gross products and up to 30,000 jobs in 2006.

Broadband is the great enabling infrastructure for our regions. It is essential to improve export performance, connect businesses, and give all of Australia's school children access to a world of information, regardless of where they live.

Broadband is Important for the New Economy and Media Diversity

As broadband has facilitated the transfer of ever increasing volumes of data, the nature of the internet and media has changed. Access to high speed broadband is critical to the promotion of media diversity in Australia.

Almost overnight, new business models have evolved through this technology, creating billions of dollars of value for new entrepreneurs and investors. Unless Australia has advanced broadband networks, we cannot be at the frontier of these new, fast-growing industries. These new business models broaden the sources of information for individuals and

Content Creator or Consumer?

57 per cent of online teenagers have created internet content.

50 per cent of all teenagers had either created a blog or a webpage, or remixed content found online into a new creation.

Source: [Pew Internet and American Life Project 2004](#)

¹⁶ see <http://www.uq.edu.au/coh/>

provide competition for traditional media. In doing so, they strengthen media diversity.

Australia will be left behind in this new media world without true broadband.

Easily accessible, highly interactive content communities, such as 'Web 2.0' are the new trend. User created content communities, like [myspace](#), [youtube](#), [flickr](#), [wikipedia](#), [craigslist](#), [skype](#) and tools like XML and wordpress all rely on user interaction, blurring the lines between creator and consumer. As recently noted:

*Consumers are going to demand symmetric access to the network over time, for the same reason businesses already demand it. We're going to see an increasing number of applications where users create the content.*¹⁷

The scale of this transformation is truly staggering:

- There are now more than [160 million](#) accounts on Myspace, all creating and sharing content and forming interactive communities of interest¹⁸.
- Wikipedia currently lists more than [6 million articles](#)¹⁹ in 250 languages and is one of the [top ten most viewed websites on the internet](#), all created by an online community of volunteer contributors and editors²⁰.

By encouraging increased user participation, encouraging users to contribute as much information as they consume, broadband allows us to harness collective intelligence for collective benefit. Broadband accelerates the exchange of information and as a result, the efficiency of the marketplace.

The importance of these new models and this new economy is borne out by the acquisition of Myspace by News Corporation for [\\$US580 million](#)²¹ and Youtube by Google for [\\$US1.65 billion](#)²². In the past year, the Australian internet advertising market generated [revenues of \\$1 billion](#), an increase of more than 61 per cent on the previous year²³.

17 Kidman, A. ZDnet "Cerf: Aussies will demand better broadband" [15 March 2006](#) available online at http://www.zdnet.com.au/news/communications/soa/Cerf_Aussies_will_demand_better_broadband/0,130061791,339274117,00.htm

18 see www.myspace.com

19 see <http://en.wikipedia.org/wiki/Wikipedia>

20 See

http://www.alexa.com/data/details/traffic_details?&range=3 m&size=large&y=t&url=wikipedia.org

21 BBC, 19 July 2005 available online <http://news.bbc.co.uk/1/hi/business/4695495.stm>

22 see http://www.google.com/press/pressrel/google_youtube.html

23 PricewaterhouseCoopers *Australian Entertainment and Media Outlook: 2006 – 2010*, 2006 see <http://www.smh.com.au/news/biztech/online-ad-spend-tops-1-billion/2007/02/12/1171128855786.html>

2. Australia's broadband performance

Australia's future productivity, competitiveness and wealth creation depend on world class infrastructure. In the global economy of the 21st century, no aspect of infrastructure is more crucial than advanced communications networks.

We cannot afford to miss the opportunity to capitalise on the natural creativity and inventiveness of Australians because of broadband infrastructure that lags our competitors. But without decisive action, we will fall further behind other nations that are now investing billions of dollars into the communications networks of tomorrow.

Australia is ranked 17 out of 30 countries surveyed by the *OECD* for take up of entry level 256kbps broadband (see figure)²⁴. Despite growth in take up, Australia's relative position has not improved during the previous two years.

