

Australia's Infrastructure Priorities

Securing our Prosperity



Building Australia Together

Infrastructure Partnerships Australia (Including AusCID)
– Leading the National Debate on Infrastructure

Infrastructure Partnerships Australia is the nation's
peak infrastructure body.

Infrastructure Partnerships Australia actively brings
together governments, private stakeholders and the
community to advance the public debate and champion
infrastructure development and service delivery.

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Contents

1	Executive Summary and Key Projects	06
1.1	Executive Summary	07
1.2	Principles	08
1.3	Critical Infrastructure Projects	10
2	Managing and Securing our Prosperity	18
2.1	The Next Decade – Can Australia do it again?	19
2.2	The State of Infrastructure	19
2.3	Superannuation, It's Part of the Solution	22
2.4	The Framework for Sustained Growth	23
3	Reforming The Machinery of Government	25
3.1	A Commonwealth Minister for Infrastructure – A National Perspective in the Infrastructure Debate	26
3.2	Decisive Infrastructure Provision – A New Legislative Framework	27
3.3	Reforming Government Procurement	28
4	Delivering What Matters – Six Critical Outcomes	30
4.1	Investing in Our People	31
4.2	Urban Liveability	32
4.3	Freight Transport Network Expansion	36
4.4	Energy Security	38
4.5	Sustainable Water	39
4.6	Strengthening the Communications Backbone	40
5	Conclusions	43
5.1	Final Comment	44
5.2	Bibliography of Sources	45

Recommendations

Infrastructure Partnerships Australia (IPA) has identified key areas to reform, restore and expand infrastructure and public service delivery in Australia. These recommendations are guided by a suite of initiatives aimed at achieving a broader and deeper vision for Australia's infrastructure requirements and a portfolio of key projects to underpin future productivity growth. Together through the initiatives proposed they will positively contribute towards sustaining annual economic growth of 3-4 per cent over the decades ahead.

IPA's recommendations include:

- 1 Appointment of a Commonwealth Minister for Infrastructure and creation of an Office of National Infrastructure Coordination to develop and implement a cohesive and integrated strategy to policy reforms, project identification and delivery.
- 2 All jurisdictions adopt and utilise streamlined approval process for critical infrastructure that reflects a consistent principle of certainty of project execution and delivery.
- 3 Establish a central repository of knowledge and skills – the Commonwealth and each State Government to manage the procurement of projects using a 'gateway' process that tests the applicability of traditional procurement and public-private partnerships. This should include an immediate take-up of standardised contracts and commercial principles where possible in all states, that will accelerate speed and quality of procurement for government, reduce bid costs and invite wider participation from industry.
- 4 For the Commonwealth and state governments to address impediments to better urban liveability and functionality of our cities. This must include a focus on affordable housing, health, justice, sporting, cultural and educational needs of our cities.
- 5 An industry wide strategy is required to retain existing and attract new skilled and professional workers, from Australia and abroad, to meet the labour demands in designing, procuring, constructing and operating Australia's next round of infrastructure projects.
- 6 For the States to commit to integrated project plans for land transport with special reference to improved urban transport networks (including completion of ring roads and expansion of public transport capacity).
- 7 Reform of the national supply chain is urgently needed to augment the efficacy and competitiveness of freight movement to market. The Commonwealth Government in conjunction with the states must implement a national freight vision and plan of action.
- 8 Full implementation of a true national energy market, commencing with comprehensive restructuring of NSW electricity market. This is an essential step towards securing energy security.
- 9 To seek the abolition of metropolitan water restrictions by 2012, through new investment in water infrastructure, consistent national approach to water pricing and strong involvement of private sector to bring innovation and risk management skills to the sector.
- 10 Approve a regulatory framework to facilitate competitive and sustainable market for broadband (Fibre to the Node) rollout within 2-3 years.



1

Executive
Summary
and Key Projects

1.1 Executive Summary

Following Australia's decade of extraordinary economic growth and prosperity, it is appropriate to ask how we secure above-trend economic growth in the decades ahead.

A key purpose of infrastructure is to support enduring economic growth and higher living standards for all Australians. Infrastructure is the oxygen that will sustain Australia's prosperity and prudent and timely investment through reforms to machinery of government and critical new projects that underpin higher productivity are the key.

Australia's infrastructure priorities outlined in this report recognise the reality that infrastructure goes well beyond the simple construction of physical assets. Investing in our people's ability to be productive and contribute to society are our most pressing priorities. These priorities, in skills formation, transport, water and energy for example, traverse state boundaries and underline the importance of a soundly functioning federal system. Without functional relationships between Commonwealth and state governments, the abundance of investment capital for infrastructure will count for very little in helping to meet community expectations.

A key issue for public and private infrastructure in the decades ahead is the need to reform public sector procurement and the machinery of government to ensure timely, forward looking and decisive infrastructure investment.

As the peak industry body in infrastructure, Infrastructure Partnerships Australia (IPA) strongly endorses national leadership within a federal structure. It is important to note that national leadership should not necessarily place an additional burden of funding or delivering infrastructure on the Commonwealth, but rather an increased ability to provide leadership through the creation of a national market for infrastructure. Commonwealth leadership could also help to ensure competitive infrastructure including improved quality in the delivery of services.

The Australian Government is best placed to provide such leadership, to inject a national perspective and, where appropriate, resources to foster the creation of national markets in infrastructure. The case for national leadership is clear, but it must be delivered in a collaborative way. Australia is a diverse continent; the states are closest to their people and know their requirements and they too must step-up to be part of the leadership. The recent increase in infrastructure investment by all state governments augurs well, but this must be seen as the first step of many in the decades ahead.

The challenge is to sustain Australia's annual 3-4 per cent GDP growth for the next two decades. The formation of a governance framework for all levels of government to translate policies to action through six areas of reform in critical areas of the economy should form the core of the agenda, including;

- 1 Investment in our people
- 2 Urban Liveability
- 3 Freight and transport network expansion
- 4 Energy security
- 5 Sustainable water, and
- 6 Strengthening the communications backbone

Without fundamental reform and investment in these sectors, Australia will deny itself the opportunity to lift productivity and sustain its hard earned economic growth record.

It is now time to reform, restore and expand Australia's infrastructure.

1.2 Infrastructure Policy Principles

Infrastructure Partnerships Australia (IPA) is committed to principles of efficiency, innovation, customer service, safety, equity, reliability, value for money and excellence in the design, construction and operation of infrastructure. In achieving these outcomes, governments must have access to a broad spectrum of procurement options involving both public and private sectors. IPA is committed to the following policy principles.

Financing Methodology IPA supports the use of a range of financing options, public and private, in meeting the infrastructure needs of the nation. A range of finance options should be pursued, from public sector debt raisings to private sector debt and equity. Any assessment of the scale of investment required to meet Australia's current and emerging infrastructure needs indicates the size of the task is enormous and that governments need to tap the pool of private sector capital and risk management capability.

Superannuation Australians have accumulated more than a trillion dollars of retirement savings, representing one of the largest pools of managed funds in the world. IPA advocates for the need for a national pipeline of projects that can harness the retirement savings of Australians to help finance the next round of social and economic infrastructure projects.

Regulation & Planning IPA believes that greater certainty is required in the regulatory frameworks that impact on infrastructure investment. In moving to procure the nation's next round of projects, governments should streamline frameworks to allow, where possible, a whole of government 'one stop shop' for infrastructure including a central PPP agency skilled in all aspects of procurement.

Political Risk IPA believes that any partnerships must allow for the appropriate transfer of risk between the public and private sectors. In particular, the 'political' risk requires significant attention from both government and industry. The long term sustainability of a PPP market will depend on community viewpoint and a recognition and sharing of political risk. Government and industry must together recognise the often inherently controversial nature of major infrastructure projects and partner to reach out to the community about the outcomes, cost savings and superior benefits.

Infrastructure Project Principles

IPA believes that infrastructure adds more to the nation than mere balance sheets and building sites. Infrastructure is the key to how we do business, how we cater for the economic and social needs of the community. IPA believes that infrastructure assists Australia in the following ways;

Economic Advancement Infrastructure enables Australia to do business, for the community to function and underpins Australia's standard of living. An efficient, safe, reliable and cost effective infrastructure is fundamental to Australia sustaining its record strong economic growth.

Social Cohesion and Inclusion Social infrastructure and public services contributes positively to binding together communities and therefore fosters greater social cohesion. The private sector can assist government in the delivery of services and assets that foster social inclusion and harmony, such as education, child care, aged care, social housing assets and health services.

Regional Development Soundly functioning transport networks can contribute towards efficiently distribute economic activity towards regional, rural and remote communities. Access to economic opportunities can help foster better social outcomes and sustain regional economies.

Enhanced Innovation Australia pioneered the development of privately financed procurement options for government. Australia's bankers, constructors, advisors, operators and regulators have achieved global leadership in the development of procurement models. Private sector involvement fosters innovation in the design, delivery, operation and maintenance coupled with skills transfer with the public sector.

National Security The private sector has an increasingly important role to play in supporting governments with achieving its national security objectives. The private sector also has a strong role in the provision of police, correctional services, justice, immigration, customs and defence facilities.

The Australian Defence Force will continue to benefit from private sector innovation, risk management and delivery of support services.

Financing Methodology IPA is not solely dedicated to the use of private finance to meet our infrastructure challenges. IPA acknowledges the capacity - and sometimes the desirability – of government finance. IPA supports the use of a range of financing options, public and private, on a base by case basis to meet the specific needs of each project. However, IPA does recognise the enhanced innovation and discipline that private sector project management can deliver to appropriate projects.

Cultural and Urban Amenity The right infrastructure can provide for significant cultural advancement and community benefit. Major facilities such as performing arts facilities, art galleries, concert venues, sporting stadia, convention and exhibition facilities and foreshore developments can all be financed and constructed by the private sector. Urban liveability will be further lifted by innovative programs to reduce congestion, particularly on the transport network.

Sustainable Future The most vital resources to the Australian community are those of our natural environment, such as water, national parks and open space. Market based solutions that allow for the innovation and risk management skills of the private sector will be critical towards a sustained and meaningful adjustment to a world where climate change, changing rainfall patterns and carbon abatement are a reality.

1.3 Critical Infrastructure Projects

Summary of National Policy Reforms

REFORM	DESCRIPTION
Minister for Infrastructure	The appointment of a dedicated Australian Government Minister for Infrastructure.
Office of Infrastructure Coordination	Creation of a new Federal agency within DoTARS to ensure coherent management of specific purpose grants and forward planning of infrastructure.
Reform Government Procurement	Modernise government procurement practices. Champion outcomes based specifications, sanctions for non-achievement to meet set public policy objectives. Maximise innovation and whole of life risk management skills of private sector .
A New Legislative Framework	All states adopt streamlined approval processes for critical infrastructure.
Skills Investment	A multi-faceted approach to address the challenge of sourcing skilled labour; including retention of existing and attraction of new labour to infrastructure, with a particular focus on skilled project managers and directors.
Public Health	Deployment of new health facilities in growth and high demand areas; Increased use of private sector in delivery and whole-of-life operation of public hospitals and their precincts
Affordable Housing	Bring forward innovative long term solutions to expand the housing stock and quality of affordable housing in cities and key regional areas. This will allow for the accommodation of vital low skilled and essential service workers.
National Water Market	Creation of a functioning national market in water to allow water to flow to its highest value uses. Steps include the creation of a market for discretionary water; the removal of impediments to private sector participation which will build a service culture through competition; and, the expansion of existing water market to include the urban sector, allowing for rural to urban water transfer.
National High Speed Data Network	Creation of a market framework to allow for the roll out of a national fit for purpose high band-width data network. The market framework must engender principals of sustainable competition and diversity of supply.
National Energy Market	Creation of a genuine National Energy Market, including the construction of inter-connectors, new base load capacity and structural reform of the NSW electricity industry.
National Supply Chain Vision	Development of an integrated national logistics supply chain. This will require a focus on the entire chain and improving the interoperability between transport modes to achieve greater efficiency and effectiveness.
National Advanced Train Management System	Development and procurement of a national advanced train management system across the national rail network.

