

**the
context**

1.0 The context

1.1 Why Infrastructure NSW has prepared an updated State Infrastructure Strategy

On 31 July 2014, the NSW Premier directed Infrastructure NSW to prepare and submit a revised 20 year State Infrastructure Strategy under section 16(3) of the *Infrastructure NSW Act 2011* (the Act).

The Premier also directed that, in developing this Report, Infrastructure NSW should take into account the following State strategic priorities in accordance with section 17(3) of the Act:

- Allocation of \$20 billion to Restart NSW for investment in infrastructure over the term of the Strategy, established from the proceeds of the long-term lease of 49 per cent of the State's 'poles and wires' electricity network businesses
- *Sydney Rapid Transit*, comprising the extension of rapid transit services between Bankstown and the North West Rail Link, via the CBD and a second harbour crossing
- *Sydney Roads Renewal* – major projects to address congestion on key arterial routes across Sydney, including in Southern Sydney, the West and Northern Beaches, and the augmentation of WestConnex with greater north/south connectivity

- A *Regional Roads Fund* with an expected contribution of at least \$1 billion in funding to invest in upgrades to the regional road network
- A *Regional Water Fund* with an expected contribution of at least \$1 billion in funding to improve water quality and security in regional NSW
- A *Schools and Hospitals Building Fund* with an expected contribution of a least \$2 billion to provide health and education infrastructure to improve services and support population growth in Sydney and across NSW
- A *Sporting and Cultural Infrastructure Fund* with an expected contribution of at least \$500 million to build and improve sporting and cultural infrastructure that will increase the economic capacity of the State and have both strategic and social value.

This Report contains Infrastructure NSW's revised assessment of the State's long-term economic and social infrastructure needs and priorities, and its advice to the NSW Government, in accordance with Section 16 of the Act. The Report covers metropolitan public transport, urban roads, international gateways, regional and interstate transport, water, health, education, energy, and sports and cultural infrastructure.

Infrastructure NSW's findings represent independent advice to the NSW Government in the context of the *Rebuilding NSW* initiative and do not constitute Government policy.

The recommendations in this Report relate both to the Premier's stated strategic priorities and to other investments and initiatives which Infrastructure NSW considers will grow the State's economy and enhance its productivity. For consistency with the Government's strategic planning settings, this Report has generally adopted a planning horizon to 2031.

It is proposed that the net proceeds from the *Rebuilding NSW* initiative to lease 49 per cent of the State's electricity network assets will be deposited in the Restart NSW Fund (see box, right) to accelerate delivery of priority projects identified by Infrastructure NSW in this Report.

Restart NSW Fund

The NSW Government established Restart NSW to fund infrastructure projects that improve economic growth and productivity for NSW. The Restart NSW Fund receives money from asset sales, Waratah Bonds, interest income and windfall tax revenue. By the end of 2013/14, around \$6.7 billion had been deposited in the Restart NSW Fund.

Infrastructure NSW is responsible for independently assessing project proposals and making recommendations to the NSW Government for use of the funds. To date, the Fund has supported a range of projects including the Bells Line of Road Improvement program, the Bridges for the Bush program, Pacific Highway upgrade and the WestConnex motorway scheme.

Thirty per cent of Restart's investment portfolio is directed to projects in regional NSW (outside the cities of Newcastle, Sydney and Wollongong). This includes the allocation of 3 per cent to the Resources for Regions program for mining affected communities.

Infrastructure NSW has implemented an enhanced investment review of the business cases and gateway assurance processes to support the development of recommendations for these and all future Restart investments.

Functions of Infrastructure NSW

Infrastructure NSW was established to advise the Premier on the needs and strategic priorities for infrastructure in NSW.

Infrastructure NSW's purpose is set out in the *Infrastructure NSW Act 2011*, which tasks the agency with 14 functions, including:

- Preparation and submission to the Premier of a 20 year State Infrastructure Strategy
- Preparation and submission to the Premier of annual rolling five year infrastructure plans (or at any other time requested by Premier) and other plans as requested by the Premier
- Preparation of sectoral State infrastructure strategy statements
- Review and evaluation of proposed major infrastructure projects by Government agencies or the private sector
- Advice on infrastructure planning and delivery assessment, economic or regulatory impediments and funding models
- Coordination of infrastructure submissions by NSW to the Commonwealth Government.

Part 4, Section 17 of the Act provides that Infrastructure NSW's 20 year State Infrastructure Strategy must assess the current State of infrastructure in NSW and the needs and strategic priorities for infrastructure in NSW for the next 20 years. In doing so, Infrastructure NSW is to have regard to any State strategic priority advised by the Premier.

1.2 Developments since the 2012 State Infrastructure Strategy

Infrastructure NSW's inaugural 20 year State Infrastructure Strategy, *First Things First*, was provided to the NSW Government in September 2012. It outlined a forward program of urban and regional projects and reforms across the State's social and economic infrastructure over the next 5, 10 and 20 years. A summary of the Government's progress in delivering the strategy is provided below.

