Submission to the House of Representatives
Standing Committee on Economics

Inquiry into raising the level of productivity growth in the Australian Economy

Department of Infrastructure, Transport, Regional Development and Local Government

February 2010
Introduction
The Department of Infrastructure, Transport, Regional Development and Local Government (the Department) makes an important contribution to Australia’s productivity agenda. It provides policy advice and research to support the Government’s nation building infrastructure investments and regulatory reform, which in turn help to build the productive capacity of the economy.

Through the Australian Government’s nation building initiatives, including the Nation Building Program, the Nation Building Plan for the Future and the Building Australia Fund, the Department is helping drive Australia’s long term productivity and international competitiveness. The Department’s focus is on long term infrastructure planning and investment that will serve the nation over the decades to come.

International studies identify a strong link between public infrastructure investment and productivity growth. The IMF estimates that, on average across 22 OECD countries, increasing the public infrastructure stock by 1 per cent leads to an increase in output of around 0.2 per cent.¹

The Department’s policy advice, program delivery and regulatory work covers road, rail, urban transport and port infrastructure development; the efficiency, safety and security of transport systems; and promotes regional and community development.

The Department is also delivering on the Government’s regional development agenda, which is built on stronger and more productive partnerships with local government and regional communities. This approach is embodied through new bodies such as the Australian Council of Local Government and Regional Development Australia which the Department continues to support.

The following describes how the Department’s work is helping build Australia’s long term economic and productive capacity.

Nation Building Investment
Better, more reliable transport is a key contributor to Australia’s economic performance and enhances the economic and social wellbeing of all Australians. International studies show that cutting travel times can have a significant impact on increasing national productivity.²

The Government’s targeted and strategic investment aims to increase productivity by enhancing the capacity, efficiency and reliability of the transport network.

Through the Government’s Nation Building agenda an unprecedented infrastructure investment program has been embarked upon. The Australian Government will invest $36 billion on land transport infrastructure over the six year period of 2008-09 to 2013-14.³

These investments will lower transport costs, tackle the rising cost of urban congestion, cut travel times, curb carbon emissions and saves lives. Through the Nation Building agenda, the Government is planning for future economic and population needs and putting in place the building blocks of long term productivity growth.

³ Some figures shown may have been rounded for readability and ease of reference.
Funding over the six years by program is as follows:

- $20.0 billion for major projects funded under the Nation Building Investment program (i.e. National Road and Rail network) and off-network program.
- $8.5 billion for 15 nationally significant infrastructure projects announced in the 2009 Budget
  - $7.6 billion for 11 projects funded under the Building Australia Fund (BAF)
  - $317 million for projects as the Government’s investment in public transport links for our major cities
  - $488 million for the Bruce Highway – Cooroy to Curra (Section B) Duplication (which forms part of the $20 billion for major projects funded under the Nation Building Investment program).
- $502.2 million for the Black Spot Program⁴
- $2.1 billion for the Roads to Recovery Program
- $150 million for Boom Gates for Rail Crossings⁵
- $70 million for Heavy Vehicle Safety
- $3.8 billion in untied Local Roads Grants
- $44.6 million in additional funding to South Australia for local roads (provided in supplementation to the Local Roads Grants because of an identified disadvantage in South Australia
- $1.2 billion equity injection into the Australian Rail Track Corporation.⁶

The following shows a breakdown of the above funding by each state and territory.

In New South Wales, the Commonwealth is investing $11.6 billion in projects such as the Ballina Bypass; the Tarcutta Bypass; upgrade of the Great Western Highway between Katoomba to Lithgow; and an investment in freight rail upgrades in and around Sydney including rail works at Port Botany and between Sydney and Newcastle – a future North Sydney Freight Link.

In Queensland, the Commonwealth is investing $8.6 billion in the Pacific Motorway; the Ipswich Motorway; and a record investment in the Bruce Highway which includes the Douglas Arterial duplication and upgrade of Caboolture to Caloundra.

In Victoria, the Australian Government is investing $7.9 billion for projects including the Western Ring Road upgrade; works on the Princes Highway East; works on the Geelong Ring Road; the Nagambie Bypass on the Goulburn Valley Highway; and rail upgrades at Geelong Port and on the Melbourne-Adelaide line.

