



Transforming Sydney's Economy



Committee
for
Sydney



Acknowledgement of Country

We acknowledge the traditional owners and custodians of the land upon who this report covers, and respect Elders past and present. The Committee for Sydney acknowledges that sovereignty was never ceded: this was, and always will be, Aboriginal land.

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Executive Summary

The year 2025 will mark the quarter-point of a century characterised by rapid technological, geopolitical, economic and environmental disruption.

It also marks a period of transformation for Sydney. In 2000, the world came to Sydney for the Olympic Games, putting us front and centre on the global stage. It was a time of unbridled optimism in the future. But the years that followed became known as Sydney's 'lost decade'; where limited vision and investment meant we did not fully capitalise on the opportunities that the global stage presented to us.

As a nation we did well. Over two decades of uninterrupted economic growth was unprecedented globally. This came off the back of our good fortune of being the resource rich 'lucky country'. We were a highly educated, politically stable, multi-cultural country who dug minerals out of the ground and put them on ships destined for other countries. Countries that would reap the value-adding benefits of our resources.

Sydney has since made up for lost time. We have emerged as a key global financial services hub, now in the top 20 globally¹. We have consolidated our position as the largest economic engine in the country, accounting for 21% of national economic activity². We are home to eleven public universities in the global top 200³, two of whom are in the global top 20⁴. We have invested in over 100 kilometres of Metro infrastructure and more than 24 kilometres of light rail infrastructure⁵.

We will have planes landing at our second airport in Western Sydney by 2026, directly connecting Western Sydney to South-East Asia and the Pacific.

We are a true global city, making our mark in a range of sectors at a time when global economic contours are changing and forcing us to rethink the fundamentals of the Australian economy.

Major factors driving the need for economic transformation

- Climate change and decarbonisation
- Geopolitics and sovereign risk concerns
- Technological revolution
- Hybrid work
- Housing unaffordability
- Health



The re-emergence of industry policy

The corollary to any challenge is the opportunities it creates, and across the world, national and sub-national governments are responding to these challenges by re-engaging in industry policy. This takes various forms and is underpinned by different drivers, but what is emerging is an era of more interventionist government policy aimed at increasing economic activity and creating competitive global advantages.

Australia too is re-engaging with industry policy through the Future Made in Australia Act; identifying where our own national comparative and competitive advantages lie and where there are strategic needs and opportunities to build out value chains, re-engage with manufacturing and decarbonise energy systems.

This is driving the states across Australia to also identify industry priorities; committing government funding as well as infrastructure investment, economic development and investment attractions strategies to realise their ambitions.

A concerted focus on industry development is central to state and national efforts to increase economic diversity and complexity. In NSW alone, coal export accounts for 36% of all goods and services export trade value. In a world rapidly trying to decarbonise, having one-third of total export revenues coming from a carbon-intensive commodity presents an extreme economic risk. Economic diversification must be an urgent priority, and this requires coherent industry policy and economic strategy to chart a clear path forward. Without it, NSW's role in the global economy risks not fulfilling its potential.



A city with significant advantages but limited strategy

Sydney, as Australia's largest city and most complex economy, can be a major beneficiary of this changing economic landscape. We will play a central role in driving Australia's future economy.

But are we being proactive enough in creating the economy we want – and need? In the 1990s, NSW-registered cars had at the bottom of their numberplates the tagline 'NSW – the Premier State'. This referred to NSW being the first state established in post-European Australia. But it also reflected the long-held notion that NSW was the best state.

Perhaps this tagline reflected a level of hubris and expectation that led to that post-Olympics lost decade. The expectation that NSW – and Sydney – would of course be where the world comes to do business in Australia.

In an age of competitive industry policy both nationally and internationally, NSW cannot afford to assume that the 'Premier State' moniker is a fait accompli and that Sydney is the natural home for international investment.

We must identify the industries in which we have clear advantages and that will take Sydney into the second half of the 21st century. We need to plan for them, invest in them and nurture them.

We need to work for them if they are going to be the future of work.

The industries that will transform Sydney's economy

Sydney's is a complex economy. Within its geographic borders are all the industries that make up the Australian economy. Financial and professional services and headquarters of multi-national organisations cluster in our CBDs while manufacturing, logistics and trade typify our diverse industrial precincts. Health and education jobs concentrate around our hospitals, schools, TAFEs and universities while retail and local service jobs define our high streets and shopping centres.

For Sydney to be highly functioning, inclusive and dynamic global city, all industries must be planned for. A city without essential services cannot survive, let alone thrive.

Among this urban kaleidoscope of jobs and industries are a handful of emerging high-value sectors that are set to define Sydney on the national and global stage over the coming decades. These are industries that will attract international talent and investment, contribute high levels of economic activity and diversification, reflect existing strengths or nascent capabilities in sectors of competitive advantage and advance Australia's industry policy aspirations. They will create the opportunities for Sydney to grow as a global city.

These five sectors are:

- **Financial services and fintech**
- **Bio-medical technologies and life sciences**
- **Digital technologies**
- **Advanced manufacturing**
- **Net zero and clean energy technology**





Realising the opportunity

To realise the opportunities these five sectors present requires effective planning and targeted investment. This comes in part through well considered industry policy. This will be a core part of economic development across Australia – including Sydney – over the coming years as countries and cities across the world race to develop or consolidate their global competitiveness in future industries.

It also comes from a sustained support of the higher education system and a continued focus on collaboration between academia, the private and public sectors. And while attracting new talent and investment is vital, so too is investing in existing businesses and helping them to become more productive, innovative and competitive.

Investment in these sectors and the support of strong and targeted industry policy can help increase the share of jobs that these sectors create in the economy. They currently comprise one in five jobs. Lifting the share of priority sectors from just 21% to 31% of jobs will see these sectors account for an additional 500,000 of Sydney's future jobs projected by 2050.

The Committee for Sydney recognises that in the long-run, industries need to be self-sufficient and not reliant on government subsidy to remain competitive. However, the scale of change and the opportunity for economic transformation to address existential challenges such as the climate crisis necessitate commitment by government to provide certainty for private capital and investment to crowd in.

Sydney is a city brimming with potential. We have the strengths and attributes to enhance our place as a true global city by targeting key sectors that reflect our metropolitan strengths and national aspirations.

If we get this right, we will transform Sydney's economy over the coming decades.



Source: Image courtesy of
Macquarie University



Summary of recommendations

This report outlines nine recommendations and supporting actions to capitalise on Sydney's inherent opportunities and transform the economy. These are summarised here and expanded on in Chapter Five.

Now: Set Sydney up for economic transformation success

Recommendation	Lead
Recommendation 1: Consolidate economic development leadership	
Action 1a: Create a ministerial portfolio of Minister for Economic Development and Transformation	NSW Premier
Action 1b: Create a ministerial sub-committee comprised of all relevant ministers for all portfolio	
Recommendation 2: Co-ordinate State and Federal strategies and funding for priority sectors	
Action 2a: Coordinate state and federal industry policy objectives where NSW has strengths in industries of national priority	Proposed Minister for Economic Development and Transformation
Action 2b: NSW and Federal Government establish a co-funded Priority Industries Investment Fund	
Action 2c: Coordinate NSW Government's economic development funding streams with similar Australian Government streams targeting priority industries	
Action 2d: Commit recurrent operational funding to established or nearly established initiatives aligned with priority industries or research and innovation	
Recommendation 3: Set clear expectations for workforce diversity and inclusivity	
Action 3a: Implement all seven recommendations outlined in the Women's Economic Equality Taskforce final report	Premier's Department
Action 3b: Increase participation of, and opportunities for, the Aboriginal and Torres Strait Islander people in priority sectors	