Summary of Significant Projects by Jurisdiction

New South Wales

PROJECT	DESCRIPTION
Northern Beaches Hospital	Development of a new hospital and health precinct at Frenchs Forest to service population growth in Sydney's north.
Expanded Sydney Convention Centre	Expansion of conferencing and exhibition capacity in Sydney, to allow Sydney to meet growing demand in business events.
F3 Connection	Construction of a motorway link between the F3 M2 and M7 Westlink
F6 Freeway Extension	Completion of the northern section of the F6 Freeway, completing the missing link on Sydney's radial freeway network.
North West Rail Link	Construction of a new heavy rail link from Cheltenham to Rouse Hill to service growth corridor.
South West Rail Link	Construction of a new heavy rail link to service the South West growth corridor.
Sydney Metro	Formation of a Sydney metro to provide high quality commuter service that would include construction of a new harbour rail crossing to link with the existing southern line at Everleigh.
Pacific Highway upgrades	Completion of a 4 lane dual carriageway from Sydney to Brisbane by 2015.
Northern Beaches Connection (Spit Bridge)	Expansion of current or construction of a new bridge or tunnel to ease chronic urban congestion issues affecting Sydney's northern beaches.
Hume Highway Upgrades	Completion of residual sections to provide a 4 lane standard for the Hume Highway from Melbourne to Sydney by 2012.
Sydney Light Rail Expansion	Expansion of Sydney's existing light rail network. This augmentation to include additional destinations to the east, the west and a Circular Quay loop-back
Rail Network Refurbishment	Complete refurbishment of Sydney wide rail network in partnership with the private sector; inclusive of signal and track upgrades.
M4 East and M4 to Botany (Marrickville) Tunnel	Construction of a road link from the M4 at Strathfield to the City West Link at Anzac Bridge; as well as a 13 kilometre tunnel to link the M4 motorway to the Port precinct at Port Botany.
Sydney Ports Intermodal Facility (Enfield)	Fast track approval for the construction of a new inter-modal facility at Enfield to service an expanded Port Botany.
Sydney Ports Intermodal Facility (Moorebank)	Construction of an additional inter-modal facility at Moorebank to service projected growth, with quality connections to national road and rail networks.
Northern Sydney Freight Works	Increase rail freight capacity on the 150 km line between North Strathfield and Broadmeadow, where track is shared between freight & intensive passenger rail. Includes line quadruplication and will allow rail freight to operate during current exclusion periods.
Newcastle Channel Deepening	Deepening of the channel at Port Newcastle, Australia's major coal export port.
Liverpool Range Tunnel	Construction of a new tunnel to efficiently transport coal from the Gunnedah basin to Port Newcastle, along with port capacity upgrades.

Port Botany and Port Kembla Development	Redevelopment of Port Botany and Port Kembla to streamline port side and land side movement of freight.
Southern Sydney Freight Line	Construction of a new 35 km dedicated freight link from Macarthur station to east of Sefton.
Inland (North South) Rail Corridor	Construction of a new rail corridor to provide a new, efficient freight rail corridor to connect Melbourne, Sydney and Brisbane.
NSW Base Load Electricity	Construction of two new base-load power stations to increase base load capacity of NSW and structural reform of the NSW electricity industry.
Energy Market Reforms	Investment in inter-connectors to better source electricity across stat borders, together with the restructuring of the NSW electricity sector.
National Energy Market	Creation of a true national energy market, including the development of inter-connectors, new base load capacity and structural reform of the NSW electricity industry.
Botany Aquifer Harvesting	Sustainable exploitation of the Botany Aquifer, which could provide 2-3 per cent of Sydney's metropolitan water supply.
Sustainable Water	Recycled Water Projects in Western Sydney including significant scale projects such as Camellia.
Central Coast Desalination	Construction of a new desalination plant to augment water supply to the NSW central coast.
Sustainable Water	NSW to commit to a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive up competition and innovation towards better service standards.
Irrigation Efficiencies	Funding for the removal or remediation of unlined trench irrigation channels, as well as metering and control of water flow.

Victoria

PROJECT	DESCRIPTION
Box Hill Hospital Redevelopment	Total redevelopment of the existing hospital into an integrated health campus, providing inpatient and outpatient services, new ambulance facilities and integrated outpatient services.
Victorian Schools Project	Plan to develop new schools in growth corridors and redevelop existing public schools, drawing on the successes of the NSW Schools 1 & 2 PPP Projects.
Melbourne Wholesale Market Relocation	The design, maintenance and construction of a new fresh goods market at a new site at Cooper Street, Epping. This will allow for land at Port Melbourne to be better utilised and provide a new, state of the art hub for the wholesale and retail of fresh produce.
By-Pass Projects	Completion of the Geelong Bypass including a link to the Surf Coast Highway and construction of a Frankston by-pass and Goulburn Valley Hwy at Nagambie and Shepparton.
East-West transport Link	Provide linkages between the East & West growth corridors via underground road and public transport links across Melbourne.

Metropolitan Ring Road	Extension of the Metropolitan Ring Road from Greensborough Road to connect to the Eastlink Freeway.
Triplication of the Dandenong Rail Line	Construction of a third heavy rail line servicing Caulfield to Dandenong to cater for projected population growth.
Refranchising of Rail & Tram Systems	Renewing the franchises of the private sector operators of Melbourne's rail and tram networks, with provision for new rolling stock.
Melbourne Channel Deepening	To enable large scale container ships to enter Port Melbourne, ensuring competitive and cost effective freight movement.
Dynon Rail Hub	Construction of a new dual gauge rail line into Port Melbourne to increase efficiency of freight movement and improve port access.
Melbourne-Adelaide Crossing Loop Extensions	Construction of new and extension of existing loops on the Melbourne-Adelaide rail corridor to cope with anticipated growth.
North South Rail Corridor	Construction of a new rail corridor to provide a new, efficient freight rail corridor to connect Melbourne, Sydney and Brisbane.
Western Vic Track Upgrades	To upgrade sections of poor quality track in Western Victoria, including re-railing, increasing ballast depth and eliminating the gap in concrete sleepers between Melbourne and Adelaide.
Energy Market Reforms	Investment in inter-connectors to better source electricity across state borders.
Bendigo/Ballarat Pipeline	Construction of a Goldfields pipeline to link Ballarat to the Goulburn water system via the Bendigo pipeline.
Melbourne Desalination Plant	Fast tracked approval and construction of a desalination plant to augment potable water and aid in drought-proofing Melbourne.
Werribee District Recycled Water Scheme (Western Treatment Plant)	A project to recycle commercial quantities of waste water from Melbourne's Western Treatment plant. The project will provide 8,500 mega litres per annum to more than 100 agricultural users.
Latrobe Recycled Water Scheme (Eastern Treatment Plant)	A project to transfer up to 80 per cent of recycled water from the Eastern Treatment Plant to the Latrobe valley, servicing agricultural users.
Sustainable Water	All states set a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive-up competition and innovation towards better service standards.
Irrigation Efficiencies	Funding for the removal or remediation of unlined trench irrigation channels, as well as metering and control of water flow.

Queensland

PROJECT	DESCRIPTION
Gold Coast University Hospital	A new hospital on the Griffith University site to provide range of services, including emergency, ambulatory and outpatient services.
Sunshine Coast Hospital	A new 650 bed health campus to service the growing Sunshine Coast area, providing a range of in and out patient facilities.
Queensland Children's Hospital	Construction of a new, 400 bed specialty paediatric hospital.
Queensland School Upgrades	Plan to develop new schools in growth corridors and redevelop existing public schools, drawing the successes of the NSW Schools 1 & 2 PPP Projects.
Airport Link	The Airport Link will provide connectivity between the River City motorway to Sandgate and Gympie Roads and East West arterial.
Gold Coast Rapid Transit	Commission of mass transit system to service high density population areas on the Gold Coast.
South East Queensland Roads	Upgrade capacity of Logan and Gateway motorways. Should include upgrade of the gateway motorway between Nudgee Road and Pine Rivers Bridge and an interchange linking the Gateway to the East West Arterial via Nudgee Road.
Brisbane Light Rail	Rapid roll out of a light rail network for inner-Brisbane connecting to busway and CityTrain stations and key ferry terminals.
Hale Street Link	A new cross river connection linking growth areas in South Brisbane and West End, and reduce pressure on existing roads.
Northern Link	A tunnel providing a cross city link to relieve congestion on the North South arterial roads in Brisbane's North West.
East West Link	A new tunnel providing a new river crossing, linking the Pacific Motorway with the Western Freeway.
Eastern Busway	Commission of a new dedicated busway to service Brisbane's eastern growth corridor.
Pacific Highway	Completion of a 4 lane dual carriageway from Sydney to Brisbane by 2017.
Ipswich Motorway & Goodna Bypass	Upgrade of the Ipswich Motorway, including the 8km bypass to the north of Goodna.
North South Rail Corridor	Construction of a new rail corridor to provide a new, efficient freight rail corridor to connect Melbourne, Sydney and Brisbane.
Gladstone Rail Link	Construction of a 200km rail link from Toowoomba to Gladstone to facilitate better access to Port Gladstone.
Toowoomba Ranges By-Pass	Construction of a by-pass, including twin tunnels to increase the efficiency of traffic through Toowoomba.
Queensland Base Load Electricity	Construction of a new base load power station to meet projected demand.
National Energy Market	Creation of a true national energy market, including the construction of inter-connectors to enable inter-state trading.

Sustainable Water	Fast tracked completion of broad scale water recycling projects in SE Queensland.
Wyaralong Dam	Construction of a new dam on the Teviot Brook, providing storage capacity of 104,000 mega litres and servicing the SE Queensland growth area.
Traveston Dam	Completion of proposed new dam on the Mary River, providing additional capacity of 70,000 megalitres.
Western Corridor Water Recycling Project	Development of a broad scale water recycling programme in SE Queensland's western growth corridor to produce high quality reclaimed water for potable and industrial use, to reduce demand on existing potable water.
Northern NSW Water Supply to SEQ	A project to take sustainable quantities of water from NSW's northern rivers (Clarence and/or Tweed) to service the SE Queensland growth region.
Brisbane & Gold Coast Desalination Plants	Construction of two new desalination plants to service Brisbane and the SE Queensland growth area.
Sustainable Water	All states set a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive up competition and innovation towards better service standards.
Irrigation Efficiencies	Funding for the removal or remediation of unlined trench irrigation channels, as well as metering and control of water flow.
SEQ Water Grid	Establishment of a SE Queensland water grid to facilitate the sharing of water in the area.

South Australia

PROJECT	DESCRIPTION
Royal Adelaide Hospital Redevelopment	Redevelopment of the existing Royal Adelaide Hospital, including new patient accommodation, dedicated mental health facilities and teaching facilities.
City Tram Loop	Extension of existing tram network from Victoria Square via Adelaide.
Northern Expressway	Construction of a new expressway to streamline freight movements from the Port through Adelaide and surrounds, increasing both efficiency and safety.
Melbourne- Adelaide Crossing Loop Extensions	Construction of new and extension of existing loops on the Melbourne -Adelaide rail corridor to cope with anticipated growth.
National Energy Market	Creation of a true national energy market, including the construction of interconnectors and new base load capacity.
Sustainable Water	Commission of Desalination Plant in South Australia for supply of water to Olympic Dam development
Adelaide Desalination Plant	A desalination plant to supply Adelaide and adjacent areas for domestic and industrial/ commercial usages.

Adelaide Water Recycling Projects	Completion and expansion of water recycling projects in and around Adelaide to provide fit for purpose water for industrial and non-potable uses.
Sustainable Water	All states set a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive up competition and innovation towards better service standards.
Irrigation Efficiencies	Funding for the removal or remediation of unlined trench irrigation channels, as well as metering and control of water flow.

Western Australia

PROJECT	DESCRIPTION
Fiona Stanley Hospital	Completion of a new hospital and health precinct in Murdoch, including emergency and high dependency in-patient facilities.
Multi User Sporting Arena	Development of a new, multi-user sporting facility capable of hosting large AFL, rugby union and other arena sports.
Northbridge Link	Development of transport links between the CBD and Northbridge, allowing for the development of a new business and residential precinct.
Fremantle Inner Harbour Dredging	Dredging of the inner harbour at Fremantle's Port.
Fremantle Outer Harbour Port Development	Development of a new, \$1.5 billion Port facility in Fremantle's outer harbour.
Oakajee Port Development	Development of a new port facility at Oakajee to increase ore export capacity in the Geraldton region.
Goldfields Water Project	To pipe new water through a 400 km pipeline to service WA's Goldfields.
Sustainable Water	All states set a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive up competition and innovation towards better service standards.
Irrigation Efficiencies	Funding for the removal or remediation of unlined trench irrigation channels, as well as metering and control of water flow.
Sustainable water	The National Water Plan Initiatives for Irrigation (\$6billion out of the \$10b announced for the Murray Darling takeover by the Federal Government)

Tasmania

PROJECT	DESCRIPTION
Royal Hobart Hospital Redevelopment	Completion of a new hospital and health precinct Hobart, including emergency and high dependency in-patient facilities.
Brighton Transport Hub	Completion of a new intermodal and log transfer facilities, rail access bridge, road upgrades and land acquisitions.

Australian Capital Territory

PROJECT	DESCRIPTION
Griffin Legacy	A programme to continue the development of urban open space in Australia's national capital through urban design based on the original concepts for Canberra.
National Convention & Exhibition Centre	Complete redesign and redevelopment of a national convention and exhibition centre to capture a greater share of the business and major events market.
Majura Parkway	Development of a new road to service the ACT Government's employment corridor.
A New Common User Terminal – Canberra Airport	Development of a new multi user terminal to satisfy projected demand at Canberra International Airport.
Australian High Speed Data Network	Creation of a market framework to allow for the roll out of a national fit for purpose high band-width data network. The market frame work must engender principals of sustainable competition and diversity of supply.
Sustainable Water	All states set a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive up competition and innovation towards better service standards.
National Energy Market	Creation of a true national energy market, including the development of inter-connectors.

Northern Territory

PROJECT	DESCRIPTION
Aboriginal Housing PPP	Development of a framework to allow for the development and maintenance of new housing stock on aboriginal lands.
Sustainable Water	All states set a goal for abolition of metropolitan water restrictions by 2012. Establish a consistent national approach to water pricing and targets for recycling of waste water.
Sustainable Water	Promote contestability in provision of water services to drive up competition and innovation towards better service standards.
Irrigation Efficiencies	Funding for the removal or remediation of unlined trench irrigation channels, as well as metering and control of water flow.



