

Boost economy—
wide productivity and
competitiveness

03



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Strategic directions

- ▶ Deliver efficient transport networks to support thriving cities, businesses and communities
 - ▶ Improve freight efficiency, security and capacity to support NSW's industries and supply chains
 - ▶ Support existing and emerging knowledge and manufacturing industries in dedicated precincts with high-quality infrastructure
 - ▶ Address gaps in cultural and sporting infrastructure that can help attract visitors and skilled workers to the State
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Continued investment in high-quality infrastructure is essential to support and strengthen the productivity and international competitiveness of NSW industries. The availability, cost and quality of public infrastructure are important levers government can use to boost productivity and overall prosperity.⁴²

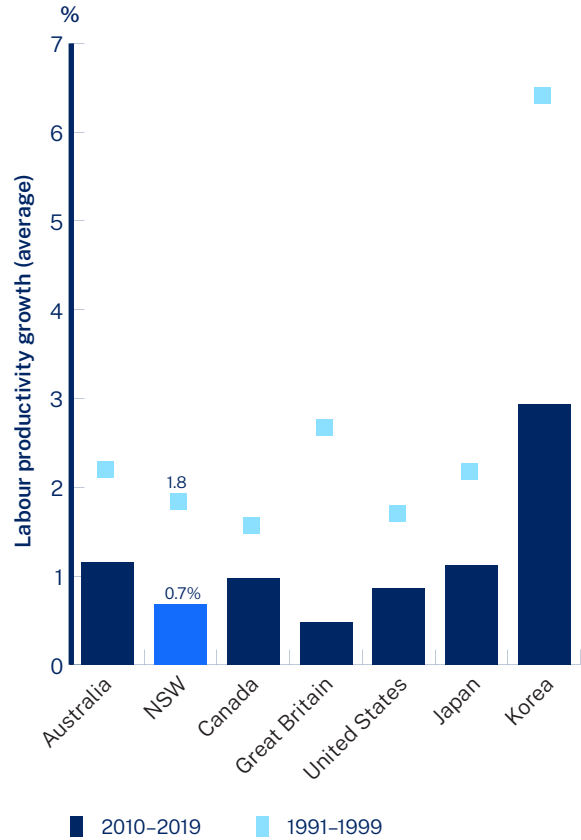
Over the past two decades, NSW's productivity growth has slowed, as it has in other developed economies (see Figure 3.1).^{43,44} The high rates of productivity growth recorded in the 1990s reflected economic liberalisation over the preceding 20 years in Australia and overseas. Economic reform in Australia included the floating of the Australian dollar in 1983, financial market deregulation during the 1980s, significant tariff reduction between 1970 and 1990, and the National Competition Policy reforms of the 1990s,⁴⁵ as well as tax reform in the form of a national Goods and Services Tax (GST).

Despite significant technological advances over the past two decades, there has been no sustained improvement in productivity. There is no widely accepted explanation for this phenomenon.⁴⁶

Economic and productivity growth in NSW are heavily dependent on infrastructure investments that unlock opportunities and drive competitiveness. Infrastructure is an essential input to production and constitutes more than 10% of inputs for most sectors (see Figure 3.2). The transport, electricity, telecommunications and water sectors are the most intensive users of infrastructure assets for production, while a much broader segment of the economy relies on transport infrastructure (road, rail, airfreight and logistics) as an input to production. Access to a skilled and healthy workforce through the provision of education and health services is also essential for industry to attract and retain the right talent.

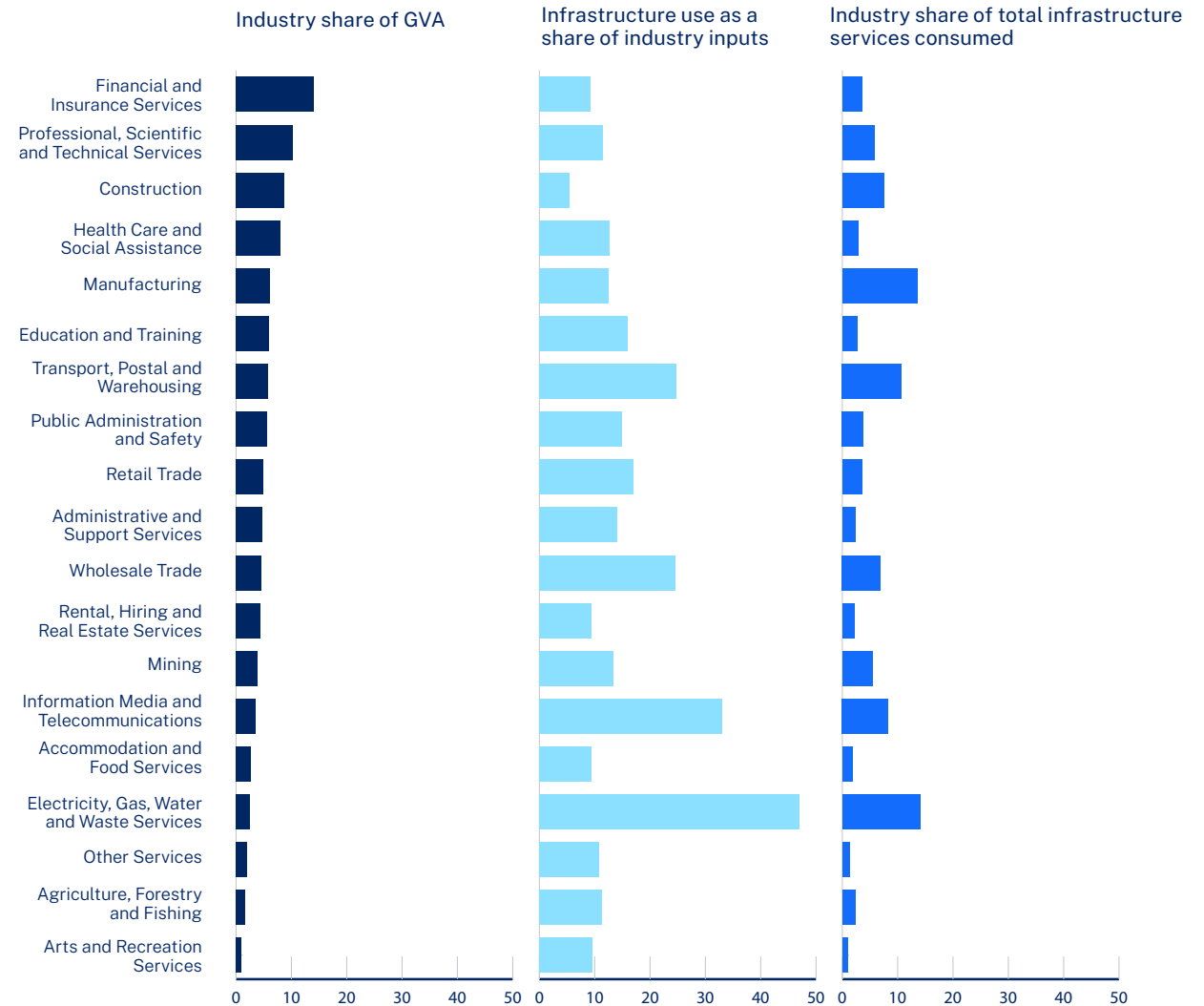
In this regard, the NSW Government plays a critical role in supporting a competitive State economy through the selection and timely provision of infrastructure. While the focus of this chapter is largely on transport sector infrastructure priorities, other productivity-enhancing opportunities are outlined in Chapters 4-11 of the 2022 SIS that should be considered for their economic contribution, as well as their direct roles in delivering community services.

