

Department of the Prime Minister and Cabinet

Smart Cities Plan



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Foreword

Our cities—the CBDs, the suburbs and our regional centres—are where most of us live and work.

Australia's growth as a knowledge based economy, and the prosperity this offers, goes hand in hand with the growth of our cities and the regions surrounding them.

Knowledge based industries rely on the successful concentration of industries and organisations in particular locations.

To succeed in the 21st Century economy our cities need to be productive and accessible, but they also need to be liveable with a clear focus on serving their citizens.

Great cities attract, retain and develop increasingly mobile talent and organisations, encouraging them to innovate, create jobs and support growth.

While the opportunities have never been greater for our cities, congestion, poor access to jobs and services, reduced housing affordability and increasing pollution can challenge the quality of life they offer.



Smart investment that enables partnerships between governments and the private sector will deliver better infrastructure sooner, and within budget constraints.

However, funding is not enough. The global lesson is that cities collaborate to compete. Success requires all tiers of government, the private sector, and community, to work together towards shared goals.

Fundamentally, better cities policy starts with a commitment from all levels of government to work together to deliver common goals—including reforms that make our cities easier to invest in and do business.

'City Deals' will position our urban centres, whatever their size, to realise their full potential. They will do this through coordinated governance, strategic planning, investment and reform.

By taking advantage of the unprecedented pace of technological progress, governments and the community can make cities more prosperous and sustainable.

Real time data and smart technology will lead to better utilisation of infrastructure, clean energy and energy efficiency, improvements in services and better benchmarking of cities performance.

The release of this Plan represents a renewed national focus on our cities.

It is intended to focus debate and action around the opportunities for our cities—metropolitan and regional.

The smart cities agenda is another way that the Turnbull Government is building an agile, innovative and prosperous nation.

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The Hon Malcolm Turnbull MP

Prime Minister

Angres Taylor



The Hon
Angus Taylor MP
Assistant Minister for Cities
and Digital Transformation



Executive summary

Australia has some of the best, most liveable cities in the world.

Our cities—regional and metropolitan—are also where most Australians live and where most of our economic output is produced.

As our economy continues to transition and our knowledge based industries grow, so too do our cities.

To respond to this growth, and take advantage of tomorrow's economic opportunities, we need to rethink the way our cities are planned, built and managed today.

Our economic transition and growth is important, but it can present challenges.

It is placing pressure on housing affordability, access to local jobs and our natural environment, as well as increasing congestion and traffic.

To secure our future prosperity and global competitiveness, all levels of government need to work in partnership to support our cities big and small.

To achieve this we need a long term framework—we need a Smart Cities Plan.

Smart Cities Plan

The Smart Cities Plan sets out the Australian Government's vision for our cities, and our plan for maximising their potential. It includes three pillars: *Smart Investment*, *Smart Policy* and *Smart Technology*.

We will become smarter investors in our cities' infrastructure

We will prioritise projects that meet broader economic and city objectives such as accessibility, jobs, affordable housing and healthy environments. We will treat infrastructure funding as a long term investment not a grant and get involved early to ensure projects create opportunities for urban renewal and raise private capital. By drawing on innovative financing approaches—including value capture—we will leverage our balance sheet and deliver more essential infrastructure sooner.

We will coordinate and drive smarter city policy

We will work across all levels of government to develop City Deals that unlock public and private investment in key economic centres. By incentivising reforms we will generate additional benefits for the economy making cities better places to live in and do business. We will collect and analyse data about the performance of our cities, so we can measure our policies' success and respond to new needs.

We will drive the take up of smart technology, to improve the sustainability of our cities and drive innovation

We will embrace new technology with the potential to revolutionise how cities are planned, function, and how our economy grows. Disruptive new technology in transport, communications and energy efficiency are becoming a reality—we will position our cities to take full advantage. We will leverage real time open data driven solutions and support investment in sectors commercialising new innovations to grow Australian's economy.

Regional cities

The Smart Cities Plan is not just for our capital cities, or just for our CBDs. It is for cities of all sizes and for all parts of cities. Across Australia, cities are facing different opportunities and challenges.

While congestion and affordability are critical issues in capital and major cities, many regional cities are suffering from low or negative growth, as jobs lost in the manufacturing sector, or more recently the resources and energy sectors, are not replaced quickly enough.

We need to plan for the future of regional cities, maximising their unique advantages and supporting their long term growth. The Smart Cities Plan provides a platform for long term investment and coordinated planning to help Australian cities reach their full potential.

Our commitments

The Smart Cities Plan provides a foundation for ongoing reform and cooperative action.

It represents a new framework for cities policy at the federal level—and it is a framework that will guide action across various portfolios, to deliver better outcomes for our cities, the people who live in them and all Australians.

This document outlines our early commitments to provide a structural setting for reform, including through:

▶ \$50 million for Infrastructure Planning

The Australian Government will provide \$50 million to accelerate planning and development works on major transformational infrastructure projects, including urban rail.

Establishment of an Infrastructure Financing Unit

The Government will establish an infrastructure financing unit to work closely with the private sector in developing funding and financing solutions to deliver key government projects.

The unit will create integrated project teams with the private sector and key agencies to broker investment in landmark projects through innovative financing solutions including private partnerships, balance sheet leveraging and value capture for major projects.

▶ Inviting State and Territory Governments to partner with us on City Deals

City Deals will deliver better outcomes through a coordinated investment plan for our cities. Through Deals that drive national priorities tailored to local needs, governments will develop collective plans for growth and commit to the actions, investments, reforms and governance needed to implement them.

City Deals will provide common objectives across levels of government, support for key industry and employment centres, infrastructure investment linked to broader reform and changes to planning and governance arrangements to deliver enduring benefits.

Next steps

Our Smart Cities Plan recognises the importance of our urban centres—metropolitan and regional—to our economic, social and environmental wellbeing.

All Australians are encouraged to share their ideas and to help shape our cities of the future. To join the conversation, go to www.dpmc.gov.au/cities



Chapter OneOur cities today

Australia has been highly urbanised since European settlement.

Today, our major cities are home to more than three quarters of our population.1

And while regional Australia produces a large proportion of Australia's exports, almost 80 per cent of our economic activity occurs in our cities.²

Cities emerge and evolve for economic reasons. People settle around sites or landmarks that offer an economic advantage such as transport and trading hubs or sources of raw materials.

The benefits of this co-location are what economists describe as 'agglomeration'.

Job clusters – concentrated areas of economic activity – foster access to employees, suppliers and customers while providing economies of scale.

And we see this in the way our cities have developed in Australia.

Manufacturing has fostered growth in our suburbs and regional cities while agriculture, mining and tourism have supported population centres in rural and regional Australia.

Today, high tech and knowledge intensive sectors are thriving in our urban areas.

So when we talk about Australian cities, we mean both metropolitan and regional.