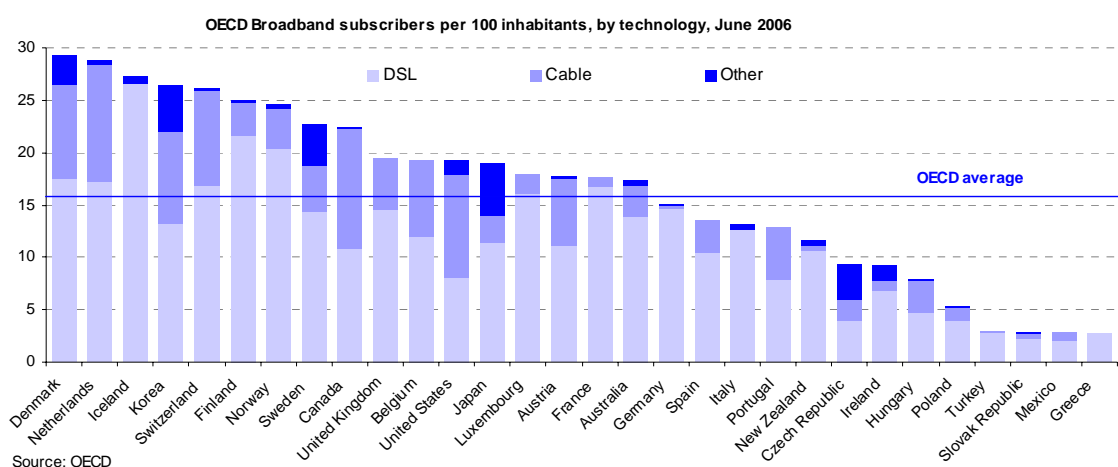


Figure 1 – Australia's relative performance in broadband

The *World Economic Forum* has ranked Australia 25th in the world in terms of available internet bandwidth and Australia's 'Networked Readiness' at 15th and slipping²⁵. Similarly, the WEF ranks the Australian government's success in the promotion of Information Communications Technology at just 53rd in the world.

A survey by telecommunications consultancy group Ovum ranked Australia 6th out of 7 countries surveyed (ahead of only New Zealand) in its utilisation of fibre optic broadband²⁶, predicting that fibre investment in Australia would remain constrained without a change in government policy. Similarly, Citigroup has suggested that without a change in government policy, Australia will not see investment in fibre broadband infrastructure until 2012.²⁷

The ACCC's September Broadband Snapshot recorded a third consecutive quarterly fall in Australia's entry level broadband growth rate in 2006²⁸. Australian broadband take up grew by only 9.3 per cent in the September 2006 quarter compared to growth

²⁴ OECD 2006 available online from

http://www.oecd.org/document/9/0,2340,en_2649_34223_37529673_1_1_1_1,00.html

²⁵ World Economic Forum "Global Information Technology Report, 2005-06"

²⁶ See <http://www.nowwearetalking.com.au/Home/Page.aspx?mid=215>

²⁷ Citigroup, *In the Loop*, 8 August 2006

²⁸ ACCC's September 2006 Broadband Snapshot available online from

[http://www.accc.gov.au/content/item.phtml?itemId=781269&nodeId=aac2cffa7bd9177dbdedb20ac5a9d601&fn=Snapshot%20of%20broadband%20deployment%20\(30%20Sep%202006\).pdf](http://www.accc.gov.au/content/item.phtml?itemId=781269&nodeId=aac2cffa7bd9177dbdedb20ac5a9d601&fn=Snapshot%20of%20broadband%20deployment%20(30%20Sep%202006).pdf)

of 10.5 per cent and 12.6 per cent in preceding quarters²⁹. Even then, these figures primarily measure take up of entry-level broadband and do not identify the level of take up of genuine high speed broadband.

This lack of infrastructure investment has left many Australians with no access to fixed line broadband. Telstra estimates that it rejects more than 100,000 applications for the connection of a broadband service every year as a result of Australia's antiquated telecommunications infrastructure³⁰.

There is widespread recognition of the importance of fixing Australia's broadband infrastructure as a priority for economic management.

- PBL Chairman James Packer has described Australia's broadband position as *"embarrassing"*, arguing that there is a huge consumer demand for online video that is being held back by Australia's antiquated broadband infrastructure³¹: *"Australia needs an ubiquitous, high-speed broadband infrastructure to be internationally competitive. This is a top-order priority for the nation"*³².

Australian Broadband at a Glance

- 17th in the OECD in take up;
- Falling take up growth rate;
- 25th in available internet bandwidth; and
- 100,000+ ADSL applications rejected a year.