Figure 3.1 – Average labour productivity growth across comparable jurisdictions



Source: ABS Cat. 5220.0 Australian National Accounts: State Accounts, Cat. 6202.0 Labour Force, Australia for NSW data; OECD (2021), GDP per hour worked (indicator) for national data

Figure 3.2 – The role and input of infrastructure by industry



Source: ABS (2017 and 2020) and Infrastructure NSW analysis

3.1 Lift the economic performance of Greater Sydney

Sydney is Australia's global city,⁴⁷ accounting for 24% of Australia's Gross Domestic Product (GDP).⁴⁸ Sydney hosts several priority precincts and key international gateways with a focus on knowledge-intensive service industries. These industries, such as financial and insurance services, account for well over a third of NSW's economic output – and are primarily based in the Sydney CBD.⁴⁹

Sydney is the cultural capital of NSW, home to several global education and tourism institutions and consistently ranked among the world's most liveable cities.⁵⁰ Exports from the finance, professional services, education and tourism service industries account for 40% of total NSW exports: the highest share of any state.

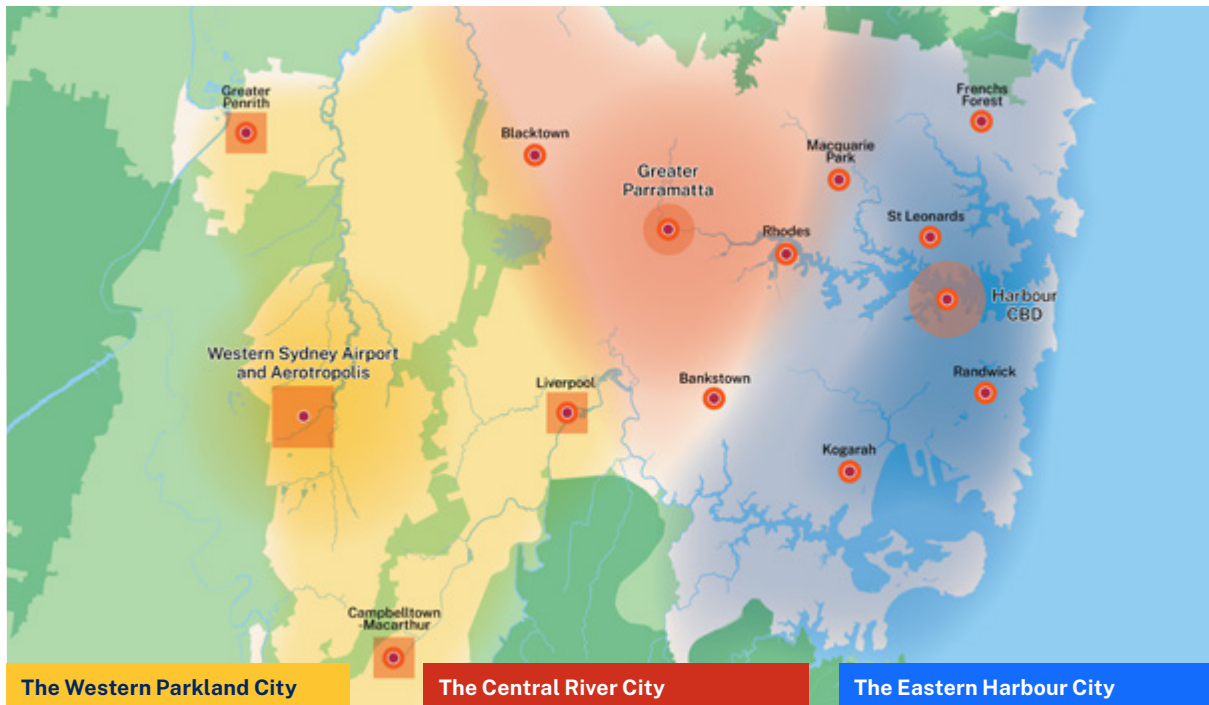
For these reasons, the State's ability to attract global investment and talent relies on Sydney's international competitiveness and liveability.

Greater Sydney's future development path as 'a metropolis of three cities' remains the cornerstone of many NSW policies and strategies that are relevant to the 2022 SIS. The role infrastructure investment will play in the future development of Greater Sydney can be characterised as follows:

- ▶ **managing the future growth of the Eastern Harbour City** in a way that maintains its global attractiveness and competitiveness and addresses the challenges that affect similarly successful cities. These include traffic congestion, constrained urban freight movements, the freight needs of international gateways, housing affordability, cultural vibrancy and broader liveability concerns
- ▶ **improving accessibility and liveability of the Central River City** by enhancing radial transport links, growing its economic catchment and supporting its attractiveness as a centre for economic, jobs, and housing growth

- ▶ **supporting emerging industries in the Western Parkland City and the innovation precincts in the Eastern Harbour and Central River Cities** through new urban transport and freight links, secure, reliable and affordable water and energy supply, globally competitive digital connectivity and a skilled labour force that meets the needs of the future.