In fact, around 1.9 million Australians live in cities with populations between 25,000 and 100,000 residents.³ These are places like Mackay in our north, Dubbo in our east, Launceston in our south and Bunbury in our west.

Our cities are already among the most liveable in the world today – the quality of life that Australians enjoy is among the best in the world.

Our natural environment is beautiful and often remarkably unspoiled, even in the midst of our cities.

But as our cities grow, so must our ambition to ensure that they become even better places to live.







Chapter Two Understanding challenges and opportunities

The transition of our economy beyond the mining investment boom, along with the rise of our knowledge based industries and a growing population present both opportunities and challenges for our cities.

Economic transition

Our economy is dominated by the services sector and it has been for a long time.⁴ As we move beyond the mining investment boom, this transition becomes more important.

In this environment, success for Australia depends on being more innovative than offshore competitors.

Australia has real advantages that position us to be leaders in high tech, knowledge based, service oriented sectors. These include:

- Proximity to Asia
- A mature, well-regulated financial sector
- A highly educated workforce
- ► Leading research institutions

Our cities provide the setting for these service sectors, making their performance critical to national prosperity.

To take advantage of these economic opportunities, we need to ensure our cities provide the right environment for investment, collaboration and growth.

Jobs

Businesses have an incentive to locate in areas with access to the largest numbers of potential employees and customers.

Likewise, people have incentives to settle where they can access the greatest number of employment opportunities, goods and services.

We see this happening today where the knowledge economy is strongest. For example, 40 per cent of Sydney's jobs growth is occurring in the city centre.⁵

The concentration of jobs (known as 'job clusters') in these economic centres is often reinforced by pre-existing transport corridors and interchanges.

Specific employment challenges exist for our regional centres, where traditional industries are becoming less labour-intensive.

While new job opportunities are being created in regional tourism and services, including health and aged care, not every regional city is experiencing new opportunities.

Job clusters can form in the heart of capital cities, regional cities or suburban employment zones. While they do not always form the same way, they tend to have the following characteristics:

- ► Concentration of a few specialised industries—where there are a number of successful organisations in a specific field in which they are world leaders
- ▶ Effective networks of people and organisations—where well established relationships can support collaboration, development and innovation. For example logistics, packaging, distribution and software businesses often develop around airports or other transport nodes
- ➤ Active participation of research institutions—through business partnerships with leading research institutions, including universities, health facilities and government bodies such as the CSIRO
- Access to a skilled workforce—where clusters can draw on a deep pool of skilled labour



Case study: Macquarie Park



Macquarie Park is one of the largest business precincts outside the Sydney and North Sydney CBDs.

It has built a reputation as a technology, communications and biomedical hub and is an important employment generating area.

This previously semi-rural area has the advantages of proximity to the CBD, the size of the former greenfield site, the association with Macquarie University, and three train stations in the area, which provide connections to the Sydney CBD and airport.

Rail connectivity was a major factor in attracting new business activity to the area. Following the establishment of the Chatswood to Epping rail link in 2009, the total economic output of Macquarie Park rose from \$4.68 billion in 2002 to \$9.11 billion in 2013.6

Local planning policies have encouraged technology and biotechnology businesses to the precinct.

Zoning and planning changes made alongside the investment in rail have encouraged changes from industrial to commercial uses and delivered investment certainty for the private sector.

Macquarie Park also has the advantage, over the CBD, of lower construction and rental costs and a range of allotment sizes.

Several large organisations have relocated to Macquarie Park in recognition of its cost effective office space and potential to consolidate geographically disparate functions in one location.



Housing

As economic activity becomes more concentrated, demand for housing and land in nearby areas rises.

In Australia's cities—especially Sydney, Melbourne and Perth—rapid house price growth in inner city areas has made living near work unaffordable for many.⁷

To deal with rising prices, Australians have taken on relatively high levels of household debt or moved to outer suburbs, or both.

Supporting access to jobs close to affordable housing may require a combination of:

► Increasing housing supply near job opportunities and transport connections—so more people can live closer to their work, with easy access to transport and services, and the opportunity to choose active transport such as walking and cycling

- Increasing jobs growth closer to where people already live—by creating new employment zones which can attract employers and support the growth of their organisations
- Improving connectivity between housing and job centres

All governments in Australia, and the private sector, have a role in increasing housing supply in the right locations.

The Australian Government makes contributions to infrastructure investment. We also provide the settings for taxation, finance, welfare, superannuation and foreign investment policy.

States and territories control stamp duty and land tax, which affect the cost of owning a home and the willingness of homeowners to move.

State and local governments are responsible for zoning and development approvals including developer charges, affecting the location, extent of supply and type of housing constructed.

Coordinating these policy, planning, and regulatory levers can better support the supply of affordable and diverse housing.

Transport

With more people in our outer suburbs, more people are travelling longer to get to work.

In Western Sydney for example, a net outflow of 200,000 people leave the region each day for work—this is forecast to grow to 340,000 by 2041.8

Furthermore, these outer suburbs are often further from choices in education, transport and essential services. In the absence of good planning, growth can create isolated communities with limited access to opportunities to realise their full potential.

The concentration of so many people in one place inevitably results in crowded transport systems in parts of our cities. Urban congestion is estimated to cost over \$16.5 billion every year, and forecast to reach between \$27.7 and \$37.7 billion by 2030.¹⁰

One way of responding to our cities' connectivity needs is through the concept of a '30 minute city'.

Concept: 30 minute cities

A 30 minute city is one where, no matter where you live, you can easily access the places you need to visit on a daily basis.

Why is this important?

It has been long observed that people, across the world's cities, will average no more than 90 minutes travelling each day. If commuting time starts to exceed that limit, most people will adjust their transport mode, change job or move home, to bring travel back under 90 minutes.

This was a phenomenon demonstrated by Venetian physicist and systems analyst Cesare Marchetti in 1994, and is often referred to as 'Marchetti's constant'. Subsequent studies continue to show similar results, including in Australia's capital cities.¹¹

The concept of a '30 minute city' incorporates Marchetti's constant into urban planning objectives. The idea is to plan for cities where residents can access employment, schools, shopping, services and recreational facilities within 30 minutes of home.

Several Australian cities are working towards this outcome. For example, Sydney's metropolitan plan, *A Plan for Growing Sydney*, seeks to create 30 minute cities based around the city's existing structure. The strategic vision for *Plan Melbourne* includes an even more ambitious goal of 20 minute neighbourhoods.

Congestion affects freight as well as passenger networks.

Efficient movement of freight in our cities is critical to the smooth operation of our economy, including linking our regions to markets. Over 70 per cent of livestock and 44 per cent of grain exports are processed through capital city ports.¹²

Urban development pressures around airports, seaports and intermodal facilities need to be carefully managed to prevent these important economic hubs and corridors from being constrained and to reduce their impacts on surrounding communities.

