



WESTERN
PARKLAND CITY
DRAFT

ECONOMIC DEVELOPMENT ROADMAP

PHASE 1

Have your say

This Draft Economic Development Roadmap – Phase 1 has been prepared by Western Parkland City Authority (WPCA) to provide direction on the economic priorities required to deliver the vision for the Western Parkland City.

Accordingly, many of these priorities will require further planning and consultation before governments commit the resources for detailed investigation and implementation.

WPCA will work with Commonwealth and local governments and NSW Government agencies to progressively advocate for and/or deliver the priorities and continue to engage with stakeholders on emerging issues.

Your feedback can be provided by 31 March 2022 via:

WPCA website: www.wpca.sydney

Info line: 1800 312 999

General inquiries email: blueprint@wpca.sydney



Chair's Foreword

As well as being a future driver of economic growth for NSW and Australia, the Western Parkland City will be the most green, connected and advanced City in the Indo-Pacific region.

The *Economic Development Roadmap – Phase 1* aligns with the Australian and NSW governments' commitments to leverage the economic and investment potential of the Parkland City. The *Draft Roadmap* also sets out a pathway to recovery from the COVID-19 pandemic.

As the Parkland City grows – accommodating over 25% of the population growth of NSW – we have an opportunity to focus on creating the right environment for jobs to grow.

These will be the jobs of future generations that will harness future technologies. They will be the jobs that drive the innovation and industry at the heart of the Parkland City.

The Parkland City already has a wealth of endowments – a strong manufacturing sector, proximity to world heritage-listed natural areas and a skilled and culturally-diverse population. The *Draft Roadmap* seeks to drive these and grow workforce skills.

We want to see the Parkland City emerge as a centre for globally-competitive and nationally-significant industries, leveraging its strengths in people-oriented sectors like health and education services, and all underpinned by the enabling infrastructure that makes the City productive and liveable.

The *Draft Economic Development Roadmap – Phase 1* works hand in hand with the *Draft Blueprint*. Together they recognise investment attraction, liveability and infrastructure investment needed to become a City fit for the 22nd Century.

The chance to act is now. With the development of the Sydney Metro-Western Sydney Airport and Bradfield City Centre underway, we have an opportunity to ensure that the entire Parkland City shares in the jobs and liveability dividend.

I look forward to continuing the conversation about how we can best grow the economic opportunity for the Parkland City.

Jennifer Westacott, AO
Chair, Western Parkland City Authority

Acknowledgement of Country

Aboriginal people have had a continuous connection with the Country encompassed by the Western Parkland City ('Parkland City') from time immemorial. They have cared for Country and lived in deep alignment with this important landscape, sharing and practising culture while using it as a space for movement and trade.

We acknowledge that four groups have primary custodial care obligations for the area: Dharug/Darug, Dharawal/Tharawal, Gundungurra/Gandangara and Darkinjung. We also acknowledge others who have passed through this Country for trade and care purposes: Coastal Sydney people, Wiradjuri and Yuin.

Western Sydney is home to the highest number of Aboriginal people in any region in Australia. Diverse, strong and connected Aboriginal communities have established their families in this area over generations, even if their connection to Country exists elsewhere.

This offers an important opportunity for the future of the Parkland City.

Ensuring that Aboriginal communities, their culture and obligations for Country are considered and promoted will be vital for the future of the Parkland City. A unique opportunity exists to establish a platform for two-way knowledge sharing, to elevate Country and to learn from cultural practices that will create a truly unique and vibrant place for all.

The Western Parkland City Authority wish to acknowledge Aboriginal people as the traditional custodians of this land. Through thoughtful and collaborative planning, we seek to demonstrate our ongoing commitment to creating places in which Aboriginal people are included socially, culturally and economically.

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Executive Summary

With the Western Sydney International Airport commencing operation in 2026, a \$20 billion pipeline of infrastructure investment and the development of the new Bradfield City Centre, the Western Parkland City is on the cusp of becoming the engine room of the national economy.

The *Draft Economic Development Roadmap – Phase 1* provides an overarching strategy to maximise these economic opportunities and attract investment, businesses, and talent to the Parkland City and Australia. It focuses on leveraging the City's existing strengths and supporting the advanced industries that will create new jobs for the next generation.

The *Draft Roadmap* is a companion document to the *Draft Western Parkland City Blueprint*, which outlines the next critical infrastructure projects needed to make the City the greenest, most connected and most advanced in the Indo-Pacific region. The *Draft Blueprint* also signals a fundamental shift away from incremental planning and investment to alignment of government spending on infrastructure and services that supports jobs-led growth.

The *Draft Roadmap* outlines three directions for the Parkland City, each with a set of priorities. These will provide the Commonwealth, NSW, and local governments and the private sector with guidance on where to target future investment.

Subsequent phases of the *Draft Roadmap* will focus on specific industry sectors building on the opportunities identified in this *Draft Roadmap* including undertaking further industry deep dives to highlight opportunities to build on existing ecosystems in target industries in the Parkland City.

What is the role of the Western Parkland City Authority?

The NSW Government established the Western Parkland City Authority (WPCA) to coordinate infrastructure, attract investment and deliver the Bradfield City Centre. The WPCA has been tasked with guiding growth and investment for the entire Parkland City, and the *Draft Blueprint* and the *Draft Economic Development Roadmap – Phase 1* are central to that work.

Economic Directions

This *Draft Economic Development Roadmap – Phase 1* reinforces and supports the *Draft Blueprint's* vision and priorities. The *Roadmap* will unlock economic and investment opportunities across the Parkland City and support the NSW Government's COVID-19 Economic Recovery Strategy.

The *Draft Roadmap* identifies three economic opportunities:

- **Foster innovation and build global competitiveness** by developing capabilities that are export-oriented or strategically important to the NSW economy, such as defence, agribusiness, and advanced manufacturing;
- **Leverage city strengths** that deepen the range of specialised services, particularly health and education and provide infrastructure and amenities, such as parks, arts and cultural facilities, together with transport infrastructure and services to enhance liveability; and
- **Develop 22nd century workforce skills** by providing industry relevant skills and employment pathways whilst attracting global talent in existing and emerging sectors.

Context

The Western Parkland City expands across the Country of the Dharug / Darug, Dharawal / Tharawal, Gundungurra / Gandangara and Darkinjung People. It includes the the local government areas of the Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly.

The *Western Parkland City Economic Roadmap-Phase 1* builds on several economic and related strategies of the NSW Government including the Greater Sydney Region Plan, Western City District Plan, NSW 2040 Economic Blueprint, Future Transport 2056, NSW Climate Change Policy

Framework, State Infrastructure Strategy, and Global NSW together with the economic strategies of the Commonwealth and local governments.

In this regard the *Western Parkland City Economic Development Roadmap-Phase 1* has a critical interdependency with the *Draft Blueprint*.

The *Blueprint* sets out to shift the fundamentals by analysing the gaps in services and infrastructure, the pipeline of future projects slated for investigation, and the opportunities for new and augmented government action needed to deliver the vision.

Western Parkland City: Shifting the Fundamentals

1. Build for the long term: by bringing forward decisions to avoid costly retrofitting. This will shift all levels of government from incremental planning on a project-by-project basis to establishing and coordinating delivery for long-term investment needs and options.
2. Unlock the economic potential of the Parkland City: by shifting to a jobs-led approach to growth and making economic and talent attraction a key component of delivery decisions.
3. Align and increase investment in infrastructure: by identifying the infrastructure investment envelope so Government can plan ahead for the medium-to long-term. This will enable the Western Parkland City to not just 'catch-up' but leap ahead as a city ready for the 22nd century.
4. Make community central to planning and delivery by engaging upfront and on an ongoing basis with existing communities as the Parkland City grows and changes to drive equity, liveability and amenity for residents, workers and visitors.
5. Recognise the Parkland City as a green connected and advanced city in its own right: by shifting from a peripheral expansion of Greater Sydney to a Parkland City that driven by innovation, sustainability and a world-renowned city in a parkland.

Economic Snapshot

Activity

- A projected population growth rate of 2.4 per cent per year, bringing the population up to 1.7 million people by 2036. This represents 25 per cent of NSW's population growth over the period;
- Over half of Greater Sydney's industrial lands are located within the Parkland City, of which over 50 per cent is greenfield land available for development;
- Significant industry sectors include manufacturing and advanced manufacturing, health and education, construction, tourism, and agriculture; and
- The most highly competitive location for investment for the freight and logistics sector in Greater Sydney.

Major Government Investment

- \$5.3 billion Western Sydney International Airport;
- \$4.4 billion Western Sydney Infrastructure Plan providing better road linkages;
- \$11 billion Sydney Metro–Western Sydney Airport;
- \$1.1 billion investment to catalyse the Bradfield City Centre as an initial precinct in the Aerotropolis; and
- \$5 billion WestInvest fund to drive local economic outcomes focusing on creating jobs and rejuvenating local communities, boosting productivity, and improving and enhancing town centres.

What is the vision?

The vision is for a Green, Connected and Advanced Parkland City:



Delivering a green City: The Parkland City will be a green and resilient city with a unique natural landscape that protects biodiversity and supports an increasingly sustainable and compact urban form.

Our investments will enable the City to become a true 'parkland', promoting green infrastructure through networks of open space and waterways and increasing the tree canopy. The City will also attract green economic opportunities in sustainable industries.

In the development of Bradfield City Centre, the WPCA will aim to achieve Australia's first hydrogen ready and zero carbon city.



Delivering a connected City: The Parkland City will be a globally and locally connected City supported by physical, digital and social infrastructure.

The new 24/7 Western Sydney International Airport will be a major contributor to the City being one of the most connected places in Australia. The first and subsequent stages of the metro line, rapid bus corridors and more walkable neighbourhoods will allow for better access to jobs, services and amenities.

The City will also be a model for digital equity, innovation and cyber security. It will be designed to respect and Connect with Country and our First Nations people and celebrate our cultural diversity.



Delivering an advanced City: The Parkland City will be a leader in the advanced manufacturing sector with advanced education and skills to match.

The Parkland City will support the growth of clean, green and advanced industries. It will also grow our health and education precincts and leverage existing strengths in freight and logistics, construction and tourism.

This will improve the diversity of local job opportunities, rebalancing job distribution and improving wage equity across Greater Sydney.

Economic Development Roadmap – Phase 1 on a Page

The three directions of the *Draft Roadmap* – innovation and global competitiveness; City strengths and 22nd century workforce skills – will each be delivered by a set of priorities as outlined below.

Overview of Priorities	
Innovation and global competitiveness	<ol style="list-style-type: none"> 1. Attracting and coordinating inbound investment 2. Establishing and delivering the Western Sydney Investment Attraction Fund to catalyse the opportunities to attract new industry activity 3. Building on the <i>Draft Roadmap's</i> target industry sectors, undertake further industry deep dives to highlight opportunities to build on existing ecosystems 4. Establishing an expanded concierge function through the Western Sydney Investment Attraction Office to attract and support inbound investment into the Parkland City 5. Leveraging the circular economy by targeting the Parkland City's existing waste, resource recovery and manufacturing industries, including integration of advanced, sustainable and resilient food production 6. Attracting defence investment by implementing programs and building the industry ecosystems needed to improve aerospace and defence industry competitiveness 7. Attracting aerospace investment by growing space manufacturing industries and capability 8. Delivering the Bradfield City Centre: Australia's first 22nd century city centre 9. Establishing the Advanced Manufacturing Research Facility (AMRF): a future hub for next generation fabrication and advanced electronics
City strengths	<ol style="list-style-type: none"> 10. Maximising Agribusiness opportunities through a 36-hour farm gate to plate supply chain 11. Delivering a high quality 'parkland' city by supporting the effective roll-out of the WestInvest initiative to improve amenity 12. Supporting tourism by focusing on expanding visitor markets and enabling infrastructure, supported by a Destination Management Plan 13. Growing the Metropolitan centres of Campbelltown, Liverpool, and Penrith, including initiatives to support health and education precincts 14. Growing strategic and local centres through strategies that address growth barriers in local centres, enable development of new centres and grow home-based businesses across the Parkland City 15. Delivering economic enabling infrastructure investments by supporting transport and liveability outcomes 16. Improving liveability through strategies to deliver national and internationally recognised arts and cultural, recreational, and sporting facilities.
22nd century workforce skills	<ol style="list-style-type: none"> 17. Establishing the New Education and Training Model (NETM) by developing and delivering flexible and responsive industry-led skills training through the piloting of 100 micro-credentials through 7000 courses 18. Delivering the Smart Western City program through the roll out of digitally enabled places across the Parkland City 19. Growing Cyber security capability by developing and progressing strategies to achieve a mature cyber security capability across the Parkland City. 20. Focussing on workforce skills by planning and delivering programs that promote education and employment pathways, including exploring options to attract more migrants and grow local talent with skills for high tech industries

1. The Role of The Economic Development Roadmap – Phase 1

Purpose

The Western Parkland City (Parkland City) has evolved from a series of edge townships to suburban fringe communities. The Western Sydney International Airport is now fundamentally changing the Parkland City's economic trajectory, turning it into a city in its own right, with its fair share of resources, jobs and a greater diversity of economic drivers. This is being collectively delivered across three levels of government to leverage the Parkland City's potential as the engine room of Australia's economy.

This *Draft Economic Development Roadmap – Phase 1 (Draft Roadmap)* builds on these outcomes and outlines a pathway to transform the Parkland City into the most green, connected, and advanced city in the Indo Pacific region.

The Roadmap sets out directions and priorities to optimise opportunities for economic growth and development and deliver more than 200,000 new jobs, with greater diversity, higher wages and higher productivity.

The *Draft Roadmap* has been prepared in conjunction with the *Draft Western Parkland City Blueprint*. The *Draft Blueprint* presents the next round of critical directions for governments and key stakeholders to build a foundation for success.

This new collaborative and holistic approach will allow us to unlock the economic potential of the Parkland City as the economic engine room of not only NSW but Australia. Concurrently, it will enhance liveability, rebalance jobs with population and start to address social disadvantage.

What we do today will shape the Parkland City for the next 100 years. The *Draft Economic Development Roadmap – Phase 1* sets directions that will support long-term growth to enable the Parkland City to leapfrog into the 22nd Century.

The *Draft Roadmap* is a first step – it provides a framework that will evolve and update as opportunities arise or new challenges emerge. The Western Parkland City Authority (WPCA) looks forward to refining these priorities in consultation with stakeholders.

Figure 1: Building catalysts and commitments for the Western Parkland City



Western Parkland City: Shifting the Fundamentals

Clear and co-ordinated directions and decisions are needed to overcome existing challenges while enabling the Parkland City to fast-track its development into a 22nd Century economy. To achieve this ambitious objective, we will need a fundamental shift in approach that seeks to:

- **Build for the long term:** by bringing forward decisions to avoid costly retrofitting. This will shift all levels of government from incremental planning on a project-by-project basis to establishing and coordinating delivery for long-term investment needs.
- **Unlock the economic potential of the Parkland City:** by shifting to a job-led approach to growth and making economic and talent attraction a key component of delivery decisions.
- **Align and increase investment in infrastructure:** by identifying the infrastructure investment envelope so Government can plan ahead for the medium-to long-term where the Parkland City does not just 'catch-up' but leap ahead as a city ready for the 22nd century.
- **Community is central to planning and delivery:** by engaging upfront and on an ongoing basis with existing communities as the Parkland City grows and changes to drive equity, liveability and amenity for residents, workers and visitors.
- **Recognise the Parkland City as a Green, Connected and Advanced City in its own right:** by shifting from a peripheral expansion of Greater Sydney to a Parkland City that is driven by innovation, sustainability and a world-renowned city in a parkland.