Next: Develop an integrated strategy for economic transformation

Recommendation	Lead
Recommendation 4: Develop a Future Economy Strategy and vision for NSW, with a clear place-based focus	
Action 4a: Develop a place-based Future Economy Strategy for NSW under which all other targeted economic strategies sit	Proposed Minister for Economic Development and Transformation
Action 4b: Develop a Greater Sydney Economic Development Strategy that gives effect to the State-wide Future Economy Strategy	
Action 4c: Create cross-departmental panels for key economic transformation priorities to co-ordinate whole-of-government delivery	
Action 4d: Support Sydney's innovation district network by integrating NSW's Innovation Blueprint into the state economic strategy	
Action 4e: Broaden the role of the Advanced Manufacturing Research Hub (AMRH) to become a network of specialised manufacturing-focused research and innovation hubs across NSW	
Recommendation 5: Co-ordinate development of future economy strategy with infrastructure and land-use strategies to support priority industries	
Action 5a: Develop Greater Sydney Economic Development Strategy concurrently with other metropolitan strategies	Proposed Minister for Economic Development and Transformation
Action 5b: Require a 15-year pipeline of supply of serviced industrial land supply is maintained and retain existing industrial precincts across Greater Sydney through the Retain and Manage policy designation	
Action 5c: Make all levels of government data accessible at an LGA or SA3 level and at higher frequency periods than the five-yearly census to ensure regionally-specific data is available and current	
Recommendation 6: Identify future skill needs and embed in education pathways	
Action 6a: Require firms applying for grant funding from funding streams linked to identified priority industry development to demonstrate how they are investing in priority skill development within their programs	Proposed Minister for Economic Development and Transformation
Action 6b: Improve the overseas qualifications assessment and recognition process to more easily recognise and accredit new residents to work in priority industries	
Action 6c: Increase collaboration across VET and university sector	



New: Tell the world and back ourselves

Recommendation	Lead
Recommendation 7: Develop a global investment brand for Sydney	
Action 7a: Commit ownership of Sydney's economic brand within NSW Government	
Action 7b: Broaden the remit of visitor attraction beyond tourism to include investment and talent attraction and align metrics of success to this broadened focus	
Action 7c: Connect international businesses with local counterparts working in priority sectors where such a connection can fast-track domestic capability and international investment	Proposed Minister for Economic Development and Transformation
Action 7d: Align international business events calendar with state and national industry priorities	
Action 7e: Support NSW Government's Study NSW to ensure Sydney remains a destination of choice for international students to universities	
Recommendation 8: Direct government procurement to support priority industries and economic development objectives	
Action 8a: Align NSW's strategic economic and industry development outcomes with NSW Government procurement objectives	
Action 8b: Use local procurement opportunities to build capacity in Sydney economy by including a weighting towards local businesses	Proposed Minister for Economic Development and Transformation
Action 8c: Increase risk tolerance in public sector business cases where investment is focused on development of priority industries	
Recommendation 9: Increase investment opportunities and pathways	
Action 9a: Require superannuation funds to report on spread of investments across business maturity stages, industry type and investment location to increase transparency and better align with strategic industry priorities.	
Action 9b: Refine the NSW Unsolicited Proposals (USP) process to incentivise non-government proposals that have a focus on advancing the development of priority industries	NSW Treasury
Action 9c: Co-ordinate NSW Government investment concierge services with Future Economy Strategy and region or district-level industry capabilities and economic development priorities	



2. The need for transformation



Why economic transformation is important

The global economy is changing rapidly and significantly. A shifting geopolitical landscape is reshaping global supply chains and how and where industry investment is directed.

Technological advancements in the form of innovations such as artificial intelligence, computing technologies and digital currency are making us rethink how we work and transact. And the ever-increasing spectre of climate change is forcing us to accelerate efforts to decarbonise economies and societies.

For Australia and for Sydney, these necessitate changes in the shape and direction of our economy. This transformation also creates significant opportunities.

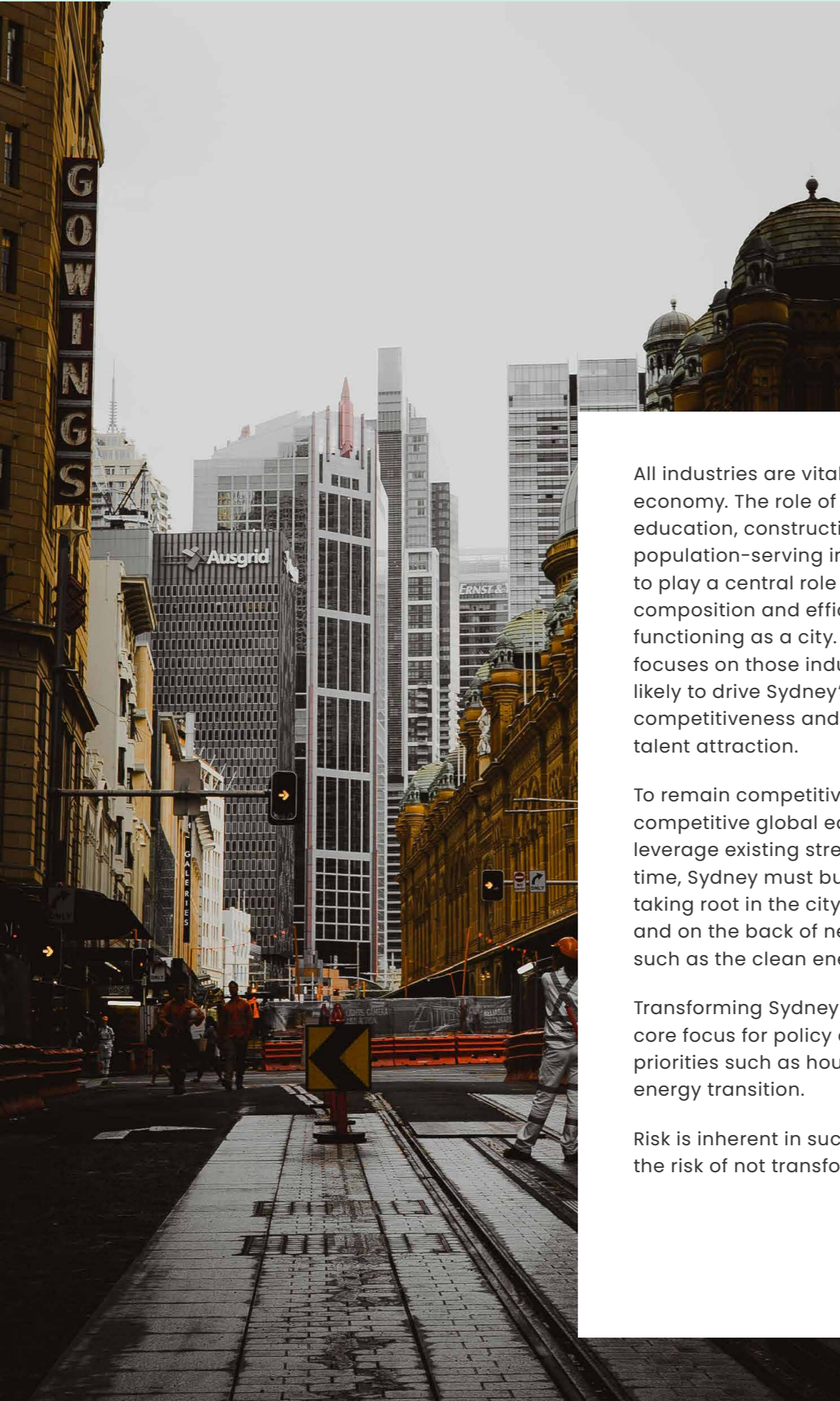
Urban economies such as Sydney's will be at the forefront of change. As a city, we must recognise, plan for and realise the economic potential created. This is not a case of

growth for growth's sake. It is about ensuring we support long-term social cohesion through sustained job creation and increased resilience to a changing climate.

Sydney's economy has a number of competitive and comparative advantages that can drive this transformation. By identifying and planning for the industries with transformational potential, Sydney will not only develop as a metropolitan economy in and of itself but also as a key engine for the economic transformation of NSW and Australia.

Sydney's ability to support the industries that will shape future global economic activity is clear. But global competition for talent and investment is significant. It is essential that visions are articulated, and policies and strategies developed to ensure Sydney's roadmap to economic transformation is delivered.

This report identifies five strategic industries that will be key to the long-term economic transformation of Sydney's economy.



All industries are vital to a well-functioning economy. The role of retail, health, education, construction and other population-serving industries will continue to play a central role in Sydney's economic composition and efficient, equitable functioning as a city. This report, however, focuses on those industries that are most likely to drive Sydney's future global competitiveness and investment and talent attraction.

To remain competitive in an increasingly competitive global economy, Sydney must leverage existing strengths. At the same time, Sydney must build on nascent ones taking root in the city's innovation districts and on the back of new national priorities, such as the clean energy transformation.

Transforming Sydney's economy must be a core focus for policy alongside other priorities such as housing affordability and energy transition.