2

Managing and
Securing
our Prosperity

This chapter examines the track record of infrastructure investment, the extraordinary growth in the pool of superannuation savings available for investment and explores whether investment in key sectors has kept pace to sustain another round of above-trend growth.

The Australian Defence Force will continue to benefit from private sector innovation, risk management and delivery of support services.

Financing Methodology IPA is not solely dedicated to the use of private finance to meet our infrastructure challenges. IPA acknowledges the capacity - and sometimes the desirability - of government finance. IPA supports the use of a range of financing options, public and private, on a case by case basis to meet the specific needs of each project. However, IPA does recognise the enhanced innovation and discipline that private sector project management can deliver to appropriate projects.

Cultural and Urban Amenity The right infrastructure can provide for significant cultural advancement and community benefit. Major facilities such as performing arts facilities, art galleries, concert venues, sporting stadia, convention and exhibition facilities and foreshore developments can all be financed and constructed by the private sector. Urban liveability will be further lifted by innovative programs to reduce congestion, particularly on the transport network.

Sustainable Future The most vital resources to the Australian community are those of our natural environment, such as water, national parks and open space. Market based solutions that allow for the innovation and risk management skills of the private sector will be critical towards a sustained and meaningful adjustment to a world where climate change, changing rainfall patterns and carbon abatement are a reality.

2.1. THE NEXT DECADE – CAN AUSTRALIA DO IT AGAIN?

Following Australia's decade of extraordinary economic growth and prosperity, it is appropriate to ask how we secure above trend economic growth in the decades ahead.

Australia must address future requirements for infrastructure and exploit this unique window of opportunity to invest with confidence and foresight, without the pinch of a genuine infrastructure crisis being thrust upon the nation.

It is now time to reform, restore and expand Australia's infrastructure.

2.2. THE STATE OF INFRASTRUCTURE

Securing Australia's prosperity will be based on productivity growth. To that end, infrastructure investment can play a pivotal role in enhancing the efficiency of the national supply chain with seamless movement of goods and services across all modes of transport from paddock, quarry or city to its final market. Productivity will also be improved with less urban congestion, improved public transport and importantly where our federation of states work to complement one another with efficient energy and water to meet need regardless of state boundaries.

Securing Australia's prosperity will be based on productivity growth

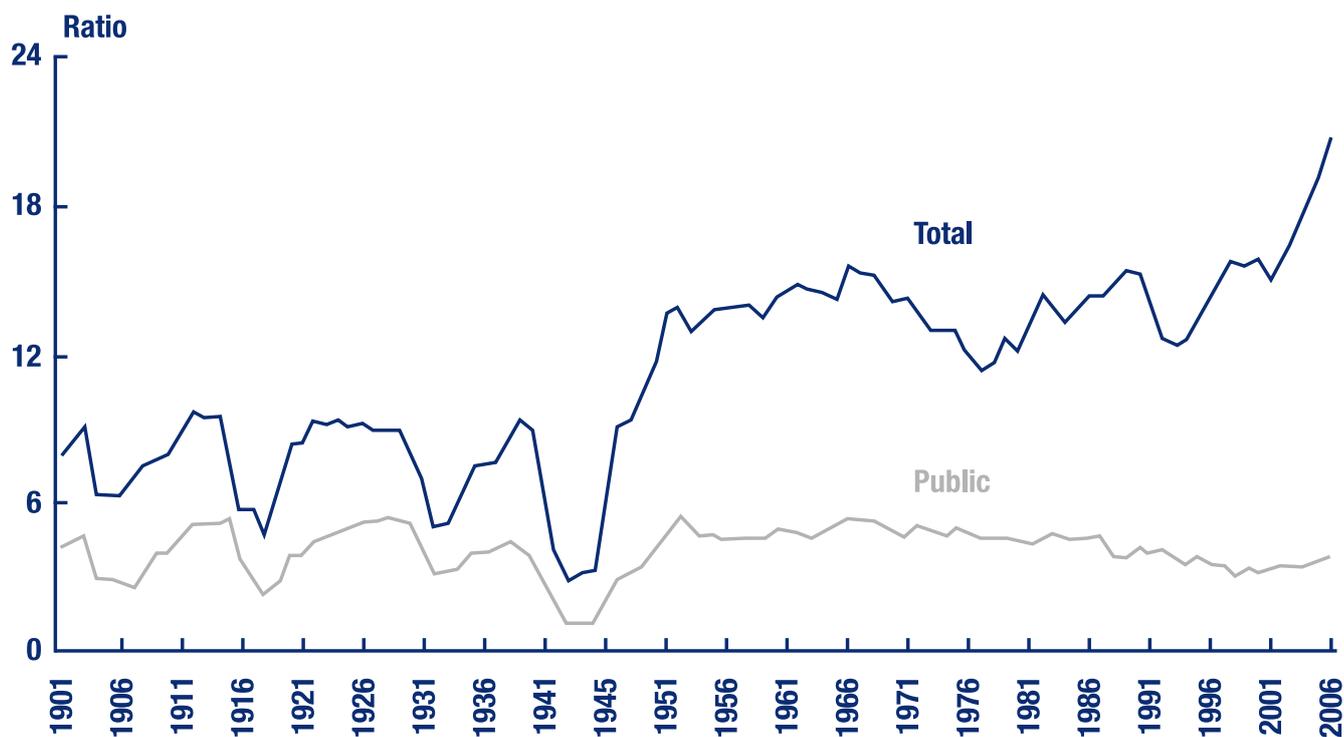
Australia has underperformed in these areas, and represents an immediate frontier of reform to be pursued.

Infrastructure investment in Australia is remarkably high, as indicated by Figure 1 below, that details ratios of total and public investment to GDP from 1901-2005. While there is a historically high level of investment evident, Australia must not draw false confidence that it is on the right road to secure our prosperity.

Government investment in infrastructure in Figure 1 has shrunk as a proportion of economic activity but it has been more than offset by an increase in private sector investment. This in part reflects investment in infrastructure for exports of commodities but also the outcome of privatisation programs and National Competition Policy reforms.

Identifying an optimum level of investment using historical data may not be the best approach. Historical trends can be a poor predictive indicator in developed economies where growth and productivity are affected by a variety of primary and secondary macroeconomic influences such as changes in demand, the age and condition of existing core infrastructure, the introduction of new technologies and the efficiency of infrastructure spending and asset management. The fluctuations in infrastructure investment in developed economies like Australia can reflect a range of factors, including:

- assets such as roads, rail systems, dams and water mains, canals, ports and tunnels are durable and require renewal



Source: Moddock and McLean (1987) for data from 1901 to 1981, ABS cat. no. 5204.0, Table 62 and 63 for data from 1982-2005, and Treasury calculation. Public investment refers to total gross fixed capital formation by the public sector, which includes machinery and equipment and non-dwelling construction, net of dwelling construction. Chain volume measure, 2004-05.

FIGURE 1: Ratios of total and public investment to GDP 1901-2005.

Source:-Economic Roundup Summer 2007, Australian Government Treasury.

and maintenance rather than duplication or replacement;

- improvements in technology and efficiency place more emphasis on improving the effectiveness of existing assets over providing new ones;
- changes in the demand for infrastructure services;
- increasing awareness of the perceived negative externalities in economic and political terms that are a consequence of 'greenfield' investment in assets such as roads, airports and power stations; and
- pricing of infrastructure services not reflecting their real economic cost that directly impinges on private investment attractiveness.

Regardless of the factors driving investment, there is increasing evidence of an emerging infrastructure deficit in Australia. The community will judge Australia's economic performance and management on the quality of the service. For example, whether the lights stay on reliably, the movement of people and freight can occur without systemic bottlenecks and traffic jams and availability of water for industry and responsible private use.

Infrastructure is not very volatile and it may take many years of change to make a difference. There is an increasing indication however of inadequate provision of infrastructure

in key areas of the economy. In some cases, the impact is extending beyond financial and economic factors and can in some circumstances potentially pose a threat to public health and safety. (Allens Consulting, 2003, 2007).

Regardless of the factors driving investment, there is increasing evidence of an emerging infrastructure deficit in Australia

A further consideration in assessing infrastructure investment is the need for remediation work on Australia's existing infrastructure assets affected by poor maintenance, resource management and land use practices. For example, the direct cost of landscape degradation in Australia is estimated at AUD1.5 billion per annum. The remediation of existing rural degradation including the reversal of salinity problems is estimated to cost AUD \$8 billion with potential incremental agribusiness production estimated at AUD1.7 billion annually (CSIRO 2003; Cf. Marohasy 2004).

The repair and maintenance backlog for public infrastructure is also a major concern in most developed economies. The backlog is typically created by cyclical cutbacks in

maintenance expenditure programs and low short-term risks associated with reductions in routine repairs and maintenance.

Repairs and maintenance is a significant component of public capital outlays, accounting for 46% of construction output in the United Kingdom in 2003 (NAO 2005c, p. 25). Over the 20 year life span of a typical commercial building, ownership and operation (including opportunity rent costs and finance), repairs and maintenance may be 5 times the original cost of the building (NAO 2005c, p. 27). Accordingly, ownership and operation cost structures are an important component of Public Private Partnership (PPP) investment economics as it provides a contractually binding agreement that will ensure sound maintenance over the life of the asset.

The recent step-up in state government infrastructure expenditure along the eastern seaboard is an important first step towards building momentum towards addressing the infrastructure deficit in concert with the private sector; such as:

- NSW, which increased expenditure to \$50 billion over four years;
- Victoria, which increased expenditure to \$13 billion over four years; and
- Queensland, which increased expenditure to \$14.1 billion in the current financial year.

On a sector by sector basis the severity of the emerging infrastructure deficit is more apparent, as assessed by the Allen Consulting Group in its paper 'Infrastructure Investment for a more Prosperous Australia'. Key sectoral areas are discussed below.

Ports There are legitimate concerns about marine port capacity and the transport bottlenecks servicing these precincts. The extraordinarily long queues of bulk carriers off the Australian coast at key facilities are evidence enough. Capacity utilisation of key bulk commodity exports ports are very high, and require ongoing and timely investment to meet international demand.

There are also strong demand pressures on container port capacity, from increases in vessel sizes, needs for channel deepening, limited port land for inter-modal terminal expansion and congested access. Several critical container ports also face bottlenecks and urban amenity limiting expansion.

A co-ordinated investment in port precinct infrastructure is required. The creation and definition of a 'special economic zone' where there is clustering of major industries or economic assets that add economic value and or improve cost effectiveness through greater synergy with near-by facilities is an important feature. Planning for these zones may incorporate critical transport linkages that fall outside of the immediate economic zone and be a collaborative venture

between commonwealth, state and local government.

Roads The state of Australia's roads are cause for frequent comment, particularly when the land freight task is projected to double by 2020. Critical linkages such as the Pacific Highway between Sydney and Brisbane is under-developed, the Hume Highway in NSW is, in many sections, a two lane road.

There are legitimate concerns about marine port capacity and the transport bottlenecks servicing these precincts

Despite reform in this area, many impediments to efficient road infrastructure remain. These include:

- **Insufficient data on local roads:** quality and availability of supply side information at a local government level and non-urban level is questionable and insufficient to support longer term transport infrastructure planning, investment analysis and management.
- **Age of road transport infrastructure:** many urban roads are old and in need of repair, that is reducing the competitiveness of Australia's export industries.
- **Congestion costs:** the cost to the economy of urban road traffic delays continues to escalate, and in the absence of reform will climb to almost \$30 billion by 2015. (BTRE: Implications of Greenhouse Gas Emissions; DOTARS 2000).
- **Need for Auslink reform:** including ensuring allocation of funding is directed at investments with the highest private and social return. Improved transparency of decision making and inclusion of metropolitan roads where congestion costs are most problematic remains important.

Rail Rail sector faces significant impediments to investment. The Australian Rail Track Corporation and Rail Technical Society suggest poor quality rail infrastructure was affecting transit times and reliability of shipments. Impediments to rail investment include, for example:

- **Inconsistent appraisal methods:** investment in rail may not have been made owing to inconsistent appraisals methods for road and rail projects.
- **Insufficient data:** very little data are available on utilisation and capacity constraints of inter-modal facilities, rail asset condition and origin-destination patterns. This frustrates coordinated investments in infrastructure across transport networks.
- **Other limitations:** Bridge height restrictions constitute a

major problem on the rail network in the eastern states that impedes the ability to achieve scale economies and productivity using double-decker trains.

- **Pricing:** Potential relative pricing issues that can favour road over rail, such as 'pay as you go' charging principle that does not include a return on sunk capital distort investment decisions.

Energy Australian Bureau of Agricultural and Resource Economics estimates that \$30-35 billion of investment will be required in Australia's energy sector by 2020.

Significant impediments to investment exist across all parts of the value chain. Retail price caps, coupled with the Government ownership of virtually all of the NSW power industry can dampen investment signals, with little investment expected. Regulation is intrusive and favours cost reductions over service standards.

Regulation is intrusive and favours cost reductions over service standards

Water Most mainland capitals are on high level water restrictions which are effectively permanent, a clear indicator of an infrastructure deficit.

The impediment to water supply augmentation is through the lack of contestability in the supply and distribution of water and wastewater networks.