Delivery Context

Successful delivery of the *Draft Roadmap* is more than simply about the investment decisions of government. It requires collaboration across all relevant local, state and commonwealth agencies together with the business sector, research institutions, and local community. Implementation of the *Draft Roadmap* also occurs in the context of the delivery of existing economic and related policies of commonwealth, state, and local governments, including targeted sector policies.

The principal economic and related policies of state government include:

- COVID-19 Economic Recovery Strategy;
- Greater Sydney Region Plan;
- Western City District Plan;
- NSW 2040 Economic Blueprint;
- Future Transport 2056;
- NSW Climate Change Policy Framework; and
- State Infrastructure Strategy.

Targeted sectoral policies include:

- Smart Western Sydney Program;
- NSW Cyber Security Strategy;
- NSW advanced manufacturing industry development strategy, Modern Manufacturing Strategy (Commonwealth);
- NSW Government Defence and Industry Strategy; and
- NSW Circular Strategic Plan 2020-23.

Furthermore, the NSW and Commonwealth governments provide over 180 programs to support businesses. They are all accessible through the NSW Governments Business Connect portal: <https://www.nsw.gov.au/working-and-business>

2. Opportunities and Challenges

NSW is Australia's largest and most diverse state economy and the Parkland City itself is a key driver of significant industries within the State. The Parkland City's existing strengths provide a strong platform for further growth.

The Parkland City's growth rate is significantly higher than the rest of Greater Sydney and indeed most established cities around the world. Over the decade to 2016, the population grew by 210,000 people to a total of 1.1 million (1.3 per cent per annum). Looking forward to 2036, this growth rate is expected to nearly double to 2.4 per cent per year, bringing the population up to 1.7 million people.

This represents 25 per cent of NSW's population growth over the period and will see the population of the Parkland City approaching that of Perth.

Leveraging the Parkland City's strengths while pursuing targeted investments in prospective and emerging industries is key to achieving quality, sustainable yet rapid economic growth. This growth is underpinned by a comparatively young and culturally diverse demographic profile, an increasingly skilled workforce and unprecedented investment in critical enabling infrastructure of the \$20 billion City Deal.

More than 20 per cent of all jobs in the Parkland City are generated within the three established metropolitan centres of Campbelltown, Liverpool, and Penrith. Strong commitments to transport infrastructure servicing these centres will influence the long-term structure of the Parkland City and create economic opportunities well into the future.

These metropolitan centres also host the three major health and education precincts. They are a major focus for knowledge jobs, with 45 per cent of health workers and 65 per cent of education workers working in these areas holding a bachelor's degree or higher.

The healthcare sector employs more than 45,000 people and the education sector more than 30,000 people – making them the largest sectors of employment in the region (collectively 23.7% of all jobs).

The recent rezoning of land within the Aerotropolis means that the Parkland City provides over half of Greater Sydney's industrial lands. Over half of this area is yet to be developed. It can be used to drive future jobs growth in the Parkland City's strengths of manufacturing, freight and logistics, construction, and agri-businesses as well as emerging industries such as the circular economy.

The skills profile of the Parkland City is influenced by the strong presence of manufacturing, construction,

retail, freight and logistics industries. While the proportion of workers with tertiary qualifications in the health and education sectors is high, the proportion of residents in the Parkland City with tertiary qualifications in these sectors is still lower than for the whole of Greater Sydney (around 10 and 4 per cent lower respectively).

The skill needs of businesses continue to evolve through technological disruption. This is driving a structural transition for many workers who will need access to learning opportunities to support them to reskill as existing industries evolve and new industries emerge. The industries experiencing the impact of automation the most include transport, postal and warehousing; manufacturing; retail; and construction.

The presence of multiple universities and TAFE campuses provides an opportunity to link business with the education providers and deliver industry relevant skills and training programs – this includes the development and delivery of industry-driven micro-credentials, such as with the New Education and Training Model (NETM).

Aligning the skills of the Parkland City's resident workforce with the evolving needs of industry is crucial given that only 24% of residents have a university degree compared to 41% in Greater Sydney. Life-long learning opportunities across tertiary education will be essential to ensure workers remain industry relevant and businesses have workers with the skills they need in emerging sectors.

Providing more choices for residents to enhance their workforce skills provides greater choice in employment opportunities which in turn has the potential to enhance household income. Supporting a greater diversity of employment options for citizens underpins the vision of the Greater Sydney Region Plan, which seeks to rebalance economic and social opportunities across Greater Sydney.

Driving economic growth also requires the delivery of social infrastructure and services which reflects the needs of the community, such as the needs of youth and Aboriginal and Torres Strait Islander peoples. Similarly, there is also a need to consider people with disability and the workforce that supports them and accessible housing options to support their economic and social contribution.

Industry Sector Specialisations

Analysis by the Centre for Economic and Regional Development shows that:

- Five industry sectors have high specialisation and/or significant growth potential in the Parkland City, including advanced manufacturing, circular economy, freight and logistics, agribusiness and construction;
- Aerospace and defence industries have strong potential as part of the broader advanced manufacturing sector driven, in part, by access to a skilled workforce and land values; and
- Health and education have a substantial presence and are mature industry sectors and make up a large part of the Parkland City's current economic base.

Figure 2: Industry specialisation and growth in the Parkland City (2011-2016)

Source: NSW Centre for Economic and Regional Development

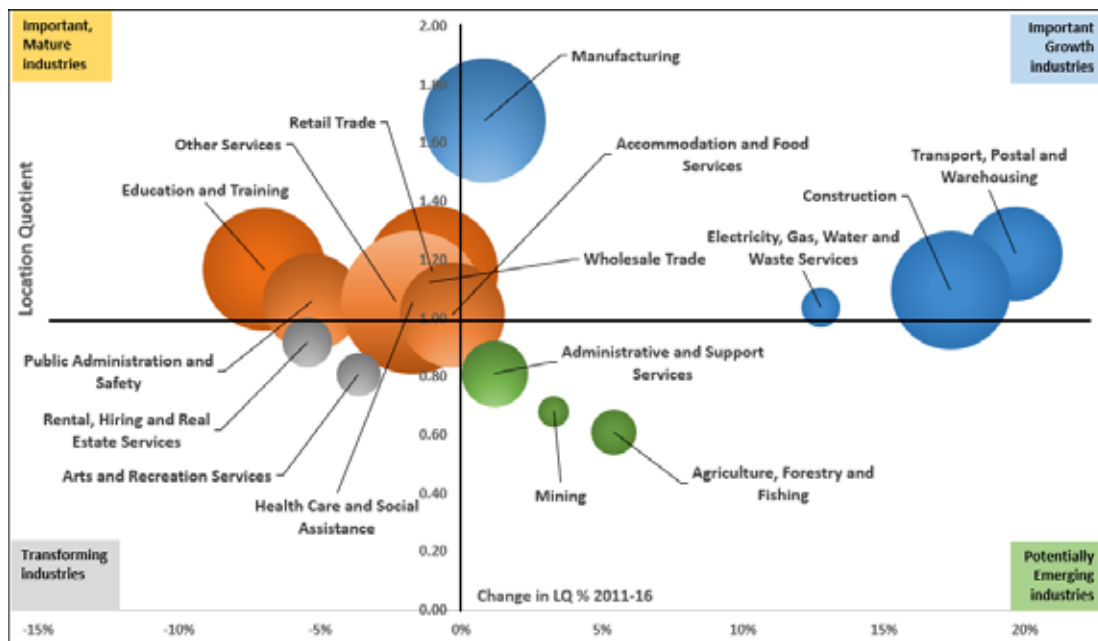
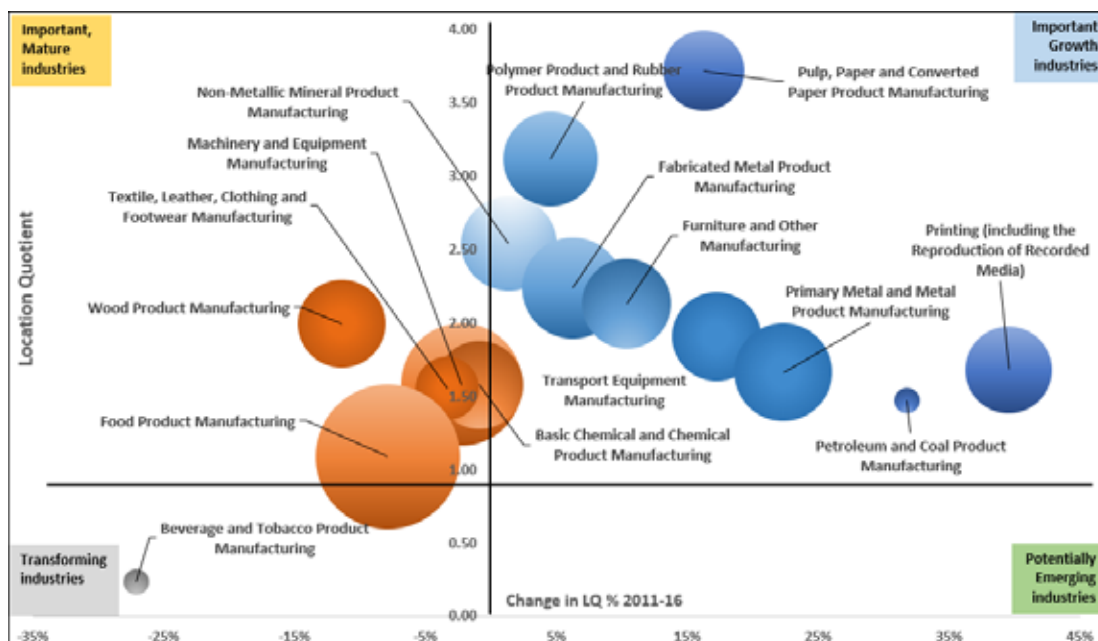


Figure 3: Manufacturing specialisation (2011-2016)

Source: NSW Centre for Economic and Regional Development

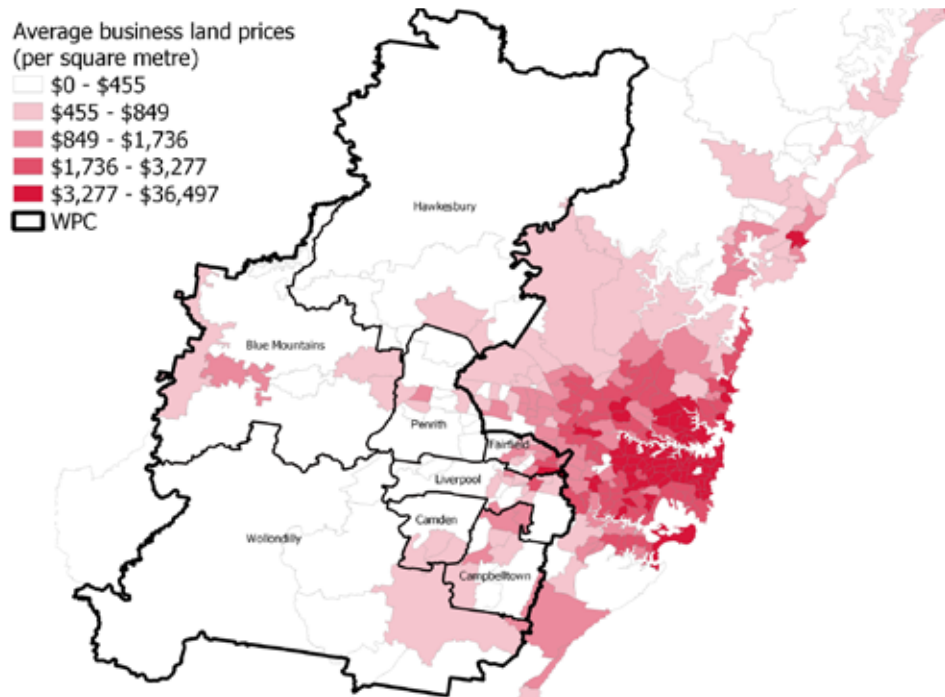


Competitive employment land

Competitive employment lands – land value

Land in the Parkland City is cheaper than for the Greater Sydney average, providing an advantage to land-intensive industries.

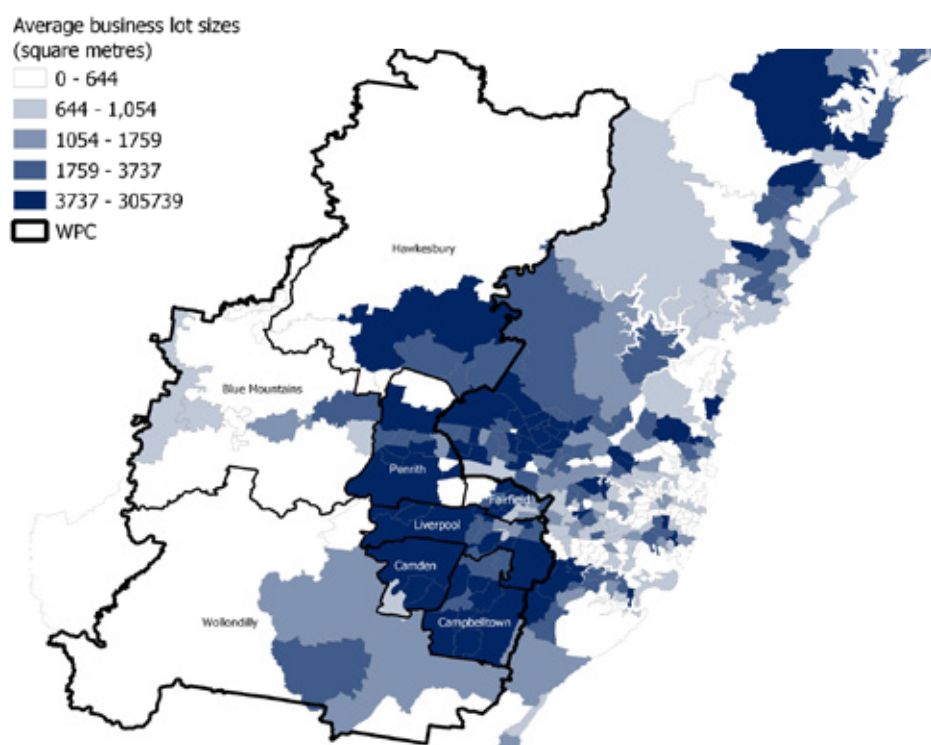
Figure 4: Average business land prices
Source: Centre for Economic and Regional Development



Competitive employment lands – lot size

Lots in the Parkland City are larger than the Greater Sydney average and are suitable for industries requiring larger footprints such as manufacturing and logistics.

Figure 5: Average business lot sizes
Source: Centre for Economic and Regional Development



Job types

Jobs by location

The Parkland City has a significantly higher proportion of industrial jobs than for the rest of Greater Sydney (35 per cent versus 21 per cent respectively).

These structural differences have significant influence on the delivery of transport networks and thus the community's access to jobs, goods, and services.

Metropolitan and strategic centres are traditionally well serviced by transport networks and are the focus for 30-minute city investments. Industrial areas are typically underserved due to lower employment densities, even though they have significant economic output, which suggests further consideration as to how these areas can be serviced by public transport networks into the future.