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⁴ The Black Spot program to target projects that reduce the risk of accidents at dangerous locations on our roads. The funding will target specific sites around Australia where there have been serious crashes or where research indicates serious crashes are likely to occur.

⁵ Boom gates for rail crossings. This program provides for the installation of boom gates and other active rail crossing control mechanisms at high-risk level crossings throughout Australia to further improve safety.

⁶ The equity investment into the Australian Rail Track Corporation (ARTC) to help finance substantial program of construction and track upgrades that will significantly improve the ARTC managed freight rail network across Australia.
In Western Australia, $3.4 billion is being invested for projects including works on the Great Eastern and Roe Highway interchange; the Mandurah Entrance Road; and the duplication of the Dampier Highway.

In South Australia, $2.4 billion is being invested for projects such as the Northern Expressway and Port Wakefield Road upgrade; and work on Victor Harbor, Main South Road and Seaford Road junction.

In Tasmania, $800 million is being invested for rail capacity improvements at Rhyndaston; the Brighton Bypass; and work to improve capacity on the Main North-South Rail Line.

In the Northern Territory, the Commonwealth is investing over $600 million in projects such as the Tiger Brennan Drive; upgrade of the Plenty Highway and Central Arnhem Road; and sealing of the Buntine Highway.

In the Australian Capital Territory, over $200 million is being invested. This funding includes the road upgrade in Canberra’s Airport precinct as well as the Tharwa Road – Lanyon Drive upgrade.

Building Australia Fund

To fund critical infrastructure in the transport, communications, water and energy sectors of the economy the Government established the Building Australia Fund (BAF).

As noted above, the Government has committed over $7.6 billion funding under the BAF for 11 strategic investments in Australia’s metro rail networks, national road priorities and port infrastructure. They are:

- **Gawler Rail Line Modernisation, SA** - $294 million has been committed to the re-sleepering, electrification and station upgrades of 43 kilometres of the Gawler line.
- **Noarlunga to Seaford Rail Extension, SA** - $291 million has been committed to extend the passenger rail services from Noarlunga to Seaford with bus services feeding into the Seaford district centre. The project also provides for the construction of over 5.5 kilometres of dual electrified rail track, a single track viaduct, two stations and a rail depot. A number of rail bridges have also been proposed.
- **Sydney West Metro, NSW** - $91 million for preconstruction work on a 25 km metropolitan rail line from Central Station to Westmead Hospital to improve links between existing and emerging population centres across Sydney.
- **Hunter Expressway, NSW** - $1.5 billion has been committed towards a new dual carriageway between the F3 and the New England Highway near Branxton. The project will provide significant traffic relief to the New England Highway between Weakleys Drive and Branxton.
- **Kempsey Bypass, NSW** - $618 million has been committed for the construction of a 14.5 km dual carriageway bypass of the Kempsey and Frederickton townships on the mid-north coast of NSW. The project will improve road safety, reduce travel times and vehicle operating costs for road users and reduce highway maintenance costs.
- **Regional Rail Link, Vic** - $3.2 billion has been committed towards the provision of approximately 40 kilometres of dual track link from West Werribee to the Southern Cross Station in Central Melbourne.
- **Melbourne Metro 1, Vic** - $40 million has been committed towards preconstruction, planning, design and engineering works for the East West Rail Tunnel in inner city Melbourne.
- **Gold Coast Rapid Transit, Qld** - $365 million has been committed to the development of a light rail transit system linking key activity centres from Griffith University (Gold Coast campus) to Broadbeach.
- **Ipswich Motorway, Qld** - $884 million has been committed to undertake additional works on the Ipswich Motorway. The upgrade will deliver greater road safety and help relieve traffic congestion.
- **Oakajee Port, WA** - $339 million has been committed for the development of Oakajee Port. Funding is for the development of common use water, power and road infrastructure.
• Darwin Port, NT - $50 million has been committed toward the development of Darwin Port to accommodate large ships suited to the transportation of bulk resources and commodities.

**Public transport links for major cities**
Relieving congestion on our roads is vital to the liveability, productivity and sustainability of our communities, it is good for the environment and it improves safety. According to the Bureau of Infrastructure, Transport and Regional Economics (BITRE), without adequate infrastructure provision or effective road pricing, the avoidable costs of congestion could exceed $20 billion per year by 2020, compared with around $12 billion in 2009.  