While no city around the world has eliminated congestion, most world class cities have invested in fast, efficient public transport systems to provide viable alternatives to passenger vehicles.

Well designed public transport networks including heavy and light rail, buses, ferries as well as integrated active transport (cycling and walking) are an efficient, convenient and environmentally friendly way of transporting large numbers of people within and between cities.

Other cities have used pricing signals to influence choices made by motorists about the time and route they choose to travel. Pricing is also used to manage demand on public transport networks to take the pressure off peak travel times.

We recognise there is no single approach. Better accessibility needs a combination of demand management and investment in public transport, roads and active transport, including walking and cycling.

Investment decisions must now consider network impacts at the geographic scale appropriate for modern growing metropolitan settlements.

High quality, rapid transport between cities is also critical to strengthening metropolitan and regional centres.

Regional transport links, such as fast rail, increase both access to jobs and access to the labour force. Fast rail between centres provides people with a greater range of options for where they live and work.

It allows people and businesses to take advantage of the amenity and affordability of regions and smaller cities, while reducing the pressure on larger metropolitan centres.

It also creates incentives to establish businesses and create jobs in smaller centres by offering fast, convenient access to markets and services of larger cities when required.

Just as it does in countries like Japan, China, Spain and France, and is planned to do in the UK and the US, a high speed rail network linking the east coast of Australia has the potential to ease the pressure on our largest cities, while providing important links to jobs and services for regional centres.

Building high speed rail would require significant investment. Funding of this scale simply cannot be met by government budgets, and it may be unrealistic to build the entire network at once. The Australian Government will instead consider whether innovative funding and financing approaches could strengthen the case to deliver high speed rail.





Green urban spaces

One of the advantages of living in a regional city is access to green open space and amenity.

In our larger cities, the desire to live close to jobs, services and amenities means people of all backgrounds and stages of life increasingly opt for higher density housing in many Australian cities.

As a result, high quality urban design has never been so important.

When people live in apartments or semi-detached houses without backyards, access to parks and open spaces becomes a necessity. Other amenities such as community gardens, green walls and roofs, public artwork and playing fields can give people in high density neighbourhoods a range of lifestyle options.

Green, sustainable cities—with tree coverage and green spaces—provide significant benefits to their residents.

They improve the quality of air and water, reduce the heat island effect, protect biological diversity and threatened species, and enhance general amenity. They also give people greater connection with nature and provide important places for recreation and healthy lifestyles.

Further opportunities exist to improve the sustainability, quality and efficiency of buildings and precincts through standards and investments. The national Green Star System, developed by the Green Building Council of Australia, for example, is a rating system helping to improve the sustainability of buildings and communities.

The Australian Sustainable Built Environment Council (ASBEC) is also working towards a consistent framework for measurement and promotion of sustainable residential buildings.

Human capital

The greatest opportunity for Australia's future lies in our people: their ideas, skills, experience and enterprise drive productivity growth.

One in four job seekers in Australia is reportedly searching for work abroad—so Sydney is not just competing with Melbourne, Brisbane and Perth for talent but with Singapore, London, New York and other world cities.¹³

To secure Australian talent and attract talent from overseas, our cities must offer access to career opportunities, education and training.

Under the National Innovation and Science Agenda we are improving our visa system to attract and retain the best and brightest entrepreneurial and innovative talent. But we must also attract great organisations, and support their growth and success.

Importantly, to do this our cities must offer lifestyle, culture and amenity. For an increasingly mobile labour force, the liveability of a city can be the determining factor between choosing to live in one city over another.



Chapter ThreeBuilding the cities of tomorrow

Cities are first and foremost for people.

Their function is to serve humanity, so they must have a human form.

Our natural and built environments must be sustainable and liveable, with high quality public spaces that bring people together to exchange ideas and build a sense of community.

They must also be accessible, which is why the Australian Government has committed more than \$50 billion to land transport projects across Australia—the single largest infrastructure investment in our nation's history.

This includes investment in public transport projects that improve accessibility to job centres and promote urban renewal.

Infrastructure Australia has conducted an audit of Australia's infrastructure needs to deliver a 15-year infrastructure plan for our country.

This Smart Cities Plan is in part a response to the Australian Infrastructure Plan.

We are making our cities more competitive by reducing regulatory costs by \$4.8 billion¹⁴ and delivering the National Broadband Network cheaper and sooner.



And we are helping local councils deliver vital services and local infrastructure, investing \$3.2 billion for local road improvements, between 2014–15 and 2018–19, in addition to the Australian Government's annual Financial Assistance Grants for local governments, worth \$2.3 billion in 2015-16.¹⁵

Our Smart Cities Plan will continue to build on this significant investment in our cities.

Central to our Smart Cities Plan is a commitment to a cooperative approach to long term planning, targeted investment and reform.

Cities succeed and perform best when all tiers of government, the private sector and the community, work together to deliver a shared vision for their city.

That collaboration or partnership does not happen by chance.

That is why we are taking a new approach to cities.

Our Smart Cities Plan is made up of three pillars:

- **▶** Smart Investment
- Smart Policy
- Smart Technology

Each of these pillars is explained in more detail below.

Smart Investment

The Australian Government is a major contributor to infrastructure funding.

These investments must add value to those otherwise made by state and territory governments by delivering on national objectives and providing long term economic returns to all taxpayers.

That is why we are driving a new approach.

Smart Investment means:

- 1. Prioritising projects that meet broader economic objectives
- 2. Treating infrastructure funding as an investment wherever possible
- 3. Getting involved early to ensure rigorous planning and business cases
- 4. Increasing investment

1. Prioritising projects that meet broader economic objectives

We are carefully managing the transition from the mining investment boom to a more diversified economy.

Investment in productive infrastructure in cities and regional centres is a critical component of this.

The Australian Government makes contributions to projects that demonstrate positive economic benefits, largely assessed through Cost Benefit Analyses.

We are revising the National Guidelines for Transport System Management to provide for more consistent consideration of the economic benefits of projects, including through Cost Benefit Analyses.

We also support projects that promote broader national economic objectives such as long term growth and job creation. In cities this means prioritising infrastructure that improves accessibility, promotes agglomeration economies, and enhances amenity, housing affordability and sustainability.



Prioritising investments based on their longer term and broader economic impact creates a positive cycle of additional government revenues that can be reinvested in more infrastructure that grows the economy.

Investing in public transport

The Australian Government is committed to improving connectivity and reducing congestion in our cities. We will fund rail projects as well as roads, to unlock growth and improve access to jobs and services

Our current list of urban rail commitments include:

- \$95 million towards Gold Coast Light Rail Stage Two
- ➤ The Asset Recycling Initiative provides funding for transport and other infrastructure projects, including public transport—we have allocated \$59 million to the ACT Capital Metro project and are consulting with states and territories on their infrastructure priorities for the balance
- Partnering with the NSW Government to provide \$2 million for a joint scoping study on Western Sydney's rail transport needs, including access to the Western Sydney Airport

Each project is also evaluated for consistency with long term transport plans and metropolitan strategies to ensure a more strategic approach to investment.