Ensuring sustainable water will rely on three pressing factors;

- Active engagement of the private sector in water supply, allowing government to harness the innovation and capital of private industry.
- Establishment of a market for water supply and distribution, based on efficiency of use and competitive least-cost supply that acknowledges water for living (pricing to be unchanged) and discretionary water where the market price should prevail; and
- Inter-basin trading to source water from its most competitive source and in doing so create a national market for water.

Communications Australia has been lagging comparable OECD economies in both our roll out and take-up of broadband IT infrastructure. High band-width infrastructure will allow Australians to remain competitive in the global economy, and its development will allow

for engagement with new technologies in for example medicine, defence and education.

2.3 SUPERANNUATION SAVINGS, ITS PART OF THE SOLUTION

Australia will continue to expand its pool of superannuation savings which will have significant implications for the management of infrastructure.

According to the Australian Bureau of Statistics (ABS), total assets of superannuation funds reached \$1.1 trillion in the December quarter of 2006. These funds are the 4th largest pool of managed funds in the world, ahead of the United Kingdom and with only the United States, Luxembourg and France with larger pools of funds than Australia (ISFA, 2007).

Projections by industry analysts indicate that the pool of superannuation savings will escalate to more than \$2,000 billion by 2020.

The growth of superannuation savings and availability of infrastructure investment opportunities in Australia is an emerging issue. Australia is in a unique position as an exporter of managed funds abroad and contrasts with the urgent need to provide local investment opportunities so that these funds can assist to build and reinvigorate local communities.

While recognising the need for any prudent investment portfolio to include an international component, Australia must be cognisant of the breadth of opportunities to use local savings to fund important economic and social infrastructure. The risk and return profile of long term assets such as infrastructure provide a hand in glove fit to the rapidly expanding pool of superannuation savings.

The asymmetry between growth in superannuation savings and projects (investment opportunities) available for investment is acute and must form part of the reform agenda. This reform calls for governments to look at themselves differently in how they procure and operate infrastructure by opening up investment in economic and social infrastructure.

The growth of superannuation savings and availability of infrastructure investment opportunities in Australia is an emerging issue

Superannuation savings invested in infrastructure will require that public assets are effectively maintained over the course of their economic life through effective maintenance and upgrade. This will ensure that public infrastructure

assets increase in value by serving the community effectively without loss of quality or value and arrest the deterioration of assets so commonly associated with ageing public facilities. The privatisation of these assets, such as water, energy and transportation will enhance performance, quality and calibre of service delivery of infrastructure over its entire economic life.

Superannuation can provide a virtuous cycle of cost effective funding, prudent management over the economic life of an asset that will underpin better quality service delivery. At the same time this forward looking management of public assets will provide income to retirees into the future. This win-win formula should be encouraged to take its course, provided governments recognise the opportunities to partner with superannuation funds and the private sector to approach infrastructure with innovative management over the long life of these facilities.

2.4 FRAMEWORK FOR SUSTAINED GROWTH

Economic surveys by the IMF and OECD show that there is a firm optimistic outlook for the Australian economy. Australia's economic performance over the past 15 years reflects the dividends of prudent economic management. The benefits that flowed from macroeconomic and structural policy reforms have produced the longest period of low-inflation growth in Australia's economic history.

While this recent period is reason to celebrate, we must also be mindful that Australia is only just breaking away from its old habits, as was succinctly put by the Economist magazine in the mid 1980's; when it said:

"If you look at history, Australia is one of the best managers of adversity the world has seen – and the worst manager of prosperity."

Australia's recent success doesn't mean that we will always manage prosperity well. The Secretary of the Treasury recently noted that policy error(s) could easily undermine our management of success. Inappropriate responses to the structural changes borne out by the IT revolution, population ageing and the re-emergence of China and India could easily lead to lost opportunities and the squandering of recent success. Similarly, a failure to implement the elements of past policy successes as future policy discipline could lead to a waste of our prosperity.

The fundamental challenge to Australia is to manage our prosperity and build the economic platform that will provide for the next growth phase. This must be achieved through a 'national integration' of infrastructure investment and regulation. Our states still see themselves as islands unto themselves, for example new generation capacity being build in one state, despite and excess of power in another. Similar propositions apply, especially in transport, water and regulation.

These challenges will not be easy. Australia has already picked much of the lower hanging fruit of reform through initiatives such as tariff reform, floating the exchange rate, limited privatisation of the public sector and taxation reform.

The fundamental challenge to Australia is to manage our prosperity and build the economic platform that will provide for the next growth phase

The next phase is more challenging simply because it relies on mutual cooperation between governments at a state and federal level. Many of our major challenges, such as water and energy market reform traverse state boundaries. Finding solutions to these problems are less about abstract policy concepts and more about people with potentially disparate and divergent interests working together to find common ground for action and reform.

Water and energy issues, past policy failures and a significant lack of commercial arrangements within these sectors alone suggest that workable solutions will demand more from our federal system of governance than it has previously proved capable of delivering. Genuine and potentially confronting solutions will be required, including insisting on appropriate pricing for access to natural resources (such as water and energy) to ensure the need for resources is balanced against sound and sustainable environmental practices.

As Australia rises to the challenges of delivering sustained and prolonged growth, it will do so within a framework that is virtuous and comprehensive, where there is a balance of nation building projects in the areas of water, energy, transport, reducing urban congestion and communications. Reforming the machinery of government to ensure an enduring partnership between Federal and state governments is critical, among the states themselves and with the business and broader community.

A framework for sustained economic growth is detailed in Figure 2 (over page). Box 1 details the infrastructure policy principles that should underlie this framework.

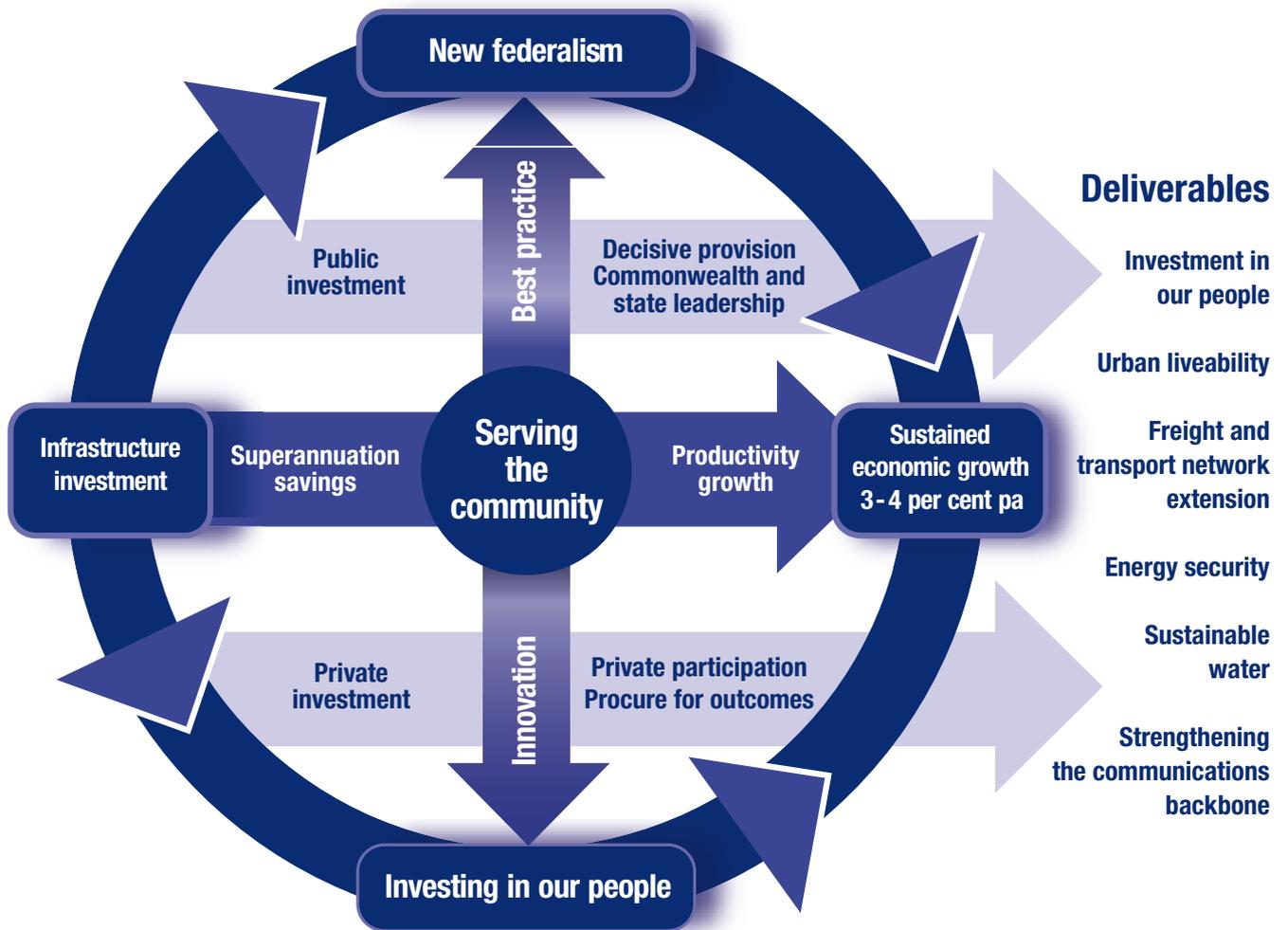


FIGURE 2: A Framework for Sustained Economic Growth.

Reforming Machinery of Government

This chapter advocates the need for a ‘new’ federalism, based on national leadership within a federal structure. This requires decisiveness to meet the challenge of commissioning timely infrastructure and underpin greater flexibility and cooperation across government than the current arrangements have allowed for. This will be the best investment Australia can make towards infrastructure and securing our prosperity.

3.1. A COMMONWEALTH MINISTER FOR INFRASTRUCTURE – A NATIONAL PERSPECTIVE TO THE INFRASTRUCTURE DEBATE

The challenge facing government today is very different to the challenges of the past. Australia’s major opportunities for growth in infrastructure lie largely in sectors such as energy, water and transport, which by their nature involve significant cross-jurisdictional issues, and are national in character.

The Australian Government is best placed to provide this national leadership, and to inject a sense of national imperatives and opportunities to the infrastructure task. The Commonwealth will need to have a national leadership role in infrastructure, particularly to assimilate the many dimensions of state interests, which at times can be diverse and complex. Highlighting the importance of the Commonwealth in the next round of infrastructure development is not to imply a need for the Commonwealth to carry a greater political or financial responsibility, but instead to create the conditions for a functioning national market in which natural resources and distributions systems, especially in water and energy, can service national markets without the artificial impediments of state boundaries. Since 1993, The Council of Australian Governments (COAG) has recognised the need for a fundamental change to Commonwealth-state relations but advances have been modest, reflecting the lack of a political champion to drive it.

As part of the Commonwealth leadership, the national interest would be well served by the appointment of a dedicated Australian Government Minister for Infrastructure, supported by the creation of an Office of Infrastructure Coordination (OIC). An Office of Infrastructure Coordination could be most naturally placed within the Department of Transport & Regional Services (DOTARS).

The commonly held view is that the Australian Government has only limited responsibility for infrastructure provision outside of the parameters of defence. To some extent this view is simplistic, as it does not take into account the Commonwealth funds which are committed to infrastructure projects through grants to the states made under section 96 of the Australian Constitution. From a constitutional

perspective, many areas of infrastructure are the sole preserve of the states, however much of the infrastructure base would simply not be constructed or maintained without Commonwealth specific purpose payments.

Since federation, a complex system of funding and responsibility has developed in the absence of a broader strategy and national objectives. Without a dedicated minister charged with overseeing section 96 grants for infrastructure projects, the Australian Government will lose its opportunity to provide strategic leadership.

COOPERATIVE FEDERALISM – ACTION AGENDA

- 1 Appointment of a Commonwealth Minister for Infrastructure.
- 2 Creation of an Office of Infrastructure Coordination (OIC) within DOTARS.
- 3 Outcomes
 - National leadership in infrastructure debate;
 - Champion robust engagement with private sector;
 - Development of a national framework for infrastructure, particularly in water, energy and transport;
 - Identification of future bottlenecks /shortfalls in economic and social infrastructure;
 - Advocate critical projects to state and local governments;
 - Standardisation of procurement models to capture the benefits of maturing government procurement models in the states.
 - Implements long standing objective of COAG.

A dedicated Minister for Infrastructure should bring to the national infrastructure task a coherent approach towards establishing a national market based on clear objectives and purpose.

The Commonwealth will need to have a national leadership role in infrastructure, particularly to assimilate the many dimensions of state interests, which at times can be diverse and complex

Specifically, a Minister for Infrastructure would be able to:

- Identify infrastructure deficits and projects of national importance;
- Advocate nationally significant projects to state and local governments;
- Develop a cohesive national strategy to coordinate government policy, priorities and projects;
- Refine broad (though not proscriptive) guidelines for Public Private Partnerships (PPPs); with reference to the procedures of the states in this regard;
- Ensure rigorous engagement with the private sector in public procurement;
- Research areas of current and future need in terms of economic and social infrastructure; and
- Ensure a 'commercial' arms-length oversight of infrastructure procurement practices.