Figure 3.3 – Map of the three cities model



Home to the Western Sydney Airport and development of Bradfield and the Aerotropolis.

Role of Infrastructure

- ▶ Supporting emerging industries and innovation districts through physical and digital connectivity
- ▶ Secure, reliable and affordable water and energy supply

Geographic heart of Sydney that will become the administrative capital of Greater Sydney

Role of Infrastructure

- ▶ Improving accessibility and liveability
- ▶ Growing its economic catchment and attractiveness

NSW’s global financial, economic and cultural hub

Role of Infrastructure

- ▶ Managing future growth
- ▶ Maintaining global attractiveness and competitiveness

Source: Infrastructure NSW, based on Greater Sydney Commission (2021)

Capitalising on investments in mass transit and major corridors

Significant investment over the past decade has supported the growth of the CBD and Eastern Economic Corridor between Macquarie Park and Sydney Airport. This has resulted in a transformation of the Sydney CBD, with the emergence of new high-value precincts such as Barangaroo.

The committed pipeline of city-shaping infrastructure will continue to change the shape of the Greater Sydney Region across its three cities. These investments will deliver substantial benefits for Sydney by enabling more efficient and reliable road and rail networks. Record investment in public transport will increase mode share for rail, metro and bus patronage.

The 2018 SIS acknowledged Transport for NSW’s proposed staged investment approach to major public transport, and highlighted Sydney Metro West as the immediate priority for expanding mass transit capacity between the Eastern Harbour City and the Central River City. With construction of Sydney Metro West now underway, it is essential to realise the benefits of this major investment through land use decisions and policy initiatives that will drive patronage along this corridor by establishing more homes and services around the new stations.

Further extensions of the rail network will focus on Parramatta as a central hub and move away from a radial approach focused on the Sydney CBD. As highlighted in the 2018 SIS, after Sydney Metro West, new links from Parramatta to Epping and Parramatta to Kogarah are the next major priorities for the Greater Sydney rail network.⁵¹ These extensions would broaden the catchment that can access the Central River City, including Parramatta CBD where substantial investments have been made to attract businesses, jobs and households.

To ensure these significant public investments deliver genuine and lasting benefits, this trunk infrastructure needs to be augmented with investment in the intermediate and local transport network, as well as network-wide intelligent transport system (ITS) improvements such as ‘smart motorways’ and traffic signalling upgrades (see Chapter 9 for more). Other priorities include augmentation of roads, such as Parramatta Road and Victoria Road, where investments can alleviate traffic – presenting the opportunity to improve liveability and public transport access through rapid bus services. Such investments will further improve accessibility to key centres and precincts, improve the resilience of the network and support and encourage housing growth along these major corridors.

Prioritising network optimisation – the foundation for productivity growth

This Strategy proposes that the NSW Government increase its focus on programs of works designed to lift the service reliability of networks, after a prolonged period where large, complex projects demanded the attention of government and industry. The performance of Sydney relies on regular and incremental improvements to existing assets and networks. Each network is only as good as its weakest point. The optimal performance of networks requires constant attention to improvements in operations and asset capacity.

Major transport agencies typically have a long list of possible small-to-medium size network improvements and augmentations at various stages of maturity – many have been investigated and evaluated, and some have preliminary design options. Success comes from knowing which of these smaller improvements will have the greatest payoffs, the interdependencies between them and an ability to routinely pursue these improvements, year in and year out. Without these improvements, the benefits of major State investments cannot be fully realised.

There is a need to elevate attention to coordination and prioritisation of network improvements to deliver them more effectively and at scale. This Strategy recommends undertaking a thorough ‘stocktake’ of small and medium-sized network improvement opportunities and refreshing routines to prioritise their funding and delivery.

A strong basis for this work already exists in transport planning. The Government should build on these efforts and ensure that long lists of small and medium-sized works become short lists that are regularly assessed, prioritised and delivered. The opportunity will arise in the next round of Transport for NSW’s Services and Infrastructure Plans, which will need to be detailed and set out clear, deliverable actions for programs of incremental network improvements.

Laying foundations to achieve the Western Parkland City

The challenge in building a strong foundation for the Western Parkland City stems from the scale of the investment required in the long term, the duration over which that investment will play out and how to stage the delivery of infrastructure to match incremental growth.

The Western Sydney International (Nancy-Bird Walton) Airport is due to commence operation in 2026 and will require significant but staged investments to enable passenger access to and from the airport. Effective road and freight access to surrounding precincts is essential to facilitate commercial and industrial activity and residential development. This includes priorities to upgrade Elizabeth Drive, Eastern Ring Road and Fifteenth Avenue as outlined in the Western Parkland City Draft Blueprint.⁵²

Current population and employment growth projections suggest the need for major infrastructure services – such as mass transit – is a medium- to long-term priority. Construction market capacity issues also mean that not all major projects can be delivered at the same time. Extensions to the mass transit network within the Western Parkland City, and links to the Central River City and the broader Sydney transport network, will be needed in the future. In the short term, the NSW Government should prioritise delivery of a rapid bus network to support connectivity with the Central River City and improve access between key centres within the Western Parkland City.⁵³ The option to deliver a mass transit network for the Western Parkland City should be preserved through targeted land acquisition and corridor protection.

3.2 A more efficient Greater Sydney freight network

The efficient movement of freight is fundamental to supporting NSW's productivity and export competitiveness. The NSW Government should prioritise investments aimed at increasing the productivity of existing international gateways, while also planning for long-term freight movement demand as new precincts and industry needs emerge.

Increasing freight rail mode share

Increasing the proportion of freight movement by rail presents an opportunity for productivity gains. Greater economies of scale from rail freight movement compared to movement by heavy vehicles will place downward pressure on the cost of goods and services. Congestion on roads restricts truck speeds and efficient freight movement, particularly in urban settings.⁵⁴ With no change to the current modal split between rail and road, and strong growth forecast for freight moving through NSW ports, the number of trucks on Sydney's road network is estimated to double by 2030, further deteriorating the efficiency of road freight movement and overall network performance.⁵⁵

Increased rail freight mode share could alleviate some of this congestion from the avoided number of heavy vehicles otherwise used to transport freight by road. A 2020 report for the Australian Railway Association highlighted that every 1% of road freight that transitions to rail generates around \$72 million of benefits to society a year due to reduced emissions, improved population health and reduced accidents on the road.⁵⁶

However, meeting Sydney and the State's projected growth in freight demand will require a program of investments and government initiatives. This includes augmentation to the freight rail network's capacity, enhancing the intermodal network, addressing pinch points and optimising arrangements where rail infrastructure use is shared with passenger trains.