The focus of *First Things First* was on transport and social infrastructure projects and initiatives designed to improve State productivity and competitiveness, reduce urban congestion, improve regional connections and enable the efficient delivery of critical public services. The broader infrastructure imperative was to stimulate and support growth.

The Government has made significant early steps towards implementing its 20 year vision for State infrastructure, set out in its response to *First Things First*. In each of the past two Budgets, progress in implementing key commitments has been tracked in the annual State Infrastructure Plan (Budget Paper 4), based on the advice of Infrastructure NSW.

While good progress is being made, the *Rebuilding NSW* initiative offers a once-in-a-generation opportunity to accelerate capital investment and infrastructure reform to sustain long-term improvements in productivity and workforce participation, support strong population growth and meet the challenges emerging from a rapidly changing global marketplace.

Progress in delivering the 2012 State Infrastructure Strategy

The NSW Government's 2012 State Infrastructure Strategy progresses the recommendations it adopted from *First Things First*, prioritising major projects aimed at improving productivity growth and contributing to economic growth across transport, utilities, health and education.

The Strategy commits the Government to commencing delivery of 39 projects within the first five years. Two years into implementation, Infrastructure NSW finds good progress is being made, including on the following projects:

- **Pinch point solutions** to improve congestion and road efficiency around growing urban centres – the 'Urban Roads Pinch Point Program, Greater Metropolitan Area received \$121 million of Restart funding in 2013–14 and a further \$125 million from the Government, with projects on-track for delivery.
- **F3 to M2 link (NorthConnex)** – the Government expects to consider the final bidding offer from Transurban and Westlink M7 to deliver the motorway in late 2014.
- **WestConnex** – environmental assessments are being prepared for Stage 1 of the project, with a short list of companies to construct the M4 widening announced in March 2014.
- **North West Rail Link** – the project is in delivery phase, and is on-track for completion by 2019.
- **Opal Card** (integrated ticketing) and incentives to encourage off-peak travel – progressive roll out of the Opal Card is under way and expected to be completed by the end of 2014.
- **Bridges for the Bush** – staged construction of a program of works to replace and upgrade bridges on key freight routes in NSW commenced in 2013–14.
- **A corridor for the Bells Line of Road and the Castlereagh Freeway** – corridor investigation studies have commenced. Restart funding of \$28 million was provided in the 2013/14 budget to commence Bells Line of Road Corridor improvements.
- **Health care precincts with clusters of related private and public health services** – the Northern Beach Hospital is being delivered under this model. Construction is commencing in 2014 and is expected to be completed by 2018.
- **Sydney International Convention, Exhibition and Entertainment Precinct** – the project is in construction phase and on-track for completion in 2016.

1.3 NSW's economy is resurgent

NSW has a diverse economy, led by a large services sector that makes up about 80 per cent of all of the State's economic activity.⁸

Knowledge-based industries such as finance and insurance and professional, scientific and technical services are a particular economic strength, accounting for nearly a quarter of State production.

The NSW unemployment rate, at 5.8 per cent, is below the national average of 6.2 per cent,⁹ with about 130,000 jobs added in the NSW economy since April 2011.¹⁰

The economic diversity of NSW is minimising the impact of the broader national transition away from resource-driven growth. Recent economic data confirms that NSW is re-emerging as the engine room of the national economy, reflecting strong growth in household demand for goods and services, a resurgent housing sector and low interest rates.

While the NSW economy is well positioned, challenges remain.

1.3.1 The three Ps: population, productivity and participation

The drivers of economic growth are the three Ps: population, productivity and workforce participation. Securing the economic future of NSW is a long-term process and indicators suggest that more needs to be done, particularly to improve the productivity of the State's labour force. To secure a more prosperous future, the investment strategy for *Rebuilding NSW* should aim to unlock and enable higher rates of productivity and economic growth than would otherwise be achievable.

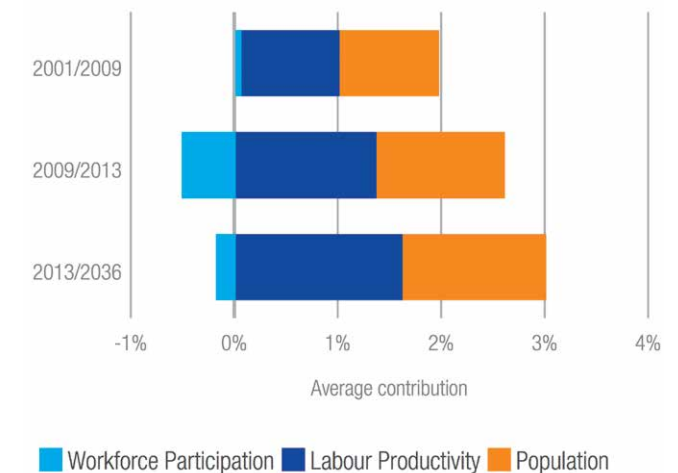
Figure 1.1 shows the relative historical contributions of population growth, labour productivity and workforce participation to the growth of the NSW economy.