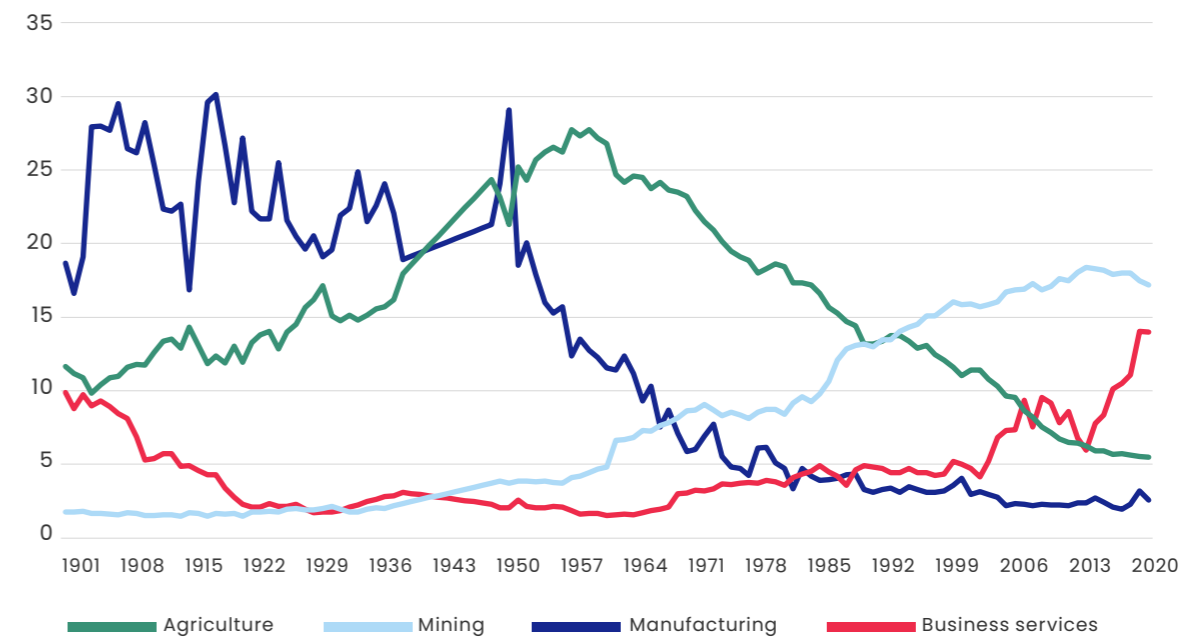
Risk is inherent in such a transformation, but the risk of not transforming is far higher.

Reflecting on a century of economic change

Economic change is driven by factors local and global. Economies of all scales, from metropolitan to global, periodically undergo waves of transformation. A review of national share of Gross Domestic Product (GDP) contribution by key sectors in Australia illustrates this point.

Figure 1: Australia's economy has undergone waves of transformation

Share of Gross Domestic Product by key industries in Australia, 1901-2021.



Source: ABS, SGS Economics and Planning



Australia's economy was dominated by agriculture for the first decades of the 20th century. Manufacturing grew constantly, from a share of approximately 10% to a peak of nearly 30% in the post-war years. In the second half of the 20th century economic contribution of agriculture and manufacturing declined rapidly as emerging agricultural and manufacturing economies – with relatively low labour costs and high output capacity – began to export their products.

Australia was slow to react to changing global activity, but in the past 30 years, we have seen an economy driven by two separate but equally important sectors – mining and business services.

This shift towards mining and business services has done two things. Firstly, the focus on mining has been so significant, and coincided with a global demand for natural resources in the form of iron ore and coal, that the Australian economy has become specialised in a sector where we contribute limited value-adding to the extracted minerals. We have become a 'dig and ship' economy. The result has been Australia's position in the league table of economic complexity falling from 55th in 1995 to 93rd in 2021.

The second impact has been an incremental 'servicification' of the Australian economy, with a growth in the number of jobs in, and economic contribution of, the professional and financial services sectors. This has, by and large, been a story of the growth of Australia's metropolitan economies.

What is instructive here is that while these two sectors – mining and business services – were once geographically and sectorally distinct, the move towards clean technologies and net-zero is creating an overlap. For cities, including Sydney, this creates significant opportunity to leverage the overlap of the resources and technologies sectors and the research and development activity that characterises Sydney's innovation district network. This overlap did not exist in the first mining boom of the early 2000s.

Sydney's own economic transformation is intrinsically tied to this national story that, itself, has been shaped by global forces.





Global factors shaping Sydney's economy

Economies are re-embracing national industry policy

Geo-political tensions have re-shaped global economic policy, impacting supply chains and creating uncertainty at home and abroad. In recent years, wars in the Ukraine and Middle East, ongoing trade tensions between the US and China, and the lingering memories of COVID-19's impact on global supply chains have led countries to re-evaluate their sovereign risk exposures. In many instances, major industrialised economies are reprising industry policy settings to reduce their risk exposure and bolster their internal capabilities in sectors such as clean energy, bio-medical research and manufacturing.

As a global city, Sydney is subject to the consequences of geo-political decisions made outside of Australia. While hard to predict, there several potential scenarios that would impact our economic prosperity.

These include:

- **China could reduce or cease purchase of Australian exports.** 41% of Australia's exports are purchased by China. If China were to reduce this, the consequences would be deep and immediate.
- **Industry policy in other countries could reduce Australian competitiveness.** For example, large national investments are being made by governments across the world into the development of emergent industries, including the US\$2 trillion Inflation Reduction Act in the US which is already attracting global capital and labour.
- **Supply chains that are key to Sydney's social and economic operability could break.** During COVID, the consequences of global supply chain disruption became immediately evident. Both the World Economic Forum and Blackrock now rank supply chain collapse and cyberattacks on critical infrastructure as a significant risk for the global economy.⁶

What is industry policy?

Industry policy refers to government efforts to shape the economy, and economic growth, by targeting the enhancement of specific industries or economic activities through regulation, subsidies and tax incentives. Industry policy was, historically, a significant policy lever used by Government to drive economic development, but since the liberalisation of the economy in the '80s and '90s, it fell out of fashion. It has been common to hear politicians assure people they are "not in the business of picking winners".

But of course, politicians, and government more broadly, are constantly picking winners – just often without a coherent strategy to inform these decisions. Where we place infrastructure, when and where we rezone land, how and what we procure and how we tax are all policy decisions that help make winners (and losers) of different firms and industries. Often our economic appraisal of these decisions considers how they will reshape the existing economy and labour force – but rarely are these decisions made with an explicit goal of economic transformation.

Right now, we must transform our economy to be more complex and diversified. Doing so requires the nurturing of small, high value industries into large, productive and globally competitive ones. Identifying these industries early, and the technologies that will support them, is a critical step. Industry policy relies on the belief that prosperity will grow from specific, intentional investment into areas of potential strength, and aligning government, private sector and academic investment to build the industry into a self-sustaining growth engine for the city and country.

Industry policy is by no means a sure thing. It involves a suite of measures, and there are many examples historically and around the world of these measures wasting money and delivering very little. Care must be taken to ensure measures balance the need for targeted growth without undermining the ability for the wider economy to adapt and invent.

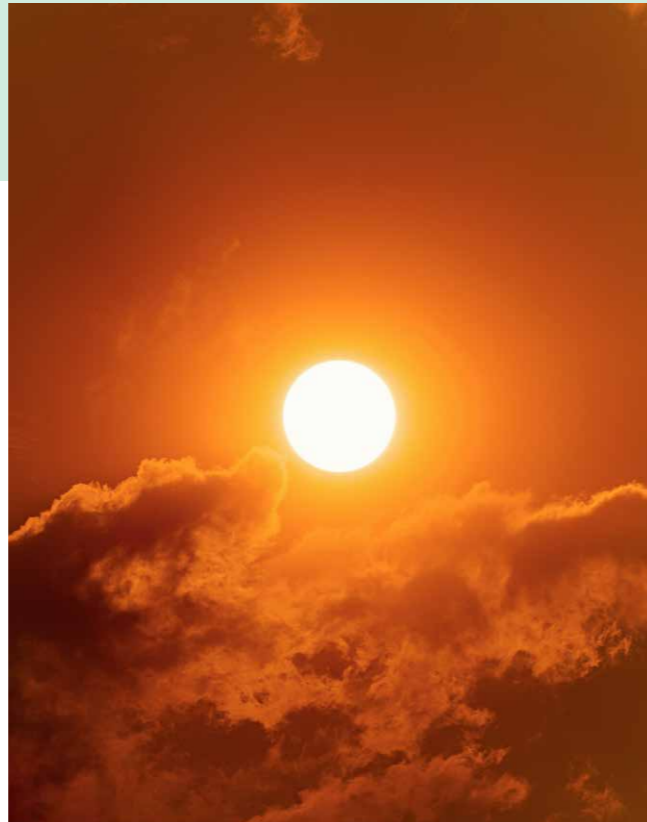




The spectre of climate change is accelerating the race to net zero

Climate change will impact Australia and Sydney's economy. There are clear areas that we know will challenge our ongoing prosperity:

- **Reductions in demand for carbon-intensive exports.** Coal, most notably thermal coal, will have fewer customers in years to come, as alternative energy sources and carbon prices impact on demand.
- **Industries that rely on natural systems impacted by rising temperatures will suffer.** The Great Barrier Reef currently supports a \$5 billion tourism industry and will likely experience up to 90% reduction in coral as a result of a 1.5°C in global temperatures.⁷
- **Communities will experience more frequent and more intense natural disasters.** As our planet warms, the water-holding capacity of the atmosphere increases by around 7% for every 1°C of warming. This can cause heavier rainfall, which in turn increases flood risk.⁸



- **The cost of climate change will grow.** The cost of heatwaves to Western Sydney's economy has conservatively been estimated by the Committee for Sydney at \$1.4 billion today, rising to \$6.8 billion by the 2070s based on health costs, cooling costs, and lost productivity.⁹ The corollary to this is that as a country with a significant focus on renewable energy research and investment (and with significant natural capacity to generate renewable energy), Australia is also in a position to lead on net zero technology, investment and policy. This creates an area of significant economic potential for Sydney.

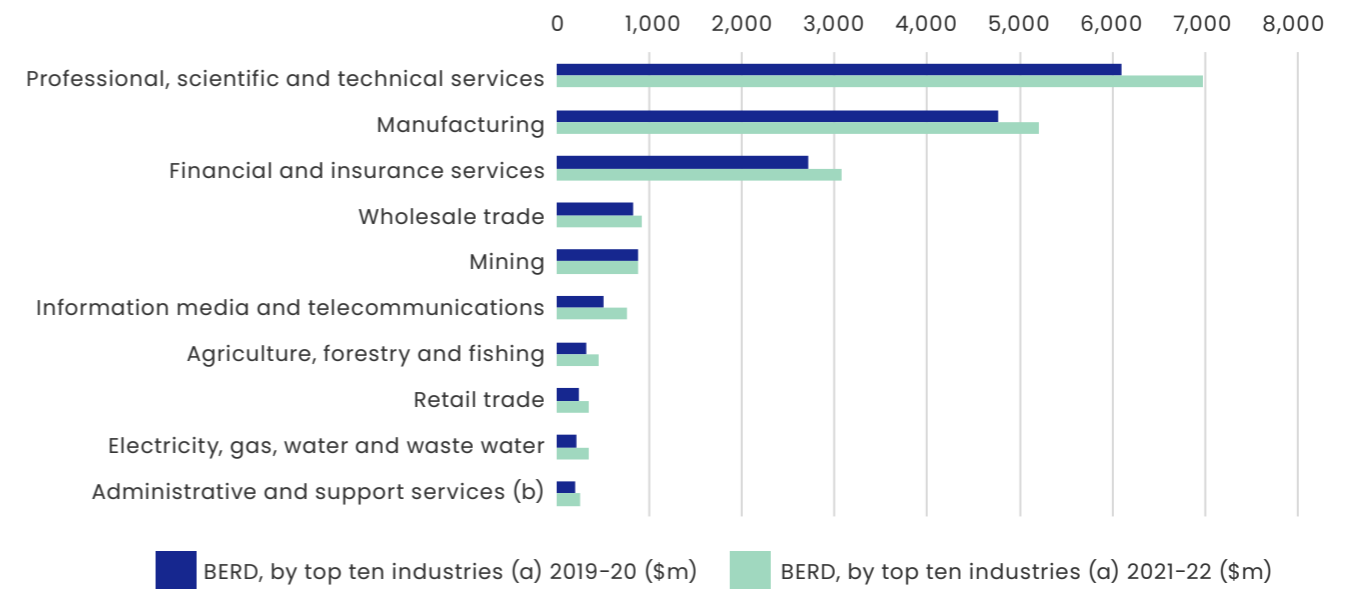
Manufacturing is being re-made in developed countries

Responding to the same issues driving the industry policy shift, many advanced nations, including Australia, are re-investing in manufacturing. Often, this focus has come after decades of declining support and declining national capability.

Advanced manufacturing increasingly relies on significant research and development and complex systems, machines and skillsets to develop regional competitive advantages over other countries with established global supply chains and often lower labour costs.

Figure 2: Professional services, manufacturing and financial services have the highest share of expenditure in R&D spend in Australia

Business Expenditure on R&D by 1-digit ANZSIC, 2021-22



Source: ABS, Research and Experimental Development, Businesses, Australia 2021-22 financial year



Local factors shaping Australia's economy

Australia's economic complexity is low by global standards

Australia's lack of economic complexity makes our economy less resilient to global economic shocks or changes compared to other more complex national economies.

The complexity of Australia's economy is very low by global peer nation standards. Our complexity is also falling. Thirty years ago, Australia's complexity was higher than China, India, Indonesia and Vietnam. These countries now all outrank us by 25 places or more.

Complexity measures how reliant your country is on individual sectors – low complexity reflects an economy reliant on a small set of industries. This creates risks for an economy, should those sectors face a downturn (for example, reduced demand for coal due to the decarbonisation of the global economy). In 2021, 56% of Australia's exports were minerals, primarily dominated by:

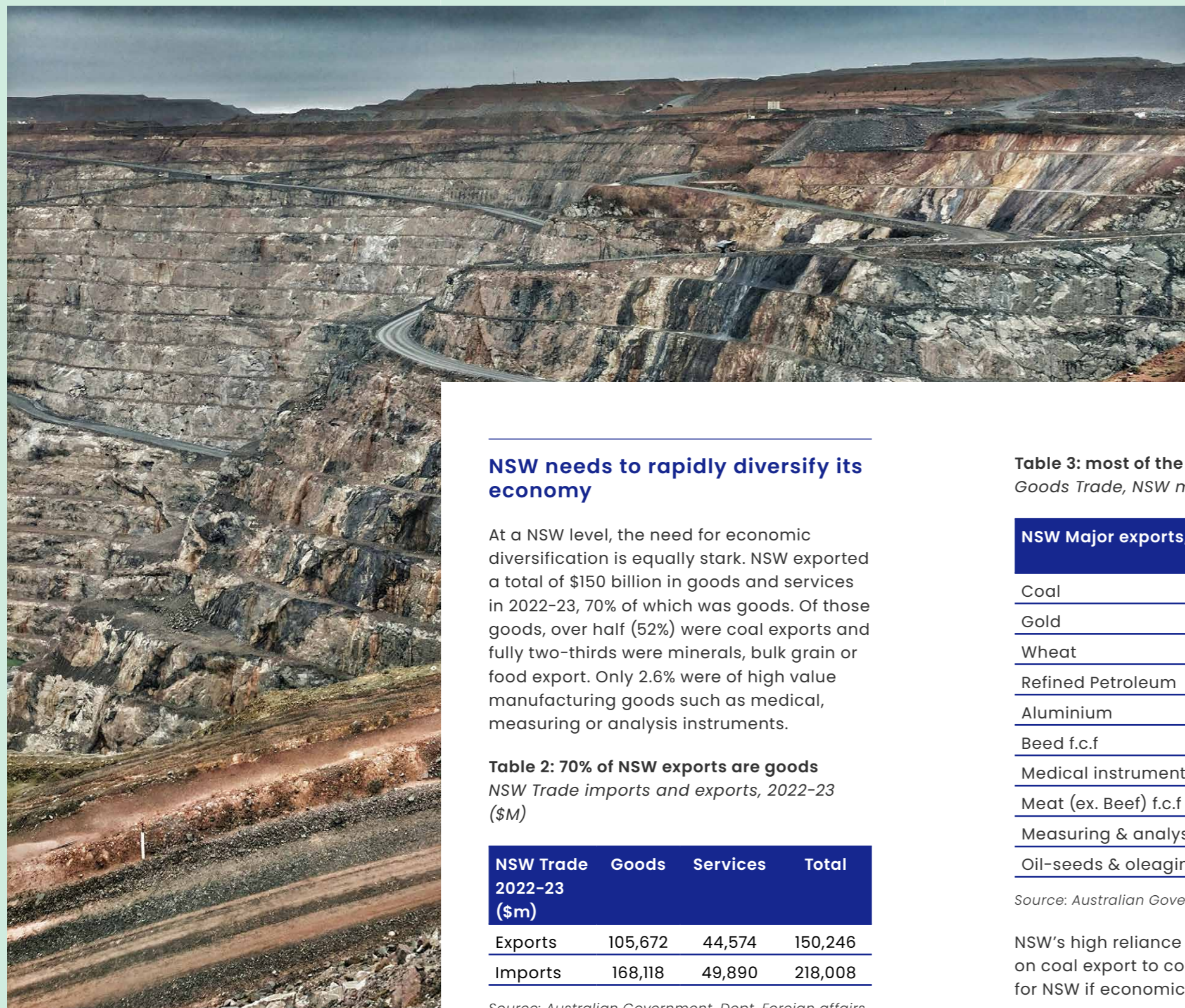
- Iron ore (29% of net exports)
- Coal (12% of exports)
- Natural gas (9% of exports)¹⁰