Protecting and managing freight corridors for future use

Historically, the availability of industrial lands – where freight activity largely takes place – in the Eastern Harbour City has decreased due to land being rezoned for residential use.^{57,58} A similar trend has been observed in the Central River City, where there are pressures for land rezonings to prioritise residential development to meet Sydney's population growth and associated demand for housing.^{59,60} Similar pressures are being experienced in the Western Parkland City.

Constraints on the availability and use of industrial land poses significant risk to the efficient movement of freight and, in turn, adds to the cost of goods and services.⁶¹ In addition to protection and management of existing industrial lands across Greater Sydney, strategic planning must also prioritise the preservation of corridors for future freight infrastructure.

Key freight corridors identified in the 2018 SIS and Future Transport 2056 should remain priorities of the NSW Government, including:

- ▶ **Western Sydney Freight Line** – there is currently no freight rail serving the Western Sydney Employment Area adjacent to the new Western Sydney International (Nancy-Bird Walton) Airport. With a projected volume of freight movement to and from Western Sydney expected to at least double from 18.5 million tonnes in 2014 to 41 million tonnes in 2041,⁶² a dedicated freight rail link between Port Botany

and the Western Parkland City is essential to maintain a competitive State supply chain while avoiding congestion on the road network.⁶³

- ▶ The next stage of the **Northern Sydney Freight Corridor**. The completed Stage 1 of the corridor augmentation has increased its capacity to accommodate growth in rail freight demand up until 2028. Planning and augmentation should be progressed to avoid bottlenecks to the network in the medium term.⁶⁴
- ▶ **Lower Hunter Freight Corridor** dedicated freight rail. Delivery of a dedicated freight rail by bypassing the Newcastle area will reduce network congestion on the rail network across Newcastle, while improving travel times and reliability for both rail freight and passenger rail services.⁶⁵

Moreover, as highlighted in the 2018 SIS, new commercial and residential development in the Western Parkland City will rely on the continuous supply of bulk freight, such as building materials, which will require an efficient bulk handling network.⁶⁶ To enable the efficient movement of bulk construction materials by rail to Western Sydney, it may be necessary to consider allocating further land to receive these bulk products.⁶⁷

Importantly, for both freight corridors preserved for future use and existing industrial lands used for freight, development controls and planning restrictions should not unduly curtail the economic activity needed to maintain a globally competitive NSW supply chain network. Protecting these lands from the encroachment of incompatible uses – such as pressures to rezone to residential land – is fundamental to meeting the State’s projected growth in freight demand (see Chapter 10 for more).⁶⁸

Leveraging Sydney’s international gateways

Ensuring the efficiency of the Sydney Airport to Port Botany international gateway is a first order priority (see Box 3.1). Delivery of WestConnex, Sydney Gateway and the Australian Government’s Port Botany Rail Duplication will significantly improve freight movement in the short to medium term.

However, as these projects reach completion, focus should shift to improving the missing link between Sydney Gateway and Port Botany (the Sydney Gateway Extension), including delivery options that involve private sector funding. A direct and fast road link between Sydney Gateway and Port Botany would improve efficient and reliable access between the port, surrounding industrial lands and key distribution locations in Western Sydney.⁶⁹ Planning and delivery of this missing link should remain a key priority of the NSW Government.

Box 3.1

Sydney Gateway to Port Botany economic corridor

Sydney houses two of NSW’s key international gateways at Port Botany and Sydney International Airport. Port Botany is the largest container port in NSW and handles a significant amount of the State’s bulk liquid, gas and chemicals. Analysis undertaken for NSW Ports suggests that Port Botany directly contributes an estimated \$10.7 billion towards NSW’s Gross State Product (GSP) per year.⁷⁰ Sydney Airport handled over 44 million passengers in 2019 and over 500,000 tonnes of air freight – directly contributing \$11.2 billion to the economy.⁷¹

These international gateways are fundamental to an efficient NSW supply chain network. Through coordinated planning and investment in the right infrastructure, the NSW Government can leverage these existing corridors to drive future productivity growth.

Strengthening the intermodal network and addressing pinch points

Moving more freight by rail will require complementary investments, such as those aimed at improving heavy vehicle access to existing intermodal terminals, and the expansion of Sydney's intermodal network more broadly. As highlighted in Future Transport 2056, the 850 hectares of industrial land at the Mamre Road Precinct is one example that, upon project completion, will improve the capacity and efficiency of Sydney's freight and intermodal network.^{72,73} Planning for Mamre Road Precinct is well progressed, with rezoning taking place in June 2020 and the Development Control Plan adopted in November 2021.⁷⁴ Delivery of key infrastructure to activate this precinct should remain a NSW Government priority.

The Government should also pursue investments to overcome existing and projected pinch points and bottlenecks in freight supply chains across Greater Sydney. Some high priority projects previously identified in the 2018 SIS remain to be delivered, including:

- ▶ **Moorebank Intermodal Terminal (MIT) road connection upgrades** – to address congestion along the M5 corridor connecting the MIT and Port Botany.⁷⁵
- ▶ **Parramatta Ring Road bypass** – to improve north-south connectivity while protecting Parramatta's CBD from traffic intrusion.⁷⁶

Regulatory and policy opportunities

Infrastructure investments should be supported by policy and regulatory initiatives aimed at increasing rail freight mode share. For example, the *Transport Administration Act 1988* currently stipulates that transport agencies should give 'reasonable priority' to passenger trains for the purpose of timetabling and network control on shared lines in Greater Sydney. This requirement limits the proportion of freight movement by rail. For example, ACFS Port Logistics – who is managing and operating the St Marys Freight Hub – has reported that this limitation means that the 300,000 TEU handling capacity available at the St Marys Freight Hub will not be fully utilised.⁷⁷

The 2021 NSW Auditor-General's Report on *Rail freight and Greater Sydney*⁷⁸ highlighted the risk that transport agencies do not have a consistent understanding of what 'reasonable priority' means in practice, resulting in the term being inconsistently applied to the network's operation. In this regard, simply maintaining the number of existing train paths risks freight rail capacity falling behind demand, which will continue to grow in line with the State's population.