Population growth increases the size of markets. Larger markets indirectly support productivity through greater specialisation, diversity and innovation, spreading fixed costs across a broader consumer base and deepening the pool of businesses competing to service consumer needs.

However, population growth brings challenges. More people can increase pressures on infrastructure and public amenity – pressures that must be managed effectively if they are not to have an adverse impact on economic performance and quality of life.

Figure 1.1 shows the relative historical contributions of population growth, labour productivity and workforce participation to the growth of the NSW economy. The graph shows that in the last five years, average annual labour productivity growth has risen from 1.0 per cent to almost 1.4 per cent. This has meant average economic growth rates have been sustained, despite

Figure 1.1 Average contributions to NSW's economic growth, 2001 – 2036



Source: Deloitte Access Economics

lower workforce participation (which has detracted from growth by around 0.5 per cent a year). In other words, greater labour productivity has offset declining workforce participation.

This will need to continue over the life of the State Infrastructure Strategy. By 2030 the proportion of the population aged 65 and over will be nearly 20 per cent, up from 13 per cent in 2010 – leading to further reductions in workforce participation. As our population ages, the imperative will be to drive the productivity enhancements needed to sustain economic growth and improved living standards.

8. Deloitte Access Economics
 9. Australian Bureau of Statistics, Cat No. 6202.0, *Labour Force*, October 2014 seasonally adjusted data, published 6 November 2014
 10. Australian Bureau of Statistics, Cat No. 6202.0, *Labour Force*

Infrastructure is critical to unlocking productivity growth by:

- **Reducing key input costs:** Reducing the cost and improving the reliability of the infrastructure-based services on which NSW businesses depend improves their competitiveness. For instance, properly targeted transport investments reduce congestion costs for freight and logistics industries; export industries such as agriculture and mining depend upon reliable supplies of water; and manufacturing processes require affordable sources of energy.
- **Supporting better uses of land:** Infrastructure shapes the urban form, improving the use of scarce, well-located land and minimising everyday transaction costs. For instance, greater transport accessibility enables warehousing and manufacturing firms to relocate to cheaper land without sacrificing connections to markets and suppliers. Higher density infill housing development needs a transport system capable of accommodating additional travel without causing excessive congestion.
- **Better connecting and skilling workers:** Efficient transport links to major employment centres improve the efficient functioning of labour markets. The right investments in health and education services (and supporting infrastructure) can also support the economy by improving skills and workforce participation.
- **Supporting export industries:** Efficient transport connections help link the State's producers to overseas markets through international gateways

Rebuilding NSW will boost the NSW economy

Modelling undertaken for Infrastructure NSW by Deloitte Access Economics suggests that the *Rebuilding NSW* initiative and the investments proposed in this Report could effectively increase NSW Gross State Product (GSP) by \$30.9 billion to 2035 – an increase of 3.6 per cent over the level of GSP that would occur without the plan – and add about 122,000 more jobs. The increase in GSP comes largely from the reinvestment of funds into productive infrastructure.

Reinvestment in infrastructure will allow Sydney to better manage the increase in population and economic activity that will occur over the coming decades. Better infrastructure will also help to attract more people and business to Sydney by creating easier access to jobs and markets– boosting economic growth and productivity. The Deloitte Access Economics report titled Economic Impact of the SIS including Rebuilding NSW outlines the impact on population, jobs and the economy and is available on Infrastructure NSW's website.

such as Sydney Airport and NSW's key ports, while investment in high quality cultural and sporting infrastructure boosts the visitor economy and makes NSW a more attractive place to live and work, boosting business and skilled migration.

Given the challenges ahead over the next 20 years, and the fact that productivity is the key long-run driver of economic performance, it is critical that NSW directs its limited resources to where they will be most effective.

Infrastructure NSW's advice to the Government in implementing the *Rebuilding NSW* initiative – and in relation to each of the investments proposed in this Report – pursues the twin priorities of enabling productivity gains and supporting sustainable population increases.

However, given the challenges posed by population increases, productivity gains represent the least-cost path to a better quality of life in NSW and should be the primary focus of economic and infrastructure policy.

1.4 Metropolitan Sydney – a growing population and productive urban economy

Sydney is home to 4.5 million residents and more than 451,000 businesses. It is the economic capital of Australia. By 2031, Sydney's economic output is forecast to almost double to \$586 billion a year.¹¹ From 2011 to 2031, Sydney's population is forecast to grow by 1.6 million people, with 900,000 of the population growth occurring in Western Sydney.¹² This report outlines a strategy to:

- Make it easier for Sydney's residents to move between their homes and jobs in the Global Economic Corridor
- Ensure that Western Sydney, particularly Parramatta, can 'hook in' to the agglomeration economies in the city
- Improve the delivery of goods to markets and business-to-business transactions

11. Deloitte Access Economics

12. NSW Department of Planning and Environment

- Support a creative and vibrant city that attracts and retains skilled people and businesses.