This means selecting transport projects on their ability to provide a network wide solution and drive well located jobs and housing in addition to direct transport benefits such as travel time savings.

By prioritising infrastructure projects based on these criteria, we will be more confident that funds are going where they have greatest impact.

The Gold Coast light rail provides an example of this new approach.

All three levels of government have partnered to realise stage two of the project, which is expected to reduce congestion and stimulate urban renewal and jobs in the emerging health and knowledge precinct and tourism sector.

This project will continue the success of stage one of the light rail project, which drove a 25 per cent increase in public transport patronage on the Gold Coast in the first year alone.¹⁶

We have also reformed Infrastructure Australia, placing greater emphasis on Cost Benefit Analyses and assessing the extent project proposals are consistent with national priorities and state strategic plans.

2. Treating infrastructure funding as an investment wherever possible

The Australian Government has traditionally provided grants for infrastructure. This approach adds to our deficit and reduces incentives for state, territory and local governments to innovate in infrastructure funding and delivery, and partner with the private sector. Grants also do not encourage consideration of reforms likely to improve infrastructure planning and decision making.

We cannot afford to fund every project of merit from our Budget.

But as we need to deliver more impact with every dollar we spend, we need to look at alternatives.

We believe there are smarter and more innovative ways to fund and deliver infrastructure.

Infrastructure financing unit

The Australian Government will establish an infrastructure financing unit to work closely with the private sector in developing financing solutions to fund key government projects.

The unit will create integrated project teams with the private sector and key agencies to develop innovative financing solutions. This will include making use of the Commonwealth's ability to raise capital and finance, minimising the impact on the Budget.

This unit will broker investment in landmark projects, realising the benefits made possible by a coordinated approach to planning and investment.

We've already applied innovative financing approaches to WestConnex through a concessional loan and established a \$5 billion loan facility in Northern Australia.

We are also examining how we can ensure our investments in infrastructure can be held as long term assets—whether equity or debt. Where projects generate a direct financial return, it may make sense for the Australian Government to provide an investment of debt or equity, rather than a grant.



For example, we have contributed \$370 million in equity funding (plus land) towards Moorebank intermodal freight precinct. This investment will earn a return for the Australian Government and the mature asset can eventually be sold for a fair return to taxpayers.

Where the Australian Government contributes to an infrastructure project that will generate a financial return—such as a tolled expressway—we are looking to seek a fair share of that return.

This approach is about looking beyond short term horizons to deliver long term commercial returns for those who ultimately pay for the asset—the Australian taxpayer.

We have developed a new set of principles to identify and assess project proposals for innovative financing.¹⁷ You can read more about them on the Department of Infrastructure and Regional Development's **website**.

The Australian Government will be an informed and involved investor. This may require key conditions to be met as a prerequisite for funding, involvement in project development and delivery teams, and as a key investor, Australian Government approval at major decision points in a project.

3. Getting involved early in project planning and business cases

To ensure better outcomes and value for taxpayers, the Australian Government will be involved in planning and business case development for major projects. This now needs to happen earlier than has traditionally been the case.

Most nationally significant projects identified by Infrastructure Australia in their updated Infrastructure Priority List are early stage initiatives.

The Australian Infrastructure Plan recommended that prior to deciding to fund an infrastructure investment, governments should undertake project development studies.

The Australian Government has a strong interest in getting involved in these early stage projects and accelerating them to delivery, given long project development timeframes.

This means encouraging project proponents—state and local governments and the private sector—to work closely with the Australian Government on project proposals.

By being involved earlier, the Australian Government can also position itself as a cornerstone investor in suitable projects.

This will help provide certainty to other potential investors, particularly where innovative bids are sought for major public infrastructure projects.

This approach will help streamline Commonwealth assessment processes—as questions are asked and answered earlier, reducing project development costs and approval timeframes.

Infrastructure planning

The Australian Government will commit \$50 million to accelerate planning and development works on major transformational infrastructure projects, including urban rail.

The fund will support the work of the infrastructure financing unit, allowing for development of project business cases and financing and investment options to deliver the infrastructure our cities need.



4. Increasing investment

Our cities need smarter investment, but they also need more investment. At the same time, we cannot slow our progress towards a stronger budget.

Value capture is a way to distribute the costs and benefits of publicly funded infrastructure to facilitate a project that may not otherwise occur.

Forms of value capture are widely applied by state, territory and local governments, for example, developer charges, stamp duty, land tax and local rates.

Value capture also involves the development and sale of land above or adjacent to transport interchanges and government-owned land. Many jurisdictions have land development agencies that upzone and develop surplus government land for market sale.

All levels of government can do more to realise the potential benefits of value capture.

Value capture does not require new taxes, but it does require better coordination across governments with responsibility for administering value capture mechanisms.

We have a policy to explore value capture early in all business cases seeking Commonwealth funding for infrastructure. We will also issue a discussion paper on the Australian Government's approach to value capture.

By assessing each infrastructure proposal for the development opportunities it offers, the Australian Government can encourage the right settings for value capture.

Governments can use value capture to make infrastructure more affordable, deliver projects sooner, and accelerate urban renewal and housing supply.



Value capture

Major transport infrastructure projects deliver a range of benefits for our cities, including:

- ► Better connections to employment and services
- ► Reduced congestion, increased productivity and shorter travel times
- New opportunities for investment, development and urban renewal

Because of these benefits, new infrastructure projects tend to make the land around them more valuable. Value is added again when land is rezoned, and then when development is approved by government for increased height and density.

Value capture uses a share of this increased value to help finance the infrastructure responsible for the uplift.

Internationally, the most successful value capture projects involve transformative heavy rail projects—such as high speed rail, airport rail links or metro systems.

The Hong Kong metro system is largely funded by the sale of development rights above and next to train stations. The Crossrail project in the UK is partly funding a new railway network through revenue from the development of land around new stations.

In Australia, stage 1 of the \$949 million Gold Coast Rapid Transit light rail was partially funded through the City Transport Improvement Charge levied by local government on ratepayers.

Value capture depends on integrated planning and infrastructure investment.

Stakeholder engagement and community consultation is also crucial. Both are needed to reach consensus on the use of value capture and provide certainty about the long term benefits and contributions expected.

Done right, value capture can accelerate infrastructure investment alongside urban renewal, and deliver benefits for households, governments, businesses and developers.

Importantly, value capture only provides these benefits when projects genuinely create new value. The model will not be suitable for all projects but should be considered on a project by project basis.