The Government’s commitment of $317 million will go towards the following public transport links for our major cities:

• O-Bahn Track Extension, SA - $61 million investment in the Adelaide O-Bahn track extension to ease peak hour traffic congestion in inner city Adelaide by separating bus and road traffic.
• Brisbane Cross River Rail, Qld - $20 million has been committed towards a detailed feasibility and planning study to help determine the optimal rail route in order to meet the growing demand for rail services in Brisbane.
• Northbridge Rail Link, WA - $236 million has been committed to sink the central city section of the Perth to Fremantle railway line and construct a new rail platform, meaning around 50 000 square metres of land will become available for urban redevelopment.

**Heavy vehicle safety**
Heavy vehicle travel is forecast to grow 45 per cent over the next 20 years and as the average truck size grows, heavy vehicles on Australian roads will be carrying 65 per cent more freight in tonne to kilometre terms.

To improve the safety and productivity outcomes for the heavy vehicle industry and other road users, the Government has allocated $70 million to heavy vehicle safety and productivity projects over four years from 2008-09 to 2011-12. The objectives are to continue to reduce the proportion of road accidents involving heavy vehicles by targeting heavy vehicle driver fatigue and speed. These projects also aim to increase productivity by enhancing the capacity and safety of existing road networks.

**Regional Development**
To target opportunities for economic and social participation by, variously, improving access to services, assisting local councils to deliver infrastructure projects, helping communities to plan for sustainable futures and supporting structural adjustment, the Department administers the following regional development programs:

• *Regional and Local Community Infrastructure Program* is part of the Nation Building Economic Stimulus Plan. Since its inception, the Regional and Local Community Infrastructure Program has made more than $1 billion available to local government authorities to build and modernise community infrastructure. There have been two rounds of funding. Round One funding of $800 million has already been allocated to councils and shires to build and improve community infrastructure and boost local economies. Round Two funding of $220 million will be delivered as follows:
  o $100 million is being allocated to all 566 of Australia’s councils (565 councils plus the Australian Capital Territory) on a formula basis; and
  o $120 million for larger Strategic Projects will be available on a competitive basis.

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Regional Development Australia (RDA) is a partnership between the Australian, state, territory and local governments to develop and strengthen the regional communities of Australia. It has a key role in ensuring the long-term sustainability of Australia’s regions. The Government is engaging with states, territories, local government and regional communities to promote regional planning; economic development initiatives; and providing advice to Government on issues affecting regional Australia. Fifty-five RDA Committees have now been appointed across Australia.

Jobs Fund is designed to support and create jobs and skill development through projects that build community infrastructure and social capital in local communities. The Department is delivering two streams of the $650 million Jobs Fund:
- $40 million over one year for the construction of bike paths under the Local Jobs stream of the Jobs Fund. The National Bike Path Projects component of the Jobs Fund is now fully allocated.
- $150 million under the Infrastructure Employment Projects stream of the Jobs Fund is providing for investment in infrastructure projects which generate jobs in regions affected by the economic downturn.

Better Regions is delivering the Government’s 2007 election commitments by implementing important community and social infrastructure projects identified by local communities as priority investments for their regions.

Remote Air Services Subsidy Scheme supports remote communities by subsidising a weekly air service for the carriage of passengers and essential freight to remote areas which would otherwise not receive such a service.

Remote Aviation Infrastructure Fund supports the upgrade of indigenous aerodromes under the Remote Air Services Subsidy Scheme to Regular Public Transport standard.

Strategic Investment
Strategic infrastructure investment can have considerable productivity-enhancing effects. A good example is the rail infrastructure investment by the ARTC in the Hunter Valley coal supply chain. ⁸

ARTC has developed a strategy for infrastructure investment for its Hunter Valley Coal Rail Network that has a focus on raising throughput and reducing train transit times.

As demand for export coal capacity is forecast to increase from about 113 million tonnes per annum (mtpa) in 2009 to over 220 mtpa by 2013, ARTC’s strategy is designed to align the demands of coal producers with track, train and port capacity, while ensuring capacity is available for other rail operations, including passenger and other commodities.