Table 1: Australia ranks 93rd in the world for economic complexity and has been declining
Changing global rankings of economic complexity – Harvard Atlas of Economic Complexity, 2021

Country	1995 Rank	2000 Rank	2005 Rank	2010 Rank	2021 Rank
Australia	55	60	67	83	93
Canada	22	22	27	36	41
China	46	39	29	24	18
France	8	10	13	13	17
Germany	2	2	2	3	4
India	60	43	50	54	42
Indonesia	77	59	62	67	64
Israel	19	15	19	19	21
Japan	1	1	1	1	1
New Zealand	33	40	41	53	52
Singapore	20	11	9	4	5
United Kingdom	7	4	7	11	8
United States of America	9	6	8	12	14
Vietnam	107	93	88	70	61

Source: Harvard Atlas of Economic complexity, 2021





NSW needs to rapidly diversify its economy

At a NSW level, the need for economic diversification is equally stark. NSW exported a total of \$150 billion in goods and services in 2022-23, 70% of which was goods. Of those goods, over half (52%) were coal exports and fully two-thirds were minerals, bulk grain or food export. Only 2.6% were of high value manufacturing goods such as medical, measuring or analysis instruments.

Table 2: 70% of NSW exports are goods
NSW Trade imports and exports, 2022-23 (\$M)

NSW Trade 2022-23 (\$m)	Goods	Services	Total
Exports	105,672	44,574	150,246
Imports	168,118	49,890	218,008

Source: Australian Government, Dept. Foreign affairs and trade

Table 3: most of the goods NSW exports have little value-added before they are exported
Goods Trade, NSW major exports - 2022-23 (\$M)

NSW Major exports, 2022-23 (\$m)	A\$m	% Share of total Goods exports
Coal	54,959	52.0%
Gold	4,351	4.1%
Wheat	3,293	3.1%
Refined Petroleum	2,423	2.3%
Aluminium	2,264	2.1%
Beed f.c.f	1,886	1.8%
Medical instruments (inc. veterinary)	1,612	1.5%
Meat (ex. Beef) f.c.f	1,557	1.5%
Measuring & analysing instruments	1,119	1.1%
Oil-seeds & oleaginous fruits, soft	867	0.8%

Source: Australian Government, Dept. Foreign affairs and trade

NSW's high reliance on relatively low value-adding activities, and particularly its high reliance on coal export to countries actively moving away from coal, highlights a major economic risk for NSW if economic diversification is not pursued with intent.



Table 4: Many of NSW key export markets are countries actively moving away from coal

NSW's major goods export destinations, 2022-23

Country	% Share
Japan	35.8%
China	8.3%
Taiwan	8.0%
Republic of Korea	5.3%
United States	4.6%

Source: Australian Government, Dept. Foreign affairs and trade

Significant investment in sectors such as value-adding advanced manufacturing or bio-medical and life sciences as a way of increasing the share of NSW's export revenue from higher value goods exports is essential. While we purport to be a service-based knowledge economy, only 30% of NSW's exports come from this sector and nearly a third of this (29%) is from education-based travel – international students – and a further 13% from personal travel-based tourism.

Table 5: Education-based travel is the largest service-based export for NSW

Services Trade, NSW major exports - 2022-23 (\$M)

NSW major exports, 2022-23	A\$m	% Share of services exports
Education-based travel	13,124	29.4%
Personal travel excl. education	5,826	13.1%
Professional & management consulting	5,081	11.4%

Source: Australian Government, Dept. Foreign affairs and trade

With the Australian Government in August 2024 imposing of caps on international student numbers in Australian universities, this, coupled with the over-reliance on an export of a declining global commodity in coal creates a profound economic risk to NSW if diversification is not pursued as a matter of state and national priority.

The Australian Government is responding with its own industry policy focus

Australia's commitment to reaching net-zero has been a focus of both the Australian and NSW Governments (along with other state governments) over the past few years.

In response to both the macro forces discussed earlier and the ambition to decarbonise the economy, Australia has seen industry policy back on the national agenda since the election of the Albanese labour government in 2022. This has been driven variously by the expressed need to ensure Australia remains globally competitive in the face of industry policy and associated rising industry investment elsewhere, as well as the opportunities recognised in the global race to decarbonise.

The result has been, for the first time in decades, a renewed government focus on industry policy and the associated funding, infrastructure investment and policy instrument development. This has perhaps been most clearly articulated in two policy announcements over the past two years:

- **The National Reconstruction Fund established in 2023.** A fund with \$15 billion to support seven national priority industries.
- **The Future Made in Australia package announced by the Prime Minister in 2024.** A \$22.7 billion investment over ten years to attract investment and create jobs in national priority industries.

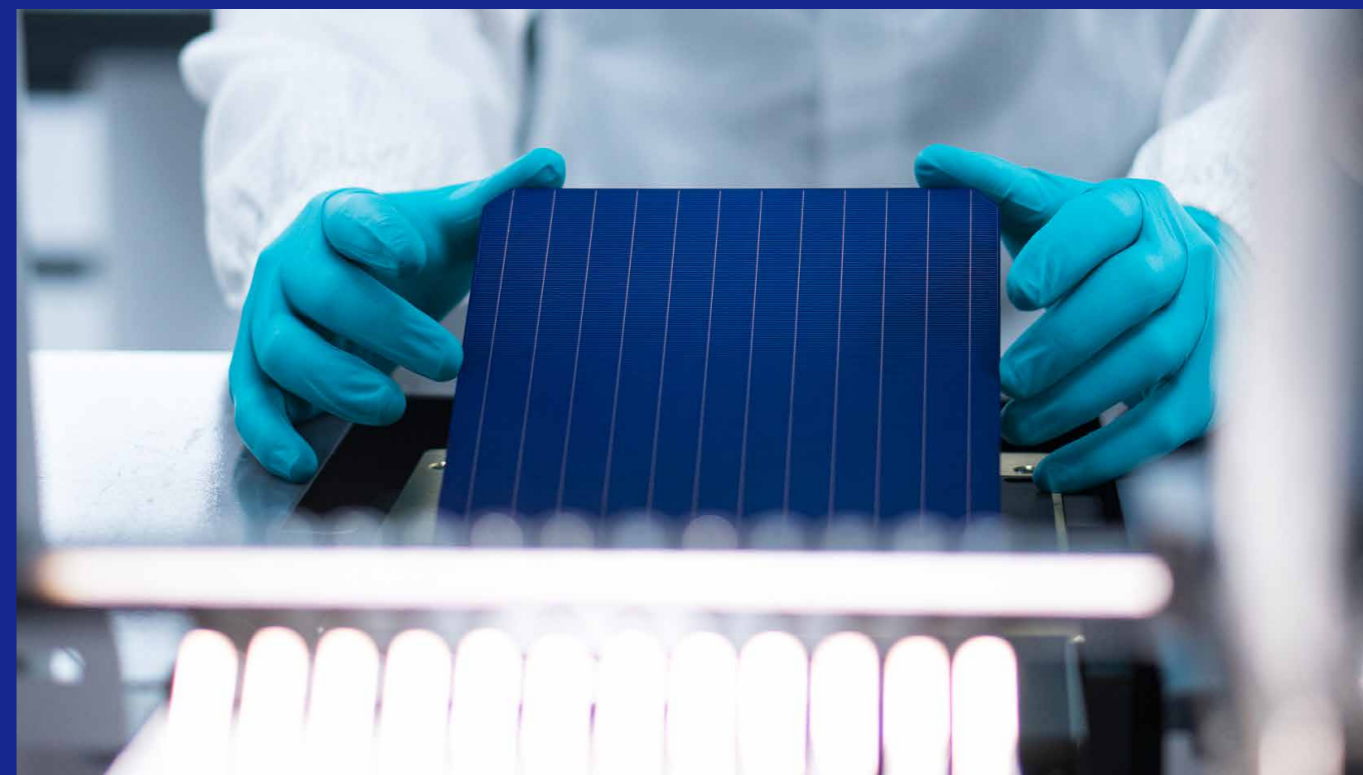


Image courtesy of Sundrive Solar

The National Reconstruction Fund and Future Made in Australia

The National Reconstruction Fund was set up with the aim to diversify and transform Australia's industry and economy and drive sustainable economic growth through investment in seven priority industries, including:

- Value-add in resources
- Transport
- Medical science
- Defence capability
- Renewables and low emissions technologies
- Enabling capabilities
- Value-add in agriculture, forestry and fisheries.