1.4.1 Ensuring a competitive Global Sydney

Sydney is Australia's global city. It generates more than one-fifth of Australia's Gross Domestic Product,¹³ competing with other international cities such as Singapore and Hong Kong as a home for global investment.¹⁴ Sydney also generates over 70 per cent of NSW's total Gross State Product.¹⁵

One of Sydney's key strengths is high value economic clusters within the Global Economic Corridor, extending from Macquarie Park through the Sydney CBD to Port Botany and Sydney Airport.

Recent research by the Grattan Institute found that half of Sydney's economic activity is generated in the Global Economic Corridor, which makes up less than one per cent of the Greater Sydney area.¹⁶

Many companies in the Global Economic Corridor specialise in activities higher up the value chain, such as offering advanced business services in the finance and insurance sectors and providing professional, scientific and technical services across a range of industries.

These businesses depend on highly skilled workers and locating themselves in the heart of large cities gives them access to the largest possible pool of labour. Proximity to suppliers, customers and partners also helps businesses to work efficiently, identify new market opportunities, develop partnerships and collaborations, and come up with innovations and new ways of working.

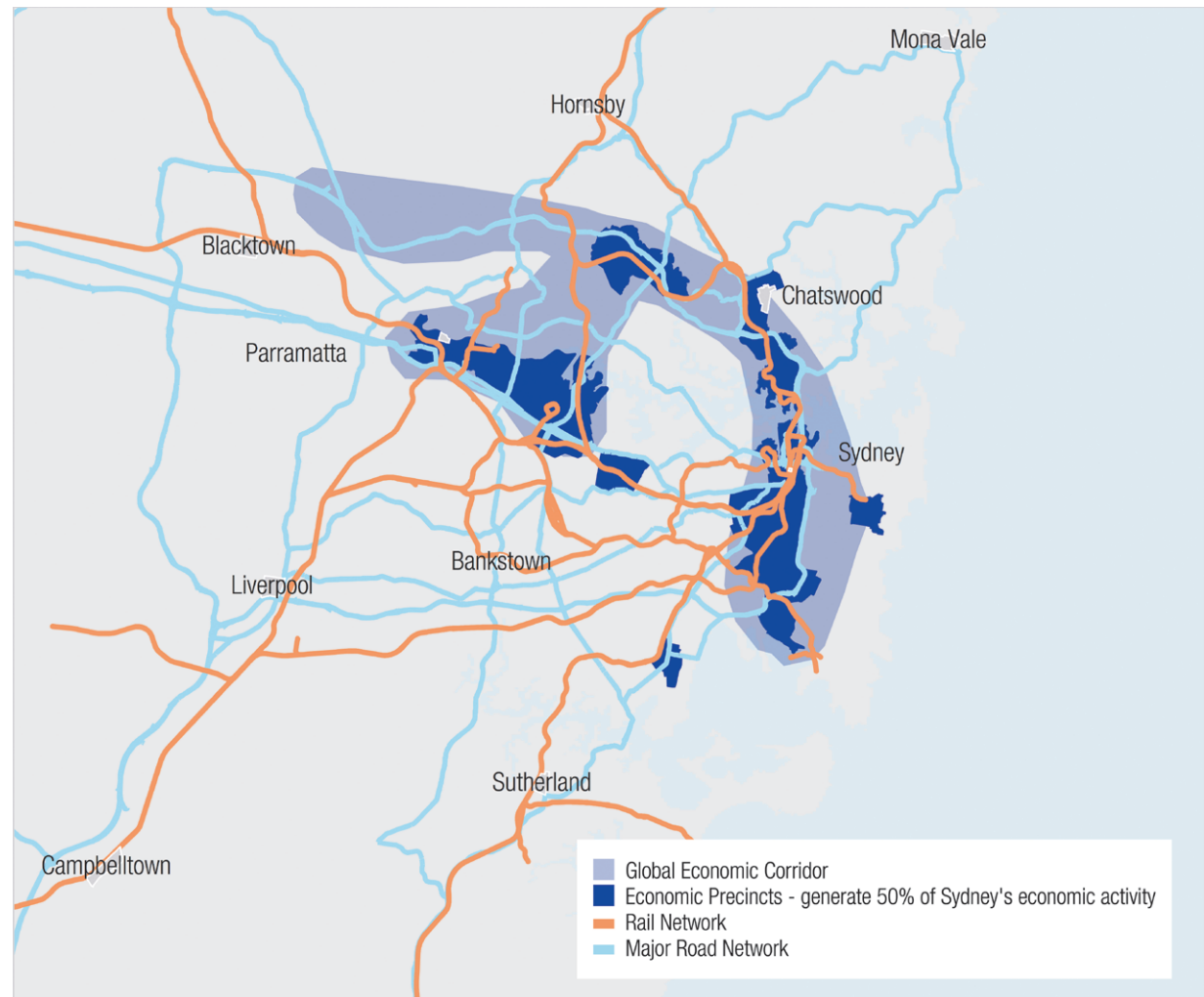
13. SGS Economics 2014, Australian Cities Accounts 2012/13