Figure 6: Job locations in the Western Parkland City.
Source: Greater Sydney Commission

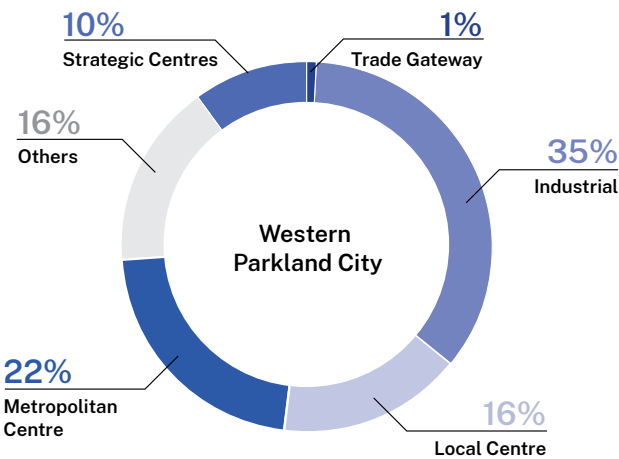
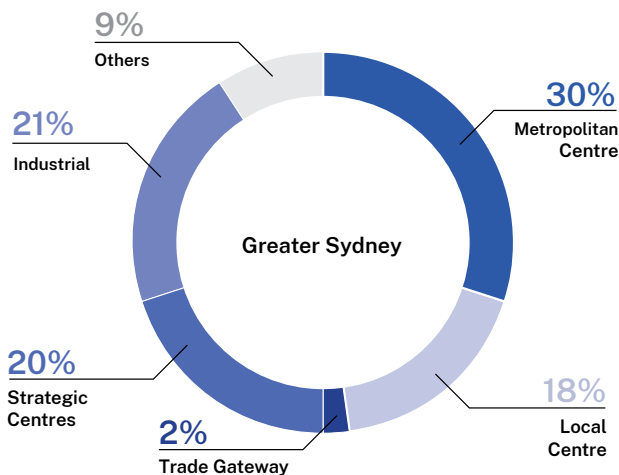


Figure 7: Job locations in Greater Sydney.
Source: Greater Sydney Commission

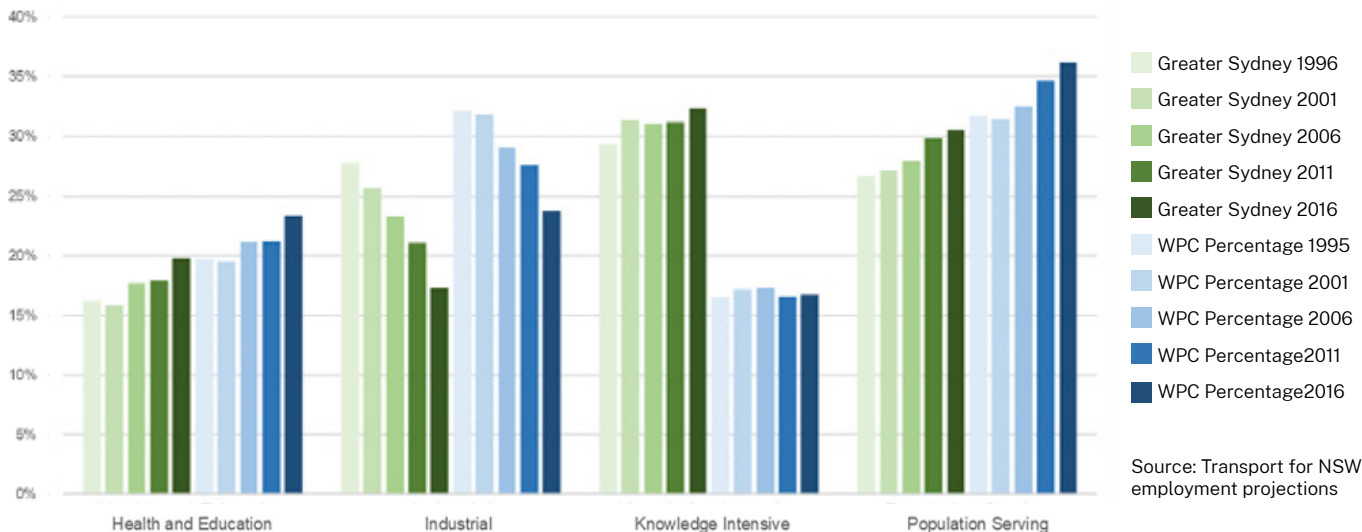


Jobs by Sector

The figure below emphasises the significant difference in employment structure between the Parkland City and Greater Sydney. The Parkland City has a significant and growing share of population serving (people-oriented) employment but a smaller

share of knowledge jobs –directly contributing to lower average income levels. There is a need to proactively diversify the economic base of the Parkland City to increase access to jobs in advanced and emerging industries and thereby wage equity.

Figure 8: Job sectors - Greater Sydney vs Western Parkland City (1996-2016)



Accessibility

Current commuting patterns

Commuting out of a local government area for work is very common across Greater Sydney. Only seven out of the 33 LGAs across Sydney have more jobs than the total resident workforce.

Figure 9 shows the ratios of total jobs to local resident workforce for local government areas across Greater Sydney. The average ratio of jobs to local resident

workforce for the Parkland City is 0.71 and no local government area has a ratio of above 1.0.

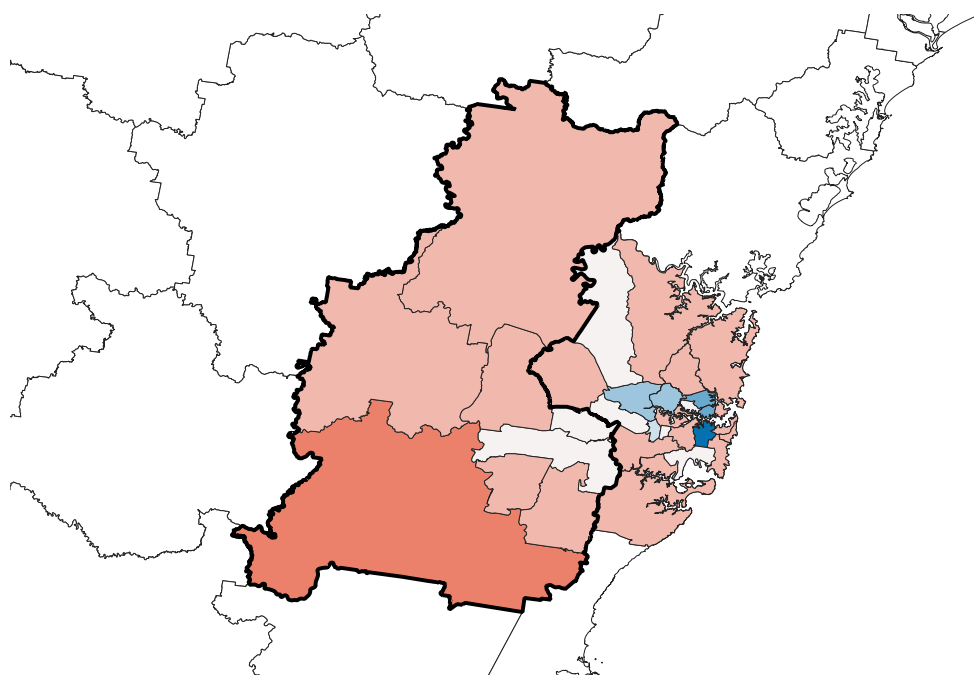
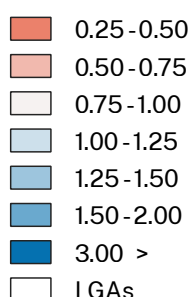
Lower ratios of total jobs to local resident workers risk making areas dormitory communities, extending travel times and increasing associated health and well-being risks.

Figure 9: Jobs housing balance

Source: Australian Bureau of Statistics
2016 Census of Population & Housing

— Western Parkland City

JHB - Jobs Housing Balance



Education opportunities

Successful cities also have quality universities and / or technical or vocational colleges at their core. They create spill over benefits such as tech-enabled and skilled start-up companies.

Across Greater Sydney higher education is dominated by a small number of campuses that generate economic activity through teaching and research.

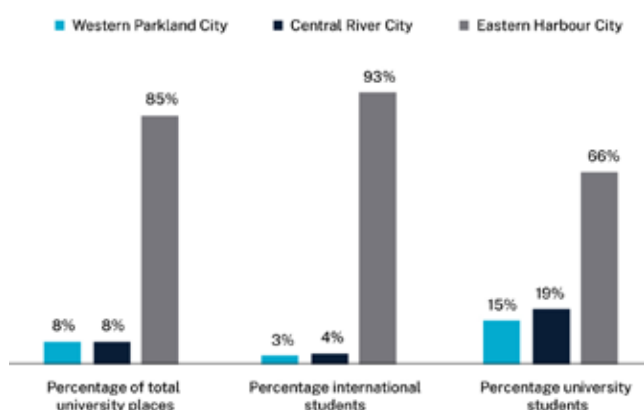
The Parkland City has a comparatively limited university presence, so the benefits are unevenly spread.

Only 16 per cent of Greater Sydney's university places are presently available outside the Eastern City whilst 34 per cent of university students live in the Central and Western Cities of Greater Sydney.

Satellite campuses of existing universities broaden the footprint of higher education, creating an effective way for non-traditional students to enter higher education. However, their broader economic impact is limited.

Figure 10: University Student population Western Parkland City vs Central River City vs Eastern Harbour City

Source: Greater Sydney Commission



Workforce attributes

Resident workers by Industry

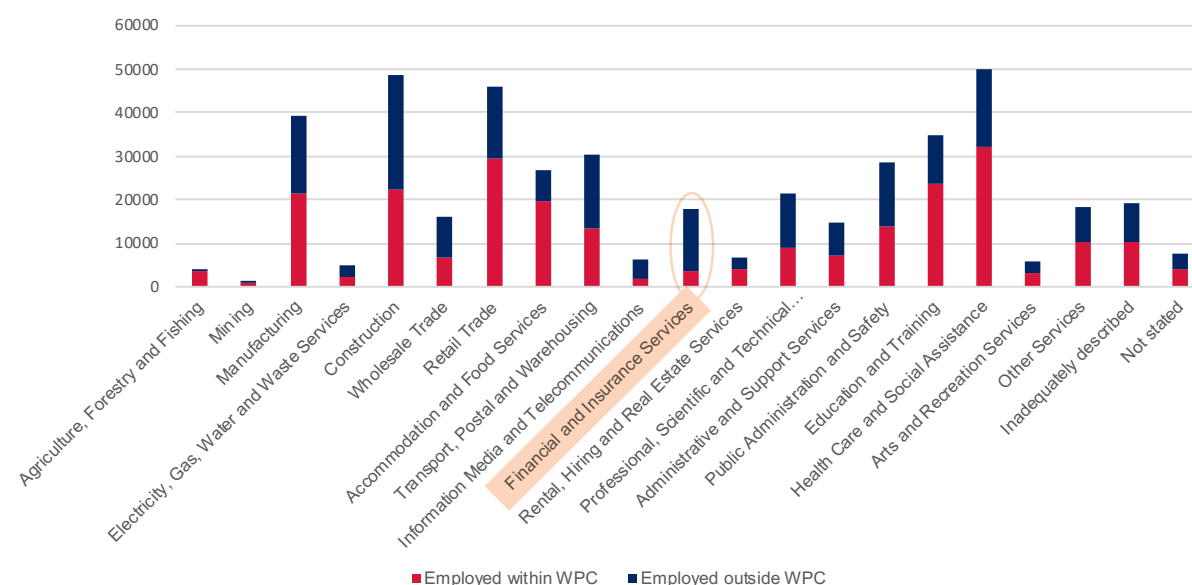
The Parkland City has a large resident workforce employed in manufacturing, construction, retail trade and health care and social assistance. This represents the largest skill base available in the Parkland City.

Untapped skills

Over 80 per cent of residents who work in ‘financial and insurance services’ commute outside the Parkland City, being the industry with the highest proportion of uncaptured skills.

Figure 11: Employment inside and outside WPC

Source: Australian Bureau of Statistics 2016 Census of Population and Housing



Untapped workforce

Employment participation and unemployment rates differ across the Parkland City. The table below has data from the ABS Labour Force survey. It shows that Fairfield, Liverpool and some parts of Camden LGAs, which are included in the Sydney-South ABS SA4 region, have levels of engagement in employment that are well below the rest of the Parkland City

(which are covered by the two other ABS SA4 regions). This represents a large latent workforce capacity within the Parkland City and in neighbouring areas.

Enhancing employment and education pathways are critical to respond to this challenge with the benefit of harnessing the potential this untapped workforce in providing a skilled workforce to support new industry growth.

Figure 12: Workforce participation rates

Region: ABS SA4	Working Age Population (15-64)	Employment Rate (15-64)	Participation Rate (15+)	Unemployment Rate (15+)	Youth Unemployment Rate (15-24)
Sydney - Outer South West (Largely Campbelltown and Wollondilly and part Camden LGAs)	192,400	73.6	68.7	6.2	11.9
Sydney - Outer South West & Blue Mountains (Largely Penrith, Blue Mountains and part Hawkesbury LGAs)	213,000	74.6	67.4	4.8	10.6
Sydney - South (Largely Fairfield and Liverpool and part Camden LGAs)	305,200	60.9	58.5	9.5	20.9
Greater Sydney	3,597,200	74.1	67.9	6.3	13.3

Summary Data Source: ABS Labour Force Survey. All statistics are 12-month averages of original data, June 2021

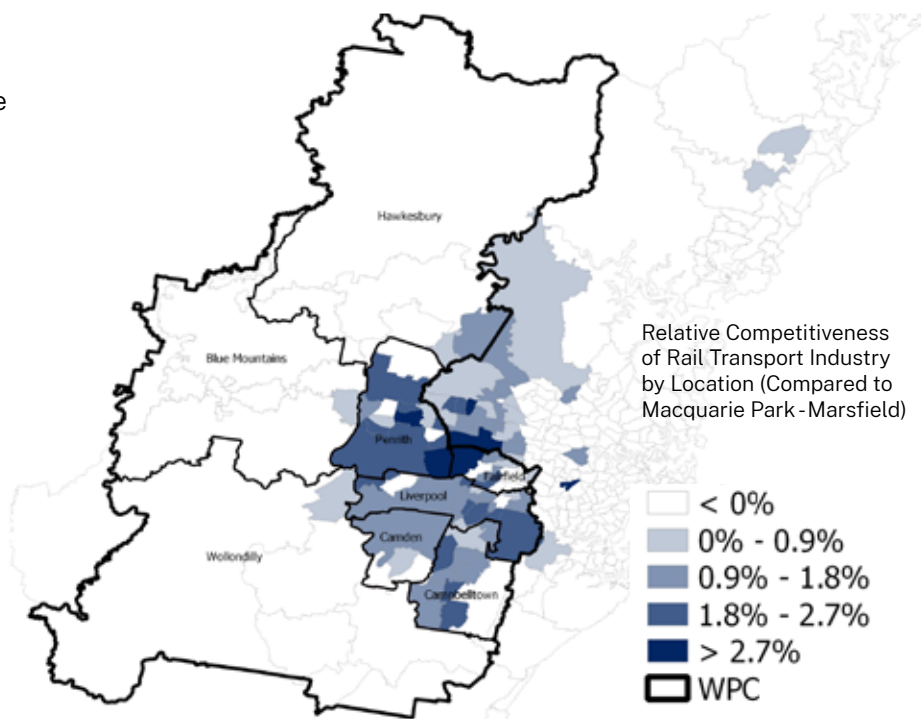
Transport connectivity

A competitive freight and logistics sector

The local government areas of Penrith, Fairfield, Liverpool, Camden and Campbelltown are the most highly competitive locations for freight and logistics industries in Greater Sydney based on the comparatively lower land and labour costs.