- News Corporation Chairman Rupert Murdoch has described Australian broadband as a *"disgrace"*, concluding: *"We are being left behind and we will pay for it."*³³
- Fairfax Media stated in its submission to the Government's Media Reform Discussion Paper that *"the encouragement of broadband is a critical element in Australia's overall media policy"*. The submission goes on to say *"internet speeds are slower and internet pricing is more expensive, than many other developed countries"*. Similarly, Fairfax Media CEO David Kirk has described Australian broadband as 'fraudband', stating that: *"We've reached a situation where very few people can have access to any sort of broadband that will allow them to download a movie in less than 12 hours, so it's just not enough."*³⁴
- Internet Industry Association CEO Peter Coroneos has called for *"significant and meaningful changes in attitude and leadership from the Government and policy makers"* on broadband³⁵: *"To fail to do so will put Australia behind other nations in providing citizens with access to advanced information services, compelling interactive entertainment and revolutionary communications applications such as internet telephony which are beginning to take hold. We*

²⁹ ACCC's September 2006 Broadband Snapshot available online from [http://www.accc.gov.au/content/item.phtml?itemId=781269&nodeId=aac2cffa7bd9177dbdedb20ac5a9d601&fn=Snapshot%20of%20broadband%20deployment%20\(30%20Sep%202006\).pdf](http://www.accc.gov.au/content/item.phtml?itemId=781269&nodeId=aac2cffa7bd9177dbdedb20ac5a9d601&fn=Snapshot%20of%20broadband%20deployment%20(30%20Sep%202006).pdf)

³⁰ Telstra estimate, 2007 see www.nowweareretalking.com

³¹ McIntyre, P. "PBL Boss Calls for Net to be Fixed", *Sydney Morning Herald* 23 May 2006 available online from <http://www.smh.com.au/news/wireless--broadband/pbl-boss-calls-for-net-to-be-fixed/2006/05/22/1148150189885.html>

³² Ricketson, M. "Back Telstra, Packer Urges Canberra", *The Age*, 15 March 2007 available online from <http://www.theage.com.au/news/business/back-telstra-packer-urges-canberra/2007/03/15/1173722655389.html>

³³ Day, M. and Sproull, R. "Murdoch Slams Slow Broadband", *The Australian*, 16 November 2006 available online from <http://www.theaustralian.news.com.au/story/0,20867,20764474-7582,00.html>

³⁴ "Fairfax Boss Denounces 'Fraudband'" 8 March 2007 available online from <http://www.smh.com.au/news/technology/fairfax-boss-denounces-fraudband/2007/03/07/1173166799046.html>

³⁵ Internet Industry Association, "2010 National Broadband Targets", 2006 available online from [http://www.ii.net.au/files/IIA_Broadband_Targets_2010_%20\(for_release\).pdf](http://www.ii.net.au/files/IIA_Broadband_Targets_2010_%20(for_release).pdf)

*need to ensure that as a nation the economic and social transformation that is taking place due to the internet will continue to be maintained*³⁶.

These views contrast sharply with the view of the Minister for Communications, Information Technology and the Arts, who stated last year that ["no one is complaining about broadband speeds in metropolitan Australia"](#).³⁷

³⁶ Media Release "Internet Body to Launch National Broadband Targets for 2010" [27 July 2006](#) available online at http://www.iaa.net.au/index.php?option=com_content&task=view&id=492&Itemid=32

³⁷ Coonan, H. Interview on The 7:30 Report, 8 August 2006, available online at <http://www.abc.net.au/7.30/content/2006/s1710053.htm>

3. International experience

While Australia stands still, our international competitors are investing tens of billions of dollars in fibre optic broadband infrastructure:

Singapore

The Singapore government is currently investing around \$A5 billion to fund the construction of an open access fibre optic broadband aiming to provide [a minimum 100 mbps broadband access](#) to every home and business in Singapore. The Singapore Infocomm Development Authority has justified this investment by stating:

“While impossible to speculate on all the possible future applications that will fuel demand, the continued exponential growth in “speed needs” points to the need to ensure our infocomm infrastructure does not become a constraint to our growth. Data trends suggest exponential growth in network traffic will continue. Ultra-high speed broadband pipes are necessary conduits for the future. Infrastructure has been an enabler and a source of competitive advantage for Singapore. Such strategic foresight has served Singapore well.”³⁸

Japan

Through the creative use of government tax breaks, Japan benefits from some of the most extensive fibre broadband infrastructure in the world. In fact, according to the OECD there are [more than 6.3 million subscribers to fibre to the home broadband](#) providing 100 mbps in Japan³⁹.