14. NSW Now website www.nsw.gov.au/now

15. Grattan Institute 2014, Mapping Australia's Economy

16. Grattan Institute 2014

Figure 1.2 Sydney Global Economic Corridor



Source: Grattan Institute and NSW Department of Planning and Environment

The significance of the Global Economic Corridor to Sydney's prosperity is substantial and will remain so into the future. To continue to drive productivity across the Global Economic Corridor, it is critical that the NSW Government:

- Facilitates development to enable people to choose to live in areas with access to large numbers of jobs, which will also give employers a wide choice of employees
- Ensures that transport networks better connect employees with employers via mass transit and motorway networks, and support better connections between businesses and their customers, suppliers and partners.

If this does not occur, NSW will lose out to other economies that do this better.

1.4.2 Growing Greater Sydney, including Parramatta

Sydney will experience strong population growth over the next 20 years to 2031, increasing from 4.3 million to 5.9 million residents. On recent trends, almost 80 per cent of this population growth will occur in existing areas.

The demographics in the city will also change, with more than one million more people over the age of 65 and almost the same number under the age of 15 by 2031. This means that less workers will be required to deliver more growth.

To keep up with this level of population growth, the NSW Department of Planning and Environment's population and dwelling projections suggest that Sydney will need 664,000 new homes – or around 33,200 new homes each and every year – a level of housing construction never previously achieved.¹⁷

If this housing acceleration is not achieved, people will seek to live elsewhere in Australia, at an estimated cost to the NSW economy of around \$6 billion by 2031.¹⁸

The economic imperative for Greater Sydney is to manage population growth by accelerating housing supply, improving efficient land use and urban renewal around transport corridors, and delivering integrated improvements to transport and social infrastructure within the existing urban area.

A further challenge relates to the population and jobs imbalance between the eastern and western halves of Sydney. While the economy of Western Sydney is the third largest in the country, adding over \$90 billion a year to the nation's GDP, it contains 47 per cent of the city's residents but only 37 per cent of its jobs.¹⁹

Western Sydney is well placed to address this imbalance with a diverse, growing and relatively young working age population, maturing employment centres such as Parramatta, a stock of employment lands with high quality motorway infrastructure, and world class healthcare facilities and educational institutions.

17. Department of Planning and Environment, *NSW Population, Household and Dwelling Projections*, June 2014

18. EY Research 2014

19. Department of Planning and Environment, *NSW Population, Household and Dwelling Projections*, June 2014

Although the declining manufacturing sector remains the dominant employing industry, Western Sydney will increasingly need to 'hook in' to and reap the benefits of the agglomeration economies in the expanding Global Economic Corridor. In the long term, the development of a second Sydney Airport at Badgerys Creek will also help to reshape the economy of Western Sydney.

Improved transport links will be crucial to the growth of Greater Sydney in terms of connecting people with jobs and improving business-to-business interactions.

1.4.3 Deepen and improve the freight and logistics economy

The reliable, efficient and cost effective movement of goods around an economy is a critical enabler of business productivity and competitiveness.

The freight logistics industry accounts for approximately 13.8 per cent or \$58 billion of NSW's economy.²⁰ The scale of the freight task over the next 20 years will be significant, with an expected doubling of the volumes of freight moving through NSW to nearly 800 million tonnes by 2031. Sustaining and improving productivity in the face of this massive increase requires a strategic focus to ensure that policy, infrastructure and land-planning initiatives deliver a freight network with the capacity and performance to meet demand.²¹

The international gateways of Port Botany and Sydney Airport will accommodate much of the rapid growth forecast for containerised cargo and air travel over the next 20 years. Significant planning has taken place to manage additional freight throughput (mainly

20. Transport for NSW

21. Transport for NSW, November 2013, NSW Freight and Ports Strategy

imports) at the port and airport. The completion of WestConnex will provide additional capacity and enhance movements from these gateways. Intermodal terminals and associated distribution centres at Enfield and Moorebank are being opened progressively and upgrades to the Southern Sydney Freight Line are increasing freight rail capacity.

However, forecast growth in population, housing and employment, coupled with network challenges such as congestion, availability of infrastructure and land use planning, make it even more critical to address the pressures created by NSW's future freight task.

Each day, around 300,000 heavy vehicle trips and over 1 million light commercial vehicle trips occur on the metropolitan road network.²² Most of the containerised freight moving between Port Botany and other parts of Sydney does so by road.