The Future Made in Australia package was set up with the aim to maximise the economic and industrial benefits of the transition to net-zero while securing Australia's place within the global economy. The package includes:

- \$54.7 million over two years to establish a National Interest Framework to create a 'single front door' for international investment attraction.
- \$19.7 billion over 10 years to accelerate investment in national priority industries, including renewable hydrogen, green metals, low carbon liquid fuels, refining and processing of critical minerals and manufacturing of clean energy technologies such as solar and battery supply chains.
- \$218.4 million over eight years to support workforce skills and diversification in the clean energy sector, which includes \$55.6 million to establish the Building Women's Careers program to improve women's access to flexible, safe and inclusive work and training opportunities in traditionally male-dominated industries of national priority, including clean energy sectors.



Sydney is one of the least affordable cities in the world

Sydney is one of the least affordable cities in the world to own or rent property. It consistently ranks within the top ten most unaffordable cities across all housing types. Median rents have increased by 40% for units and 25% for houses in the past two years¹¹ while vacancy remains at historic lows of 0.8%¹².

While housing affordability is at crisis level in all Australian capital cities, Sydney property rents are still significantly more expensive than Australia's next most expensive city – Melbourne – where median rents are \$550 for units and \$570 for houses, compared to \$700 and \$750 respectively in Sydney.¹³

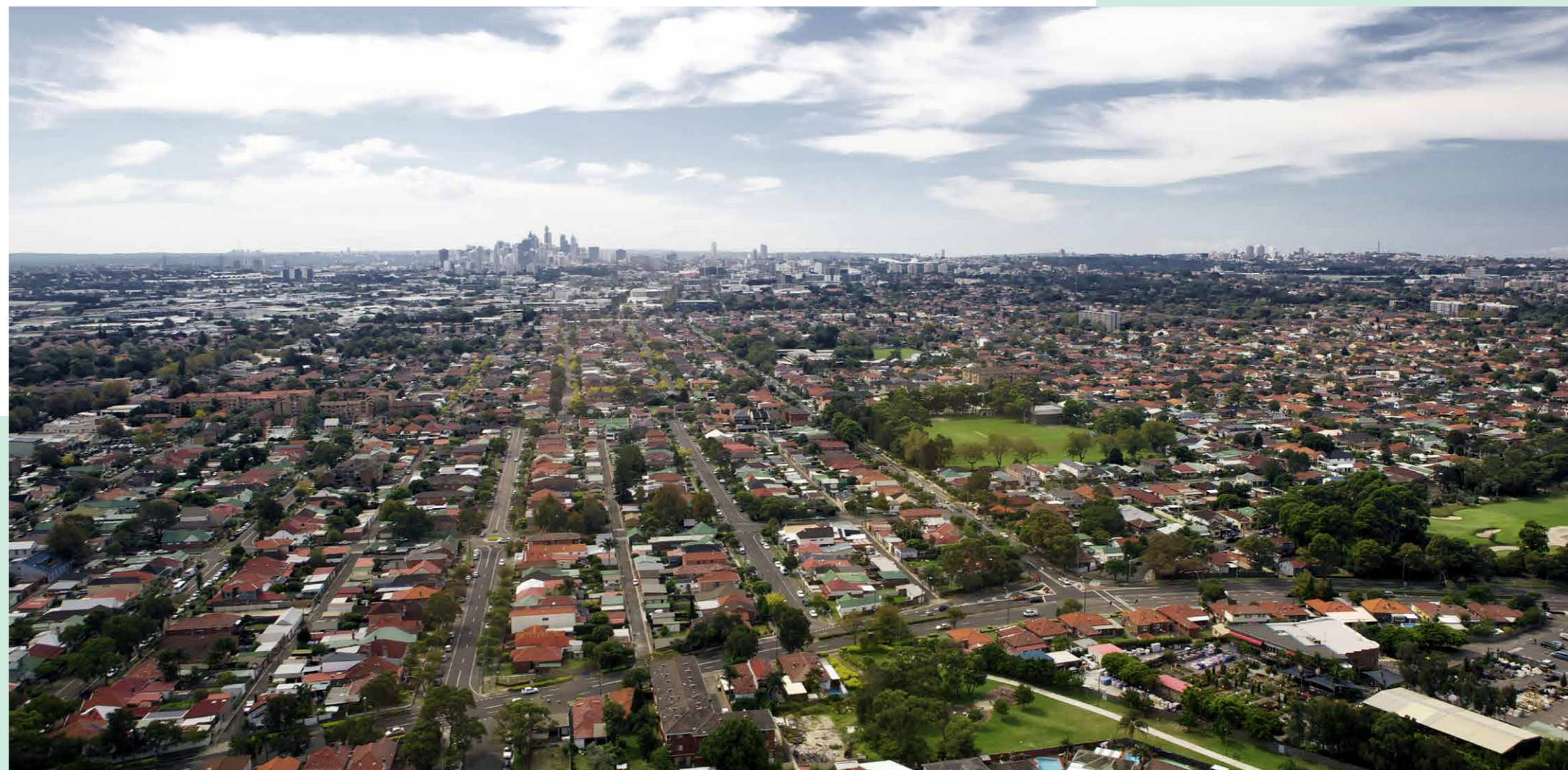
Other global cities facing similar issues of affordability tend to have higher levels of affordable housing stock than Sydney. For instance, while only approximal 4% of Sydney's housing stock is social and affordable housing, in London and New York it is around 20–25%, Hong Kong (40%) and Singapore (80%).

Sydney's economic growth depends on its ability to attract and retain productive workers to grow its economy. Without addressing the housing affordability crisis, Sydney risks losing talent to more affordable cities.

The economic costs are significant. Research by the Committee for Sydney undertaken in 2023¹⁴ found that Sydney's economy is impacted by \$10bn per year from housing unaffordability, only accounting for:

- Reduced productivity
- Reduced talent in-flows and increased talent out-flows
- Reduced innovation activity

This does not begin to account for the second order costs – including reduced spend on tourism, entertainment, night-time economy as well as long-term liveability and competitiveness.





Two decades of infrastructure investment

Sydney has undergone a two-decade infrastructure delivery boom, with investment across metro and light rail, motorways, port infrastructure and, perhaps most significantly from a global perspective, the delivery of Sydney's second airport in Western Sydney.

The Western Sydney Airport and Western Sydney Aerotropolis, is expected to help grow 200,000 jobs in Western Sydney when it is fully operational later this century. It has the potential to reshape Sydney's economy in a number of ways:

- rebalancing the economic centre of gravity of Sydney away from the Harbour and CBD and towards the population centre of gravity of Central and Western Sydney.
- supporting jobs in Western Sydney for people living in the west and south-west of the city

- creating opportunities for the clustering of emerging industries linked to national priorities and export opportunities in sectors such as manufacturing.
- supporting the growth of the tourism sector as a second gateway to NSW and as a catalyst for diversifying the tourism economy of Western Sydney.

An emerging innovation ecosystem

Sydney's innovation ecosystem has developed and matured significantly over the past decade. It has moved from a series of self-contained health and education precincts to a globally significant innovation network of research activity, start-up and scale-up support and business development.

Sydney can now lay claim to having a genuine metropolitan innovation ecosystem that spans a number of hospital and university-anchored districts.