The rail transport industry could experience a lift in profit of over 2.7 per cent through increasing their cost competitiveness by locating around Horsley Park, compared to Macquarie Park, with the former location also aligned with the proposed Western Sydney Freight Line.

Figure 13: Relative competitiveness of rail transport industry by location
Source: NSW Centre for Economic and Regional Development

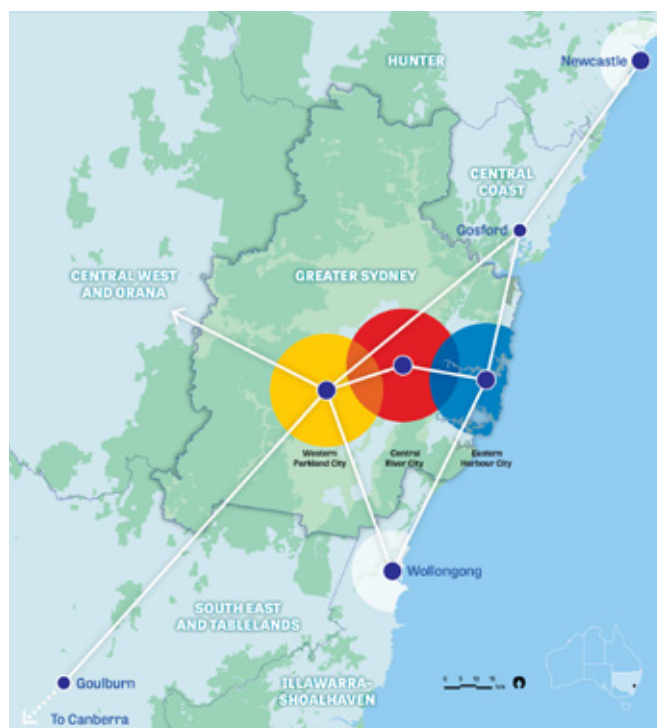


Local, regional, and global connections

The Greater Sydney Region Plan emphasises the significance of the connections between the three cities of Greater Sydney and Wollongong and Newcastle as well as to Canberra and western NSW. The Plan specifically emphasises the positive connectivity benefits of committed and planned transport infrastructure investments for freight and logistics in the Parkland City.

The opening of the Western Sydney International Airport in 2026 will cement the Parkland City's 24/7 global gateway role and national connections.

Figure 14: Greater Sydney Regional connections
Source: Greater Sydney Region Plan 2018



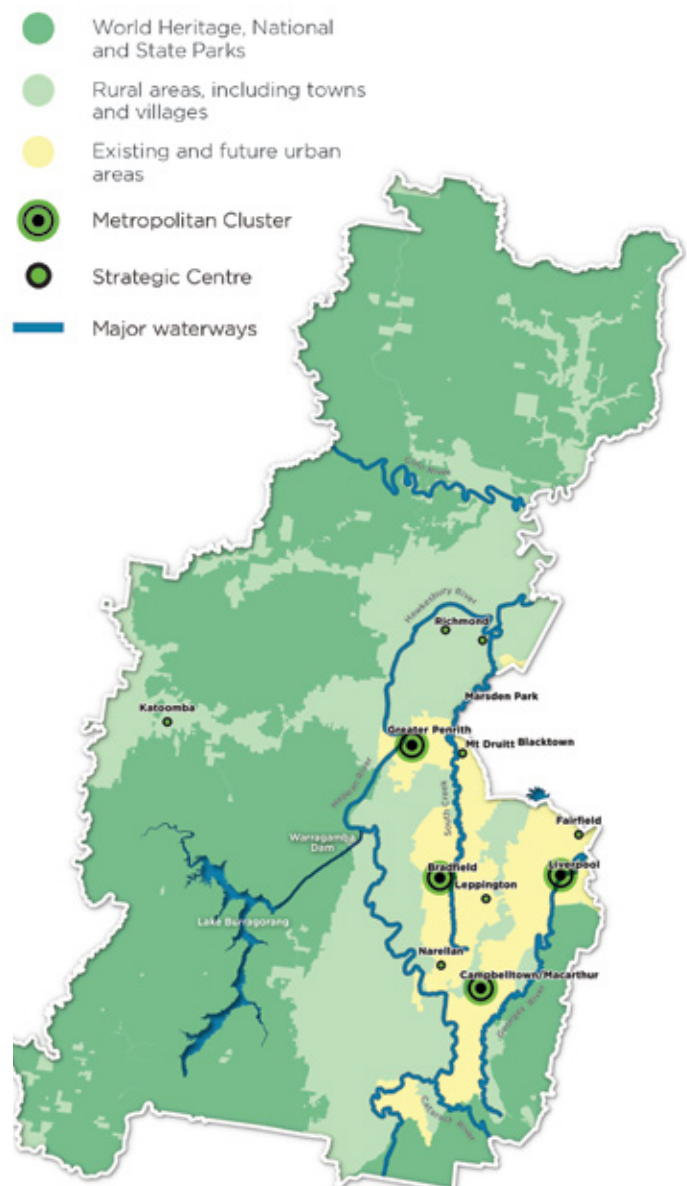
Natural endowments and liveability

The Parkland City's many natural endowments are major visitor economy attractions and enhance Liveability. They include the World Heritage Blue Mountains, numerous national parks and the Hawkesbury –Nepean River, the Georges River, and Penrith Lakes. These extraordinary features create a unique environment that frames the Parkland City and forms a strong attractor for the tourist industry.

Liveability can be further improved by responding to gaps in infrastructure and services across greenfield and urban renewal areas. This includes addressing climatic conditions, such as the urban heat island effect, and vulnerability to natural hazards like floods and bushfires. Improving liveability and resilience to climate change and natural disasters can also help attract businesses and skilled workers.

Equally Australia and NSW have performed remarkably well through COVID compared to other jurisdictions. This has bolstered Australia's attractiveness as a stable investment destination supported by strong governance, sound public policies, together with an attractive enabling environment for business.

Figure 15: Environmental endowments



3. Economic Directions

Over coming decades, the economy and prosperity of the Western Parkland City is set to transform from a traditional urban fringe economy into a complex, diverse and advanced economy.

The *Draft Roadmap* shows how we can optimise opportunities for economic growth and development. It is underpinned by the commitment of all three levels of government who are working together to create a new city – the Western Parkland City.







An integrated strategies framework emphasises the whole-of-city nature of the *Draft Blueprint* and the targeted economic role of the *Draft Roadmap* to support an advanced city. This also reinforces that a successful economy relies on liveability and accessibility. Hence, the importance of the green and connected elements of the *Draft Blueprint* to the successful realisation of the economic vision.

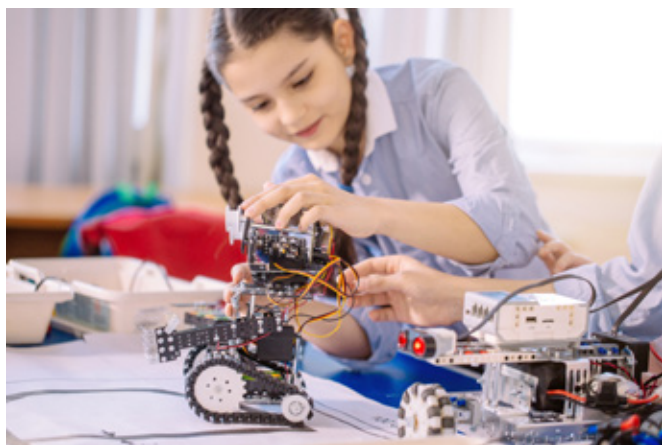
The *Draft Roadmap* works hand in hand with the *Draft Blueprint*'s priorities to unlock economic and investment opportunities across the Parkland City and support the NSW Government's COVID-19 Economic Recovery Strategy.

The *Draft Roadmap* identifies three economic opportunities that set the directions:

- **Foster innovation and build global competitiveness** by developing capabilities that are export-oriented or strategically important to the NSW economy such as defence, agribusiness, and advanced manufacturing;
- **Leverage city strengths** that deepen the range of specialised services, particularly health and education and provide infrastructure and amenities, such as parks, arts and cultural facilities, and transport infrastructure to enhance liveability; and
- **Develop 22nd century workforce skills** by providing industry relevant skills and employment pathways and by attracting global talent.

Figure 16: Integrated strategies the *Draft Roadmap* and *Draft Blueprint*

VISION: The most green, connected and advanced City in the Indo-Pacific region					
1. BLUEPRINT City-shaping investments required for a liveable City			2. ECONOMIC DEVELOPMENT ROADMAP Investments required to accelerate economic growth		
GREEN		Build a parkland city, sustainably manage resources, develop the green economy and enriched networks of open space and waterways	GLOBALLY COMPETITIVE		Foster innovation and develop strategically important and globally competitive capabilities
CONNECTED		Build a City that is physically, socially and culturally connected within the region and globally	CITY STRENGTHS		Grow city strengths and specialised services supported by investment in infrastructure and amenities
ADVANCED		A city that catalyses economic growth through innovation and globally competitive capabilities that leverages city strengths and a skilled workforce	WORKFORCE SKILLS		Expand and enhance skills and employment pathways in target industries and attract global talent



Priority industry sectors

The Parkland City's future will be shaped by the industry sectors that leverage its current strengths and that have the greatest, potential for growth, employment diversity and national economic significance.

As the *Roadmap* is updated in subsequent phases, further sectors may be considered as markets evolve and investment and development progresses.

The priority industry sectors are:

Freight and logistics, a large existing sector and an enabling industry that will be catalysed by the new Western Sydney International Airport, intermodals, and the planned Western Sydney Freight Line.

Agribusiness, with existing agricultural activities if the Parkland City combining with the new 24/7 Western Sydney International Airport and the adjacent specialised Agribusiness precinct.

Visitor economy, leveraging existing world recognised eco-tourism assets, as well as a variety of cultural, recreation, and rural attractions and events, on the back of the new Western Sydney International Airport.

Advanced manufacturing, building on existing activities to enhance sovereign manufacturing capability.

Aerospace and defence, capitalising on the Australian Government's \$575 billion in defence funding.

Construction, which is a critical need for the infrastructure and housing of the rapidly growing Parkland City and Greater Sydney.

Circular economy, an emerging sector focused on new and innovative business models to re-use materials, water, and waste which can attract significant investment and businesses and create jobs.

Health and education, the largest employers in the Parkland City and a strength of the metropolitan centres.

4. Innovation and Global Competitiveness

Creating opportunities to expand and develop advanced and emerging industries and their ecosystems requires coordinated action in a globally competitive environment.

Globally competitive industries are externally focused by definition – they provide goods and services to people who live outside the Parkland City. They bring income into the Parkland City from larger economies situated outside of the Parkland City – in the rest of Greater Sydney, NSW, Australia, and internationally. They are crucial to growing employment opportunities and will support the high-income knowledge intensive jobs that will increase the average incomes of local residents. These new jobs are also the key to reducing the jobs imbalance so a greater proportion of Parkland City residents can work locally and have shorter commutes.

Given the intense national and international competition for investment from innovative high technology firms, governments play an essential role in attracting investment. This may include:

- Attracting and coordinating inbound investment through the provision of proactive market engagement and investment attraction services through agencies such as Investment NSW and the Western Parkland City Authority;

- Delivering targeted investments which unlock opportunities, attract investment, and support industry, jobs, and skills formation through initiatives such as the Advanced Manufacturing Research Facility (AMRF) and the New Education Training Model (NETM);
- Providing industry-specific assistance and incentives, through industry grants and other forms of financial incentives, such as the NSW Government's JobsPlus program;
- Creating industry ecosystems for new and emerging global fields such as defence, aviation and space, gaming and virtual reality.

There is an opportunity for the Parkland City to establish a leading role in sustainability with aspiration to be a hydrogen-ready and net zero emissions city. In addition, with half of the Parkland City yet to be developed (greenfield lands), the City could become Australia's-leading deployer and design / manufacturing base for low-carbon infrastructure.

Ecosystems

A systems approach can help to maximise the benefits from economic development activity.

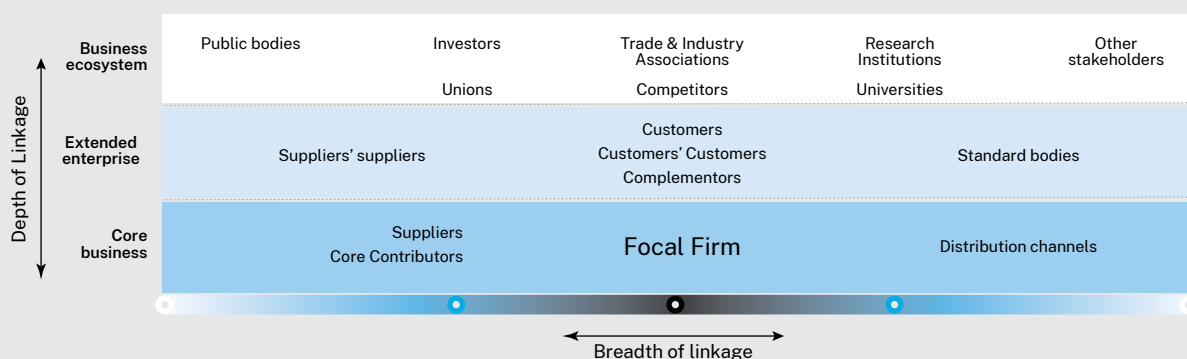
Economic ecosystems refer to the relationships and interactions between businesses, people, networks, and government that comprise an economy. By understanding the linkages between various stakeholders in a sector as well as the nature of those linkages, we can start to identify some of the preconditions for successful investment and show where strengths should be leveraged or forged, and weaknesses addressed. These insights can assist government in its role in stimulating, facilitating, coordinating, or developing initiatives for economic growth.

In any ecosystem, there are certain universal interactions. The breadth of linkage describes the extent of these interactions, ranging from the entities that supply raw goods and services to the consumers who create demand. The depth of linkage describes the nature of the interactions, for example the role of competitors in compelling innovation, a focal firm's coordination with complementary firms and its partnerships with research bodies to tap into new resources and knowledge.

The figure below outlines a conceptual framework which seeks to emphasise that the more a firm is connected upward and outward the stronger it's connection to the ecosystem that it is a part of.

Figure 17: Ecosystems – Conceptual framework

Source: SGS Economics and Planning



4.1 Innovation Assets

Businesses operate in an increasingly complex and evolving environments – we refer to them as ecosystems. Supplier and consumer linkages are no longer necessarily linear, or even predictable, as modern production and consumption behaviours react to dynamic macro-trends and economic drivers. Therefore, industrial ecosystems need to innovate and evolve.

Innovation and competitive advantage are in part driven by the activities of education providers, research and development institutes. These providers are presently clustered around three health and education precincts in Campbelltown, Liverpool and Penrith and an agriculture research corridor in the metropolitan rural area.

Many of these existing institutions work closely with their local councils and local businesses to support growth in allied industries.