Road and rail freight within the metropolitan area operate largely on networks that are shared with passenger vehicles and public transport. Many of these journeys occur at similar times of day, resulting in highly variable travel speeds and journey times. For example, along the M4 Motorway and Parramatta Road, average morning peak speeds are as low as 38 km/h and 17 km/h respectively.²³

Moving much greater volumes of freight efficiently around the city will require a sustained focus on completing 'missing links' on the motorway network, optimising the existing road network and planning for land uses (including in Western Sydney) that provide delivery points close to end users or distribution centres.

It will also require astute targeting of those markets best suited to transporting goods by rail, as well as improvements to rail freight reliability, to make the best use of metropolitan freight rail network capacity.

1.4.4 The visitor economy and liveability

Arts, cultural and recreational facilities support a vibrant and creative city, and are vital for attracting and retaining the skilled people and businesses that NSW needs to compete in the global economy.

Sydney is home to some of the nation's most iconic cultural facilities, world-leading institutions and international sporting centres. Recreation facilities in Sydney and across NSW include sporting venues, beaches, parks and reserves. Many of these facilities have strong links to the community and are a core component of a high quality of life.

The tourism and visitor economy enhances Sydney's status as a global city and contributes significantly to economic activity. Tourism contributes \$11.1 billion to State GSP.²⁴ In 2012, Central Sydney's cultural institutions alone attracted 4.8 million paying visitors,²⁵ who contributed an estimated \$8.3 billion to the NSW

economy.²⁶ The Sydney Opera House attracts more than 8.2 million visitors each year.²⁷ International education, research and training contributes \$5.5 billion in exports to the economy annually and is the leading export services industry for the State and second only to coal in terms of overall export share.²⁸ However, global competition and a high Australian dollar have seen NSW lose its relative share of international visitors from growth markets.

A priority for Sydney's long-term infrastructure planning will be to improve the liveability of the city and ensure the visitor economy is supported with timely and economic investments in cultural, sporting and recreational infrastructure.

1.5 Regional NSW – a competitive and connected economy

In 2013, the Gross Regional Product (GRP) for Regional NSW was \$138 billion or 29 per cent of NSW's total Gross State Product.

The agriculture and mining sectors continue to be the key drivers of regional growth. Regional NSW is also underpinned by strong manufacturing, energy and service sectors, particularly in the Hunter and Illawarra regions.

Over the last decade, regional NSW has experienced a 'two-speed' economy, with increasing demand for coal and minerals on one hand and greater downward

22. Bureau of Freight Statistics 2010, TransFigures

23. Roads and Maritime Services 2013, Key Roads Performance Report

24. NSW Tourism Satellite Accounts (2008/09), quoted in Department of Trade and Investment 2012, Final Report of the Visitor Economy Taskforce

25. Arts NSW

26. *Rebuilding NSW* 2014, Sports and Cultural Fund: Fact Sheet 7

27. Sydney Opera House

28. NSW Now, StudyNSW Business Plan 2014-2015

pressure on other industries such as manufacturing on the other. As a result, the coastal regions are forecast to experience the highest growth in GRP per capita (of around 1.5 per cent), while west of the Divide, the Murray and Inland NSW are expected to experience lower annual growth rates.²⁹

Regional production is heavily reliant upon efficient and effective transport and water infrastructure to be competitive.

Approximately 260 million tonnes of goods start their journeys in NSW regions, heading for destinations in other NSW regions, metropolitan Sydney, interstate or internationally. This represents around 65 per cent of the total NSW freight task by volume.³⁰

Many key freight routes in regional areas are constrained by relatively minor bottlenecks such as ageing bridges or sections of road not fit for use by heavy vehicles. There are deficiencies in the capacity and condition of some sections of the regional road and rail networks.

A major driver of infrastructure planning over the coming decades is the reduced availability of water for use in productive sectors of the economy and for the security of supply in some communities, due to changing rainfall patterns and increases in the allocation of water for environmental uses.

The recent signing of the Murray Darling Basin Agreement, which sets enforceable limits on the quantities of surface water and groundwater that can be taken from the Murray-Darling Basin, has important ramifications for making decisions about where to direct capital investment to sustain regional production.

By 2031, the population of regional NSW will have grown to 3.4 million people, almost half a million higher than it was in 2011.³¹ However, this growth will not be evenly spread. Lower densities and more dispersed communities will create challenges for the provision of economic and social infrastructure and the delivery of services.

Over the next 20 years, planning for the economic and social infrastructure needs of regional NSW will require the adoption of innovative delivery and funding methods that take advantage of technology and new service models. This is likely to include e-enabled health and education services, heavy vehicle road charging and more efficient procurement of regional infrastructure.

1.6 How this Report was prepared

Infrastructure NSW's recommendations for investment and reform build on its analysis undertaken in 2012, with the latest population and household projections,³² and updated project information.