Planned and current investment of over $1.4 billion over the next five years by ARTC for its Hunter Valley Coal Rail Network will increase the rail network capacity in line with ARTC’s strategy to ensure that the rail infrastructure is not a constraint in the coal supply chain. The strategy is aimed at increasing overall railway infrastructure capability as well as targeting bottlenecks.

An example of the impact of this strategic investment by ARTC includes works that grade-separated rail passenger and freight services at the junction of the Hunter Valley Coal Network and the Interstate Freight Network at Sandgate (near Newcastle). This investment of around $80 million increased the capacity of the junction by 20 million tonnes per annum (mtpa).

Further examples include the recently completed Nation Building – Economic Stimulus Plan projects including the duplication of the section of track between St Heliers and Muswellbrook ($27 million) and the upgrade of signalling systems between Maitland and Branxton ($40 million). These projects, together with other Hunter Valley projects underway, will contribute to improving the capacity and performance of the Hunter Valley Coal Network and the coal supply chain.

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Addressing capacity constraints and relieving those bottlenecks that have become evident in some of Australia’s key export gateways will allow the nation to cope with growing demand on existing infrastructure as the economy recovers.

The Government is also adopting a nationally coordinated, strategic approach to the planning and future development of Australia’s port and port access infrastructure. As previously stated $339 million has been set aside for a multi-user and multi-functional Oakajee Port facility in Western Australia and $50 million towards the Darwin Port expansion project. Through the Nation Building Program, the Government is further expanding capacity around New South Wales export infrastructure by investing $150 million to improve landside access to Port Botany and $300 million to develop an inter-modal terminal at Moorebank in south-west Sydney.

The Government has also undertaken separate reviews in New South Wales and Western Australia to examine the domestic and export grain freight supply chains, given the importance of the grain industry to the national economy. The reports for these reviews have assisted in identifying obstacles preventing the grain freight networks in these states from being fully productive and efficient.

**National Regulatory Reform**
A priority reform for the Government is leading and coordinating critical national regulatory reforms in the heavy vehicle, maritime and rail sectors to improve the productivity and efficiency of the national transport system.

COAG has agreed to a phased program of transport reforms being delivered through a number of mechanisms including the ATC. COAG agreed to implement national regulation for maritime safety, rail safety and heavy vehicles. This will mean improved safety, reduced costs and regulatory burden for Australian transport companies as well as reduced costs of exports and trade.

All national regulators are to be in place by 2013.

Micro-economic reform has been an important driver for the work of the COAG’s Infrastructure Working Group (IWG) to date and continues to drive the IWG forward work program.

The IWG is working toward the removal of barriers to competition in the construction industry such as disparate prequalification regimes across the states and territories.

Removing duplication in the prequalification assessment processes will enable constructors to more easily apply for prequalification across jurisdictions, increasing competition, driving better value for the Australian taxpayer and facilitating greater productivity.

The IWG is also currently examining the cost of bidding for major infrastructure projects in Australia benchmarked to other international jurisdictions.

**Infrastructure Australia**
The independent statutory advisory body, Infrastructure Australia (IA) was established in 2008 to provide advice on nationally significant infrastructure and urban systems which promote Australia’s productivity, with a particular focus on the quality and efficiency of transport, water, energy and communication infrastructure and the development and liveability of major cities across Australia. This advice is prepared in collaboration with the COAG Infrastructure Working Group (IWG), the Department, other federal agencies, state and local governments, industry and the community.
In March 2008, COAG agreed that IA should undertake a national audit of Australia’s critical infrastructure and develop an Infrastructure Priority List to guide future infrastructure investment. In May 2009, IA released the report *National Infrastructure Priorities – infrastructure for an economically, socially and environmentally sustainable future*. In the report, IA outlined Australia’s national infrastructure challenges and noted that urgent action was required, identifying seven themes to, inter alia, boost Australia’s national productivity.

Three of the challenges reflect on the transport sector.

- **Competitive international gateways** - developing more effective ports and associated land transport systems to more efficiently cope with imports and exports.
- **A national freight network** - development of a National Freight Network so that more freight can be moved by both rail and road.
- **Transforming our cities** - improve the efficiency and sustainability of our cities by increasing public transport capacity in our cities and making better use of existing transport infrastructure.