Figure 3: Sydney's innovation district network has the potential for Sydney to become an innovation city

Sydney's innovation district network



Source: Committee for Sydney, 2024

The ecosystem, and its constituent districts, are responsible for many of the sectors that will define future economic opportunities for Sydney and Australia more broadly. These include quantum computing, digital technology, clean technology, financial technology, life sciences, additive manufacturing and clean tech (which includes renewable energy).

This network is also responsible for the pipeline of future talent in these emerging sectors. By way of example, Sydney is now recognised globally for its competitiveness in emerging technology sectors and programs. It was ranked fourth globally for its health innovation and sixth globally for its Tech Education performance¹⁵.





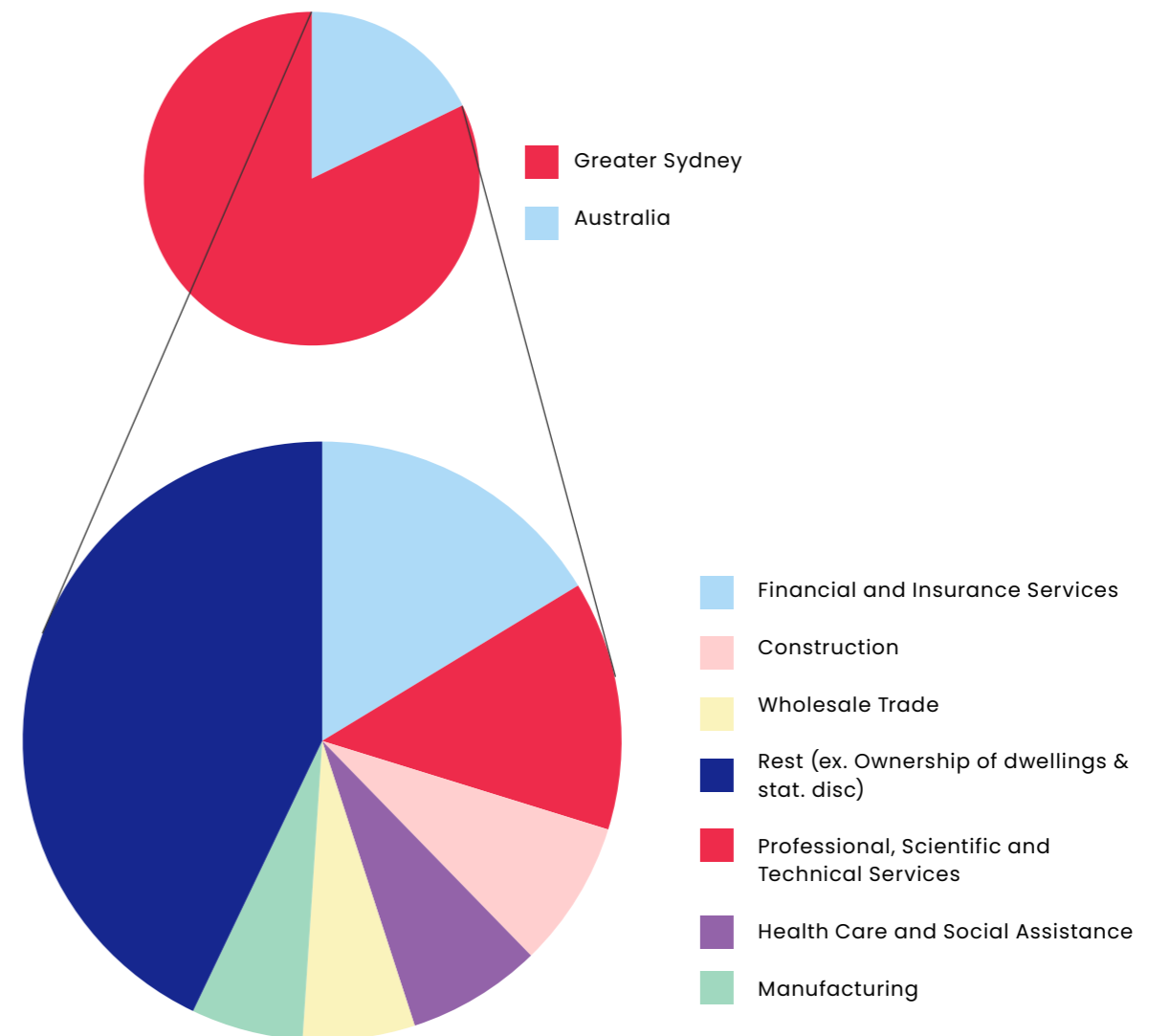
3. A snapshot of Sydney's economy

Sydney is the most significant metropolitan economy in Australia and is routinely rated among the 20 most significant centres of global economy and culture¹⁶. To understand the industries that will shape Sydney's future economy, it is important to understand what the economy looks like today.

The industries that define Sydney's economy

Sydney contributes more than 21% of Australia's economic activity. Of this, nearly 30% comes from financial and insurances and professional, scientific and technical services.

Figure 4: Sydney contributes more than 21% of Australia's economic activity
 Sydney's economic contribution, 1-digit ANZSIC, 2021