Universities and TAFE NSW

- South Western Sydney Clinical School –UNSW;
- TAFE NSW, 23 campuses;
- University of Sydney campuses;
- University of Wollongong campuses; and
- Western Sydney University campuses.

Research institutes – health

- Ingham Institute for Applied Medical Research (Campbelltown and Liverpool);
- National Institute of Complementary Medicine – Herbal Analysis Laboratory (Penrith); and
- Research and Ethics Institute.

Education and research institutes – agriculture

- Centre for Excellence for Plant and Animal Health;
- Centre for Excellence in Agricultural Education;
- Elizabeth Macarthur Agriculture Institute;
- Hurlstone Agricultural High School;
- Richmond High School;
- Richmond TAFE; and
- Western Sydney University Hawkesbury Campus-AgriPark.

Environmental research institutes

- Australian Institute of Botanical Science;
- Australian Plantbank (Mount Annan); and
- Planetary Health Leadership Centre (Katoomba) planned.

Defence

- Liverpool Military Area;
- RAAF Base Glenbrook; and
- RAAF Base Richmond.

Other research institutes

- Co-operative Research Centres program (CRC);
- NSW Institute of Applied Technology for Construction (Kingswood); and
- Sydney School of Veterinary Science –Camden.

4.2 Harnessing the Supply Chain

Sovereign industrial capability and the de-risking of supply chains is increasingly being prioritised following the experiences of the COVID-19 pandemic. This has seen a recent resurgence in industrial activity in Australia. For example, June 2021 quarter GDP figures indicated annual growth of 9.6% compared to same period in the preceding year – though it should be noted these figures were likely impacted by COVID-19 restrictions, they suggest a positive trend for the sector.

NSW is Australia's manufacturing heartland and the Parkland City with half of Greater Sydney's industrial land is poised to play a key role in Australia's future economy. The development of globally competitive industries in the Parkland City will be enabled by the scale of NSW's existing industrial base and its skilled workforce – NSW manufacturers employ nearly 30 per cent of Australia's direct manufacturing labour force.



Defence industries present an opportunity to capitalise on the Australian Government's commitment to invest \$575 billion in defence capability in the period to 2030. The Parkland City is well placed to capitalise on this opportunity – it has multiple major defence facilities and is at the centre of a corridor of defence capability from Williamstown in the north to Nowra in the south and strategically positioned one hour from the Sydney CBD and two hours from Canberra.

Space industries are also highly prospective. NSW has Australia's most highly developed space industry – with 41% of Australia's existing space related start-ups generating around half of all revenue in the industry nationally. There is significant potential to build on this base as the industry continues its current growth trajectory and with the operation of the Western Sydney International Airport.

Priorities

Attracting and coordinating inbound investment

To attract and realise government and private investment in the Parkland City, including proactively seeking new investors in priority industry sectors.

Activities include providing industry-specific assistance and incentives, such as targeted industry grants and other forms of financial incentives, such as the JobsPlus program and the \$5 million Western Sydney Investment Attraction Fund.

Delivering infrastructure that removes barriers to growth and improves the productivity of businesses in the Parkland City is also essential with priorities identified in the Western Parkland City Blueprint.

Delivering the Western Sydney Investment Attraction Fund

The Western Sydney Investment Attraction Fund is a commitment under the Western Sydney City Deal and has been established to support Australian and international companies to establish or expand, create and fast track new jobs in the Parkland City. The Fund will be used to focus on priority growth sectors such as advanced manufacturing, agribusiness, freight and logistics, health and education, defence, the visitor economy and circular economy.

Undertaking industry deep dives to identify opportunities to build on existing ecosystems

To support the target industry sectors the WPCA will undertake further industry deep dives to highlight opportunities to build on existing ecosystems in target industries in the Parkland City.



Bradfield City Centre will be the focus of multiple specialised precincts

Priorities

Attracting and coordinating inbound investment

In a competitive global environment, ease of doing business is a key consideration for potential investors exploring opportunities to expand their business. To deliver on the priorities of the *Draft Roadmap*, it will be important to make it easier for potential investors to establish and expand businesses in the Parkland City.

The WPCA will establish an expanded investor concierge function that will provide support services to high priority businesses considering locating to the Parkland City including:

- Identification of suitable available office space and industrial spaces;
- assistance with business planning requirements including economic analysis and skills data;
- assistance to identify and develop commercial opportunities in a specific industry sector or precinct;
- coordination across key government agencies and regulatory bodies;
- assistance in identifying business-to-business solutions and opportunities;
- information on relocation requirements and introductions to support services; and
- advice on accessing grants and other financial incentives.



The initial stage of the Advanced Manufacturing Research Facility (AMRF)

Case Studies

Defence

Australia's defence sector is experiencing unprecedented growth that has seen the Australian Government commit to invest \$575 billion over 10 years in defence sovereign capability. This growth is likely to be accelerated by the recent trilateral AUKUS security arrangement with the United Kingdom and the United States. This enshrines trilateral industrial cooperation focussed on defence-related science, technology, industrial bases and supply chains, with particular emphasis on cyber capabilities, artificial intelligence, quantum technologies and new undersea capabilities.

A major uplift in Australia's sovereign industrial capability will be essential to successfully deliver on the objectives of this tripartite agreement. Sovereign industrial capability is integral to Australia's ability to maintain its world class defence capability and is a necessity from a national security perspective.

Defence manufacturing has significant potential to act as a catalyst, leading the way and creating opportunities for manufacturers in other sub-sectors including aerospace and space.

Public sector defence research and development could significantly catalyse growth in adjacent high-technology sectors.

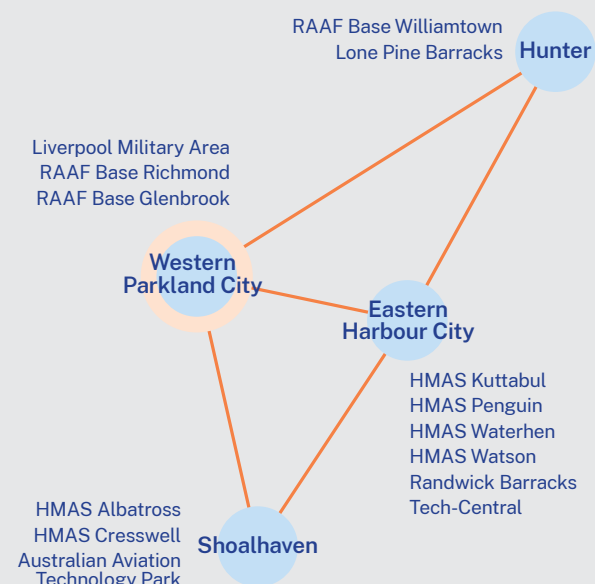
NSW is well positioned to capitalise on these programs-the defence industry already contributes \$5 billion per year to the NSW economy. However, as the scale of activity in the defence sector increases there is a significant opportunity to increase this spend. Accordingly, the NSW Government has a target of capturing 33% of Australian Government defence investment by 2030.

The Parkland City already plays an important role in the NSW aerospace and defence industries with several aerospace and defence sites located in the Parkland City on an arc from Williamstown to Nowra. These include the Richmond and Glenbrook RAAF bases, and the Liverpool

Military Area. They are important employers: for example, more than 450 aerospace specialists work at the Richmond RAAF base in Hawkesbury with Northrup Grumman, Airbus, StandardAero, and GE Aviation.

To build on these strengths and maximise benefit, governments need to collaborate with industry partners to incentivise further investment. The Bradfield City Centre's Advanced Manufacturing Research Facility, developed by the Western Parkland City Authority, will be a key intervention to support this effort. It will build industry capability and competitiveness through supporting the supply chain to harness advanced manufacturing technologies. The holistic capability across advanced electronics and next gen fabrication at the AMRF will also create unique opportunities to increase the depth of domestic content in defence supply chains by onshoring production of critical componentry.

Figure 18: The defence corridor



Space

In 2020, the global space economy was valued at some US\$447 billion. This is 55% larger than it was a decade ago, having experienced a five-year trend of uninterrupted growth.

Significantly, space is no longer the exclusive domain of governments. Commercial space activity alone grew to nearly US\$357b in 2020, representing close to 80% of the total space economy.

Increasing domestic capability has significant potential for Australian industry given the scale and growth of the global market. Currently, the local space sector is worth A\$4.8b –but it is growing rapidly at 17.5% p.a. This rapid growth provides an opportunity to develop capabilities in new and emerging technologies with potential for export in the global space economy.

Current and emerging trends in the sector that may present opportunities include:

- The requirement for higher frequency and faster data rates from satellite communications systems;
- LEO-optimized antenna and user terminal technology development, coupled with virtualised, shared ground segment;
- Highly capable small satellites and antennae requiring a holistic approach to chip and module design;
- Potential new applications for NSW capability such as microwave power for ISRU, electric sat propulsion, and photonic components for satcom payloads; and

- Additive manufacturing which is increasingly used by the space industry for bespoke design of integrated components, not just large-scale structures.

The WPCA is currently working with the Australian Space Agency to identify the role Bradfield City Centre and the Parkland City can play to support development of Australia's space manufacturing industry in this evolving market. The objectives of the project are to:

- Determine what is required to strategically position the Parkland City as the place for national space manufacturing;
- Define the Parkland City's role in connecting, transforming, and growing the broader space industry in Australia; and
- Identify the equipment and facility needs for an emerging space manufacturing industry in Australia (including for start-ups, small-to-medium enterprises, research organisations and industry primes) to establish a presence in the Parkland City.

The initial findings from this work indicate the AMRF is well aligned with emerging opportunities in areas such as satellite manufacturing which offer enormous potential. For example, the global satellite industry is currently valued at US\$271 billion of which satellite manufacturing represents US\$12.2 billion. Continued close collaboration with the Commonwealth Government as well as leading industry players will be essential to realise this opportunity.

Attracting Defence investment

The Advanced Manufacturing Research Facility (AMRF) will improve industry competitiveness and capability and increase the profile of the Western Parkland City as a location for defence industries.

Creating new sovereign capabilities in advanced electronics to support the delivery of major priority defence programs involving drones and unmanned aircraft; advanced radar systems; sustainment of advanced radar systems; high frequency sensors; tactical sensors; and space domain awareness equipment.

Attracting Aerospace investment

Attracting Australian space manufacturing industries and capability to the Bradfield City Centre and the Parkland City through completing a space sector study with the Australian Space Agency. The Study seeks to determine what is required to strategically position the Parkland City as the place for national space manufacturing.

4.3 A 22nd Century Innovation Hub

The Bradfield City Centre is located at the heart of the Western Sydney Aerotropolis. This is where the extensive enterprise areas to the north and the suburban communities to the south meet - serviced by a new Sydney Metro.

The vision for the Bradfield City Centre, Australia's newest city centre, and surrounding Aerotropolis is to be known as an advanced industry cluster for:

- Defence and aerospace industries, such as civil space, remote defence sustainment, unmanned aircraft systems, aviation services and training;
- Manufacturing and logistics, such as robotics, automation, additive manufacturing, warehouse and supply chain automation;
- Future transport industries, such as autonomous vehicles, electric transport and last mile mobility;
- Construction technology, such as prefabricated components, modular building systems and green buildings; and
- New energy and circular economy industries, such as renewable energy generation, lithium battery storage, biodegradable packaging, and recycling.

Priorities

Delivering the Bradfield City Centre

The \$1.1 billion investment of the NSW Government includes enabling works; the first stage of the Advanced Manufacturing Research Facility (AMRF); new community and recreation facilities including 36 hectares of open public space, and a New Education and Training Model (NETM) to pilot 100 micro-credentials through 7000 courses.

This investment creates opportunities for new industry formations and by creating a 'sandbox' for a range of industries and technologies such as: circular economy, pre-fab, cyber, heat tech and renewable energy.

Private sector participation is central to the approach for delivering the Bradfield City Centre and its related initiatives.

Bradfield City Centre

The Bradfield City Centre will be Australia's first 22nd century city centre. It will be:

- Cyber-secure, to enable global advanced industries to locate and operate with confidence;
- Hydrogen and EV ready, to enable the City Centre to function in a zero carbon environment at the leading edge of climate technology;
- Sustainably designed, to maximise its energy, water and material efficiency;
- A greenfield location, on the doorstep of a global city with access to Indo-Pacific region markets;
- A multiversity campus presenting an unprecedented opportunity to collaborate with research institutions; and
- A test bed for a wide range of innovations.

The Bradfield City Centre includes:

- A National Security Quarter for Space, Defence and Aviation;
- An Education and Innovation Quarter with a focus on research and industry collaboration;
- A Lifestyle and Leisure Quarter for hotels, accommodation, retail, parkland, and an urban playground; and
- A Neighbourhood Quarter supporting a range of mixed uses and community facilities.

Delivery of the Bradfield City Centre is a multi-decade project. Its development has been activated by a \$1.1 billion commitment by the NSW government. Over time it will be primarily driven by private sector investment with the NSW government, through the WPCA, coordinating infrastructure delivery and facility innovation, supported by the Liverpool City Council.

Advanced Manufacturing Research Facility (AMRF)

The Advanced Manufacturing Research Facility (AMRF) will be a shared-use facility at the Aerotropolis. It will bring together SMEs, industry and universities and provide them with access to state-of-the-art technologies. Its key platforms will enable firms to access the latest technologies focused on advanced fabrication (additives, composites, robotics and automation) as well as advanced electronics. This will:

- Support increased commercialisation of research;
- Enable SMEs to participate in global supply chains; and
- Improve the productivity and capability of Australian industry.

This investment holds significant potential for firms in the Parkland City. The Australian Manufacturing Growth Centre has estimated that broad uptake of advanced manufacturing could

add up to \$10 billion in value nationally. It also creates the potential for new industry growth in areas such as advanced electronics—for example, the advanced packaging market for semi-conductors holds significant economic potential with an estimated compound growth rate of 6.1% and forecast value of \$42 billion by 2025.

The adoption and growth of advanced manufacturing in the Western Parkland City will be accelerated by the AMRF. It will serve as a focal point for advanced manufacturing in Australia, attracting global manufacturing companies to establish operations in the region and to expand supply chain opportunities for existing businesses. The AMRF will also act as a hub for manufacturing technology providers, anchoring investment in the region which supports process technologies and their implementation.



Bradfield City Centre will support a wide range of commercial development opportunities

4.4 Leveraging the City Build

The Parkland City is experiencing unprecedented growth—it is one of the fastest growing urban areas in Australia. With a Greater Sydney Region Plan housing target of over 184,000 new dwellings by 2036 and 200,000 jobs this growth creates opportunities to harness the city build to capture first mover advantage in emerging industries by leveraging the substantial level of new greenfield development.

The Parkland City will seek to set new standards for sustainability that will make it a magnet for investment in the new green economy. For example, efforts to build a net-zero emissions Bradfield City Centre and to achieve a net zero emissions Parkland City ahead of 2050 will create significant opportunities to attract industries in areas such as the circular economy and renewable energies.



Circular economy is an emerging sector focused on new and innovative business models to reduce and re-use materials, water, and waste. It includes the integration of advanced, sustainable, and resilient food production, which can attract significant investment and businesses and thus create jobs. The Parkland City will have sustainability at its core—and NSW Government investment will reflect this focus.

As the Parkland City grows, there is an opportunity to harness the significant levels of greenfield development to innovate and lead in the circular economy from the very outset. This focus is already attracting significant interest from firms eager to contribute to the development of the Parkland City as the world's first 22nd century city through the application of smart city technologies.