South Korea

The South Korean government, long a pioneer in public broadband investment, has spent up to \$A50 billion in subsidies for fibre optic broadband investment. According to the OECD fibre based broadband connections [are growing rapidly](#) in Korea⁴⁰.

United States

In the United States, a range of private telecommunications companies are in the process of rolling out major fibre broadband access investments. SBC Communications is investing around [\\$A5 billion on the construction of a VDSL fibre to the node broadband network](#) delivering broadband speeds of 25mbps⁴¹. Verizon is investing more than [\\$A25 billion in the construction of a fibre to the home broadband network](#) delivering speeds of up to 50mbps⁴². AT&T is also rolling out a fibre to the node broadband network passing [more than 18 million homes](#)⁴³.

³⁸ Infocom Development Authority, “Fact Sheet: Next Generation National Infocom Infrastructure” available online from <http://www.itu.int/osg/spu/ngn/documents/NGNII-Factsheet-060303-Singapore.pdf>

³⁹ OECD, 2006 available online from http://www.oecd.org/document/9/0,2340,en_2649_34225_37529673_1_1_1_1,00.html

⁴⁰ OECD, 2006 available online from http://www.oecd.org/document/9/0,2340,en_2649_34225_37529673_1_1_1_1,00.html

⁴¹ Hu, J. “SBC to invest \$4 billion in fiber upgrade” CNET, 11 November 2004 available online from http://news.com.com/SBC+to+invest+4+billion+in+fiber+upgrade/2100-1034_3-5449219.html

⁴² Searcy, D. “Verizon’s network bet relies on games, TV” available online from http://users2.wsj.com/lmda/do/checkLogin?mg=evo-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB117322928784528977.html%3Fmod%3Dus_business_biz_focus_hs

⁴³ see <http://arstechnica.com/news.ars/post/20070302-8969.html>

Italy

Telecom Italia is rolling out a [\\$A10 billion fibre optic broadband network](#) that will deliver broadband speeds of 100mbps to two thirds of Italians by 2009⁴⁴.

Germany

Deutsche Telekom has announced plans to spend around [\\$A5 billion to construct a national VDSL fibre to the node network](#) providing 50mbps to 50 German cities⁴⁵.

France

The Mayor of Paris is pursuing a [public tender for the construction of a fibre broadband network](#) covering all of Paris. This investment would compliment two already existing fibre projects in the city's suburbs⁴⁶.

Netherlands

The City of Amsterdam has made an equity investment in conjunction with ING and a property investment company in [a fibre to the home network in the Dutch capital](#)⁴⁷.

Denmark

In Denmark, Danish power companies are making significant investments in fibre broadband infrastructure as part of their plans to move power infrastructure underground. The OECD has stated that [fibre investments](#) of this kind are strongly contributing to increased broadband usage in northern European countries⁴⁸.

⁴⁴ Webster, P. "Telecom Italia starts roll-out of new fibre optic network this year in Milan", Forbes, 3 September 2007 available online from

<http://www.forbes.com/technology/feeds/afx/2007/03/09/afx3502186.html>

⁴⁵ see <http://digital-lifestyles.info/2005/09/01/deutsche-telekom-50-mbits-broadband-announced-ifa-updated/>

⁴⁶ see <http://www.analysys.com/Articles/StandardArticle.asp?iLeftArticle=2061>

⁴⁷ see http://www.lightreading.com/document.asp?doc_id=86384

⁴⁸ OECD, 2006 available online from

http://www.oecd.org/document/9/0,2340,en_2649_34225_37529673_1_1_1_1.00.html

4. The Howard Government's missed opportunities

Australia's lack of world class broadband infrastructure is the result of a long series of initiatives that have only delivered short term solutions. In recent years, the Howard government has announced:

- a Telecommunications Action Plan for Remote Indigenous Communities (2002);
- a Higher Bandwidth Incentive Scheme (2003);
- a National Broadband Strategy (2004);
- a National Broadband Strategy Implementation Group (2004);
- a Coordinated Communications Infrastructure Fund (2004);
- a Demand Aggregation Brokers program (2004);
- a Metropolitan Broadband Blackspots program (2004);
- a Broadband for Health Initiative (2004);
- a Broadband for Health Pharmacy program (2004);
- an NBSIG Australian Government Action Plan (2005);
- a Clever Networks program (2005);
- the Broadband Connect Subsidy program (2005);
- the Broadband Connect Infrastructure program (2005);
- the Communications Fund (2005);
- the Broadband Blueprint (2006); and
- most recently the Broadband Guarantee (2007).