The Auditor-General recommended that transport agencies give priority to the following matters:

- ▶ delivering freight-specific strategies including clear articulation of accountabilities, targets and key performance indicators for freight rail outcomes

- ▶ improving collection and sharing of freight data to facilitate analysis of train movements to support future planning, operation and policy decisions for an efficient freight network
- ▶ developing and implementing key performance indicators for inter-agency agreements between transport agencies.

Delivering on these recommendations will complement investments in freight infrastructure and, accordingly, they should be pursued as priorities by the NSW Government.

Meeting the needs of new and emerging industries in Sydney

To support future economic diversity and growth in Sydney, the NSW Government is planning new precincts focused on high growth knowledge-based and capital-intensive industries. Growth in these emergent industries is supported by technological advances in automation, artificial intelligence (AI) and 3D printing, alongside a highly skilled workforce. Current plans include:

- ▶ **Tech Central:** to establish Sydney at the forefront of digital technology, fintech, e-health and creative industries⁷⁹
- ▶ **Macquarie Park:** a technology and knowledge industry cluster with a world-class university, a key regional hospital and a high-tech employment hub. Further investment is underway to capitalise on the nearby new Sydney Metro station and transform Macquarie Park from a successful suburban business park to a vibrant commercial centre⁸⁰

- ▶ **The Westmead Health and Education Precinct:** to bring together major higher and further education institutions and health infrastructure, creating a knowledge and research-intensive cluster of economic activity
- ▶ **Parramatta CBD:** to capitalise on infrastructure investment in the area, including Parramatta Light Rail Stage 1 and Sydney Metro West
- ▶ **Bradfield City Centre and its surrounding Aerotropolis:** to leverage the development of the Western Sydney International (Nancy-Bird Walton) Airport, commitments in the Western Sydney City Deal and other major infrastructure. Investment attraction efforts are focused on aerospace and defence, advanced manufacturing, agricultural technology and a host of knowledge-intensive and population-serving industries.

Planning for the delivery of these precincts and growth corridors is well underway and so is much of the major transport infrastructure. Some of these precincts are in already well-established areas and their infrastructure needs will differ. For example, Tech Central sits in the most connected transport hub in Sydney and infrastructure needs are likely to focus on improving digital connectivity and precinct activation, both of which can be largely delivered by the private sector.⁸¹

Major infrastructure investment is committed or already in delivery across the Parramatta CBD and Westmead. As both commercial and residential development gathers pace in these precincts, further transport connections and other infrastructure needs can be considered, sequenced efficiently with land use planning.

The more challenging development will continue to be the Bradfield City Centre, its surrounding Aerotropolis and the broader Western Parkland City. The scale of development and the long duration of both the land use and infrastructure program will test the resolve of government and the private sector, as it will take several decades to deliver on these ambitions.⁸² The 2022 SIS recommends that the NSW Government continues to apply a long-term lens to the strategic planning of the Western Parkland City, taking a careful approach to the timing of investment so it aligns closely to emerging demand (see Chapter 10 for more).

Success will also rest on targeted non-infrastructure policies, such as skills and investment attraction, and industry development that will drive growth in demand for the planned infrastructure. Clear targets and accountabilities for the Department of Enterprise, Investment and Trade, alongside the Western Parkland City Authority and Investment NSW, will play a significant role in securing the success of the Bradfield City Centre and broader Western Parkland City.

3.3 Greater integration of major metropolitan cities

Historical industrial and settlement patterns have meant that, unlike many OECD countries, NSW's most populous cities remain separated by large non-metropolitan land areas and long journeys. As a result, the economies of the cities are less integrated than could be the case, opportunities arising from scale may be foregone and the options open to businesses and households are more limited.

The Greater Cities Commission has been tasked to develop an approach for greater integration of a metropolitan region of "Six Cities" that includes:

- ▶ the Eastern Harbour City
- ▶ the Central River City
- ▶ the Central Coast City
- ▶ the Lower Hunter and Greater Newcastle City
- ▶ the Western Parkland City
- ▶ the Illawarra-Shoalhaven City.

While history may have set the cities apart geographically, they each offer valuable assets and skilled populations. For example:

- ▶ Newcastle and Wollongong provide major international trade gateways: the Port of Newcastle and Port Kembla

- ▶ together with Greater Sydney, the Central Coast, Lower Hunter and the Illawarra account for around three-quarters of the NSW population,⁸³ projected to grow by around 15% over the next 20 years – faster than the rest of NSW⁸⁴
- ▶ the infrastructure originally built to service heavy industries and mining can be repurposed for emerging export focused industries, including advanced manufacturing, critical minerals processing and hydrogen
- ▶ there are housing and services capable of supporting a growing population.

These attributes can be leveraged more effectively through better integrated planning and infrastructure investment within and between cities. More flexible use of these assets across a broader range of businesses, industries and population has the potential to increase productivity of the whole region and each individual city. An efficient transport network for the movement of goods, services and people is a necessary foundation for these cities to be productive and thriving economies.

From an infrastructure perspective, the primary barrier to increased integration and productivity is travel time between the cities. Journey times were acceptable when each city rested on its own local economic base. However, greater integration and the pursuit of efficiency requires that the transport of both people and goods today is faster and more commensurate with competitor regions in other countries.

The metropolitan centres can benefit from better transport links, internally and to Greater Sydney, to leverage their assets, including international gateways. Planning for the second container terminal at Port Kembla when Port Botany reaches capacity, including enhanced links to the emerging industries in the Western Parkland City, would present further economic opportunities. Current projections of the State's freight volume growth suggest the second container port will be required between 2045 and 2050.⁸⁵

A staged approach to inter-city connectivity through Fast Rail

Connection between the metropolitan centres could be strengthened significantly through the *NSW Fast Rail Strategy*, which aims to improve passenger travel time across the key cities. However, there is no quick fix to overcoming travel time between these cities and Greater Sydney. The Fast Rail Strategy program will require a long-term, resolute approach and an ability to keep a keen focus on the benefits of integration. It should be delivered via a staged program, which could commence in 5 to 10 years but will likely be delivered over multiple decades (see Box 3.2).