Also in 2008, COAG agreed that one of the first priorities for IA would be the development of best practice guidelines for the assessment of Public Private Partnerships (PPPs). At its 29 November 2008 meeting, COAG formally endorsed new PPP guidelines developed by IA in conjunction with the COAG Infrastructure Working Group. The guidelines are the first national policy on PPPs in Australia, and include a practitioner’s guide, public sector comparator guidance, commercial principles for social infrastructure, and discount rate methodology.

IA and COAG will continue with further work on PPP guidelines, in particular on commercial principles for economic infrastructure. IA has published draft *Commercial Principles for Economic Infrastructure* and is currently consulting with key stakeholders regarding the principles.

Currently, IA is developing a National Ports Strategy and Freight Network Strategy to further drive coordination, efficiency and investment in freight markets. Efficient ports and freight transport links will enhance Australia’s productive and export capacity and international competitiveness. Both strategies will be delivered to COAG in 2010.

IA continues to provide advice to Australian governments about infrastructure gaps and bottlenecks that hinder economic growth and prosperity. Investment priorities and regulatory reforms are also being identified, facilitating a more timely and coordinated delivery of national infrastructure investment across the nation. The aim is to encourage the development of a long term, coordinated national approach to infrastructure planning and investment to contribute to increasing national productivity.

**Smart Infrastructure**

The Commonwealth Government is increasing its focus on smart infrastructure and the role of intelligent transport systems in lifting the productivity of existing infrastructure assets.

The Department will be contributing to the recently announced House of Representatives Standing Committee on Infrastructure, Transport, Regional Development and Local Government’s Inquiry into Smart Infrastructure.

The Committee will pay particular attention to using smart technology to increase the productivity of existing infrastructure; community uses for smart infrastructure, now and into the future; smart infrastructure’s role in reducing greenhouse gas emissions; opportunities for and benefits of new investment in smart infrastructure; and maximising smart infrastructure opportunities through government project selection processes.
Investing in intelligent transport systems and implementing smart infrastructure approaches has real value, especially in systems that can relieve urban congestion, enhance the country’s freight movements and make our transportation system safe, integrated, efficient and more sustainable. Smart infrastructure can translate into substantial reductions in energy use and greenhouse gas emissions.

The Government’s commitment to roll out a national broadband network will facilitate the take up of smart infrastructure, and enable improvements in the efficiency of transport and energy networks, and reduce carbon use.

Other examples of smart infrastructure include electricity grids which improve grid reliability and better utilise energy; transport systems which optimise traffic flows; and water networks which improve water productivity in agriculture. Emerging uses of smart infrastructure have the potential to reduce costs, enhance safety and reduce the environmental footprint.

Smart infrastructure may offer benefits that directly address several of the key challenges for Australia’s transport systems. These include:

- active real-time management of infrastructure (including risks)
- higher infrastructure productivity and better congestion management
- data sourcing for evidence-based policy.

Smart infrastructure technology has the potential to be extended and adapted to many more uses, including as an effective enforcement tool to monitor compliance with heavy vehicle regulations and to improve safety and efficiency for freight transport companies.

The Department is an active member of Transport Certification Australia and has committed over $4.8 million to implement and support the Intelligent Access Program (IAP) and related projects.

The IAP is a voluntary program to provide high productivity heavy vehicles with improved access to the road network in return for GPS/telematics monitoring to ensure these vehicles stay on approved roads able to take their additional mass or length. Enrolment in the IAP is a condition for such access in New South Wales and Queensland. The IAP is also being used to monitor school buses in Tasmania and mobile cranes in Victoria. Similarly, telematics aboard vehicles are being used in Melbourne to provide priority at traffic signals to trams and buses.

In June 2008, following the Government funded $15.8 million Advanced Train Management System (ATMS) “Blueprint” which was completed by ARTC in 2006, ARTC announced investment of $90 million to trial the ATMS between Port Augusta and Crystal Brook in South Australia. The trial will further develop the system with the overall objective to improve capacity, safety and efficiency of the freight rail network. If the trial is successful and the ATMS proven, ARTC will consider full implementation across the rail network that it manages.

The ATMS is designed and being trialled to support ARTC’s objectives of improving rail network capacity, operational flexibility, train service availability, transit times, rail safety and system reliability. The system will replace high maintenance geographical based track side signalling infrastructure with “rolling virtual proximity” signalling. The system will utilise Global Positioning System (GPS) technology and high speed 3G broadband data to define safe travelling distances between trains, provide real time information to drivers and enable new digital network control centres to direct all traffic on ARTC’s network.