Smart Policy

All levels of government contribute to the development of our cities. We recognise that coordinating action and investment in cities is not easy, and that this challenge is magnified by the budgetary constraints confronting all tiers of government.

However, funding alone will not resolve congestion, housing affordability and accessibility impacting on the liveability of our cities.

The Australian Infrastructure Plan makes clear, that if we do not undertake reforms, Australian cities will face "a future of congestion and constraint" with "increasing bottlenecks and costly delays".

That will "mean it takes longer for Australians to get to work or home, our goods will take longer to reach ports and shops, and the many services we rely on from infrastructure will decline".

For our part, the Australian Government can and should examine new ways to fund the infrastructure that make our cities more liveable and productive.

But states, territories and local government must equally be prepared to remove bottlenecks that add costs to development and make our urban environments more prone to congestion and unresponsive to housing needs. We must harmonise regulations increasing costs and impeding the provision of goods, services and skills across boundaries.

We equally must reform the settings through which infrastructure for our growing cities and regions is planned, funded, delivered and operated.

Fundamentally, making our cities better must start with an acceptance by all levels of government that a strategic approach is necessary—one that identifies clear, unambiguous processes, timeframes and accountabilities for city level reforms.

This requires Smart Policy:

- 1. Delivering 'City Deals'
- 2. Leading regulatory reform
- 3. Measuring success

1. Delivering 'City Deals'

City Deals will deliver better outcomes through coordinated investment in cities of all sizes.

In addition to being more strategic, Australian Government funding will be linked to reform and incentivise actions and accountabilities at the state and local level.

Through City Deals, governments, industries and communities will develop collective plans for growth and commit to the actions, investments, reforms and governance needed to implement them.

Some City Deals will cover a whole city and surrounds, and others will focus on a specific urban centre, regional or metropolitan—wherever all three levels of government can partner to support economic growth and quality of life.

Many of our regional cities, where there is a single local government responsible for metropolitan planning, are especially well placed to take advantage of City Deals.

City Deals will be structured around nationally and locally informed objectives, with a focus on economic growth, jobs creation, housing affordability, and environmental outcomes.



For example, a City Deal may include:

- ► Targeted initiatives to strengthen existing or emerging economic hubs including transport, industry, defence, health or education facilities
- ► Transport infrastructure funding or financing to improve connectivity and increase access to jobs
- ► Housing supply and planning changes to encourage higher density development, affordable housing and activate value capture
- ► Changes to regulatory and zoning arrangements that foster commercial growth and allow entrepreneurial approaches to service delivery including the sharing economy
- ▶ Investments that improve environmental outcomes, enhancing public spaces, facilities and active transport options, reducing emissions and pollutants, or improving the sustainability performance of buildings and infrastructure
- Maximising benefits from underutilised state and Commonwealth land for example, repurposing government land to be used for affordable housing or public space
- ▶ Integrating environmental criteria into decision making—such as green coverage to minimise urban heat island impacts, reducing localised air pollution from investments, reducing waste and increasing recycling

Specific actions will be negotiated on a case-by-case basis, with regard to local objectives and opportunities.

Though each City Deal will be unique, the foundational elements include:

- Defined geographic area
- ► Clear outcomes and actions
- Specific capital investments connected to reform
- ► Clear governance arrangements, delivery timeframes and accountabilities
- Performance measurement, including the indicators and methodology to be used

Since 2012, the UK has used City Deals to prioritise government investment in cities.

While the UK model is not directly applicable to Australia because of our different federal system, it is a demonstration of what can be achieved when policy, investment and regulatory decisions are taken together to look at cities' needs as a whole.



UK City Deals: Manchester

The first of over 20 UK City Deals covered Greater Manchester, involving 10 local governments making up the Greater Manchester Combined Authority (GMCA). The Great Manchester City Deal features:

- ▶ Investment: a £1.2 billion local transport infrastructure fund was created to drive growth, rewarded through 'earn back' funds from the central government of up to £30 million a year for 30 years for meeting growth targets
- ▶ **Business support:** a £4.4 million Regional Growth Fund allocation is strengthening Greater Manchester's Business Growth Hub to help startups, and small and medium-sized enterprises
- ► **Skills:** a City Apprenticeship and Skills Hub was created to place around 6,000 apprentices in jobs
- ► Transport: GMCA's delivery arm, Transport for Greater Manchester, is implementing a £1.4 billion transport expansion and improvement program
- ► Housing: a housing investment fund has been established, using local and national investment funds to develop 5,000 to 7,000 new homes by 2017
- ▶ Reduced carbon emissions: a Low Carbon Hub has been established, with plans to reduce the city's emissions by 48 per cent by 2020¹¹9

2. Leading regulatory reform

Successive Productivity Commission reviews and the *Australian Infrastructure Plan* have consistently emphasised the need for reform in our cities to drive strategic planning to make it easier to invest and do business.

That's why we are working in partnership with governments to improve regulation in a number of key areas. City Deals introduces a new vehicle through which the Australian Government will engage with states and territories on regulatory and policy reform.

For example, regulatory and policy reforms may include:

Planning, land use and housing

- ▶ Reduce development assessment processing time and inconsistencies so that we strike the right balance between appropriate quality, sustainability and safety standards and responsiveness to housing supply and affordability
- ➤ Subject planning and zoning rules to a public interest test to ensure the benefits of restrictions to the community outweigh the costs
- ▶ Align transport and metropolitan level planning strategies to ensure a holistic and long term approach to infrastructure planning and investment including the protection of important corridors and precincts for future uses
- ▶ Review tenancy and tenure rules to consider how renters can have better access to affordable housing and greater certainty around living arrangements. This will also apply to the renewal of retail strips in many cities as more flexible tenure allows new service providers to experiment and innovate
- ▶ Investigate innovative models for financing affordable housing to address the shortfall in social and affordable housing through innovative ways to leverage investment

Housing supply and affordability

To support Australia's growing population, our cities must provide an adequate supply of affordable housing in well located areas. In addition to considering those policy levers held at the Commonwealth level, we will work across governments to support land supply, planning and development processes and encourage coordinated delivery of housing, transport infrastructure and jobs.