3.2. DECISIVE INFRASTRUCTURE PROVISION: A NEW LEGISLATIVE FRAMEWORK

By its very nature, infrastructure takes a significant time to construct once a bottleneck or deficit is identified. Once a deficit becomes apparent, it is often too late to respond effectively, meaning that vital economic opportunities may be squandered by an inability of government to identify capacity constraints, or more often, an inability to respond in a timely way.

Governments must be armed with suitable powers to allow for the decisive deployment of critical infrastructure.

The removal of multiple layers of approvals and reviews for one piece of infrastructure results in valuable years lost dealing with objections and appeals, and often fighting subsequent court challenges.

THE BASIC RECIPE FOR 'PARTNERSHIP'

- **Outcomes:** Governments must properly scope a project before taking it to market. Government will get what it asks for, so a clear articulation of outcomes at the beginning of the project procurement will ensure a partnership starts on the right footing.
- **Contract:** The legal relationship between the partners must suit the outcomes sought of the customer. The contractual conditions must be honoured by all parties.
- **Risk Allocation:** For a partnership to work, risks should be placed with those best equipped to manage the risk. Pushing inappropriate risk onto any party in the partnership is inefficient and drives up cost.
- **Bids:** For a partnership model to be a success, all parties to it must understand what is sought. The information released to market to price a project should be correct, and there is scope for improvement in this area of procurement.

A system that fails to allow government to rapidly deploy critical infrastructure is a system that squanders economic and future living standards. A schematic of a simplified critical infrastructure approval model, based on the NSW model is detailed at Figure 3 (on next page).

The introduction of statutory provisions that streamline infrastructure deployment is a national imperative. Not only will it allow for the timely provision of infrastructure in critical areas such as trade, transport, water, energy and gas, but it will provide bankable security for the private sector and as a corollary, significant cost savings to government.

An important element of arming government with the requisite power to deploy infrastructure efficiently is the inclusion of 'concept approvals' for major projects. Concept approvals provide up-front security for long term and complex items of infrastructure where the final 'shape' of the asset is not known. Dependent upon the asset, a further assessment may be required later in the planning stage.

It is fundamental that government be able to deliver critical infrastructure in a timely fashion. It is equally important that governments be able to provide certainty within the planning regime for such projects.

It is reasonable that within an assessment process that still provides rigour, transparency and independence, that a legislative framework be established that allows for investment certainty for projects that are of local, state and national significance.

Such legislation should be coordinated (as far as is possible)

across jurisdictions. Homogenous inter-jurisdictional planning instruments for critical infrastructure will allow for rapid deployment where a piece of infrastructure crosses state boundaries.

CRITICAL INFRASTRUCTURE PROVISION ACTION AGENDA

- Development of a streamlined single approval process for the deployment of state significant and critical infrastructure;
- Approval granted solely by responsible Minister;
- Removes right to multiple, time consuming appeals in the courts;
- Process to be homogenized across jurisdictions.

Outcomes

- Planning **certainty**
- **Cost savings** to government
- Infrastructure delivered **efficiently** and promptly
- **Transparency** and probity championed
- **Environmental** impacts assessed
- Strong **community** consultation

3.3. REFORMING GOVERNMENT PROCUREMENT

Government procurement has developed significantly in the past 20 years, with new options to purchase assets and services from the private sector. An important new development has been the introduction of Public Private Partnerships (PPPs) for the delivery of economic and social infrastructure.

The primary purpose of this change in procurement was to capture the benefits from combining design, construction and operation into a single PPP team that would maximise the quality of the asset over the whole of life and shift the singular focus from construction costs and time of delivery.

PPP procurement is a maturing model in the Australian market, and it has been overwhelmingly successful. When properly scoped and clearly executed, PPPs allow for the best share of resources, skills and risk between the public and private sectors in the delivery of public assets.

To capture the experiences and learning of government in the procurement of infrastructure, IPA supports the establishment of a central repository of knowledge and skills in each state to manage the procurement of projects using a gateway process that tests the suitability of a traditional procurement and Public Private Partnerships. The gateway process is fundamentally directed at simplifying policy and procedures, and the achievement of greater and better quality upfront planning by agencies. The objective is to assist agencies to make appropriate and informed decisions, particularly in major procurements, without diminishing their accountability for outcomes.

Under a PPP model, the public sector is responsible for identifying an infrastructure deficit and for procuring an asset to meet the challenge. The public sector is best placed not only to identify the pinch point, but also to prioritise infrastructure procurement against integration with the needs of the wider network, be it in transport, water, health or any other sector.

PPP procurement has significant advantages to government, industry and importantly, to meet the needs of a growing economy and diverse community, provided that the fundamentals of a stable partnership are achieved. These fundamentals include: harnessing public sector expertise, extensive community consultation, focus on long term outcomes (and not just the construction of the asset), probity and transparency and a focus on a successful partnership.

The success of PPP is far from anecdotal, with independent analysts and government auditors alike finding significant advantages. A comprehensive examination of PPPs by the UK Auditor General found that privately financed projects reduced the total cost of infrastructure and brought "significant benefits to the government in terms of delivering built assets on time".

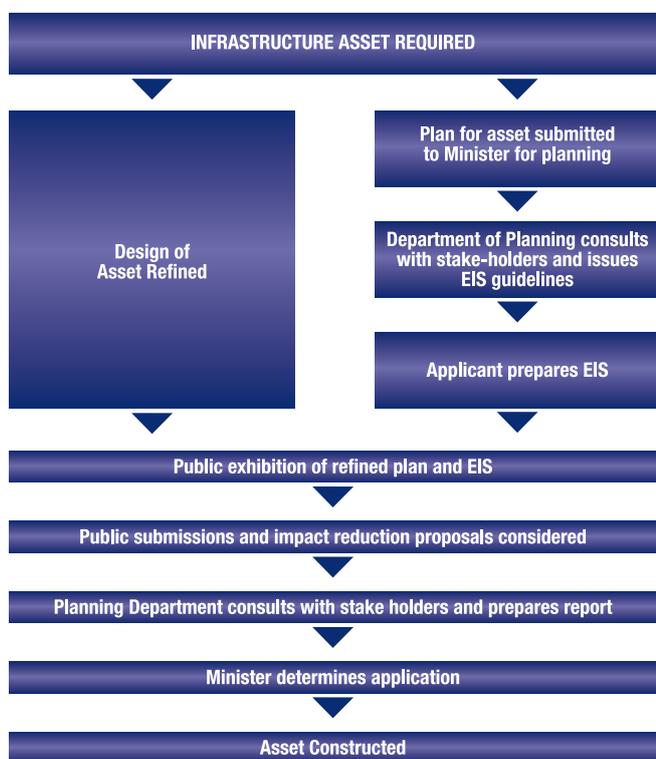


FIGURE 3: Proposed Simplified National Process for Infrastructure Approval.

The UK National Audit Office findings were that 73 per cent of traditionally procured projects were over budget, and 70 per cent were delivered late. By comparison, just 20 per cent of PPP projects were over budget and a mere 24 per cent over time.

The user and operator experience has also been very sound; Partnerships UK's report into PFI/PPP projects found that;

- 96 per cent of projects are performing at least satisfactorily; with 66 per cent performing either to a very good or good standards;
- 89 per cent of projects are achieving the contract service levels either always or nearly always;
- 80 per cent of all users of projects are always or almost satisfied with the services.
- 97 per cent of public sector managers believe that their relationship with the private sector operator is satisfactory or better.

Domestically, the review of Victoria's major PPP projects by Peter Fitzgerald was similarly positive, finding "credible evidence of benefits, including innovation, timeliness, certainty of price and a whole-of-life approach to maintenance".

As the PPP model has been refined in Australia, the public sector has developed significant expertise in the procurement of infrastructure assets. The challenge to government is to consolidate and expand this expertise, which at present is often segmented across departments. One of the easiest ways to ensure that this expertise is harnessed is to create a single agency responsible for the carriage of PPP procurement, from construction to whole of life operation.

PPP procurement is a maturing model in the Australian market, and it has been overwhelmingly successful

This would mean that government is armed with the requisite expertise to be able to authoritatively negotiate a contract that clearly articulates the desired outcomes of government, and with a focus on whole-of-life operation, rather than merely the construction phase. Importantly, the capability of front line departments should be enhanced simultaneously so that there is a sound grasp of the PPP methodology and its possibilities fully explored in each area.

One inherent advantage of PPP contracts is the significant due diligence done at the commencement of the project, allowing for strong attention to risk allocation. This process is intrinsically complex, but by having a central repository

of PPP expertise, government would ensure that they are appropriately skilled to effectively negotiate risk sharing to the parties best equipped to shoulder that responsibility. There has been a tendency in some jurisdictions to push risk onto the private sector as a reflex action, regardless of whether the private sector has the ability to manage that risk. The private sector will over-value this risk and the process can be made unnecessarily complicated.

If the fundamentals of a PPP are correct, a true 'partnership' will see all the partners working cooperatively toward a clear objective.

The public sector must very carefully define the outcome(s) it seeks from the asset. This clarity of expectation in terms of say, service quality, capacity, timing and importantly, cost or price, are the foundations against which a project will be judged by the community, the final customer. By clearly mandating the objectives sought by government, the public sector lay the foundation for a strong partnership with clearly delineated responsibilities and outcomes.

Community consultation is also essential for all large scale projects, and is more important in a PPP. Government must establish what the community expects, and how these expectations can best be satisfied in the project design. After construction, there is often an ongoing obligation for the operator to continue to consult with the community.

If a 'partnership' is approached in the right way, it presents an excellent procurement option for government. What is needed is a clear focus on desired outcomes, a standardised contract and the use of experienced teams in government to extract the best outcomes for the delivery of better infrastructure and services.



4

Delivering What Matters — Six Critical Outcomes

This chapter identifies the six areas of critical infrastructure outcomes required to contribute towards the next wave of economic growth. IPA advocates that by investing in people along with fundamental reforms in transport, energy, water, social infrastructure and communications is the key to sustaining prosperity.

4.1. INVESTING IN OUR PEOPLE

Since 1990, Australia's economy has consistently outperformed comparable economies around the world.

One consequence of such sustained and significant growth is an unemployment rate of 4.3 per cent (Source: ABS 6202.0, May 07), which is the envy of the OECD world. The flip-side of this growth is a systemic shortage of skilled and semi-skilled labour to satisfy demand.

The skills shortage is exacerbating the challenges facing the infrastructure industry

The skills shortage is exacerbating the challenges facing the infrastructure industry. A recent survey of industry respondents, conducted by the Australian Constructors Association and Blake Dawson Waldron (Scope for Improvement), showed that more than half of the industry rated a lack of qualified staff as the major business constraint on infrastructure development.

A two-pronged approach is needed to address the challenge of maintaining a labour force to meet the demand in infrastructure, namely retention of the existing workforce and attraction of new employees to the industry. In terms of retention, there is a recognition that industry needs to be more flexible in terms of working options and move toward greater stability in the workforce rather than the use of short term contract labour. There is also recognition of the value of mature age workers. In terms of encouraging school leavers into the industry, there is a recognition that a career path needs to be established from high school to attract students into engineering and apprenticeships.

The challenge for Australia is to ensure that our workforce generally – and construction related labour specifically – is fully and appropriately skilled to face the demands of our dynamic labour market.

Sustained economic growth has also meant that Australia is increasingly experiencing a lack of affordable housing, with demand for low cost housing growing at the same

time that supply is shrinking. Presently, households in the bottom 20 per cent of earnings spend more than 60 per cent of their income on housing costs. A further quarter of a million households pay more than 30 per cent of their income on housing.

AGENDA TO INVEST IN OUR PEOPLE

Skills

- Industry-wide strategy for retention of skilled workers
- Examination of flexibility in employment contracts
- Establishment of infrastructure career path for both graduates and school leavers

Affordable Housing

- New land releases in areas of demand
- Whole-of-Government engagement with private sector in provision of affordable housing
- Provision of low cost housing as part of development consent in multi-dwelling applications

Health

- Deployment of new health facilities in growth areas and areas of demand;
- Utilisation of private sector innovation and expertise in whole-of-life management and delivery of non-clinical services and ultimately in clinical services

A lack of affordable housing undercuts the competitiveness and efficiency of the economy, and means that necessary labour is either unavailable or inefficiently utilised in servicing areas of high demand, such as central business districts and regional growth centres.

Service industry workers such as cooks, cleaners and hospitality staff (who are relatively low income earners) may be unable to source affordable housing close to labour markets which require their skills. Similarly, essential service workers such as teachers, police, nurses and paramedic staff may be priced out of the housing market in their geographic area of employment.

Affordable housing has been an issue in both regional and metropolitan Australia for some time, and under consideration by the Council of Australian Government

(COAG) since the early 1990s.

In spite of the best intentions by government, the current framework is not meeting the need for affordable housing. The sheer size of the capital stock required to meet the challenge is beyond the ambit of any single government. A coordinated approach between tiers of government, coupled with the engagement of the private sector is required to undertake provision of new housing stock, asset disposal and undertake innovative approaches including asset swaps.

There are various proven models for private sector provision of affordable housing, for example: a consortia model, whereby governments sell long-term bonds to private financial institutions; a shared equity model; a retail investors model or the 'Villawood' model, where existing estates are rebuilt, managed and maintained by private sector investors over a contract period.