Yet despite providing all of these policies to create an impression of action for the news media, Australia's infrastructure technology has continued to fall further behind. Many of these programs have proved to be short term, lasting for a brief time until they were replaced by the next. For example:

- The [Metropolitan Broadband Blackspots Program](#)⁴⁹ was announced as a \$50 million initiative during the 2004 election campaign, but three years later was exposed as having had only \$200,000 spent on the program, despite \$1.4 million in administrative costs. The program has since been abandoned in favour of another program.
- The \$320 million Networking the Nation program (funded from the proceeds of previous Telstra sales) [heavily criticised](#) by the Australian National Audit Office, whose report concluded that the Government had failed to adequately account for government spending and failing to adequately assess the performance of the programme⁵⁰.
- The \$2 billion Communications Fund was established in 2005 in order to secure political support for the sale of Telstra rather than for ensuring that Australia has access to world class broadband infrastructure. Despite the urgent need for investment in high speed broadband, no money is to be allocated out of the Communications Fund until 2008.
- The Broadband Blueprint released last year promised simply to monitor and benchmark Australia's broadband performance, and hold an intergovernmental summit on the issue, rather than solve the problem.

⁴⁹ see

http://www.minister.dcita.gov.au/media/media_releases/metropolitan_broadband_blackspots_programme?SQ_DESIGN_NAME=printer_friendly

⁵⁰ Australian National Audit Office, "Networking the Nation—The Regional Telecommunications Infrastructure Fund Performance Audit", Audit Report No.43 1998–99, available online from http://www.anao.gov.au/uploads/documents/1998-99_Audit_Report_43.pdf

For Australia to benefit from the great opportunities offered by high-speed broadband, what is needed is not short-term, piecemeal programs, but decisive leadership to build the infrastructure that can lay a foundation for our long term prosperity and wealth creation.

5. A broadband future for Australia

Labor is committed to turning around Australia's broadband performance and putting Australia back into the fast lane of the information super-highway.

Labor wants to see a fibre to the node broadband network built in Australia as quickly as possible. We have been leading the debate over the regulatory reforms necessary to deliver the investment required for such a network for 18 months.

In recent times, competing commercial proposals for the construction of an open access fibre to the node network have been proposed by Telstra and the consortium of nine telecommunications companies. However neither of these proposals can proceed without regulatory reform.

A public process for ensuring the roll out of fibre to the node

In this context, there is the potential to set up a competitive process to determine the fibre to the node proposal that best services the national interest. To this end, a Rudd Labor government will undertake a competitive assessment of private sector proposals to construct a genuinely open access national fibre to the node network, and put in place regulatory reforms necessary to facilitate such an investment.

In this regard, the private sector would be required to indicate:

- the scale of their investment,
- the technical specifications of their proposal;
- proposals to enhance services provided to the 2 per cent of Australians in regional and remote areas not covered by the fibre to the node network.

A pre-requisite for all proposals made under this process is that they submit to providing genuine open access to bottleneck fibre to the node infrastructure. Genuine open access would require:

- Equivalence of access charges; and
- Full scope for access seekers to differentiate their product offerings by allowing the customisation of access speeds, quality of services and contention ratios.

Regulated access prices would be set at a level that ensures a commercial return can be made on such an investment.

Labor's national broadband network will ensure that fibre to the node network infrastructure is rolled out across Australia over five years.

This is the responsible way to deliver this critical economic infrastructure for Australia.

Delivering Labor's National Broadband Network

- A Fibre To The Node broadband network with a minimum 12 megabits per second to 98 per cent of population;
- Competitive assessment of proposals from the private sector;
- Regulatory reforms to facilitate the roll-out of pro-competitive open access network providing equivalence of access charges, and scope for access seekers to differentiate product offerings; and
- An public equity injection up to \$4.7 billion.