The Turnbull Government is boosting the supply of land and housing through

- Investments in transport projects that drive urban renewal and housing supply
- ► City Deals that will create incentives to streamline planning and development approvals, and meet long term housing supply targets
- ► Taking an innovative approach to investment in affordable and social housing—building on the outcomes of our Affordable Housing Working Group

Better governance

- ▶ Improve regional coordination. OECD research suggests that cities with fragmented governance structures have lower productivity.²⁰ We need more coordinated systems for planning our cities as a whole. Structural reform of city governance is not the only option, with cities such as Sydney and Perth legislating to establish administrative bodies responsible for coordinating planning across councils within metropolitan regions
- ▶ Deliver more certainty and consistency in planning, infrastructure investment and development across a city. Long term metropolitan strategies, infrastructure and land use plans that are discarded and subsequently redrafted by incoming governments create uncertainty, delay and cost for developers and communities. The Australian Government will act as a responsible investor, partnering more effectively with other levels of government to improve certainty and consistency in city planning and the resultant infrastructure projects

Environment

- ▶ Streamline long term environmental planning outcomes by completing large scale strategic assessments under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This means individual developments do not need Australian Government environmental approval provided they comply. Strategic assessments provide greater environmental outcomes, certainty for investors and developers and can reduce the cost for businesses
- ▶ Improve air quality in urban areas through the National Clean Air Agreement. Preliminary work is underway towards a National Air Quality Data Service and standards for cleaner and lower emission vehicles and fuel
- ► Improve the fuel efficiency and emissions of Australia's light vehicle fleets by progressing measures through our Ministerial Council on Vehicle Emissions
- ▶ Encourage the use of ratings systems to improve the system of sustainability performance for Australian buildings including commercial buildings, homes and other properties. This includes for example the Green Star built environment standards, developed by the Green Building Council of Australia and the National Australian Built Environment Rating System (NABERS). Put simply, NABERS measures the energy efficiency, water usage, waste management and indoor environment quality of a building or tenancy and its impact on the environment

- ► Facilitate carbon neutral precincts as a means of claiming emissions reduction credits—this will be a global first
- ► Apply science to deliver innovative policy making and regulatory reform through the National Environmental Science Programme and National Climate Change Adaptation Research Facility

Competition and business

- ▶ Review regulations impacting the competitiveness and operation of Australian businesses: Reforms will be considered in the context of the Harper Competition Review and complementary processes such as the Government's response to Infrastructure Australia's 15 year Australian Infrastructure Plan
- ▶ Review regulations that impact innovative technologies and the sharing economy to allow communities to benefit from digital disruption. Reforms will be considered in the context of the Harper Competition Review to ensure regulation is consumer-focused and flexible enough to allow for adoption of new technology and ways of doing business

Transport

▶ Drive long term reforms to create a more effective market for land transport—this includes road transport, for heavy and light vehicles as well as rail and other public transport. The goal is not to make transport more expensive but to move to a system where what people pay is more closely linked to the cost of their transport use

3. Measuring success

We are committed to responsible spending and progress—and we will hold ourselves and our investment partners to account.

It is important that we are able to measure the success of our Smart Cities Plan, particularly our City Deals which will outline defined development goals.

For many of these goals, there is no baseline data readily available to determine and track a city's performance.

We will work with the states and territories, councils, communities and the private sector to identify key city metrics and the data required to assess performance.

This data will be critical in the design of targeted policies, reforms and capital investments, and to measure the effectiveness of these actions.

The achievement of productive, accessible and liveable cities fundamentally lies in unambiguous targets, accountabilities and timeframes for city-level reforms, and our ability to understand if we are heading in the right direction.



Smart Technology

Our cities are evolving quickly as new technologies emerge at an unprecedented scale and pace.

There is an opportunity for our cities to leverage these new technologies.

Smart Technology means:

- 1. Thinking of technology solutions first
- 2. Leveraging open and real time data
- 3. Driving use of energy efficient technologies

Thinking of technology solutions first

We need to encourage a technology first approach.

Whether it's the private sector or states and territories, technology can provide a unique and creative solution to the challenges we face.

For example, disruptive technology and the rise of the sharing economy can deliver great customer experience with customised transportation.

While it may be difficult to predict exactly when we will see widespread use of automated cars in our cities, when we do the impact is likely to be transformational. These technologies will fundamentally change how we live and work, as well as other new innovations that are just over the horizon.

Informed by open data and analytics, our transport challenges become a matter of public domain, creating a platform for private sector innovative solutions that generate network efficiencies, improve transport services and stimulate new markets. It is these types of innovations that can help us to reimagine our cities.

The Australian Government has strengthened its assessment of infrastructure projects and now examines the extent to which new technologies are used to improve the efficiency, sustainability and services of infrastructure networks.



2. Leveraging open and real time data

Businesses and start-ups are taking advantage of information and communications technology, including the National Broadband Network, to provide new types of real time personalised services.

The take up of technology such as smart phones in Australia, combined with access to and use of data across the public and private sector represents an enormous resource for innovation, better services and efficient use of infrastructure in our cities.

For example, data and analytics can inform city planning and infrastructure investment with great potential to improve decision making. Digital communications have the potential to revolutionise the way governments engage with communities in the development of metropolitan and local plans and services.

Sharing anonymised data from our cities will make urban problems and solutions more contestable—an essential platform for innovation.

Under the National Innovation and Science Agenda, the Australian Government is releasing more non-sensitive public data for private sector innovation, and is using this data to improve service delivery and to inform policy.

Governments at all levels hold a vast amount of valuable and unique data. We will work across state and local governments to encourage greater access and use of anonymised, machine readable data that will help make government more citizen-focused and stimulate innovation in service delivery.

3. Driving use of energy efficient technologies

The Australian Government is focused on innovation in climate change technology.

Our Clean Energy Finance Corporation (CEFC) invests commercially to increase the flow of funds to renewable energy, energy efficiency and low emissions technologies.

The CEFC is financing the deployment of new technologies and more efficient systems in cities, including through its \$250 million energy efficient housing fund to reduce energy costs, which can be a substantial burden on low income tenants.

The Australian Government also recently established a new \$1 billion Clean Energy Innovation Fund, which every year will invest up to \$100 million in the smartest, cutting edge Australian clean-energy technologies and businesses.

The Emissions Reduction Fund provides opportunities for Australian businesses and local governments to reduce greenhouse gas emissions and earn carbon credits by adopting smarter practices.

These include upgrading public and commercial lighting, reducing the energy use of buildings and improving the efficiency of commercial vehicle fleets.

Driving innovation in our building stock, including new materials, green roofs and walls, modular construction and solar energy with battery storage is also important.

These efforts are underpinned by the Cooperative Research Centre (CRC) for Low Carbon Living and supported through the Clean Energy Finance Corporation and Emissions Reduction Fund.

The National Energy Productivity Plan includes a number of measures such as the Minimum Energy Performance Standards (MEPS) for appliances, National Australian Built Environment Rating System (NABERS) and updates to the National Construction Code to improve sustainability and resilience in the built environment.

These investments will ensure that we not only drive jobs and innovation in Australia but play our part in cracking the challenging technical difficulties we face in reducing emissions in our cities.





Chapter FourGet involved

Our Smart Cities Plan recognises the importance of our urban centres—metropolitan and regional—to our economic, social and environmental wellbeing.

New approaches such as City Deals, could transform the way governments work together, with the community and private sector, to plan and build our cities.