Infrastructure NSW has applied the following principles that support and deliver on the proposition of 'better value infrastructure', including:

- **Long-term, integrated planning** that draws the right links between demographic trends, aligns land use and infrastructure planning, achieves integrated network-level improvements and enables long-term investments to be planned and scoped well ahead of time
- Within those plans, seeking **non-infrastructure approaches to make the most efficient use of existing assets** through better planning, the use of technology, efficient market regulation and, where appropriate, improved pricing and cost recovery
- Where capital investment is required, ensuring that it targets new or upgraded infrastructure that will enhance economic competitiveness, and that **best practice investment prioritisation** is undertaken across government
- More **strategic use of the government's balance sheet**, including recycling mature and underutilised assets to free up investment resources where possible to support worthwhile investments in new infrastructure and innovative build and delivery models

29. Infrastructure NSW 2012, *First Things First*

30. Transport for NSW 2013, *NSW Freight and Ports Strategy*

31. Deloitte Access Economics 2014, based on data from the Department of Planning and Environment

32. <http://www.planning.nsw.gov.au/en-au/deliveringhomes/population-and-housing>, last updated 20 August 2014

- Encouraging **private sector investment** and competition wherever possible to deliver better value and leverage scarce government funding
- Achieving **excellence in the development** and delivery of projects from their concept stage through to procurement, delivery and operation.

The recommendations in this Report focus on opportunities to accelerate infrastructure investment and reform in the following areas:

- **Urban public transport** (Chapter 2): to connect a growing population to Sydney's job centres, support mobility and minimise the productivity impacts of poor connectivity and increasing congestion
- **Urban roads** (Chapter 3): to optimise passenger and freight movements on the existing roads network and facilitate broader economic development through selective extensions to the Sydney motorway network
- **International gateways** (Chapter 4) to connect Sydney and NSW regions to national and global markets and suppliers
- **Regional transport** (Chapter 5): to improve regional producers' access to markets through investments supporting greater freight productivity
- **Water** (Chapter 6): to support the critical needs of regional industries and communities, by ensuring water security and quality of supply

- **Education** (Chapter 7): to equip growing urban and regional populations with the modern schools and training infrastructure required to deliver educational services for a competitive, innovative economy
- **Health** (Chapter 8): to support the health, wellbeing and economic participation of our growing population and contribute to the attractiveness of NSW as a place to live and do business
- **Culture and sport** (Chapter 9): to deliver targeted upgrades to the State's cultural, sporting and environmental infrastructure to drive growth in the visitor economy; realise the economic and social benefits of strong cultural and sporting sectors; support local participation, creativity and liveability; and maintain competitiveness in the events market through investment in stadia
- **Energy** (Chapter 10): to ensure reliable and affordable supply for the State's businesses and households.
- **Overarching themes and opportunities** (Chapter 11): improving the way infrastructure is planned, procured and used across government.

A summary of funding recommendations from these chapters is set out in Chapter 12.

1.7 Recommendations

In this report, Infrastructure NSW makes two types of recommendations to the State Government – for funding or for other actions, such as planning or review. Chapter 12 contains a detailed summary of the funding recommendations in this Report.

Infrastructure NSW recommends the reservation of a specified amount of funding under *Rebuilding NSW* to support a particular project or program. *Rebuilding NSW* is the term used to describe the forecast proceeds from the proposed long-term lease of 49% of the State's electricity network assets. Where Infrastructure NSW makes a recommendation to reserve funding in this way, it does so on the basis that the proposed project or program has demonstrated strategic merit and that Infrastructure NSW considers it a high priority for funding and implementation over the next ten years or so.

In preparing this Report, Infrastructure NSW has assessed whether each project or program has strategic merit based in part on its level of consistency with existing Government strategies such as the 2012 State Infrastructure Strategy and Long-Term Transport Master Plan. Strategic merit has also been assessed using the Infrastructure NSW major project assurance framework described in the following and illustrated in Figure 1.3.

At the project level, Infrastructure NSW applies an independent, three part test:

- **Strategic fit** – alignment with the principal State planning instruments such as the 2012 State Infrastructure Strategy, the State Plan, Long-Term Transport Master Plan and Regional Growth Plans.
- **Economic merit** – as demonstrated through a cost benefit analysis and reflected in the benefit-cost ratio or net present value of net benefits.
- **Completed assurance processes** – including a compliant business case, completed Gateway review process and appropriately implemented risk mitigation and management strategies.

Final decisions on infrastructure projects and programs – on their precise scope, budget, timing and means of procurement – should always be guided by final business cases. This is an important element of good governance in infrastructure planning and a number of Infrastructure NSW's recommendations relate to the development of detailed business cases.