Over time, Fast Rail investments could generate new housing supply opportunities outside Greater Sydney and offer new economic opportunities for the metropolitan cities by attracting businesses and workers.⁸⁶ In particular, better links between Wollongong and the new Western Sydney International (Nancy-Bird Walton) Airport and fast-growing surrounding areas presents mutual opportunities for businesses and workers.

The immediate need is to determine the priorities and staging for corridors and packages, and for the NSW Government to start the process of committing regular annual funding for what will be a long-term program.

Box 3.2

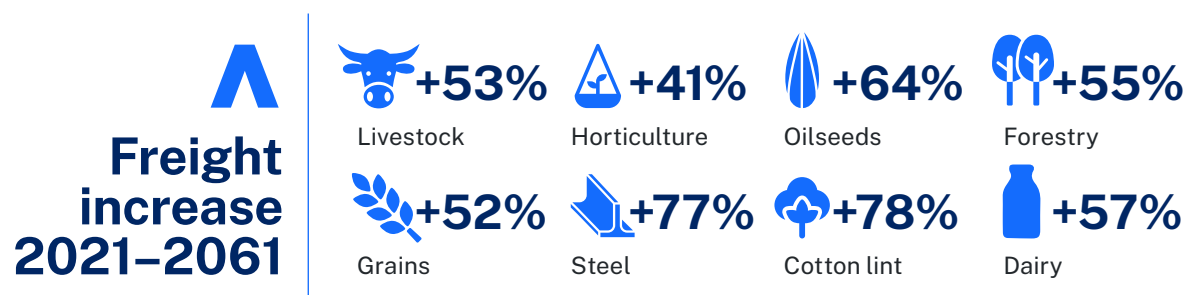
NSW Fast Rail Strategy⁸⁷

Fast Rail is being investigated along four key corridors, linking Sydney to Newcastle, Bomaderry, the Central West and Canberra. It would provide better links for NSW's metropolitan cities and regional centres with speeds of up to 250 km/h for new and dedicated lines. Improvements to the existing system would also enable trains to reach speeds of 160km/h for those sections.

Given the scale of the task, the NSW Government is exploring an incremental approach to investments and upgrades to be delivered over the next two to three decades.

The Government's commitments to Fast Rail will need to be accompanied by an holistic strategy that considers complementary infrastructure and non-infrastructure policies, including transport connectivity to Fast Rail within these metropolitan regions, land use planning, skills development, and business and investment attraction. Transport alone is rarely sufficient in delivering optimal economic development outcomes.

Figure 3.4 – Freight will need to meet increasing demand from industries



Source: Infrastructure NSW, based on TfNSW Strategic Freight Model and Regional Freight Model projections (2021).

3.4 A thriving regional NSW is fundamental to the State economy

In regional NSW, primary and secondary industries and the visitor economy remain dominant, accounting for half of total regional NSW economic output. However, the share of population-serving industries, such as health, education and social care, is increasing as key drivers of jobs growth in regional centres.⁸⁸

The contribution of capital-intensive industries to the NSW economy remains significant, although employment in these industries continues to decline.⁸⁹ These industries – which include agriculture, forestry and fisheries, and mining – directly contribute 5.5% of the State’s output. That relatively modest direct contribution to output masks their importance to the NSW economy; goods produced through mining and agriculture account for over half of NSW’s exports and these

industries provide a solid local economic base for many long-established regional towns.⁹⁰ Professional and technical services supporting these sectors also contribute to the economy.

The future performance of capital-intensive industries, including agriculture, mining and manufacturing, will be heavily influenced by the cost, quality and security of available freight, energy and water networks, alongside access to agricultural land (see Figure 3.4).

Leveraging existing strengths in regional NSW

The NSW Government’s *20-Year Economic Vision for Regional NSW* (Regional Economic Vision) outlines the State’s overarching plan for driving sustainable, long-term economic growth in regional NSW. It sets out a plan and framework for how the NSW Government will establish foundations for businesses to invest in regions.

To support the Regional Economic Vision, the Government has established the \$4.2 billion Snowy Hydro Legacy Fund aimed at delivering critical infrastructure and priority initiatives in regional NSW. The Fund focuses on initiatives in the following five domains:⁹¹

- ▶ **Special Activation Precincts (SAPs)** aimed at increasing business activity and investment through coordinated land use planning, and provision of common use infrastructure (see Box 3.3)
- ▶ **freight link enhancements** to maintain and improve the competitiveness of goods produced in regional NSW, through efficient last-mile connections and connections to export facilities
- ▶ **rail and road passenger transport connectivity** to make travel between/within regional centres and with metropolitan areas faster and more convenient
- ▶ **water security** in priority catchments through investment in catchment-scale infrastructure such as pipelines, weirs and dams
- ▶ **digital connectivity** in regional locations through shared infrastructure to increase digital access, and improving mobile coverage and options to enhance high-capacity data links to Sydney.

Opportunities associated with SAPs should remain a priority of the NSW Government, particularly where the Australian Government’s investment in Inland Rail can be leveraged. This includes strengthening the reliability and capacity of

regional freight road and rail networks, taking a strategic approach to land use planning, and delivering enabling infrastructure to facilitate housing supply for local workers (see Chapter 4 for more). Ensuring accessibility to essential services, such as health and education, will be key to attracting workers and investment to these areas.

Other regional centres, such as Orange, Port Macquarie and Bathurst, are important hubs for economic activity in regional NSW. Opportunities in the agriculture, healthcare, transport and logistics, and education and training sectors are expected to drive future growth.⁹² With fast population growth in these centres, long-term planning will be important to ensure these areas have the right infrastructure and services.⁹³

Beyond the SAPs and existing regional hubs, corridor-wide improvement programs to overcome safety and reliability issues that impact freight and supply chains are needed to support regional growth and liveability.

Transport for NSW has developed corridor strategies that will address these challenges in part – including strategies for the Princes Highway and the Golden Highway, among others. Complementary priorities include improving first-and last-mile connections on local roads, augmentation of pinch points and corridor-level enhancements that allow for the safe and efficient use of High Productivity Vehicles (HPVs).⁹⁴ These incremental improvements should remain a priority of the NSW Government.