All Australians are encouraged to share their ideas to help shape our cities of the future. Submissions on the Smart Cities Plan are open now, until 24 June 2016.

Your input will guide our engagement with states and territories, including the formation of City Deals that foster growth and position our cities to prosper.

If our cities are to continue to meet their residents' needs, it is essential for people to engage and participate in planning and policy decisions that have an impact on their lives.

To join the conversation go to: www.dpmc.gov.au/cities



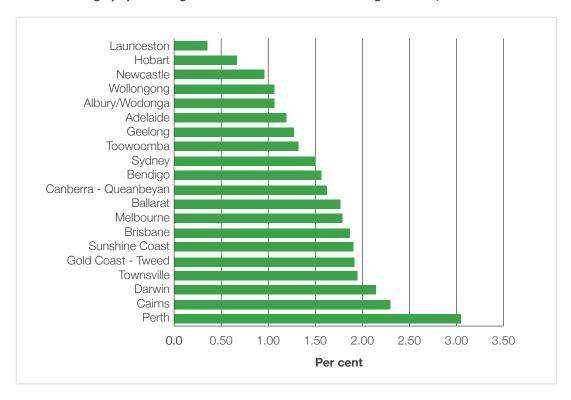


Chapter Five Appendix

1 The 2006 and 2011 Censuses showed that Australia's major cities now house more than three quarters of our population.

The Australian Bureau of Statistics also compiles average growth rates for Australia's 20 largest cities, which show positive growth from 2009 up to 2014.

Annual average population growth rate for Australia's 20 largest cities, 2009-2014

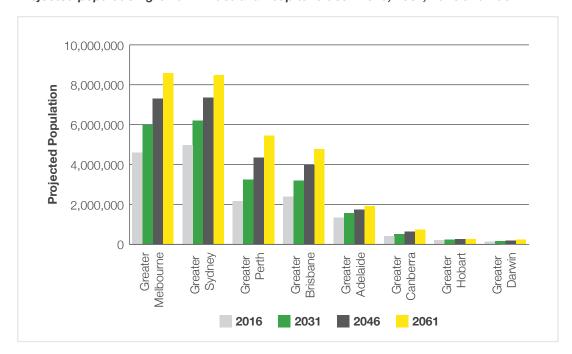


Note: Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart and Darwin use Greater Capital City Statistical Areas. All other cities use Significant Urban Areas.

Australian Bureau of Statistics (ABS), Australian Demographic Statistics, 2015 cat. no. 3101.0, Canberra, 2015

In 2015 Infrastructure Australia released the Australian Infrastructure Audit which projected population growth in all Australian capitals cities from 2016 up to 2061, using ABS series B projections.

Projected population growth in Australian capital cities -2016, 2031, 2046 and 2061

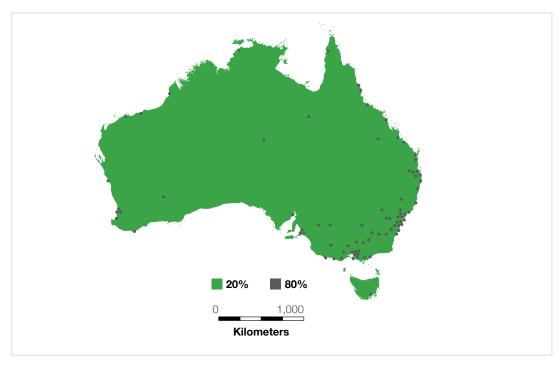


Infrastructure Australia, *Australian Infrastructure Audit - Supplementary Reports - Population Estimates and Projections*, Commonwealth of Australia, Sydney, 2015.

2 In 2014 the Grattan Institute released a report mapping Australian economic activity based on location, it shows that 80 per cent of economic activity is concentrated in and near cities.

The economic contribution of different regions can be measured in a variety of ways. A consideration of contribution to national exports, terms of trade, or national income would produce different results.

Economic activity in Australia is concentrated in and near cities—80–20 distribution of economic activity, 2011–12



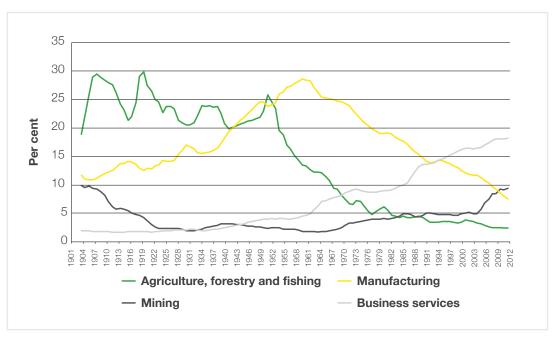
Kelly J-F, Donegan P, Chisholm C, Oberklaid M, *Mapping Australia's Economy: Cities as engines of prosperity*, Grattan Institute, Melbourne, 2014.

3 Around 1.9 million Australians live in cities with populations between 25,000 and 100,000 residents based on Australian Bureau of Statistics population estimates by Significant Urban Area outside of Greater Capital City Statistical Areas.

Australian Bureau of Statistics (ABS), *Regional Population Growth, Australia, 2014-15, Population estimates by significant urban area outside of GCCSA and between 25,000 and 100,000, 2016 cat.* no. 3218.0, Canberra, 2016.

4 The 2014-15 State of Australian Cities report shows the industry share of total Australian Gross Domestic Product for select industries from 1901 up to 2012.

Industry share of total Australian Gross Domestic Product for selected industries, 1901–2012



Department of Infrastructure and Regional Development, State of Australian Cities 2014-15, Commonwealth of Australia, Canberra, 2015.

5 City of Sydney research from 2014 showed that over the preceding 5 years, the City of Sydney area saw 2,000 new businesses open and more than 50,000 new jobs created. And across the entire metropolitan Sydney area, 40% of the total job growth took place in the City local government area.

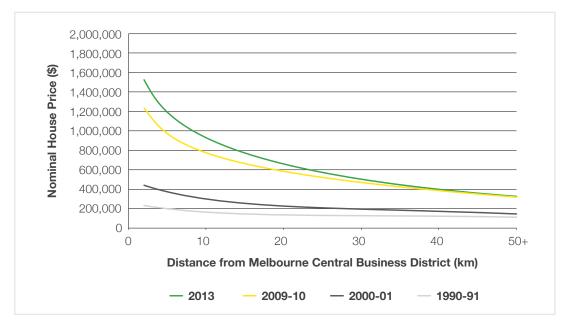
City of Sydney, *City leads Sydney jobs growth*, City of Sydney, Sydney, 2014, viewed 30 March 2016, http://www.cityofsydney.nsw.gov.au/business/business-e-news/business-news-april-2014/city-leads-sydney-jobs-growth

6 Modelling released by accounting firm Price Waterhouse Coopers (PwC) in 2014 found Macquarie Park's economic output was \$9.1 billion in the previous financial year, having doubled in a decade, and ranked Macquarie Park as Australia's tenth biggest location for economic output, behind North Sydney and Adelaide CBD. The report predicts that Macquarie Park will become NSW's second largest economy and Australia's ninth in the next four to five years.