A Nation Building Investment in Communications Infrastructure

Building a national broadband network is a major and historic step – one that is critical for Australia's future economic prosperity. Labor's plan for a national broadband network will, in partnership with the private sector, deliver access to broadband speeds of a minimum of 12 mbps to 98 per cent of Australian homes and businesses. Just last year, the Chairman of News Corporation, Rupert Murdoch, noted:

*The Government should be spending \$10 billion or \$12 billion to take [broadband] to every home in Australia. They do it in Japan, they do it in South Korea. We should be able to do it here.*⁵¹

Labor has a vision for a fibre future for Australia and will provide a public equity investment of up to \$4.7 billion for this purpose (consistent with [previous industry estimates](#)).

Labor will finance its equity investment in the broadband network from existing government investments in communications.

Communications Fund

The Howard Government has \$2 billion of assets in its Communications Fund – a fund that will not deliver a national broadband network for Australians.

The Fund was setup in 2005 as a consequence of pressure from the National Party. The Fund is intended to earn an income stream to finance spending on telecommunications projects in regional Australia – but it will not result in a national broadband network. These projects are supposed to come from the Government's response to any recommendations proposed by the Regional Telecommunications Independent Review Committee. Despite the Fund being established in 2005, this report is not due until 2008. Labor will use this asset to provide investment capital to deliver high-speed broadband across Australia.

Remaining Government Share in Telstra

In addition, following the Howard Government's sale of Telstra, only 17 per cent of Telstra shares remain in government hands. These shares have been placed in the Future Fund until November 2008, earning dividends. This Telstra shareholding receives special treatment in the Future Fund.

The Future Fund legislation empowers the Government to give it specific directions regarding its handling of these Telstra shares. To be specific, Subclause 8(1) of Schedule 1 to the Future Fund Act provides that the nominated Minister may give the Future Fund Board written directions about financial assets (Telstra shares). The Minister may require the Board not to realise the financial assets before the end of a specified period. That period is November 2008. After this time the shares will be sold down to a normal level with the proceeds adding to the Fund and its income stream. The Government has indicated this sell-down will happen over the medium term.

⁵¹ Day, M. and Sproull, R. "Murdoch Slams Slow Broadband", *The Australian*, [16 November 2006](#) available online from <http://www.theaustralian.news.com.au/story/0,20867,20764474-7582,00.html>

The Howard Government has already indicated that it plans to sell down its Telstra shareholding to a normal level over a period of time. Indeed, it can make arrangements to sell at least 3 per cent of Telstra stock to a single shareholder prior to November 2008. However, the shares cannot be transferred out of the Future Fund before November 2008.

Labor will not oppose this further sell-down, but, unlike the Howard Government, will use the remaining Telstra shareholding to finance the creation of a national broadband network for Australian businesses and families.

Improving telecommunications services for Australians has always been at the core of Labor's telecommunications policy. With the Government's sale of Telstra, this objective is difficult to achieve purely through the passive, residual, ownership of Telstra. Now that only a fraction of Telstra is publicly owned, that public capital will achieve more economic benefits for the Australian people through direct investment in broadband.

Labor will use existing government investments in communications to provide a public equity investment of up to \$4.7 billion, which will in partnership with private sector investment deliver high-speed broadband across Australia.

Commercial assessment of competing proposals will determine the precise financial details of Labor's equity investment. The costing of this equity investment is consistent with government budgetary practice.

Commonwealth Balance Sheet and the Future Fund

There will be no deterioration in the Commonwealth's balance sheet as a result of the broadband equity investment. Labor is simply re-allocating capital into a purpose that will be of greater economic benefit to the country.

Labor's broadband proposal is consistent with our approach to use the Future Fund to leverage infrastructure investment that will enhance the productive capacity of the economy while still meeting public sector superannuation liabilities. Under Labor's proposal the Future Fund will still fully fund anticipated public sector superannuation liabilities consistent with the Government's timetable.

Investing in a new national broadband network is critical to building the platform for economic growth, productivity and prosperity. It creates new markets for businesses and jobs for Australians. Better utilising the residual Telstra shares in the Future Fund gives Labor the opportunity to renew its commitment to improving telecommunications services by building a national broadband network in partnership with the private sector. Labor will invest in broadband for all Australians.