Box 3.3

NSW Special Activation Precincts^{95,96}

A Special Activation Precinct (SAP) is a dedicated area in a regional location identified by the NSW Government to become a thriving business and industrial hub. The following SAPs have been identified within NSW:

- ▶ **Moree SAP:** a business and intermodal hub specialising in high-value agriculture, logistics and food processing
- ▶ **Narrabri SAP:** an energy hub that targets existing and emerging industries such as value-added production, manufacturing, and freight and logistics
- ▶ **Parkes SAP:** a hub that leverages its strategic location within NSW's freight and logistics network to establish Australia's largest inland port, with up to 3000 jobs created across a range of industries, including advanced manufacturing, renewable energy and recycling
- ▶ **Snowy Mountains SAP:** a year-round tourism hub that drives improvement for regional amenity and access, and grows the region into a national training base for snow sports
- ▶ **Wagga Wagga SAP:** a hub that will capitalise on its strategic location servicing the Riverina-Murray agricultural region. Estimated to create between 3000 and 6000 new jobs across freight and logistics, advanced manufacturing, recycling and renewable energy industries
- ▶ **Williamstown SAP:** centred around the Royal Australian Air Force base, and expected to support the creation of 4300 jobs, primarily in the defence and aerospace industries.

Regional Job Precincts (RJPs), an extension of the SAP program, seek to deliver faster planning approvals to drive growth, investment and development opportunities. RJPs are currently planned in Albury, Richmond Valley, South Jerrabomberra and Namoi Region.

There is also significant opportunity associated with the State's transition towards a Net Zero economy. The NSW Government's commitment to achieve Net Zero emissions by 2050 and the adoption of the *Electricity Infrastructure Roadmap* presents challenges and opportunities for regional economies – particularly for locations designated as Renewable Energy Zones (REZs). Managed well, the transition to renewable energy generation, transmission and storage has the potential to create new jobs, increase private sector investment and lead to new economic opportunities. Harnessing these opportunities requires a long-term plan involving local communities and industry, and reskilling of the workforce over time (see Chapter 6 for more).

Water security is also crucial for regional NSW economies that rely on primary industries such as agriculture and forestry. For example, over recent decades the Central West has had to adapt to climate change impacts that have heightened water security issues, including increased frequency of droughts.⁹⁷ For regional economies where water security is fundamental to economic growth, strategic land use planning and infrastructure investment need to be supported by initiatives and regulation that lead to efficient management, allocation and use of the limited water supply available (see Chapter 7 for more).

Efficient and convenient transport networks for regional communities

In regional NSW, growth in population-serving industries such as health and hospitality is held back by labour shortages. This is a significant concern for larger regional centres that serve as hubs for people to access jobs and services. Government can facilitate labour availability by improving public transport links to employment and service centres to, and within, large regional centres and providing infrastructure that supports growth in housing supply.

This includes housing for the workforce directly engaged in delivering essential public services such as teachers, police and health workers in circumstances where the private market is constrained (see Chapter 4 for more).

The availability of transport options within and between regional centres, beyond private vehicles, is important. Transport for NSW is progressively delivering the 16 Regional Cities Services Improvement Program, aimed at improving regional bus services to provide better connections for people in regional communities travelling to work, school, health services and social and recreational activities.⁹⁸ Identified as a priority initiative in *Future Transport 2056*, the program has been delivered to two out of the 16 regional cities. Delivery of the program to the remaining regional cities should remain a priority of the NSW Government.

3.5 A competitive visitor economy supported by cultural and sporting facilities

Cultural and sporting infrastructure help mould the State's identity and contribute to the State's economy and competitiveness by attracting skilled workers and visitors (see Box 3.4). The visitor economy contributed \$38 billion to the Gross State Product (GSP) and supported almost 300,000 jobs prior to the COVID-19 pandemic. The NSW Visitor Economy Strategy 2030 target is to grow total visitor expenditure to \$65 billion by 2030 and return visitor numbers and expenditure to pre-COVID levels by 2024.

Investments in cultural and sporting infrastructure have been guided by Infrastructure NSW's 2016 Cultural Infrastructure Strategy,⁹⁹ Create NSW's Cultural Infrastructure Plan 2025+,¹⁰⁰ NSW Stadia Strategy 2012¹⁰¹ and the Office of Sport Strategic Plan 2020-2024.¹⁰²

Many projects identified in earlier cultural and sporting strategies have been implemented or are in delivery. Significant cultural infrastructure projects delivered and underway include the Art Gallery of NSW – Sydney Modern, Walsh Bay Arts Precinct, the Powerhouse Museum Program (Parramatta, Ultimo and Castle Hill) and upgrades of the Australian Museum and the State Library.^{103,104} Major stadium and sporting investments have also been delivered or are underway, with the Western Sydney Stadium completed in 2019 and Sydney Football Stadium

due to be completed in 2022. Planning and investigation is underway for the new Penrith Stadium, announced by the NSW Government in 2021.

The Government has also supported infrastructure at a local and regional level through cultural funding programs such as the Creative Capital and Regional Cultural funds, and community sport facility funds such as the Greater Cities and Regional Sport Facility Fund, Multi-Sport Community Facility Fund and, more recently, WestInvest.¹⁰⁵

With many projects now completed or underway, a review of progress against earlier strategies is warranted. The evolution of the new Six Cities approach to strategic regional planning also means that a needs analysis is required for assets not identified previously and those that could serve broader purposes across the six cities. This review should recognise the interdependence between sporting and cultural facilities and the visitor economy, including opportunities to invest in regional NSW to enhance the visitor economy outside metropolitan centres.

Ongoing investment should target:

- ▶ any remaining significant gaps in the State's portfolio of cultural, sporting and tourism assets
- ▶ alignment with population growth patterns, including investment alongside future growth in Sydney's Central and Western Parkland Cities, and regional hubs
- ▶ representation and accommodation of diverse cultures and communities, including NSW's rich Aboriginal heritage and contemporary culture
- ▶ greater engagement through new local and digital access opportunities
- ▶ renewal and maintenance of existing infrastructure, as well as the development of new fit-for-purpose facilities.

Box 3.4

Infrastructure to support the visitor economy

Infrastructure to support the visitor economy can include transport and strategic assets (like key gateways and utilities), accommodation, venues, attractions (including cultural infrastructure) and amenities such as parklands and parking. These assets are spread throughout regional and metropolitan areas and a wide range of public and private sector organisations are responsible for them.