Utilities industries (water and energy) are key to the circular economy, such as in renewable energy from waste (biogas/co-generation facilities at wastewater treatment plants) and hydrogen production (such as gas and water utilities).

Build-tech. There are around 20,000 construction businesses, employing about 44,400 people in the Parkland City and sector is currently experiencing significant activity due to unprecedented government investment and the release of new land for housing and commercial development.

Prefabricated construction is sometimes called modular construction and refers to a building method whereby most or all of the building is constructed offsite in a factory.

Prefabrication has become increasingly popular due to advances in materials science, architecture, additive manufacturing (3D printing), digital design, freight, and logistics.

Prefabricated systems allow construction to occur in a controlled environment with the possibility of mass production and economies of scale. When compared to traditional building approaches prefabricated and modular construction can potentially provide quicker build-times, cost savings and environmental benefits.

Enhancing skills capability is an important enabler to deliver on this opportunity and the commitment to delivering the NSW Institute of Applied Technology Construction will support this outcome—refer to the case study in Section 5.3.

Priorities

Leveraging the circular economy

Leverage the Parkland City's existing waste, resource recovery and manufacturing industries and utilities industries (water, electricity and gas) to develop new partnerships and places that support the transition to a circular economy. In the first instance WPCA's activities will concentrate on the Bradfield City Centre. A further focus includes WPCA investigating the potential for the preparation of a masterplan for a clean tech zone in the Northern Gateway precinct.

Phase 2 activities will include investigation of fostering industry ecosystems including integration of advanced, sustainable, and resilient food production, new procurement models, monitoring, and reporting.

5. City Strengths

The Parkland City has an established economy with strengths in manufacturing, agri-business, tourism, health and education and construction. Together with a network of centres and the global gateway of the Western Sydney International Airport these form a strong foundation for economic growth.

5.1 Globally Connected

Global connections support businesses to expand markets.

Committed and planned transport infrastructure place the Parkland City at the confluence of global and national supply chains, whether by air, sea, rail or road. The combination of the 24/7 Western Sydney International Airport and the existing and proposed intermodal terminals that create inland ports will enable the Parkland City to become the most connected location in Australia. Of significance is the extensive greenfield and zoned land available for freight and logistics development directly linked to the agri-precincts and Western Sydney International Airport can deliver agglomeration opportunities to the sector.

This global gateway infrastructure provides businesses with access to new markets, creating business and investment opportunities previously unseen in NSW.

The opportunities extend across multiple industry sectors, in particular agriculture and the visitor economy. The Parkland City can also become a national leader in freight and logistics technologies.

Opportunities for further development include:

- markets such as fresh and value-added food, medical (vaccines, pharmaceutical goods), high value animal movement (e.g. companion animals, breeding stock, breeding horses) and maintenance repair operations.
- horticulture, nurseries, livestock, dairy/milk, waste and circular economy industries, advanced food systems/production.
- tourism assets such as the World Heritage Blue Mountains National Park, Lake Burragorang, Penrith Lakes and other natural settings of the region together with Aboriginal cultural heritage and Aboriginal tourism; and
- business and industry conferences in the medicinal research, science or transport sectors given the proximity to the Western Sydney International Airport and the attraction of tourist destinations such as the Blue Mountains.



Western Sydney International Airport as a market catalyst

Freight and logistics is a large existing sector that supports the effective function of a wide range of other industries. Its growth potential will be catalysed by the new Western Sydney International Airport operating 24 hours a day, 7 days a week, existing freight intermodals, and the planned Western Sydney Freight Line. Opportunities will also emerge due to curfew and quota restrictions on some freight only aircraft utilising Sydney Airport.



The new Western Sydney International Airport will also drive increased passenger volumes –enabling growth of the visitor economy to view existing world recognised eco-tourism assets, as well as a variety of cultural attractions and events.

The Parkland City's freight and logistics sector employs nearly 15,000 people, or 5 per cent of the Parkland City's workforce.

A productive freight sector creates opportunities for businesses to export, which will support the entire economy to become more competitive. The Parkland City's endowments include:

- The availability of zoned and affordable land with half of Greater Sydney's industrial land located within the Western Parkland City;
- Well-developed existing road and freight networks, including the M7 and M5 motorways, the Hume and Great Western Highways to other parts of Greater Sydney and NSW as well as intermodals at Moorebank and Minto, a new intermodal at St Marys (under construction);
- Committed, under construction, and planned investments including the Western Sydney Airport, M12 motorway, and the Western Sydney Freight Line. The latter will connect the Western Parkland City to Port Botany; and
- The presences of existing national and international logistics companies including DB Schenker, Linfox, Toll, FedEx, Australia Post, DHL, and Amazon.

The *Draft Western Parkland City Blueprint* outlines the transport infrastructure investment priorities needed to support the freight and logistics industry sectors expansion further.



Agribusiness

Export-oriented agribusiness relies on established access to global markets, international standing as a reputable producer, and capitalising on counter-seasonality during the northern winter. The Parkland City's committed and planned infrastructure will support a global and national gateway essential in the food supply chain.

Export opportunities will be driven by agribusinesses across both Greater Sydney and Regional NSW. Infrastructure requirements will be wide ranging and not simply limited to transport investments but will also need to consider specialised considerations such as biosecurity measures.

The Parkland City is home to several intensive facilities producing large volumes of mushrooms and potted herbs. For example, almost 90 per cent of the gross value of mushrooms grown in NSW are grown in the Parkland City.

These endowments will allow the Parkland City to be a hub of agricultural innovation, preserving food security for the Sydney Basin with proximity to cutting-edge research facilities, strong biosecurity protection, extensive freight and manufacturing infrastructure and a skilled workforce underpinning a modern urban agriculture industry.

Tourism

Greater Sydney is Australia's prime destination for global tourism visitations and the World Heritage Blue Mountains are a key feature.

The Western Sydney International Airport dramatically changes how the Parkland City interacts with the global and national tourist markets. It creates the opportunity for Penrith to emerge as the gateway to the World Heritage Blue Mountains as well as creating opportunities for new attractions and activities to emerge right across the Parkland City as the Western Sydney International Airport creates the opportunity for overnight stays.

Priorities

Maximising Agribusiness opportunities

Agri precinct: Unlock the full potential of the 24/7 curfew-free international airport with a seamless freight experience for exporters. Including connecting to Asian markets with world-class producers in the Parkland City's agri-corridor spanning from the Hawkesbury in the north, through Penrith, Camden, and Wollondilly in the south and regional NSW spanning from the coastal strip of Northern NSW to the Sunraysia district of South West NSW.

Rural lands study: Protecting land for viable agriculture production mitigates risks posed by incompatible land uses to enhance the productivity of rural lands and improve the agriculture value chain of produce and processes to enhance and expand markets.

Supporting tourism

Western Parkland City Destination Management Plan: Leverage the future Western Sydney International Airport to create opportunities for eco- tourism, Aboriginal cultural and tourism experiences, the adventure tourism sector, a network of natural environment attractions, and arts and cultural experiences, including enabling infrastructure.

5.2 Metropolitan centres

More than 20 per cent of all jobs in the Parkland City are within the three established metropolitan centres of Campbelltown, Liverpool and Penrith.

Each of the metropolitan centres serves an urban area that will ultimately have a population similar to or greater than the city of Canberra. Unlocking their potential will require continued infrastructure investment and coordination of the activities of all levels of government.

A core strength for each centre is their health and education precinct which are important foci for knowledge jobs. The strengths and opportunities of these precincts varies. All are recipients of significant government investment in health infrastructure and the respective councils already have programs in place to enhance the attractiveness of the precincts.

Health

The healthcare industry will continue to grow as the population becomes larger, older, and more affluent. The Parkland City is already well represented in terms of healthcare employment. Supporting the clustering of health and education activities around precincts creates economic benefits.

Health research reinforces clusters and can also deliver spill-over benefits to support other industries, such as pharmaceuticals or manufacturing medical devices.

Education

Long-established tertiary institutions already provide the service infrastructure that can readily support the diversification of industry sectors of the Parkland City. Currently there are six university campuses across the Parkland City, including Western Sydney University (four campuses), University of Sydney and University of Wollongong. In addition, TAFE NSW has an extensive presence across the Parkland City as do privately run registered training organisations.

Research contributes to broader economic activity and is also the key source of knowledge spill-overs. Attracting research to the Parkland City is central to diversifying the economy. The Parkland City is already a focus for research in the agriculture industry sector.

Priorities

Growing Metropolitan centres: Campbelltown, Liverpool, and Penrith

Continue to collaborate with councils and state agencies to implement cross agency programs which build on initiatives in metropolitan centres including:

- Campbelltown Community and Justice Precinct and the Campbelltown Health and Education Precinct;
- Liverpool Innovation Precinct; and
- The Quarter Penrith.

Figure 19: Health and Education Precincts - Assets

Campbelltown	Liverpool	Penrith
HEALTH		
Campbelltown Hospital	Liverpool Hospital	Nepean Hospital
Campbelltown Private Hospital	Sydney South West Private Hospital	Nepean Private Hospital
	Liverpool Eye Surgery	Somerset Specialist Medical Centre (u/c)
EDUCATION		
Western Sydney University	Western Sydney University Liverpool Campus	Western Sydney University
TAFE NSW - Campbelltown	TAFE NSW - Liverpool	TAFE NSW - Penrith and Kingswood
	University of Wollongong Liverpool Campus	University of Sydney Nepean Clinical School
	South Western Sydney Clinical School - UNSW	
RESEARCH		
Ingham Institute for Applied Medical Research	Research and Ethics Institute	
	Ingham Institute for Applied Medical Research	

Campbelltown

The evolution of the Campbelltown-Macarthur centre is being driven by two initiatives.

- A new *Community and Justice Precinct*. Growing the Campbelltown City Centre as the civic and economic heart of the Macarthur region includes a major intensification of the civic services near Campbelltown Station to become a new Community and Justice Precinct.
- The precinct could house NSW and federal courts as well as co-located community services that would deliver high-value jobs and career opportunities driven by the growing demand for justice services in South West Sydney. A \$1 million strategic business case is underway to investigate its potential.
- The Campbelltown Health and Education Precinct includes four new economic sub-precincts identified with potential for catalytic economic transformation and targeted investment attraction:
 - The health, medical and education city core;
 - The medical sciences and community related education core;
 - The civic, cultural and heritage urban core; and
 - The future advanced health and manufacturing business area.



Community and Justice Precinct

Liverpool

The Liverpool Innovation Precinct is reimagining how health, education and research is undertaken individually and collaboratively to drive innovation in Liverpool. With 15,000 health and knowledge workers already in the Liverpool local government area, that number is set to more than double to over 30,000 workers by 2036. Key stakeholders from across government, education, and business sectors are collaborating to deliver an aspirational vision for the Precinct, with a focus on developing the area as a growth precinct.



Source: hap.health.nsw.gov.au

Three key components include:

- **Health and Research:** where Liverpool Hospital anchors the Precinct as a health and research hub, with industry and academic partners providing world class translational research, health care and training;
- **Education:** where Liverpool provides the opportunity to become a world-class education precinct that caters for the future needs of students, researchers, industry partners and the broader Liverpool community; and
- **Innovation:** leveraging Liverpool's the key characteristics of a successful innovation district, including leading-edge anchor institutions, collaboration between companies and organisations, and the physically compact cluster in Liverpool's City Centre offering of mixed-use housing, office and retail spaces.

A supporting masterplan shows the wide range of opportunities in the city centre in concert with the NSW Government's \$740 million Liverpool Hospital redevelopment. Improvements for transport include plans for the rapid bus link to the Western Sydney International Airport and Bradfield City Centre via Fifteenth Avenue.

Penrith

The Penrith CBD is transforming into a diverse commercial, retail and entertainment precinct with new A-grade office development now coming onstream as well as significant urban renewal activity.

The Quarter is a leading centre for health and education, spanning 400 hectares between Penrith and St Marys. Health and education assets include Nepean Hospital, Nepean Private Hospital, The University of Sydney Nepean Clinical School, TAFE NSW, Nepean Health Hub, and Kingswood (Oncology).



The strategy underpinning The Quarter seeks to leverage the government and private sector investments and identifies the potential for 6,000 additional jobs in 10 years to be driven by:

- Investment in major hospitals;
- Telehealth and eHealth initiatives;
- Expansive academic and education facilities;
- Funding for technology and research;
- Medical training placements; and
- Medical tourism.

Opportunities to expand screen and creative industries can help build a global profile. A proposal to transform part of Penrith Lakes into a \$150 million, 41-hectare film production precinct was recently exhibited and could include up to 10 production stages, filming tanks, construction and design facilities, and a film school. Once completed, the site would employ up to 2,000 people on major movie projects.



Nepean Hospital Stage 2

5.3 Infrastructure and amenities

Growing and diversifying an economy requires a liveable community to attract talent and businesses. The Parkland City's current endowments include:

- a variety of lifestyle choices from urban to rural residential;
- diverse cultural centres such as Cabramatta, historic rural towns and villages such as Picton and Leura, or the urban and cosmopolitan qualities of Campbelltown, Liverpool, and Penrith; and
- an urban area framed by national parks, rural communities and urban areas edged by two rivers, the Georges and Hawkesbury–Nepean.

With strong global competition for talent and business attraction continued investment to build on these foundational endowments is required.

This includes initiatives such as:

- **Create a connected Parkland City** by improving transport links, growing active transport connections, expanding the freight network, enabling integrated planning, supporting culture and the arts, and strengthening Connection to Country;
- **Develop metropolitan centre precincts** by collaborating across government to support investment projects that contribute to improved amenity and underpin efforts to grow existing business while attracting new investment; and
- **Deliver a green and liveable Parkland City** by improving amenity, strengthening resilience to natural hazards like floods, bushfires, and extreme heat, protecting the natural environment, and supporting integrated water cycle management.

WestInvest

Westinvest is a new \$5 billion fund to rejuvenate Western Sydney communities and boost jobs. It will build new and improved facilities and local infrastructure to support communities impacted by COVID-19.

The new Westinvest Fund will allocate \$3 billion to future projects across six areas:

- Parks, urban spaces and green space;
- Enhancing community infrastructure such as local sporting grounds;
- Modernising local schools;
- Creating and enhancing arts and cultural facilities;
- Revitalising high streets; and
- Clearing local traffic.

The remaining \$2 billion will be reserved for high priority projects to be developed in consultation with local communities.

This fund reflects the NSW Government's recognition that the Parkland City is an economic powerhouse that will be at the forefront of Australia's post-COVID recovery. The investment in amenity will play a critical role in revitalising urban centres and increasing liveability. While this is essential to maintain living standards for the citizens of the Parkland City it also plays a critical role in attracting inbound investment.

Growth and a network of centres

The Parkland City's strategic centres include Fairfield, Katoomba, Leppington, Narellan, Richmond–Windsor, and St Marys. Their continued growth and accessibility is an important economic objective which will require infrastructure investment and support from both local government and state agencies.

Over the next 40 years the population of the Parkland City is forecast to increase by more than 1 million people. This growing population means there will be a continual demand for people-oriented jobs such as retail, business and community services which in turn will create demand for investment in additional strategic and other major centres and many local centres.

Retail development is a major focus for most centres and with significant projected population growth the demand for retail development will create the need to plan and deliver new centres as well as allowing the expansion of existing centres.