To complement the increase in affordable housing stock, the provision of efficient and high speed mass transit from 'dormitory' suburbs may also address the lack of affordable housing. For instance, the construction of a high speed rail link from Warnervale to Sydney's CBD would make Newcastle and the Hunter region's affordable housing an attractive and realistic option for workers to service the Sydney employment market.

Through investing in the fundamental requirements of our people, namely their education, skills and housing, we can equip and invest in their ability to contribute to Australia's next tranche of economic and social development

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4.2. URBAN LIVEABILITY

Urban Liveability Australia's strong and sustained economic growth over the past decade and half presents a significant challenge to government in meeting the needs of a growing population and more complex urban amenity.

AFFORDABLE HOUSING – PEOPLE UNDER STRAIN

For housing to be defined as affordable, it generally means that the housing costs are less than 30 per cent of household income.

The current system of supported housing (through CSHA) is stressed, as the figures below demonstrate. There are significant options to provide a better level of support, particularly through the engagement of the private sector.

Co-investment schemes such as the shared equity model may provide the way forward, coupled with land releases where appropriate and the strategic redevelopment of housing estates involving asset swaps that enable innovative access to new more relevant housing stock and the smart disposal of old and inappropriate housing.

Another option could involve developer contribution of housing stock. This kind of system would require multi-unit developments to contain a certain proportion of the units to be provided at a discounted rate, or title to be granted to a trust and privately managed. This may run concurrently with existing developer contribution schemes in areas like CBDs. This kind of system also avoids 'clustering' low income households.

State	Housed	Waiting
NSW	11,844	18,220
Qld	4,791	10,744
ACT	687	253

Looking ahead productivity growth in rural and resource sectors are likely to attenuate, these sectors are already at the outer frontier of best practice and efficiency by virtue of their direct exposure to global competition. The services sector on the other hand not only represents the majority of the Australian economy but is centric to the major central business districts, urban and regional centres. Improved functionality of these high density population areas through better connectivity and transport translates directly to improved productivity and international performance. A national imperative exists to address this sector.

The task for policymakers is to acknowledge that the importance accorded to addressing export related infrastructure bottlenecks should also be extended and applied to urban functionality that underpins much of the competitiveness of the services sector.

A growing city has significant primary requirements in providing the services in the health, education, recreation and transport sectors to service growth areas. The additional challenge of integrating expanding populations, larger

commuter volumes into existing transport networks remains.

The link between astute investment in public infrastructure and economic and productivity growth is well established, both in Australia and in comparable OECD countries. Beyond this, there is an increasing recognition of the connection between public infrastructure and the social and environmental capital that binds communities together. Failure to provide sufficient and appropriate social infrastructure undermines the social and environmental sustainability and ultimately, the competitiveness and liveability of a city.

A growing city has significant primary requirements in providing the services in the health, education, recreation and transport sectors

Transport – Clearing the Hurdle of Urban Congestion

In moving to sustain and increase the liveability of Australia's major cities, governments need to primarily address issues of urban congestion, as well as sustainable urban design such as recreation facilities, retention of urban open space and green webs. Furthermore, governments need to establish a framework that will allow for the deployment of social infrastructure, such as new schools and educational facilities, together with new, world standard health facilities, police stations and community facilities.

Australia's standard of living in urban areas is largely underpinned by the use of the motor car. The community has clearly indicated that it considers the value proposition of a private vehicle as compelling - offering privacy, comfort, and on-demand door to door transport. Additionally, the decentralised nature of employment and housing mean that for many workers, the use of mass transit systems to commute to work is not feasible owing to complex travel requirements.

At the same time, urban congestion is a significant challenge across Australia's major urban centres, with travel times to work and leisure pursuits increasing as the demands upon our roads increase. Since the 1950s, kilometres travelled by passenger cars have increased 15 fold, and are projected to grow by a further 30 per cent by 2020. In 1945, 50 per cent of urban passenger journeys were by rail compared with just 4 per cent in recent years (BCA: 2005).

Urban congestion is more than an inconvenience, costing Australia around 2 per cent of GDP, or some \$16 billion per annum. Congestion is forecast to double between 1995 and 2015 (Cosgrove, BTRE: 2000).

Without concerted action to address this problem, the

Business Council of Australia has forecast that the economic cost of congestion in Australia will rise to around \$30 billion by 2015, representing a risk to future economic growth and a potential squandering of Australia's prosperity.

As with any capacity constraint, there are two basic methods to deal with the problem, either by reducing demand or increasing capacity.

Moves to address urban congestion in Australia will require a blended response which must include the expansion and upgrade of road networks to increase vehicle capacity, coupled with initiatives to improve the attractiveness of mass transit systems. It may also need to include measures to rebalance the attractiveness and value proposition of mass transit to better target key prospective customers.

Road congestion is basically caused by demand exceeding capacity, but is also associated with bottlenecks most evident during peak periods.

The completion of residual sections of the radial and ring road systems in Australia's major population centres, and the commissioning of new motorways are essential if we are to deal with congestion and underpin the continued sustainable growth of our cities. Projects such as the completion of the remnant section of the F6/M6 in Sydney's south and increasing the capacity of existing motorways, such as the Ipswich and Logan Motorways in Brisbane remain essential. Similarly, the East West Tunnel, will ease congestion and provide for more efficient transportation in key growth centres in Melbourne.

Some of Australia's most critical projects supported by IPA are detailed in the box on the next page.

Patronage of urban heavy rail systems in Australia is approximately one third of comparable European cities and amongst the lowest in the world. In spite of its low patronage, the use of heavy rail is vital to our urban transport systems, carrying around 600 million passengers per annum and removing around 500 million car journeys from our roads each year.

Urban heavy rail can be competitive with private vehicles, provided rail ensures a level of quality service. The experience of Perth's North Suburbs Railway is augurs well for these developments, with a marked increase in patronage once safe, reliable, fast and frequent services were introduced. Similarly, the Victorian experience of rail franchising began with an unsettled start in 1999, but by 2003 the 'partnership' was thriving and passenger numbers increasing. (McGinnes, A, Win-Win Partnerships in Public Transport, Public Transport International, 2/2006, p4)

Successive governments have tended to under-invest in rail, both in terms of track infrastructure, as well as the provision of new and maintenance of existing rolling stock. Rail networks in Sydney, Melbourne, Perth, Adelaide and Brisbane are either above or fast approaching capacity

on their networks and rolling stock. The construction of new links, such as the North West and South West lines in Sydney and the potential linking of Melbourne's South Eastern and Western growth corridors by underground rail link, will provide new mass transit links to areas not currently serviced by metropolitan rail networks.

The task of restoring and improving our rail infrastructure networks is a major one, and well beyond the procurement capacity of any single government.

AUSTRALIA'S CRITICAL ROAD PROJECTS

- 1 M4 East & M4- Botany Tunnel (NSW)**
Construction of a link from the Anzac Bridge to the start of the M4 at North Strathfield, together with a 13 kilometer link to Port Botany.
- 2 Hume and Pacific Highway Upgrades**
Expedite the construction of a two lane dual carriage way from Melbourne to Sydney and Brisbane by 2017.
- 3 F3-M2/M7 Connection (NSW)**
Construction of a link between the F3 Freeway and the Western Sydney Orbital (M7).
- 4 East-West Growth Corridor Integration (Vic)**
Integration of East and West growth corridors through road, passenger and freight links (in part tunnel) between Eastern Freeway, Western Freeway and Metropolitan Ring Road.
- 5 South East Queensland Road Upgrades (Qld)**
Upgrades to road infrastructure including the Ipswich, Gateway and Logan motorways and the Gateway Bridge crossing.
- 6 Airport/Northern Link (Qld)**
Construction of a link from northern arterial roads to the inner city bypass and North-South bypass.
- 7 F6 Freeway Extension (NSW)**
Completion of the northern section of the F6 freeway, completing the missing link on Sydney's radial freeway network.

An answer to the problems faced by Australia's urban heavy rail networks may be the increased use of franchising, reflecting the principle of diversity of supply and competition supports superior innovation and service delivery. Certainly, the use of private capital and innovation will be required for any substantial upgrade of Australia's rail networks. These should be based on service outcomes and avoid proscriptive design specifications that inhibit innovation.

Coupled with the improvement of heavy rail, the provision or further development of urban light rail offers the best mass transit solution in areas where the augmentation of existing heavy rail networks is unviable due to acquisition costs and other impediments to obtaining the necessary rail corridors. The expansion of Sydney's existing light rail network would provide an efficient link from Sydney's inner west to Bondi, servicing a new and expanded market.

The task of restoring and improving our rail infrastructure networks is a major one, and well beyond the procurement capacity of any single government

Urban light rail may also be an efficient way of moving large numbers of people with a minimum of impact on the surrounding built environment. The experience in the United Kingdom suggests that light rail is attractive enough to encourage commuters out of their cars and back onto public transport, provided it is "... reliable, frequent, efficient, safe and clean transport with affordable fares ..."

The construction of new or expanding existing light rail systems is only of benefit in high density population areas such as Sydney, the Gold Coast or Adelaide's CBD.

As with heavy and light rail, buses already feature as a major component of Australia's mass transit systems. In most cities major urban bus routes are owned, regulated and operated by government entities. Patronage on buses continues to fall, with the commuting public more willing to complain about substandard service, while at the same time road congestion is deteriorating.

The experience of bus route privatisation in Melbourne, and overseas, has provided ample evidence that a competitive approach – within the right parameters – can provide sound outcomes for government, operators and most importantly, the commuting public.

Better Social Infrastructure Beyond issues of urban congestion, the assets and services collectively known as social infrastructure, e.g. schools, prisons, hospitals and recreational facilities, are a key component of a city's liveability.

The economic case for social infrastructure is clear and compelling, but with so many intangible benefits and externalities, it is difficult to value on a balance sheet.

The provision of top quality health facilities is one of the

most urgent challenges in maintaining and increasing the liveability of Australia's cities. However, the perception of a 'health crisis' in our hospitals, in terms of elective surgery waiting lists, delays in delivery of primary emergency care, or administrative and maintenance issues persist.

CRITICAL MASS TRANSIT PROJECTS

- 1 Sydney Metro System (NSW)**
Build a Sydney metro to provide high quality commuter service that would include a new harbour rail crossing to link into the existing southern line at Everleigh.
- 2 North West & South West Rail Links (NSW)**
Construction of new heavy rail links to service Sydney's North West & South West growth corridors.
- 3 Inner Sydney Light Rail System (NSW)**
Various light rail network extensions between CBD and Bondi, Maroubra Mascot and Burwood and the construction of a CBD loop back at Circular Quay.
- 4 Triplication of Dandenong Rail Line (Vic)**
Construction of a third heavy rail link servicing Caulfield to Dandenong to cater for projected population growth.
- 5 Refranchising of Victorian Rail & Tram Networks (Vic)**
Renewing the general franchises of the private sector operators of Melbourne's rail and tram networks, to include provision for new rolling stock.
- 6 Gold Coast Rapid Transport (QLD)**
Commission of a mass transit system to service high density population centres on the Gold Coast.
- 7 Light Rail – Sydney, Brisbane & Adelaide**
Commission of new light rail for Brisbane and fundamental network expansion of existing light rail networks in Sydney and Adelaide.

The task facing Australia's governments is not easy, either in terms of the sheer capital required to run, maintain and expand our health system; or in terms of the dynamic and changing demands of a modern health system and a growing and diverse community.

Governments need to be able to procure, fund and operate hospitals today that are both flexible and adaptive, to meet the challenges ahead.

While acknowledging the size of the task, Australia's governments do have access to the capital, the expertise and the ability to deliver new, world class hospitals. To do this, government must have the strength and political will to properly harness the capital, the abilities and the innovation of the private sector.

Australia has in many respects pioneered the use of private capital and expertise in the delivery of economic infrastructure, but we have been slow to apply these principles to social infrastructure assets. The experience in comparable countries has been very positive, including the United Kingdom which has used private finance and PPP models to deliver hospitals, schools, assisted housing, to name just a few.

The Australian experience of using PPP models to deliver health care facilities has been positive.

By way of example, the contract for the Joondalup Health Campus in Western Australia was signed in 1996. The project replaced a small, 84 bed public hospital with a 335 bed state of the art health campus, offering a range of in and out-patient services for a 20 year contract term. The hospital was constructed and opened within two years.

The Auditor General of Western Australia found significant benefits, with general health costs comparable to other metropolitan public hospitals, and cost savings to government in the provision of emergency care. Similar projects in other states have also been successful, such as the Casey hospital redevelopment in Victoria. Projects such as the Sunshine Coast Hospital and the highly specialised Queensland Childrens Hospital could benefit from a public private partnership (PPP) procurement.

The experience of PPP procurement of public schools in NSW is an example of the sound outcomes available to government and importantly, educators and students. The NSW Government's New Schools Projects have been a resounding success, delivering brand new, purpose built educational facilities which provide the best learning environment for the students and teachers, allowing teaching staff to focus on education whilst the private sector partner administers the physical assets.

The NSW Government's New Schools Projects have been a resounding success, delivering brand new, purpose built educational facilities which provide the best learning environment for the students and teachers

In spite of the benefits and economies delivered under the NSW Schools PPP projects, other states have been relatively slow to embrace the benefits of private sector construction, maintenance and management of education facilities, although the South Australian Government are preparing to undertake a similar programme commencing

in the 07/08 fiscal year. The South Australian Government has also delivered regional justice facilities, including prisons and court houses, with great success, providing for ongoing management and maintenance of the facilities on a 25 year lease back arrangement.