As recommended in the 2018 SIS, the NSW Government has been working to develop a 20 Year Visitor Economy Infrastructure Strategy to outline how all levels of government, the community and private sector can collaborate to achieve great outcomes for visitors. This includes coordinating and aligning with regional place strategies, developing a visitor infrastructure pipeline of specific projects and priorities, and growing the data and evidence to support better policy and infrastructure planning for the visitor economy.

3.6 Recommendations

Recommendations in this section of the 2022 SIS are focused on the transport sector, which is only one of the key elements for boosting productivity and competitiveness. Recommendations relating to other sectors are set out in Chapters 4 to 11.

No	Recommendations	Implementation timeframe	Lead agency
1	Invest in public transport networks to support the growth of Greater Sydney		
	a. Deliver rapid bus networks that service key centres and corridors across Sydney, with a priority focus on Parramatta Road and Victoria Road.	Immediate Priority	Transport
	b. Invest in programs to lift the capacity, reliability and operational efficiency of existing Sydney Trains networks including the More Trains More Services (MTMS) program and the Digital Systems Program component of the MTMS.	Immediate Priority	Transport
	c. Preserve corridors needed for future extensions to the Greater Sydney metropolitan rail network, with an initial focus on links to improve connections between Parramatta to Epping and Parramatta to Kogarah.	Immediate Priority	Transport
	d. Improve public transport within the metropolitan cities of Newcastle, Central Coast and Wollongong.	Extended Program	Transport
2	Produce detailed prioritised lists of smaller improvement and optimisation works for existing metropolitan road and rail networks for inclusion in the upcoming Services and Infrastructure Plans: <ul style="list-style-type: none"> – specific detail on pinch points, technology upgrades, asset hardening and other improvements that have been prioritised for action – basis for prioritisation – timing and delivery strategy. 	Immediate Priority	Transport
3	Progressively deliver the Western Parkland City Transport Program to meet emerging and long-term demand from Western Sydney International (Nancy-Bird Walton) Airport and the Aerotropolis		
	a. Deliver the enabling road network for the Aerotropolis, including Elizabeth Drive upgrade, Eastern Ring Road and Fifteenth Avenue.	Immediate Priority	Transport
	b. Deliver a rapid bus network (including new fleet, services, technologies and infrastructure) between the Western Sydney International (Nancy-Bird Walton) Airport and key metropolitan centres of Liverpool, Campbelltown and Penrith.	Immediate Priority	Transport

No	Recommendations	Implementation timeframe	Lead agency
	<p>c. Preserve corridors to protect long-term options for a future mass transit network to and within the Western Parkland City. Initial priority corridors include:</p> <ul style="list-style-type: none"> – Sydney Metro West extension from Parramatta to Western Sydney International Airport – Sydney Metro North West to Sydney Metro Western Sydney International Airport connection – Sydney Metro City and South West from Bankstown to Liverpool – Sydney Metro Western Sydney International Airport extension to Campbelltown-Macarthur – Rail line linking Bradfield City Centre, Leppington, Liverpool, and Parramatta. 	Extended Program	Transport
4	Progressively fund and deliver the Fast Rail Strategy based on a prioritised and staged program of network enhancements		
	a. Define stages and sequencing for the delivery of the Fast Rail Strategy that take into account demand and economic development objectives.	Immediate Priority	Transport
	b. Fund a long-term annual investment program at a level that ensures a sustained program of work.	Extended Program	Transport
	c. Finalise a detailed delivery strategy that considers the staging/sequencing as well as network operations, possessions and procurement approach.	Extended Program	Transport
5	Deliver next stages of the 16 Regional Cities Services Improvement Program to enhance regional NSW connectivity , including additional public bus, active transport and on-demand service options for greater customer convenience	Extended Program	Transport
6	Plan and deliver projects to increase the efficiency and reliability of freight networks in regional NSW		
	<p>a. Develop a prioritised and actionable investment program to enhance the regional freight network through:</p> <ul style="list-style-type: none"> – better local connections, in particular first- and last-mile connections on local roads – corridor-level enhancements to improve connectivity, safety, network resilience and accessibility for High Productivity Vehicles (HPVs), including augmentations to alleviate key pinch points such as road and bridge capacity upgrades, level-crossing removals and addressing inadequate road geometry – options to capitalise on the Australian Government’s Inland Rail project and its associated programs. 	Immediate Priority	Transport
	b. Plan for the next stages of the Northern Sydney Freight Corridor augmentation before demand for rail freight between Newcastle to Sydney reaches capacity within the next decade.	Medium Term Need	Transport

No	Recommendations	Implementation timeframe	Lead agency
7	Support the growing Greater Sydney freight task through investments and initiatives that leverage existing and emerging international gateways		
	a. Pursue previously identified pinch points and bottlenecks, including: <ul style="list-style-type: none"> – strategic road network enhancements at the Moorebank intermodal precinct, the M5 and the Liverpool CBD bypass – Parramatta Outer Ring Road and Parramatta CBD bypass. 	Immediate Priority	Transport
	b. Optimise efficiency along the Sydney Gateway to Port Botany international gateway corridor through: <ul style="list-style-type: none"> – strategic land use planning and transport network enhancements – investigation of options to augment the missing link between the Sydney Gateway and Port Botany, including opportunities for private sector co-funding. 	Immediate Priority	Transport & Planning and Environment
	c. Preserve corridors to enable future delivery of dedicated freight rail lines, including the: <ul style="list-style-type: none"> – Western Sydney Freight Line – Lower Hunter Freight Corridor. 	Immediate Priority	Transport
	d. Develop and implement initiatives to boost freight efficiency and capacity of the metropolitan shared rail network, consistent with findings of the <i>2021 Auditor-General's Report on Rail freight and Greater Sydney</i> .	Immediate Priority	Transport
8	Undertake strategic land use planning and corridor protection to enable efficient movement of both container and bulk freight in the future, including:		
	a. Expansions to Greater Sydney's intermodal network such as the Mamre Road Precinct, and effective management of surrounding land uses and transport network.	Immediate Priority	Transport
	b. Define shortlisted options to protect land for a future bulk freight receivable site in Western Sydney.	Immediate Priority	Transport
	c. Undertake transport network planning to support the future second container port at Port Kembla, including road and rail linkages to major logistic hubs such as Western Parkland City.	Extended Program	Transport
9	Review progress of cultural and sporting infrastructure strategies and investigate new investment opportunities to support the visitor economy	Immediate Priority	Enterprise, Investment and Trade