Retail growth in existing and new centres is also critical to delivering walkable communities so goods and services are in close proximity to people's homes and jobs.

Managing growth outside of the metropolitan and strategic centres and industrial areas is also important. These areas contain 32 per cent of all jobs in the Parkland City including the local centres and many towns and villages in the metropolitan rural area.

The Sydney Metro-Western Sydney Airport will expand the network of centres with urban regeneration opportunities at St Marys as it becomes an important interchange. The new stations at Orchard Hills and Luddenham will be the focus of new local centres and urban development.

Liveability

Improvements to amenity and service provision have real economic benefits. Liveability is important to attracting businesses and skilled workers to the Parkland City. Liveability is a function of city characteristics like infrastructure, services, and environment. These characteristics are reflected in global liveability indices such as the annual publication by the Economist Intelligence Unit, which includes metrics such as education, health, culture, and environment. Initiatives to improve the Parkland City's performance against these metrics will help make the city a magnet for talent and business investment.

With half of the Parkland City's urban area yet to be developed, investing in social infrastructure to build on these existing endowments will be critical. Investment will need to cover a range of areas from parks to the performing arts. Arts and culture infrastructure, in particular, are less well-developed than elsewhere in Greater Sydney. There will also be a need to address social infrastructure and services needs reflecting the diversity of the population.

Transport networks

Population growth in the Parkland City will create demand for growth in existing centres and the development of new centres. Both Future Transport 2056 and the Greater Sydney Region Plan outline the transport network to support this growth.

Already there have been unprecedented levels of transport infrastructure investment in the Parkland. Many of these investments are now complete and are thus new enablers of economic activity, particularly the upgrades (duplications) of The Northern Road and Bringelly Road.

High levels of projected population growth require continued prioritisation of transport infrastructure to maximise economic activity. The considerations for prioritising new investments include:

- **Business connections.** Supply chains, business to business connections, access to labour, and customers;
- **Transport connectivity.** Within and between precincts and residential areas;
- **Land use functionality.** Centres, precincts, economic agglomerations, and corridors.
- **Resident / employee access.** Education, training, and work;
- **Liveability.** Amenity both functionality (shade) and visual amenity (city image); and
- **Sustainability.** Modal choice.

Priorities

Growing strategic and local centres

Plan and implement strategies which:

- identify and respond to the barriers of growth to local centres;
- are based on regular reviews of retail demand and supply assessments;
- ensure new centres are identified earlier so their planning can be aligned with progressive delivery of transport infrastructure;
- grow home-based businesses across the Parkland City, including actions to enhance digital connectivity; and
- consider the funding opportunities provided by the \$5 billion WestInvest program.

Delivering a high quality 'parkland' city

An integrated program including:

- Promote and connect organisations to the opportunities of the \$5 billion WestInvest initiative.

Develop and implement a set of integrated programs which provide for:

- Public realm works in all metropolitan and strategic centres, where costs are shared;
- Tree canopy delivery across the designated green grid network; and
- Boulevard planting that connects the Western Sydney International Airport to the Blue Mountains via the Penrith city centre.

Establish a governance framework for cross boundary coordination of initiatives to deliver the Greater Sydney Green Grid.

Deliver economic enabling infrastructure investments

The draft Western Parkland City Blueprint outlines the initial infrastructure investments that can support job and housing growth and enhance economic activity. Priorities cover freight rail, roads networks to support employment precincts and centres, arts and culture, and public realm works.

Improve liveability

Plan and implement strategies to deliver national and internationally recognised arts, cultural, recreational, and sporting facilities.

Construction

Construction is a major economic contributor to the Parkland City, with around 20,000 construction businesses, employing about 44,400 people. The construction sector has a ‘multiplier’ effect for other industries through building networks and supply chains.

The sector is currently experiencing significant activity due to unprecedented government investment in airport, road, rail, and health infrastructure, population growth, and the release of new land for housing and commercial development. This pipeline provides investment certainty for firms and workers, which presents opportunities to foster innovation and research and development.

Key construction activities include:

- Western Sydney International Airport
- Sydney Metro – Western Sydney Airport
- New Bradfield City Centre
- Greenfield and urban renewal including demand for 184,500 dwellings in the twenty years to 2036



NSW Institute of Applied Technology Construction

The NSW Institute of Applied Technology Construction will be located at TAFE NSW Kingswood campus. With state-of-the-art simulated workplace environments and maker spaces, the Institute has been specifically designed to become a signature training hub, equipping the next generation of trades workers with the skills to build the smart cities of the future.

The Institute will be a flagship educational centre supporting the pipeline of major infrastructure projects, civil construction works, and residential developments, as well as future projects that will service Western Sydney's fast-growing population.

The NSW Institute of Applied Technology Construction will:

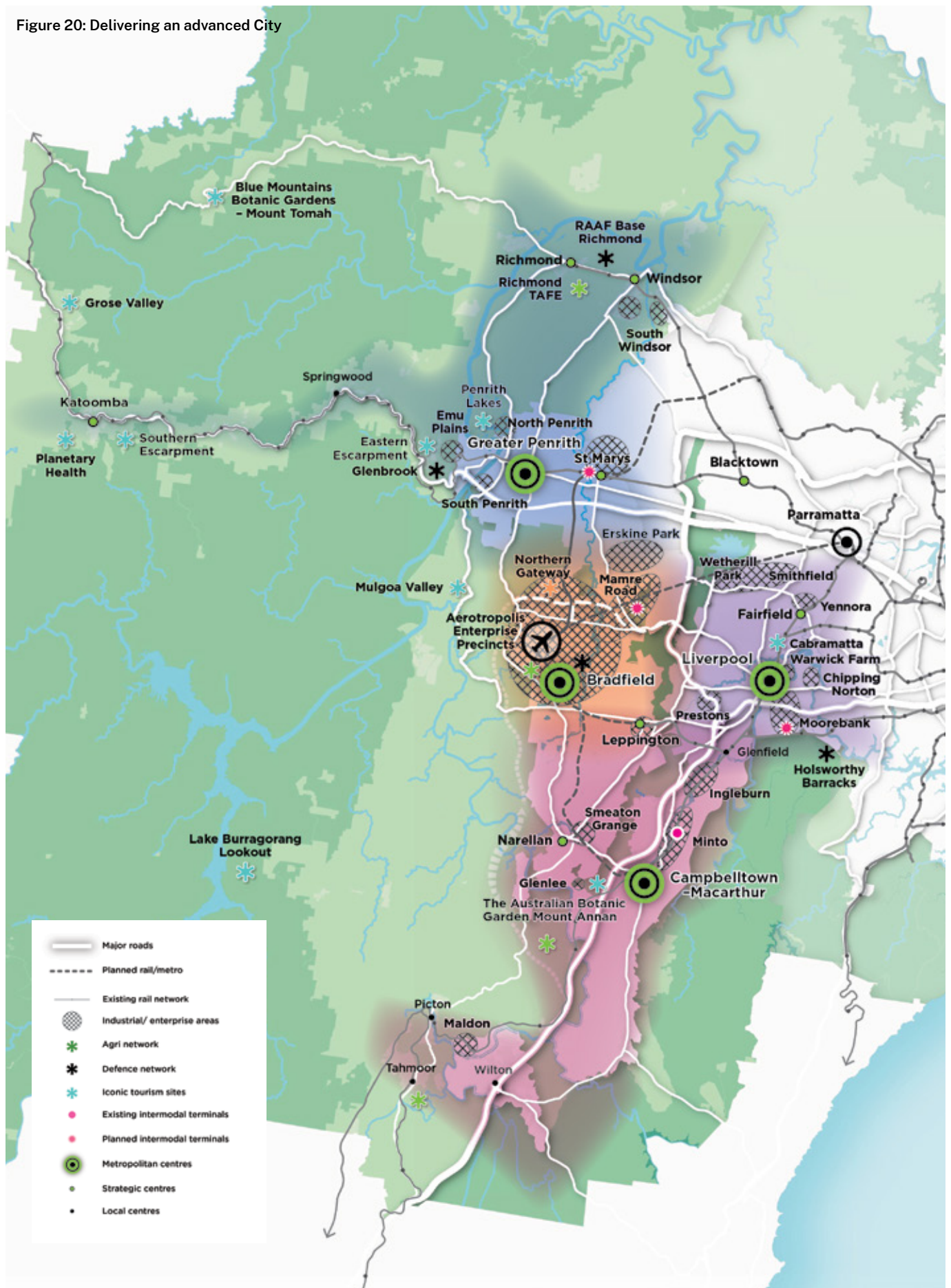
- enable student and staff engagement with industry partners;
- create an education environment to address skills gaps in the economy;
- foster a network between schools, VET, universities and industry to co-design future-focused courses and innovative training models;
- enable seamless study pathways between university and TAFE NSW;
- deliver early exposure to students through programs and exclusive access to the latest technologies;
- enable and encourage cross-disciplinary collaboration, industry engagement, and educational excellence;
- enable upskilling and reskilling of workers throughout their careers; and
- improve accessibility through digitally-enabled facilities, providing virtual classes for remote and regional NSW communities.

5.4 30-Minute City Systems

This table sets out the geographical links to Draft Western Parkland City Blueprint to deliver an advanced economy supported by local government economic strategies.

Penrith-Hawkesbury-Blue Mountains	
Greater Penrith Metro Centre	<ul style="list-style-type: none"> • Delivery of urban regeneration of St Marys centre; 'The Quarter' health and education precinct (Kingswood –Werrington) (Penrith Council, NSW Health, Department of Education) • Develop and implement masterplans for Katoomba strategic centre and Planetary Health, former Katoomba Golf Course (Blue Mountains Council)
Specialist growth areas	<ul style="list-style-type: none"> • Leverage manufacturing specialisations and construction sector • Leverage defence RAAF Bases at Richmond and Glenbrook (Defence NSW) • Sustainability and Planetary Health (Blue Mountains Council) • Leverage the Western Sydney International Airport to grow agricultural and tourism opportunities and support research assets • Develop and implement a rural lands strategy which supports agricultural production (Hawkesbury and Penrith LGAs)
Aerotropolis	
Bradfield City Centre	<ul style="list-style-type: none"> • 22nd century innovations in urban amenity (WPCA) • Develop the National security quarter for Space, Defence & Aviation (WPCA) • Develop the Education-Innovation Quarter with industry partners, (WPCA) • Grow cyber-security capability and a create a hydrogen and EV-ready precinct (WPCA) • Work with universities and TAFE NSW to develop Bradfield City Centre as a world class campus for research and development
Specialist growth areas	<ul style="list-style-type: none"> • Deliver the Advanced Manufacturing Research Facility • Attract and develop aerospace investment and capability • Facilitate an 'ILH Airfreight Interface Concept' to support agribusiness and exports • Freight and logistics including planned new freight line (OSO and WSFL) and Mamre Road Intermodal
Liverpool-Fairfield	
Liverpool Metropolitan Centre	<ul style="list-style-type: none"> • Planning and delivery of the Liverpool Innovation Precinct and enhanced River setting (Liverpool Council, NSW Health) • Plan and implement an employment strategy for the Smithfield / Wetherill Park precinct
Specialist growth areas	<ul style="list-style-type: none"> • Leverage manufacturing specialisation • Targeted employment and skills initiatives to support Settlement City role of Fairfield Council • Leverage agricultural research assets, industries, and production
Camden, Campbelltown, Wollondilly (Macarthur)	
Campbelltown Metropolitan Centre	<ul style="list-style-type: none"> • Implementation of the Reimagining Campbelltown strategy including the Community and Justice Precinct and the Health and Education Precinct (Campbelltown Council, Department of Community and Justice, NSW Health) • Asset leverage including, Campbelltown Sports Stadium and Arts and Entertainment Centres (Campbelltown Council) • Develop and implement plans for Camden's network of major centres: Leppington, Narellan, Camden, and Oran Park (Camden)
Specialist growth areas	<ul style="list-style-type: none"> • Leverage manufacturing specialisation (Camden, Campbelltown and Wollondilly LGAs) • Leverage agricultural research and production (Camden and Wollondilly LGAs) • Develop and implement a rural lands strategy which supports agricultural production (Camden, Campbelltown, and Wollondilly) • Enhance the liveability of centres through improvements to the public realm and creating increased hospitality opportunities across the network of centres

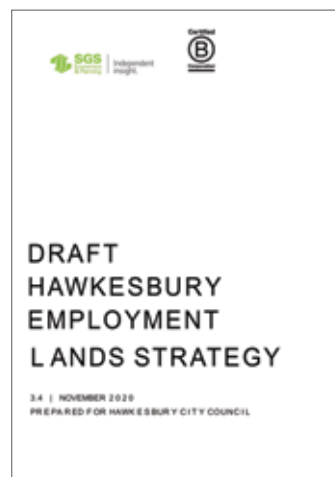
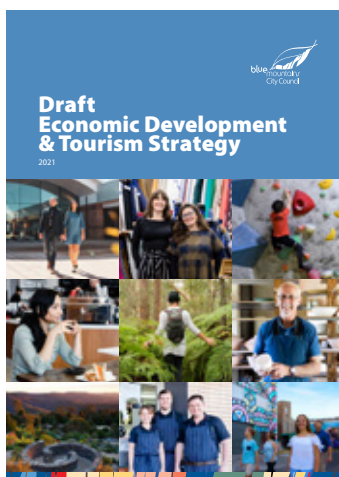
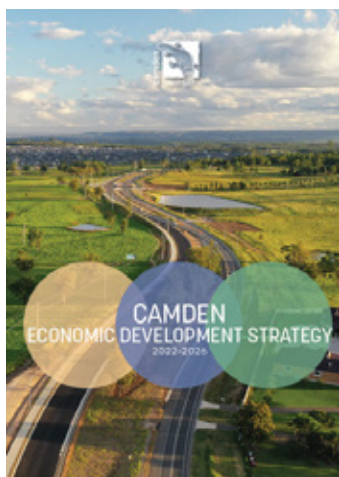
Figure 20: Delivering an advanced City



Local Economic Development Strategies

The eight councils of the Parkland City have economic development strategies that outline their aspirations for growing their local government area's economies. The strategies combine business development initiatives to support local business and attract investment as well as targeted initiatives for place-based activities in centres and a range of policy areas.

Business development initiatives cover marketing and promotion, collaborating with State agencies, improving processes for development approvals, procurement processes to support local businesses, investment attraction and targeting specific industry sectors.



6. 22nd Century Workforce Skills

Invest in people to maximise economic opportunities

One of the most important determinants for investment attraction for a country or region is human capital, which includes the skills and education of the workforce. Companies can't grow and won't invest where they can't readily attract workers with the right types of skills, aptitudes, and knowledge.

Successful regions generally have high quality universities and/or technical or vocational colleges at their core. These institutions create spillover benefits such as tech-enabled and skilled start-up companies.

Disruption has been so rapid in the 21st century economy that industry is constantly looking for workers to upskill or re-skill. Life-long learning opportunities across tertiary education will continue to be essential in the future to ensure workers remain industry relevant and businesses have workers with the skills they need in emerging sectors.

Long-established tertiary institutions already provide the service infrastructure that can readily support the diversification of industry sectors of the Parkland City including multiple university campuses and 23 campuses of TAFE NSW, as well as many privately run registered training organisations.

Digital infrastructure upgrades create greater economic benefits in regions with highly educated and skilled workers. Internet speed and reliability are consistently positively correlated with economic growth.