The use of PPPs to procure health campuses, prisons, class rooms and public spaces allows government to capture the skill and innovation of the private sector in terms of design and operation. PPP and private sector financed projects also provide government certainty of costs on any given project and allows for facilities to be delivered well in advance of other, more traditional procurement models.

The use of PPPs to procure health campuses, prisons, public housing, classrooms and public spaces allows government to capture the skill and innovation of the private sector

PPP and other forms of private sector financing and service provision can deliver outstanding facilities to support and underpin the work of the police and other emergency services, as well as critical public infrastructure such as court houses, prisons and public recreation spaces. The partnership will provide a discipline from the beginning to ensure a thorough scoping of works, service quality and a whole of life approach to the project. PPPs achieve this from the opportunity to respond in detail on the most cost effective approach, limiting variations and the potential factors contributing to cost over runs. Moreover the potential for proponents to inject new ideas and innovative solutions is championed.

The introduction of competition into areas of exclusive government service provision, previously without competition can enable government to make significant efficiency and service level gains for the community.

4.3. FREIGHT TRANSPORT NETWORK EXPANSION

There is significant potential to increase productivity in the freight and transport network infrastructure. To achieve this, policy makers will need to focus on improving the entire logistics supply chain, and in doing so align policy and regulation with the changing needs of the industry and the community.

Enhancing the interoperability between transport modes provides a significant potential for a productivity leap in

Australia. Asset owners and operators in the transport and freight sectors are increasingly focussed on whole of logistics chain management. This reflects an industry that is seeking to increasingly bundle complementary inter-modal solutions to ensure the logistics task is completed efficiently and least cost options may involve more than one form of transport.

To realise the benefits of a 'whole of logistics chain' management, policy makers can benefit from working with the private sector, and particularly those that seek to own multiple assets across the logistics chain. Australia has outstanding and globally efficient 'proprietary supply chains' that should serve as a benchmark to the

The starting point with the transport and freight task for Australia is to recognize that supply chains around the country are typically disjointed and with low functionality reflecting a lack of harmonization and standardization. Correcting the legacy of past government ownership that tackles poor management and work practices is key to securing future productivity gains.

A case for Market-Wide shaping Market-wide shaping will necessitate a whole of logistics chain approach from owners and operators of assets and their regulators. The key focus is to improve 'end to end' inter-linkages in the logistics chain that for example enhances interoperability between rail, road and port facilities.

This may necessitate a more tolerant and flexible disposition of policy makers and regulators, like the ACCC, towards vertical integration and joint venture collaborations so that there is a better alignment of interests and incentives to ensure better functioning 'end to end' logistic supply chain management.

Such endeavours require organisations with long term capital and management expertise to design and manage a logistics process that extends beyond their own firm. Ensuring public policy objectives are achieved, as well as private participation, will be important to achieving the productivity gains from rigorous logistic management. This will involve, among other things:

- acute cost control, and scale economies to support global competitive pricing
- scope to accommodate propriety uniform standards
- establish intensely competitive 'complementors' within national logistic chains

Accommodating market wide shaping in transport and freight provides some challenging issues for policy makers, particularly scope for firms to pursue greater vertical integration and concentration of ownership in the sector. In progressing the debate, it is important that industry puts

its case of the full extent of the economy wide benefits and externalities of an up-graded, revitalised and functional logistics chain throughout Australia.

Importance of a Freight Vision Developing an efficient and competitive national freight network is fundamental if Australia is to capitalise on the past decade of prosperity and sustain this growth over the short to medium term.

The challenge to governments is to embrace a cooperative approach in the procurement of the rail and road infrastructure that will place Australia's freight industry on a competitive, sustainable and efficient base.

Further to the discussion of a 'new federalism' in Chapter 3, Commonwealth, state and local governments need to shift their basic philosophy on transport infrastructure. In this new paradigm, an infrastructure asset is not merely a rail line, a road or a new port facility operating in isolation, but a vital component of a national freight network that is both highly efficient, integrated with other modes of transport. Government must shift from a single project mentality towards building transport networks that complement multiple modes of transport and seek to provide a seamless service to its customers.

An infrastructure asset is not merely a rail line, a road or a new port facility operating in isolation, but a vital component of a connected national freight network

The reform of our national freight and transport market will require bold vision and strong relationships, as the challenge is significant. Cooperation between governments will be essential, and government's ability to robustly engage the innovation, skill and importantly, the capital of the private sector will be pivotal to Australia's success in undertaking transport market reform.

Achieving pricing parity across road and rail is one of the most pressing areas for reform.

In order to create an efficient and integrated framework to encourage investment in the transport sector, equitable, transparent and competitive pricing structures need to be championed. Any inconsistency between the way heavy vehicle road users and freight rail are priced, can result in inequitable competition between the two modes.

In order to foster competition within and between road

and rail freight infrastructure markets, the same economic criteria should be used to price both modes. This should include the rigorous assessment of the magnitude of positive and negative externalities associated with each mode. Recent work in this area by the Productivity Commission in respect of road and rail pricing should be the focus of further debate and assessment.

The provision of a new North-South rail corridor to interconnect and service the markets in our major economic and population hubs along the eastern sea board is another critical element to garner efficiencies in freight transport. Failure to address the constraints of the current rail corridor will also lead to worsening urban congestion, with a continuing increase in heavy and articulated vehicle movements along our highways and through metropolitan centres.

Similarly, increased land side efficiencies in rail, through projects such as a new tunnel through the Liverpool Range to streamline coal access to Newcastle; the construction of a dedicated freight line to link Port Botany and a new inter-modal facilities at Enfield and Moorebank in Sydney's west are fundamental to meeting the freight task.

The proposition of an inland rail corridor to link Melbourne-Sydney-Brisbane has been around for more than a century. This improved freight link would provide a vital connection between Australia's wheat belt, our major coal deposits and the agricultural producers in the Riverina and major ports in Brisbane, Sydney, Melbourne and surrounds.

The existing rail link commands just 15 per cent of the freight market between Melbourne and Brisbane (via Sydney) and just 10 per cent on the Melbourne – Sydney route. By comparison, the East-West freight route, which was upgraded some time ago, has achieved an 80 per cent share of the trans-continental freight market.

By 2020, freight movements between these cities are expected to double. The construction of a new dedicated North- South corridor would cut some 12 hours off freight travel time, and modelling suggests an increase in market share to around 67 per cent.

It is critical that Australia act to streamline its freight networks to produce an efficient system to move goods from producer to market, between capital cities and importantly, to ensure that our freight to port infrastructure is also efficient and effective. In order to underpin Australia's competitiveness in international trade, a reappraisal of the capacity of our ports themselves will also need to be undertaken in the short term.

Australia's sea ports handle 82 per cent of Australia's exports by value and 71 per cent of imports by weight. The issue of port-side capacity constraints is so critical that the Reserve Bank of Australia has repeatedly listed it as an economic constraint in its Statement of Monetary Policy.

Australia has had an insular approach to the development

and expansion of ports. A cooperative inter-governmental approach needs to be taken to ensure the timely provision of additional capacity at Australia's ports.

CRITICAL FREIGHT TRANSPORT PROJECTS

- 1 North South Rail Corridor (national)**
Construction of a new streamlined inland rail corridor to link Melbourne, Sydney & Brisbane to provide a new and efficient link between capitals and ports.
- 2 Sydney Ports Intermodal Facility (NSW)**
Construction of an inter-modal facility at Enfield and Moorebank (Sydney) to service the expanded Port Botany.
- 3 Dynon Rail Hub (Vic)**
Construction of a new dual gauge rail line into the Port of Melbourne to remove level crossings and other impediments.
- 4 Port Melbourne Channel Deepening (Vic)**
Deepening of the shipping channel servicing Port Phillip. Presently 30 per cent of shipping is unable to access the Port.
- 5 Liverpool Range Tunnel (NSW)**
Construction of a new tunnel to transport coal from the Gunnedah Basin to Port Newcastle.
- 6 Southern Sydney Freight Line (NSW)**
Construction for a new 35 km dedicated freight line from Macarthur station to east of Sefton.

A cooperative inter-governmental approach needs to be taken to ensure the timely provision of additional capacity at Australia's ports

As well as capacity issues at the point of loading, Australia's trade growth is also challenged by a lack of adequate transport infrastructure to service ports. 'Capacity schemes' such as the one recently abandoned by coal exporters from the Gunnedah Basin, place restrictions on the tonnage those producers can export at any given time. This kind of scheme distorts the market and reduces Australia's international competitiveness.

Many of Australia's ports, including those in our capital cities, suffer significant land-side delays. There is more than \$8.5 billion in urgent freight to port infrastructure that is

urgently required to support exports growth.

A national vision for the future of freight in Australia is urgently required to meet the dynamic requirements which our growing economy will demand through the next wave of economic expansion.

4.4. ENERGY SECURITY

Managing the challenges of prosperity of a dynamic economy is most evident in energy, where economic wealth has led to increased demand as reflected by the 42% increase in peak demand in SE Queensland alone in the past five years. The issues of climate change, greenhouse gases and most recently the nuclear power debate provide a potent mix of issues that will require clear policy responses from government.

Capacity utilisation is approaching critical levels, and the growing incidence of outages represent a serious warning of the consequences that assets are aging and the investments in the network since the 1970s have diminished.

The clear way forward is for the introduction of competition and contestability in base and peak load generation and in energy retailing.

Factors exacerbating capacity constraints include the trend towards more air conditioners in homes, which will continue to have a profound impact on the energy network. In the US for example, air conditioning represents 5% of the total load and 20% of peak demand. The digital economy has increased demand from 25 watts per square metre of buildings in 1980s to 90 watts today. Digital devices also require higher quality of supply.

Energy is vital to Australia's economic success, international competitiveness and quality of life. The corollary to demand growth is an increasing need for large scale investment in energy generation, transmission and supply. By 2020, it is estimated that more than \$35 billion in additional energy sector investment will be required to match growth demand projections.

Important structural reforms of the energy sector were undertaken in the 1990s, linking Queensland, NSW, Victoria and South Australia towards a new National market in energy. The key problem is that the reforms have not lived up to the promise of a national market.

The Parer Committee review into the NEM found that the fundamental 'energy only' market design of the NEM is sound, but a lack of competition in generation, the distortion of retail prices and insufficient demand side participation in the market are dampening the investment signals to the private sector.

The challenge of meeting the energy investment deficit is significant. This is not only because of the size of the investment estimated at \$35 billion over the next decade or so; but because of the lack of a functional institutional framework to place this investment and to create a national market to supply competitive and low cost energy.

A strong national electricity grid is an urgent priority. The issues have been extensively analysed and it is now time for decisions and actions. The benefits of a national market will simply capture the benefits of Australia's federation where it can source the most competitive energy. One state can export its excess capacity and another state can resolve its excess demand through importing it from another state.

A national market will reduce risk of outages which for an electricity intensive modern economy can have profound economic and political consequences. Diversity of supply will champion competition and innovation and underpin low cost energy supply. In light of the long lead times required to develop generation capacity and renew distribution networks, both the reform agenda and investment requirements require an immediate commencement.

A significant impediment to a national market is the ownership structure in the different states. The NSW government for the most part is the single owner of electricity assets and robust competition is limited impacting both investment and benefit from pricing opportunities. The privatisation of the sector is essential to reduce market power by attracting sufficient competitors in the generation sector.

A significant impediment to a national market is the ownership structure in the different states

There is an important window of opportunity for government to address this challenge in partnership with the private sector's capital and risk management expertise. The private sector will, however, need to have the right market conditions to ensure:

- Consistency, stability and predictability of policy
- Balanced and transparent regulatory regime
- Competitive return, including return of capital over a reasonable time frame. This will require Federal government to ensure a national regulatory regime is updated to reflect the emerging environment in which energy investment will occur to achieve energy security.

There is growing uncertainty for all industry stakeholders owing to the climate change debate, probable impact of carbon trading, potential introduction of new energy sources including nuclear power and, most fundamentally, changed pricing

structures that may impact energy consumption patterns that directly affect base load and peak load power generation.

IPA acknowledges that nuclear energy may be a compelling option to meet future demand. However, in the absence of fundamental reforms toward a national energy market (NEM), substantive and meaningful debate of this option is premature. A true NEM must have market driven price signals for investment and consumption, and remove other investment impediments such as retail pricing caps and regional pricing.

The best way to secure Australia's energy security is the creation of a genuine national market, driven by diversity of suppliers that will bring with it innovation and competition. It is only from this basis that an economic and environmental case for options in new generation capacity should be made.

The action agenda detailed below is fundamentally concerned with impediments to investment in the sector and achieve energy security for Australia.

ENERGY ACTION AGENDA

- Government to move decisively toward providing a true national energy market, rather than regionalised markets that currently prevail;
- Focus on improved electricity interconnection between regions and states;
- Liberate the price signals to ensure optimal location of generation capacity and consumer behaviour especially in respect of air conditioners during peak hours;
- Create the necessary market conditions to encourage the active involvement of the private sector in the generation of base load and peak load energy, especially in NSW and Queensland;
- Champion private sector financing and operation of energy assets;
- Clarify carbon abatement policy as soon as possible; and
- Deregulation of retail and wholesale energy supply.