Tourism & Transport Forum, PwC. Better Public Transport. Better Productivity: The economic return on public transport investment. PwC, Sydney, 2014, viewed 26 April 2016, http://www.urbanaffairs.com.au/downloads/2014-11-18-4.pdf

7 The 2014-15 State of Australian Cities report shows house prices vs distance from the Melbourne CBD, for selected years from 1990-91 up to 2013.

House prices vs distance from CBD, Melbourne for selected years



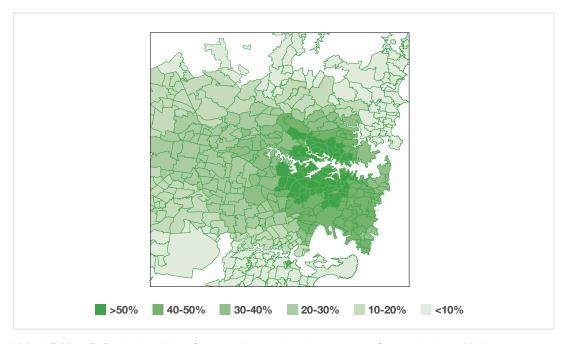
Department of Infrastructure and Regional Development, *State of Australian Cities 2014-15*, Commonwealth of Australia, Canberra, 2015.

8 In 2015 Deloitte released a report on Western Sydney which found that a net outflow of 200,000 people leave the region each day for work. This is forecast to grow to 340,000 by 2041.

Deloitte, *Shaping Future Cities: Designing Western Sydney*, report prepared by Rezek D, Psychogios T, Artup B supported by the Premier of NSW, Deloitte, Sydney, 2015.

9 In 2013 the Grattan Institute found that outer suburbs have poorer access to the most attractive jobs. Based on 2011 statistics the percentage of jobs that can be reached in 45 minutes by car in Sydney is shown in the map below.

Access to jobs falls away in Sydney's outer suburbs—percentage of jobs that can be reached in 45 minutes by car, Sydney, 2011



Kelly J-F, Mare P, *Productive cities: Opportunity in a changing economy,* Grattan Institute, Melbourne, 2013.

10 In 2015 the Bureau of Infrastructure, Transport and Regional Economics estimated that urban congestion costs over \$16.5 billion every year. This is forecast to reach between \$27.7 and \$37.7 billion by 2030.

Bureau of Infrastructure, Transport and Regional Economics (BITRE), *Traffic and congestion cost trends for Australian capital cities*, Information Sheet 74, Commonwealth of Australia, Canberra, 2015.

11 In 2013 the Bureau of Infrastructure, Transport and Regional Economics released a report on population growth, job growth and commuting flows, showing that average commuting times in Australian cities remain under 90 minutes per day.

Bureau of Infrastructure, Transport and Regional Economics (BITRE), *Population growth, jobs growth and commuting flows – a comparison of Australia's four largest cities,* Research Report 142, Commonwealth of Australia, Canberra, 2013.

12 In 2013 BITRE found that over 70 per cent of livestock and 44 per cent of grain exports are processed through capital city ports.

Bureau of Infrastructure, *Transport and Regional Economics. Unpublished analysis based on Trade Statistics 2011/12 and 2012/13 from Ports Australia [Internet].* Sydney: Ports Australia; 2013 [cited 2016 March 18]. 30 p. Available from: http://www.portsaustralia.com.au/aus-ports-industry/trade-statistics/?period=13>

13 In 2014 it was reported by Business Insider Australia that one in four job seekers in Australia are searching for work abroad.

McKenna G, Almost 1 in 4 Australian job seekers are looking for work overseas, Business Insider Australia, 2014, viewed 23 March 2016, http://www.businessinsider.com.au/almost-1-in-4-australian-job-seekers-are-looking-for-work-overseas-2014-7

14 Red tape reductions have reduced regulatory costs by \$4.8 billion.

Australian Government, *Annual Red Tape Reduction Report 2015*, Commonwealth of Australia, Canberra, 2015, viewed 30 March 2016, https://cuttingredtape.gov.au/annual-reports>

15 Local councils received \$3.2 billion between 2014-15 and 2018-19 for local road improvements, in addition to \$2.3 billion in Financial Assistance Grants in 2015-16.

Truss W (Former Deputy Prime Minister, Former Minister for Infrastructure and Regional Development), Financial Assistance Grants to benefit NSW councils, media release, 18 August 2015, Department of Infrastructure and Regional Development, Canberra, viewed 30 March 2016, http://minister.infrastructure.gov.au/wt/releases/2015/August/wt258_2015.aspx

16 Stage one of the Gold Coast light rail project drove a 25 per cent increase in public transport patronage on the Gold Coast in its first year.

Fletcher P (Minister for Major Projects, Territories and Local Government), Turnbull M (Prime Minister) & Palaszczuk A (Premier of Queensland), *Stage two of Gold Coast light rail in track for Commonwealth Games*, joint media release, 10 October 2015, Department of Infrastructure and Regional Development, Canberra, viewed 30 March 2016, http://minister.infrastructure.gov.au/pf/releases/2015/October/pf008_2015.aspx

17 In 2016 the Australian Government developed a new set of principles to identify and assess project proposals for innovative financing.

Department of Infrastructure and Regional Development, Principles for Innovative Financing, Commonwealth of Australia, Canberra viewed 30 March 2016, http://investment.infrastructure.gov.au/whatis/Principles_for_Innovative_Financing_Mar2016.pdf

18 The 2016 Australian Infrastructure Plan makes clear that Australian cities will face a "future of congestion and constraint" if we do not undertake reforms to infrastructure in Australia.

Infrastructure Australia, Australian Infrastructure Plan: Priorities and reforms for our nation's future, Commonwealth of Australia, Sydney, 2016.

19 The Greater Manchester City Deal, signed in 2012, is a demonstration of what can be achieved when policy, investment and regulatory decisions are taken together to look at individual cities' needs as a whole.

Greater Manchester Combined Authority (GMCA), *Greater Manchester City Deal*, Greater Manchester Combined Authority, Manchester, 2012, viewed 28 March 2016, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221014/Greater-Manchester-City-Deal-final_0.pdf.

20 In 2014 the Organisation for Economic Co-operation and Development found that cities with fragmented governance structures have lower productivity.

Organisation for Economic Co-operation and Development (OECD), *What makes cities more productive? Evidence on the role of urban governance from five OECD countries,* report prepared by Ahrend R, Farchy E, Kaplanis L, Lembcke A, OECD Regional Development Working Papers, No. 2014/05, OECD Publishing, France, 2014.





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