Introduction of an ATMS will increase capacity of the existing infrastructure on ARTC’s managed network by reducing distances between trains to create additional train paths and reduce transit times. An ATMS could be more cost effective, efficient and safer and will give ARTC enhanced visibility into its rail network operations.
The ARTC is closely following new and modern developments in train control technology. To meet future demand and ultimately to ensure productivity growth, an important and cost effective productivity improvement will be the successful implementation of the next generation of train management technology.

Other intelligent transport system projects currently underway in the states and territories include:
- Automated Optimisation of Sydney Coordinated Adaptive Traffic System (SCATS). The project will develop software that can automatically optimise the operation of SCATS traffic signals in real-time.
- Brisbane Urban Number Plate Recognition Trial. The Automatic Number Plate Recognition (ANPR) trial is a surveillance technology pilot designed to gather data on heavy vehicles travelling through the Brisbane Urban Corridor. Ongoing data collection could better inform strategies for the Corridor.
- Queensland Heavy Vehicle Intelligent Transport Systems Initiatives. This project involves trialling a range of heavy vehicle initiatives to maximise efficiency of heavy vehicle transport. It consists of traffic signal progression (prioritising heavy vehicles), management of range crossings, flood prediction and signage.

Major Cities
In his speech in October 2009 to the Business Council of Australia on the Future Planning Needs of Our Major Cities, the Prime Minister announced a new commitment to long term reform of city planning in the interests of national productivity and sustainability. The Prime Minister noted that in order for the Commonwealth to have confidence in the integrity of the strategic planning system in major cities, consideration would be given to linking future infrastructure funding to national criteria.

At its December 2009 meeting in Brisbane, COAG agreed to reforms for the future strategic planning of capital cities to secure better outcomes from investments of all governments and strengthen public confidence in planning systems. The objective of these reforms is

‘to ensure Australian cities are globally competitive, productive, sustainable, liveable and socially inclusive and are well placed to meet future challenges and growth’.

National criteria for capital city strategic planning systems will ensure cities have strong, transparent and long term plans in place to manage population and economic growth; plans which will address climate change, improve housing affordability and tackle urban congestion. They will also:

- provide for future-oriented and publicly available long term strategic plans;
- be integrated across functions (for example, land-use, infrastructure and transport) and coordinated between all three levels of government;
- clearly identify priorities for future investment and policy effort by governments;
- provide for effective implementation arrangements and supporting mechanisms; and
- support and facilitate economic growth, population growth and demographic change.

COAG agreed that by 1 January 2012 all states will have in place plans that meet the criteria and noted that the Commonwealth will link future infrastructure funding decisions to meeting these criteria. These reforms will secure better outcomes from investments of all governments and they will strengthen public confidence in planning systems.

The COAG Reform Council will independently review the consistency of capital city strategic planning systems with the new national criteria during 2010 and 2011. A jointly appointed, expert advisory panel will be established to support the COAG Reform Council in this work. The COAG Reform Council will also
support continuous national improvement in capital cities strategic planning and build and share knowledge of best-practice planning approaches.

Strong, transparent and long term plans for growth and high-quality urban development will help deliver the Australian Government’s goal of productive, liveable and sustainable cities.

In building strong and sustainable cities, strategic planning must provide for the construction and upgrade of nationally significant infrastructure, such as transport corridors, intermodal connections and communications and utilities networks. To encourage investment of private capital in these projects, an effective framework for private sector investment and innovation in urban infrastructure must be provided, thus also easing fiscal constraints on all levels of government.

Conclusion
The Department has an important role in contributing to Australia’s productivity growth by focusing on investing in infrastructure that is well planned and delivered, and optimally used and managed over its lifetime.

There are risks that inadequate investment in infrastructure will cause productivity to fall over the longer term. To ensure continued productivity growth, and Australia’s long term economic capacity, there is an ongoing need for significant economic infrastructure investment.

However, addressing the nation’s infrastructure needs must be more than simple investment. It is vital that we have a clear, consistent and relevant national policy and regulatory framework to support Australia’s productivity growth and prosperity in the decades to come.