4.5. SUSTAINABLE WATER

Eighty per cent of Australian city dwellers are now subject to long term water restrictions.

As Australia's experience of drought in our major population centres has worsened, legislative water restrictions backed

up with tough penalties have become a part of daily life.

While drought is a key factor underlying the shortage of water, water restrictions do not represent a long term sustainable solution to securing Australia's water supply.

There are two basic options for responding to the deficiency of water; namely by achieving reduction in demand, or providing for an expansion of existing supply.

Australian governments have already embarked on a rigorous campaign to reduce supply pressures, initially through voluntary measures like water efficient devices and more recently, through tough legislative restrictions on water consumption. The challenge is that the pursuit of further efficiencies in domestic use of water would provide diminishing returns without a sustainable long term remedy.

Water restrictions do not represent a long term sustainable solution to securing Australia's water supply

An alternative approach is that Australia may in fact have an ample supply of water, but this will rely on a reform towards a water market and improved efficiency in its harvesting and consumption. Ensuring sustainable water will rely on a combination of three factors:

1. **Create a market for discretionary water.** This requires a consistent, national approach to water pricing that embodies the principle of 'user pays', thus ensuring that the majority of users pay the true cost of their discretionary water consumption;
2. **Promote maximum competition in the market and build a service culture.** This requires the removal of statutory impediments to new water providers, opening up monopoly infrastructure to third party access and, where appropriate, by restructuring the industry to encourage diversity of supply and contestability among retail businesses; and
3. **Facilitate water trading to meet real demand.** Broaden the existing water market to include the urban sector by removing institutional constraints, assigning tradable water entitlement to large commercial users and competing retail water businesses and extending existing trading mechanisms/frameworks to allow rural-urban water transfers.

A functional national market for water, combined with scope to inject significant private sector innovation into water supply and delivery, will be essential if competitive low-cost water is to be achieved.

While advocating the role of private investment and innovation in water, IPA acknowledges that water is

perceived by the community as a fundamental element to support life. Accordingly, equitable and fair access to potable water to sustain life is not negotiable. Therefore it is important that governments preserve the status quo in respect of non-discretionary water consumption and price, e.g. household consumption up to 150 kilolitres per annum.

For the purposes of discretionary water usage, such as for lawns, pools and other life style choices there is considerable scope for fundamental change to meet the needs of this market segment. The private sector is ideally suited to meet these demands and manage the risks and uncertainties of discretionary water consumption. Importantly full economic pricing for high volume consumers is appropriate to signal the increased resources required to meet their needs

A broad restructure of water in this country needs the leadership of the Australian Government to provide guidance and balance the competing state interests. Just as importantly, governments need to move to create the market conditions that will harness the capital, the expertise and the innovation of the private sector in securing Australia's water future.

The private sector is best placed to design, finance and operate 'new' technologies such as desalination, to design and operate a system to harvest storm water efficiently and to tertiary treat wastewater for indirect potable reuse. Government must dictate the outcomes it requires for the sound operation of a water market in both metropolitan and non-metropolitan areas as a first step to sensibly drought proofing our cities.

4.6. STRENGTHENING THE COMMUNICATIONS BACKBONE

In the 21st century, business, academia, government and the community at large are reliant on electronic information. While the need to increase available band widths has been on the COAG agenda since at least 1994, Australia's development and potential in this regard has yet to be fully realised.

By world standards, the penetration of broadband into Australian homes – and the speed of that service is relatively poor. Australia ranks just 17th in the OECD in terms of household penetration of broadband, as reflected in the Figure 4 (page 39).

Even in those homes that do have access to broadband, the bandwidth available is low while the prices are relatively high. The relative speed versus price in comparable nations is described in the Figure 5 (page 40).

For the Australian economy to best capture benefits of broadband, we must address two key factors, the physical availability of bandwidth and the price at which it is offered.

Currently, around one third of Australian households can

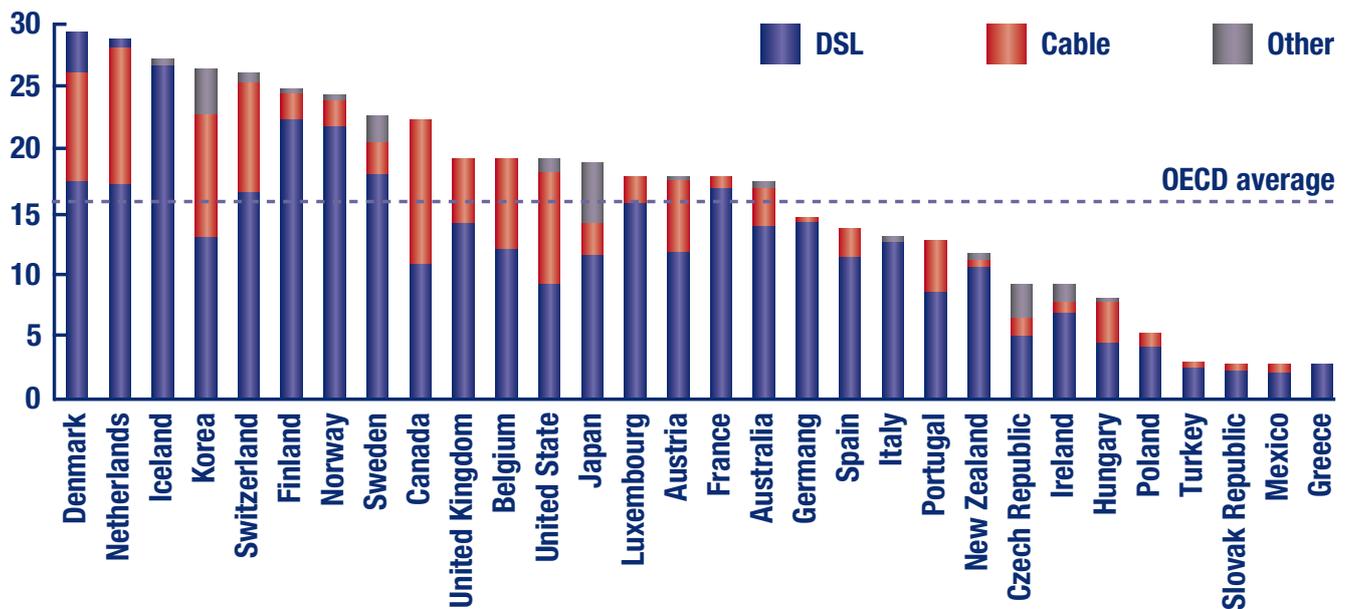


FIGURE 4: OECD Broadband & Subscribers by technology, an international perspective

access cable broadband through either Optus or Telstra, delivering speeds of around 17 mbps. The majority of households are able to access ADSL broadband, but this only offers speeds of 256 kbps to 1.5 mbps, depending on distance from the exchange. Homes more than 5km from the exchange are unable to access ADSL.

Since competition has been introduced there has been a move toward lower prices and higher speeds through the introduction of ADSL 2+, which offers speeds of 8mbps to 20mbps, again dependent on distance from the exchange.

In order to keep Australia competitive in the information age, the roll out of an IT network with high bandwidth is a national imperative. One potentially attractive way of providing reliable, fast high bandwidth technology is through the introduction of Fibre to the Node (FTTN) and eventually, Fibre to the Premises (FTTP).

In 2005, Telstra announced its intention to upgrade its network to provide FTTN infrastructure to around 5 million households, but it failed to reach agreement with the ACCC over third party access. Government regulators and industry need to seek a purposeful strategy that will allow Australia to establish a national market for broad band that durable into the decades ahead. Importantly, as has been the experience in other markets, where contestability and diversity of supply prevails then innovation and competitive service delivery can be met in a sustainable way.

In peer OECD economies, there is considerable focus on broadband infrastructure as an important driver of economic growth and performance. Obviously the economics of a network roll out are better in densely populated countries such as Japan and South Korea. Similarly, the US and

By world standards, the penetration of broadband into Australian homes – and the speed of that service is relatively poor

Canada have a much more competitive market as most households have access to existing cable TV and telephony networks through which broadband may be accessed. In much of Europe (including UK, France and Italy) the regulator has required the incumbent telecommunications provider to provide access to competitors at low prices, allowing for competition and low retail pricing.

In moving to create the regulatory regime that will provide a functioning and robust market in IT infrastructure, the focus must be on competition, innovation and, where possible, diversity of suppliers. The experience from overseas shows that a competitive and contestable environment ultimately delivers better outcomes for consumers, across all areas of the economy.

ACTION AGENDA

To create a regulatory framework that allows for sustainable competition in the roll out of the next wave of IT Infrastructure Australia must;

- Immediately increase the spread of ADSL2+ enabled exchanges, which will dramatically increase the available bandwidth to many Australian businesses and homes;
- Provide a clear, regulatory framework to provide a sustainable and competitive market in high bandwidth communications;
- Allow a market to sustain the prompt roll out of FTTN networks in metropolitan Australia, to be completed within 2-3 years and a complimentary wireless technology to service rural and regional areas; and
- Allow a market to sustain a feasible roll out of FTTP networks in metropolitan Australia within 7-15 years.

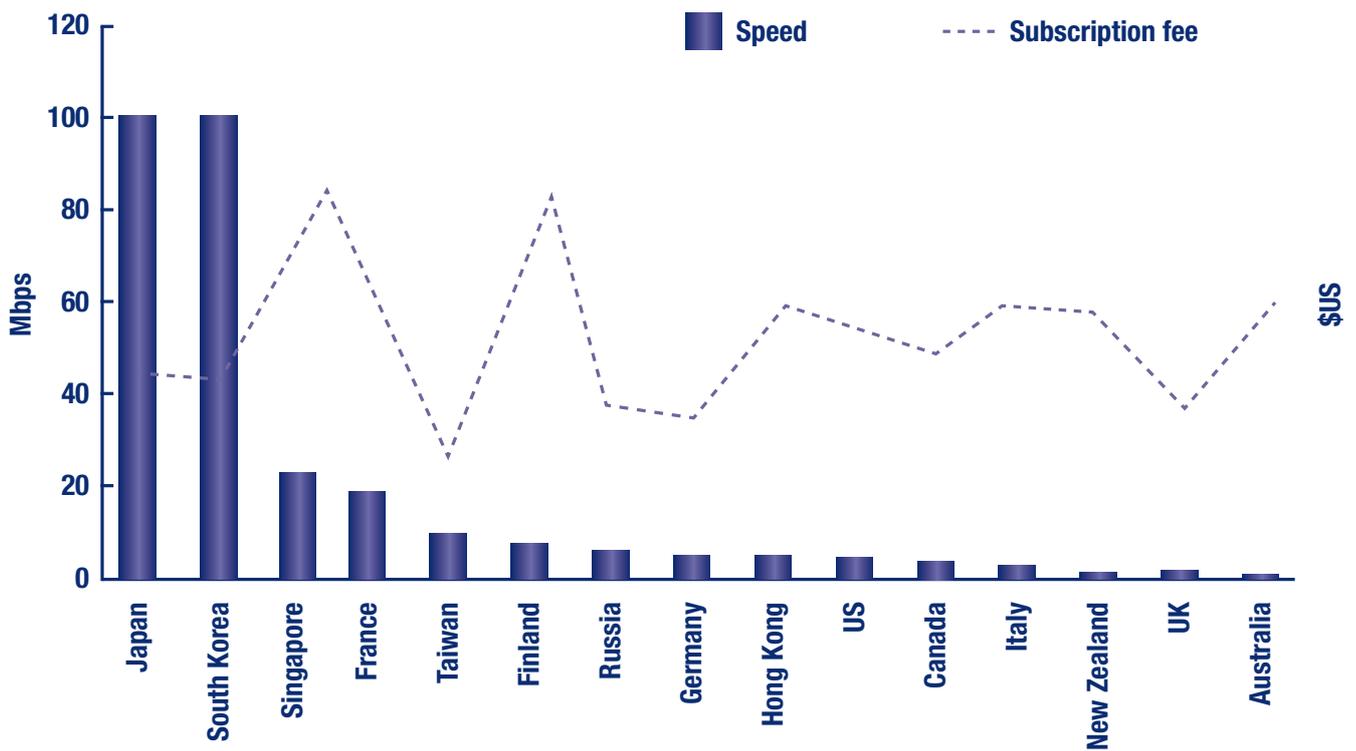


FIGURE 5: Speed Relative to Price, an International Perspective

Conclusions

5.1. CONCLUSIONS

The future for Australia is very bright, provided that we invest the dividends of the past decade's growth into underpinning and sustaining our economic and social development in the decades to come.

The procurement of the infrastructure assets we need is beyond the scope of government alone. To meet the challenges and harness the opportunities facing us, Australia must view infrastructure in a fundamentally different way; as an investment in our collective future with vision, optimism and a conviction to deliver.

Infrastructure is not simply about planning and delivering an asset, it is about the whole-of-life operation, innovation and relevance of the service delivered. This is the basis on which the community will judge government and the private sector of its success or failure.

An important window of opportunity now exists to build the necessary infrastructure to deliver nationally significant assets and services across the nation. These can be provided with decisiveness, a clear agenda for action and the application of consistent policy principles to sustain Australia's economic growth and underpin our high standard of living.

The time for action is now, Australia must invest with confidence and foresight to build our nation.

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