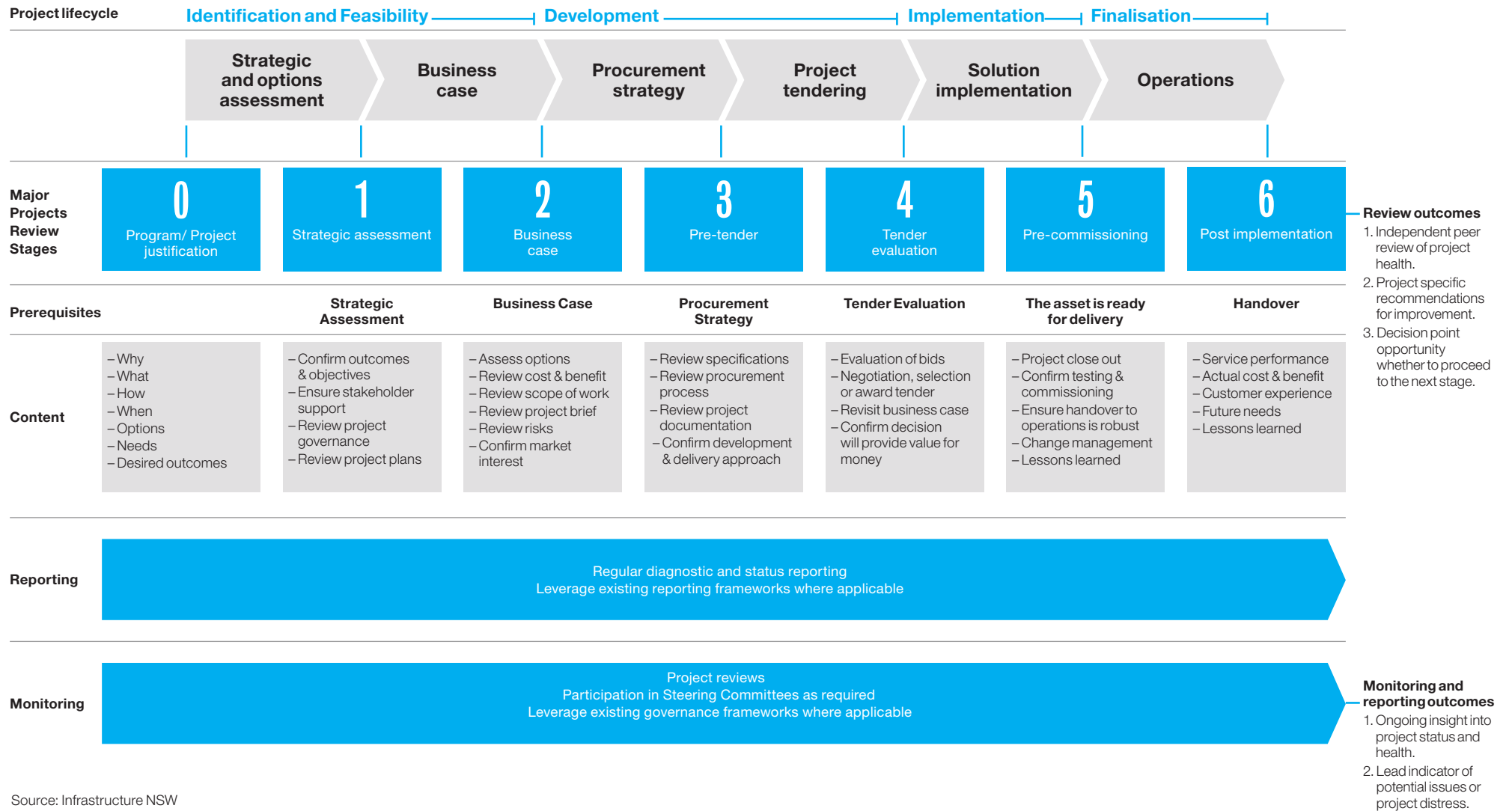
It is now accepted policy in NSW to prepare business cases for major projects prior to final decisions being made by the Government on their funding and implementation. Agencies generally develop project proposals in a staged manner, moving progressively towards the production of a final, detailed business case that contains all the data and analysis the Government requires to take properly assured decisions on a particular project or program's scope, budget, timing and means of procurement.

In a number of instances, Infrastructure NSW recommends a timeframe within which a business case should be prepared; such recommendations are intended to enable the Government to ensure that critical infrastructure projects and programs are 'investment decision ready' at the point where funding for them becomes available. Projects are deemed to be 'investment decision ready' when they have passed through Stage 2 of the major project assurance framework. At this point, funding can be substantively committed to the project and the process of procurement can commence.

As noted earlier in this section, not all of the infrastructure-related challenges and opportunities facing NSW require capital investment. A number of the recommendations in this report relate to improved asset planning, utilisation and design, without specific financial commitments and without the need to prepare specific business cases.

In total, the recommendations in this Report represent a capital cost to be funded by *Rebuilding NSW* of \$18.9 billion over 10 years. Recommendations have regard to the affordability of capital commitments within the \$20 billion program envelope specified by the Premier, to the potential operational cost impacts of projects and to the maintenance of the State's AAA rating.

Figure 1.3 Infrastructure NSW major project assurance framework



Source: Infrastructure NSW