Skills context

The educational profile for the Western Parkland City reflects the types of jobs in the region and will change with labour demand. Average levels of educational attainment in the Parkland City are changing, with professionals the fastest growing employment cohort.

Job advertisement data shows increasing demand for advanced manufacturing skills in the Parkland City relative to the rest of NSW.

Knowledge skills are also the highest in demand in terms of job advertisement. However, only 16 per cent of Greater Sydney's university places currently exist outside of the Eastern City whilst 34 per cent of university students live in the Central and Western Cities.

Moreover, with an estimated one-third of the Parkland City's workforce speaking more than one language, the region is well positioned to host major global firms and headquarter regional operations.



6.1 Digital Networks

Connectivity is much more than transport infrastructure – digital connectivity is a key element of city building. Seamless digital connectivity is also a critical element of business productivity. NSW Government has recognised this and is investing accordingly, through the Smart Western City Program.

Therefore, digital networks are essential infrastructure. The accessibility they create for business to business, and people to services / institutions supports productivity and enhancing workforce skills.

The Smart Western City Program will provide common policies, frameworks, and structures so every organisation participating in the smart city can do so consistently. This includes:

- Delivering policies and guidance materials like the Cyber Risk Management Framework, to apply to all projects and entities deploying and managing smart technologies across the City;
- Including smart considerations in master planning and establishing planning requirements in instruments like Development Control Plans so digital planning obligations are clear and included early in the development of new communities; and
- Augmenting and testing data sharing platforms like the Spatial Digital Twin, so it can perform as a workbench for the planning and operations of the Parkland City.

Cyber-security and capability are also critically important considerations as connected infrastructure and the internet of things become ubiquitous. NSW Government will invest to make the Parkland City the most cyber-secure place in Australia – creating a new source of comparative advantage that encourages more businesses to invest and innovate in the Parkland City.

Priorities

Delivering the Smart Western City program

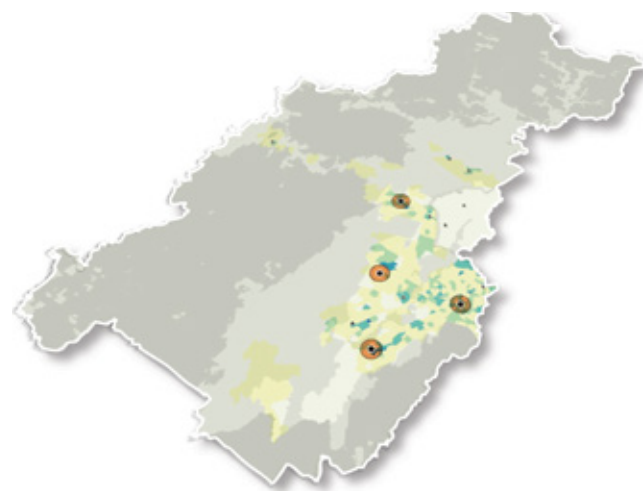
Deliver the Smart Western City Program across the Western Parkland City including ensuring the enabling digital infrastructure is included in the planning for and delivery of the Bradfield City Centre.

Growing Cyber security capability

Progress strategies to achieve a mature cyber security capability across the Western Parkland City. With the aim of minimising cyber risks, including by taking a cyber secure by design approach to the Bradfield City Centre at the precinct, building, and office space level to attract targeted industries such as defence.

6.2 Building workforce skills

Robotics and automation are driving structural shifts that are creating demands for a more highly skilled workforce. While this poses a near term challenge, in the longer term it presents a compelling opportunity for the Australian economy – these structural shifts enable skilled workers to command higher wages and at the same time the skilled workers provide the opportunity for industry to pursue less labour-intensive production approaches



Government commitments such as the New Education Training Model (NETM) alongside targeted talent attraction initiatives will play a key role in supporting businesses and employees in responding to this skills challenge.

The potential to leverage the Australian government's commitment to enhance sovereign manufacturing capability will be influenced by the ability to match the skill requirements of industry. Through the Advanced Manufacturing Research Facility (AMRF), the NSW Government will support the development of cutting-edge capability in areas such as advanced electronics and fabrication techniques.

These capabilities can be applied across a host of industry verticals. For example, they are highly relevant to the defence and space industries which rely on advanced electronics and materials for fundamental componentry. Similarly, robotics and automation play an increasing role in the freight and logistics sector as it is disrupted by technological change.

In addition, there is a Western Sydney City Deal commitment to deliver a VET facility in the Aerotropolis. TAFE NSW is seeking to deliver on this commitment through the establishment of a Strategic Advanced Training Centre at the Bradfield City Centre.

New Education Training Model (NETM)

The Parkland City has a unique opportunity in the coming years to attract significant industry investment and establish itself as Australia's growth hub for advanced manufacturing, aerospace, defence and emerging industries. To achieve this, the region needs a workforce with the appropriate skills.

The NSW Government's \$37 million New Education and Training Model (NETM) – a pilot funded by the NSW government to develop and deliver micro-credentials, co-designed and co-delivered by industry over the next four years – will test a new way of thinking about training that can deliver these skills in a rapid, flexible and industry-focused way.

Developed in partnership with industry, universities, vocational education and training (VET) providers and government, this industry-led training model will deliver micro credentials that provide skills, knowledge, and/or experience in a given subject area or capability aligned to employer needs.

For employers, this also means access to an agile and highly skilled workforce that can meet the demands of advancing operations. For students and workers, it means access to lifelong learning and the potential for an exciting career that can evolve over time.

Key features embodied in the NETM include:

- Industry-led – With industry partners at the forefront of the design, development, delivery, and recognition of critical new skills as they emerge, the NETM will enable rapid upskilling in key industry growth areas to support the economic vision for the Parkland City;
- Place-based – NETM micro-credentials are tailored to the emerging industries and skills required for people who live and work in the Parkland City;

- Cross-sector learning – The NETM brings together vocational education, higher education and workplace learning to provide a greater range of qualifications spanning multiple sectors and skills;
- Flexibility – The NETM offers flexible opportunities for existing and future employees looking to upskill, reskill or develop careers, offering them flexible pathways to shape their own learning journeys and create new job opportunities. NETM
- micro-credentials are short, so learners can quickly develop the skills they need while working at the same time; and
- Stackable learning – Micro-credentials in related fields will be able to be stacked together. Over the long term, this will allow learners to custom-build a qualification or a suite of skillsets that is best suited to their needs, aspirations and career goals, making lifelong learning practical.

Anticipated outcomes of the NETM include:

- Short and long-term solution to address skills shortages to support accelerated industry growth;.
- Collaborative development of fit-for-purpose courses, delivering tailored skills at reduced cost to industry;.
- A platform for workers to reskill and upskill efficiently; and.
- An increased skills density to boost productivity and growth in the Western Parkland City.

Growing Aboriginal enterprises in the Western Parkland City

The Parkland City is home to the largest population of Aboriginal people in Australia.

Three percent (approximately 32,500) of the Western Parkland City's residents are Aboriginal or Torres Strait Islanders, compared with 1.27 per cent of the Greater Sydney population.

The NSW Government will continue to develop skills and business development initiatives which enable Aboriginal economic self-determination. The OCHRE Plan and Aboriginal Economic Prosperity Outcomes Framework require new that new initiatives are developed in partnership with Aboriginal people and communities,

and focus on local, place-based and people-centred solutions. This approach addresses the disparity between Government priorities and the aspirations of local Aboriginal communities as articulated by them.

Over the last decade, the fastest growing category of employment growth in the Parkland City for Aboriginal workers has been in management roles. In 2016, there were three times more Aboriginal people employed in management positions than in 2006.

The Western Sydney City Deal recognise the contribution of Aboriginal people to the Parkland City with the NSW and Australian Governments committed to adopt Indigenous employment and procurement targets in construction projects, including a 2.4 per cent indigenous employment target and a three per cent Indigenous procurement target for construction.

The NSW Aboriginal Land Council has delivered the Yarpa Business Hub in Liverpool, an Aboriginal-run business support service, helping businesses to thrive in the Parkland City.

Aboriginal owned and operated businesses such as GWS Engineering & Construction have utilised Yarpa networking events to secure Laing O'Rourke and John Holland contracts.

Governments have been prioritising Aboriginal firms in competitive processes through targets for Aboriginal employment, social employment and procurement including:

- a 2.4 per cent employment target; and
- a three per cent procurement target for construction projects in Western Sydney.

Although local innovation is taking place more needs to be done to support the economic prosperity of Aboriginal people, communities, and enterprises, including the need for place-based, people-centred, local solutions, including the delivery of cultural infrastructure which supports the economic and social participation of Aboriginal people. Along with the need to form genuine partnerships and allow the local community to articulate their aspirations.

Only around 4 per cent of Aboriginal residents in the Western Parkland City holding a bachelor's degree or higher and with Aboriginal employment focused heavily on health care/ social assistance and retail trade sectors, there is a need to work with Aboriginal people to support their economic prosperity aspirations.

NSW Government programs

iSTEM

Australian businesses competing in a global economy will need more employees trained in science, technology, engineering, and mathematics (STEM). iSTEM is a student-centred Stage 5 elective course that delivers science, technology, engineering, and mathematics education in an interdisciplinary, innovative, and integrated fashion. It was developed in direct response to industry's urgent demand for young people skilled in science, technology, engineering, and mathematics.

School Success Model

The NSW Department of Education's School Success Model balances stronger support for schools to make evidence-based decisions with clearer responsibilities for performance targets. The School Success Model delivers evidence-based guidance on effective practice that improves student outcomes, more support for schools that need it the most, less administrative burden, stronger and clearer responsibilities for schools and the system, and recognition and the scaling of practice of our most successful schools.

Training Services NSW

Training Services activities which support the Western Parkland City include supporting the infrastructure upgrades required for the Aerotropolis, such as the Northern Road and other infrastructure, working to provide skills to job seekers and upskill existing workers, and Skills Brokers.

Priorities

Establish the New Education and Training Model (NETM)

The New Education and Training Model (NETM) will develop and deliver flexible and responsive industry led skills training for the Parkland City. The NETM will offer new industry relevant micro-credentials that can be taken individually or 'stacked' to develop larger skill sets tailored to the skills needs of the learner and industry. They will be accessible to Parkland City businesses.

Focussing on workforce skills

Talent attraction: Addressing skills gaps to support the delivery of the advanced manufacturing, defence markets, and academic and research institutions, including exploring options to attract more migrants and grow local talent with skills for high tech industries.

Education and employment pathways: Addressing opportunities such as tertiary facilities at the Bradfield City Centre, secondary school campuses within education precincts, pathways for secondary school students to enter the workforce, and enhancing the economic opportunities related to the high concentrations of refugees in Fairfield Council.

Enabling Aboriginal participation: Enabling Aboriginal participation in the Parkland City including:

- Business Connect (NSW Treasury);
- Aboriginal Business Advisory Initiative (Department of Education);
- Barranggirra Aboriginal Skilling for Employment (Department of Education); and
- Yarpa NSW Indigenous Business and Employment.

7. Implementation and Governance

The Parkland City's vision is to become the most green, connected, and advanced city in the Indo-Pacific region. To support this vision, the Western Parkland City Authority is collaborating with State and Commonwealth government agencies and local councils on delivering, coordinating, and attracting investment to the Parkland City.

This Phase 1 report provides an overarching roadmap which outlines three directions as the pathway (roadmap) to grow and transform the economy including the identification of priority sectors. For each direction an integrated set of priorities are identified.

Realising these priorities will take time. It will require all levels of government, industry and research institutions working together to build off the existing economic base in the Parkland City and its existing endowments.

The principal role of the WPCA is to drive economic growth and development. This includes:

- the Western Sydney City Deal delivery office, now part of the WPCA providing annual progress reports against key milestones. The City Deal governance brings together the three levels of government; and
- investment attraction to optimise the Western Sydney City Deal outcomes through the Western Sydney Investment Attraction Office, which is part of the WPCA.

More broadly the Western Sydney Investment Attraction Office, seeks to attract and realise government and private investment in the Parkland City, including through the Western Sydney Investment Attraction Fund.

Activities include proactively seeking new investors in priority industry sectors to support the economic development of Bradfield City Centre and the broader Parkland City and while providing business liaison services, including cultivating and managing relationships with potential investors. The WPCA also works directly with eighteen foundational partners to create opportunities for development and investment.

Local government drive a range of strategies and programs. In 2020 the Western Parkland Councils completed local strategic planning statements that identify planning priorities and actions to support productivity. The statements inform and activate development through local planning frameworks. Councils have also completed supporting strategies including local economic development strategies, local housing strategies and local rural land strategies.

Commonwealth and NSW government programs to support economic development are wide ranging covering areas such as of investment concierge, export, defence, Aboriginal businesses, research and innovation, energy efficiency, skills, start-ups, cyber capabilities, manufacturing commercialisation, youth pathways, starting, strengthening and growing a business, and circular economy.

The NSW Government initiatives include specialised agency inputs under the umbrella of Investment NSW. These have included:

- Defence NSW;
- NSW Circular;
- Destination NSW; and
- Invest NSW.

Delivering on the *Draft Roadmap* will also include undertaking further industry deep dives to highlight opportunities to build on existing ecosystems in target industries in the Parkland City. These subsequent phases of the *Draft Roadmap* will require collaboration and partnerships across all government and private sector stakeholders.

Monitoring

Monitoring of the *Draft Roadmap* will be linked to the monitoring for the *Draft Blueprint*. It has identified six measures which include jobs and skills as well as liveability considerations which support investment attraction and access to jobs.

Measure 1: Parkland for people

Increase the proportion of homes in urban areas within 10 minutes' walk of quality green, open and public space.

Measure 2: A net zero city

Develop low carbon, high efficiency strategies to deliver net zero emissions before 2050, including carbon neutral buildings in Bradfield City Centre.

Measure 3: 30-minute city

Progress towards a 30-minute City with better access to a wider range of jobs.

Measure 4: Collaboration with Aboriginal communities

Collaboration to give a stronger voice to the Aboriginal people of the region to support Connection to Country outcomes.

Measure 5: Jobs

The city will create more than 200,000 additional jobs and greater job diversity by 2036.

The fundamental shift to put the economic potential of the Parkland City at the centre of planning and delivery priorities means that jobs growth is prioritised. This is essential to rebalancing the economy and job opportunities across the Greater Sydney Region and driving economic recovery.

Measure 6: Skills

The City will educate and train today's workforce for the jobs of the future.

The Parkland City has a significant opportunity to work in partnership with industry to grow a skilled workforce in partnership with industry targeting nationally competitive industries. Micro credential model offers a more agile way to deliver training and provides industry with the ability to adapt, innovate and improve productivity over time at a scale available few other places in Australia.

Next Steps

This *Draft Roadmap* is put forward by WPCA to provide direction on the economic priorities required to deliver the vision for the Parkland City.

Accordingly, many of these priorities will require further planning and consultation before governments commit the resources for detailed investigation and implementation.

WPCA will work with Commonwealth and local governments and NSW Government agencies to progressively advocate for and/or deliver the priorities and continue to engage with stakeholders on emerging issues.

WPCA looks forward to engaging with governments and other stakeholders and invites feedback to help in our role to encourage economic growth and development. The key channels of feedback include:

- Delivery priorities; and
- Additional opportunities, gaps and issues.

Feedback is to be provided by 31 March 2022 via:

WPCA website: www.wpca.sydney

Info line: 1800 312 999

General inquiries email: blueprint@wpca.sydney

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*Draft Western Parkland City Economic Development
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