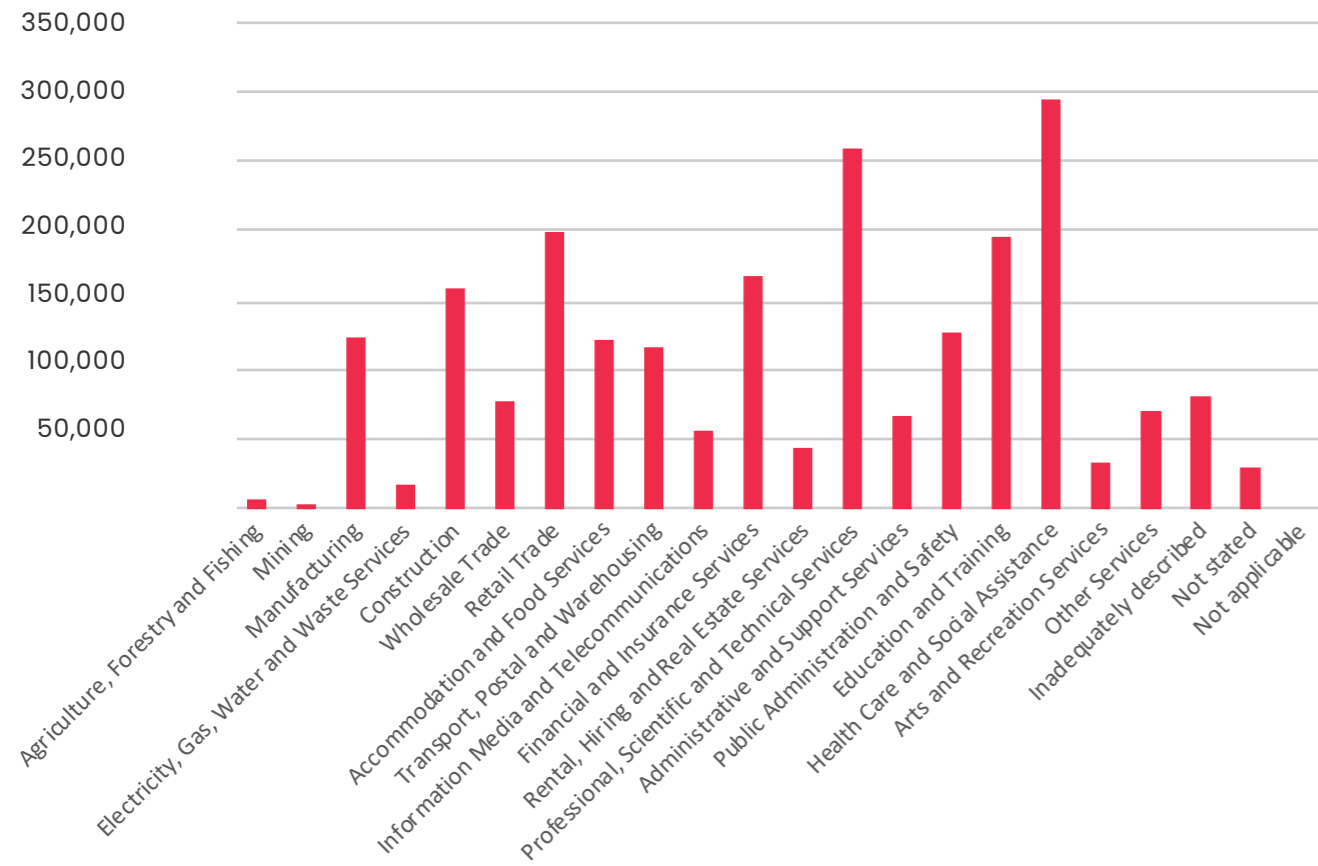


Source: SGS Economics and Planning, 2024, ABS, 2021

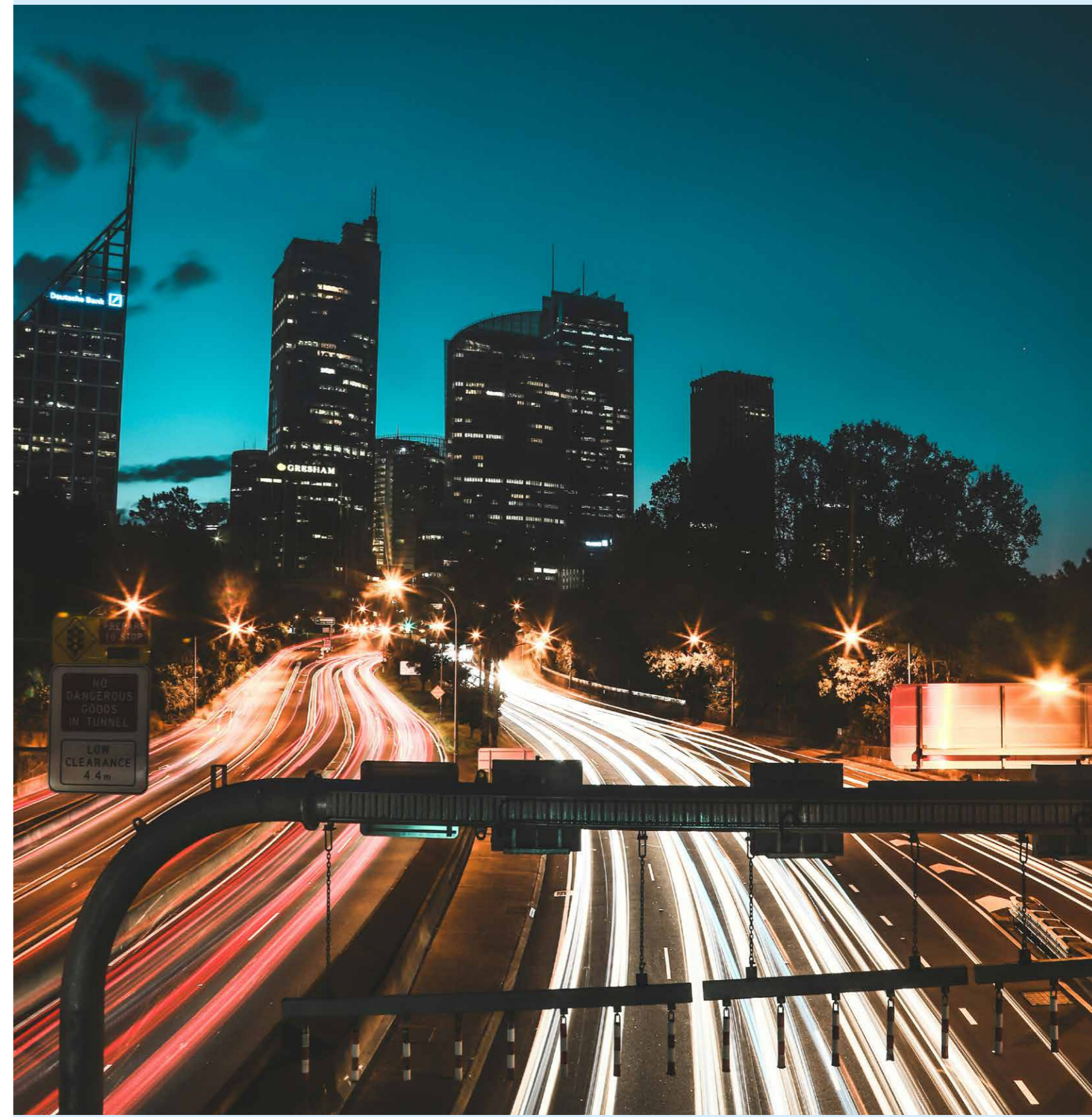


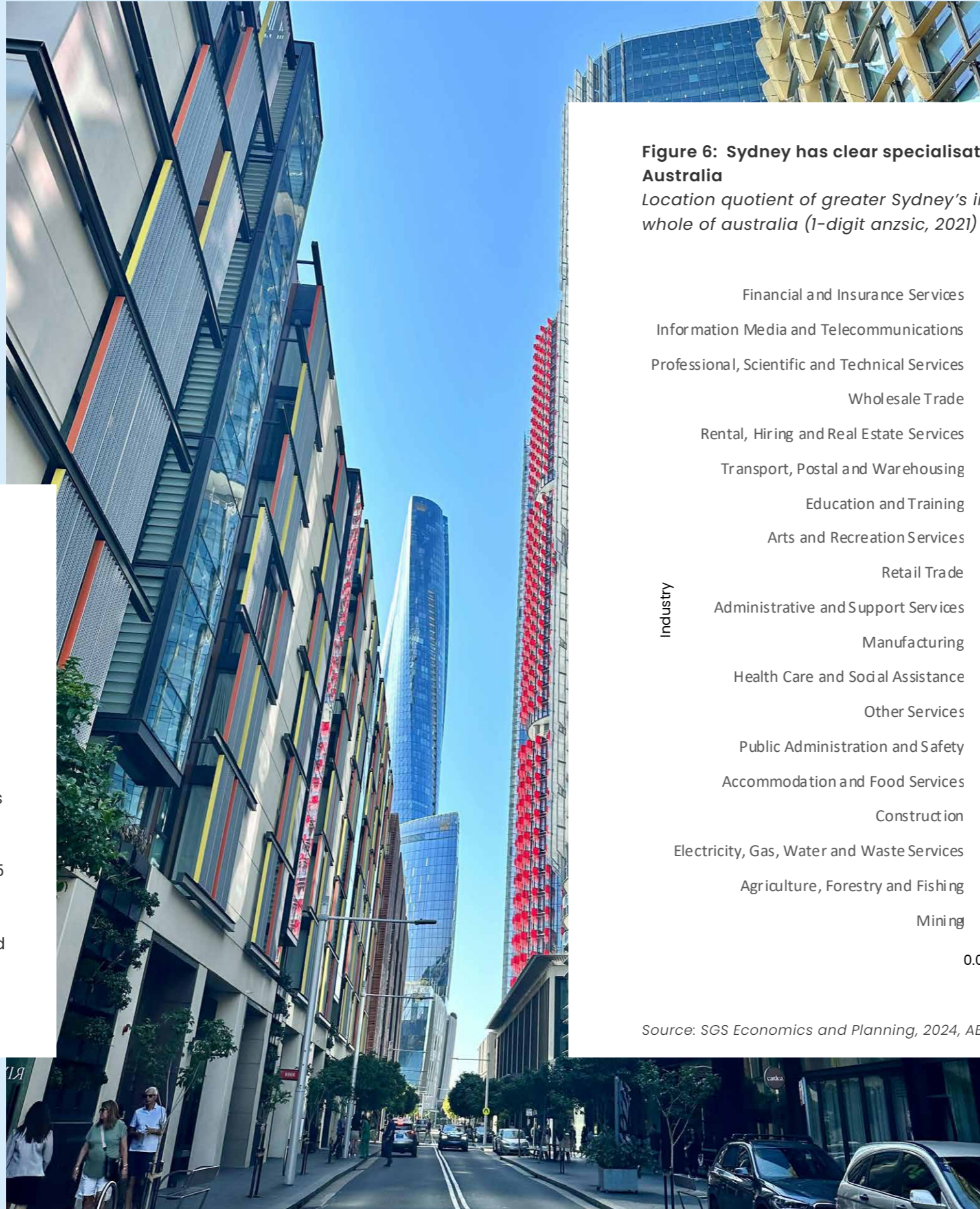
From a job-creation perspective, three of Sydney's largest industries are ones that have a population-serving function. These are health care and social assistance, education and training and retail trade. This highlights the differences in Sydney's economy between jobs of high employment and jobs of high economic activity. The industry with the most economic activity – financial and insurance services (16% of Sydney's total economic activity) – accounts for only 7% of jobs.

Figure 5: Sydney's industry composition is heavily professional and population-serving focused jobs in greater Sydney by 1-digit ANZSIC, 2021



Source: SGS Economics and Planning, 2024, ABS, 2021





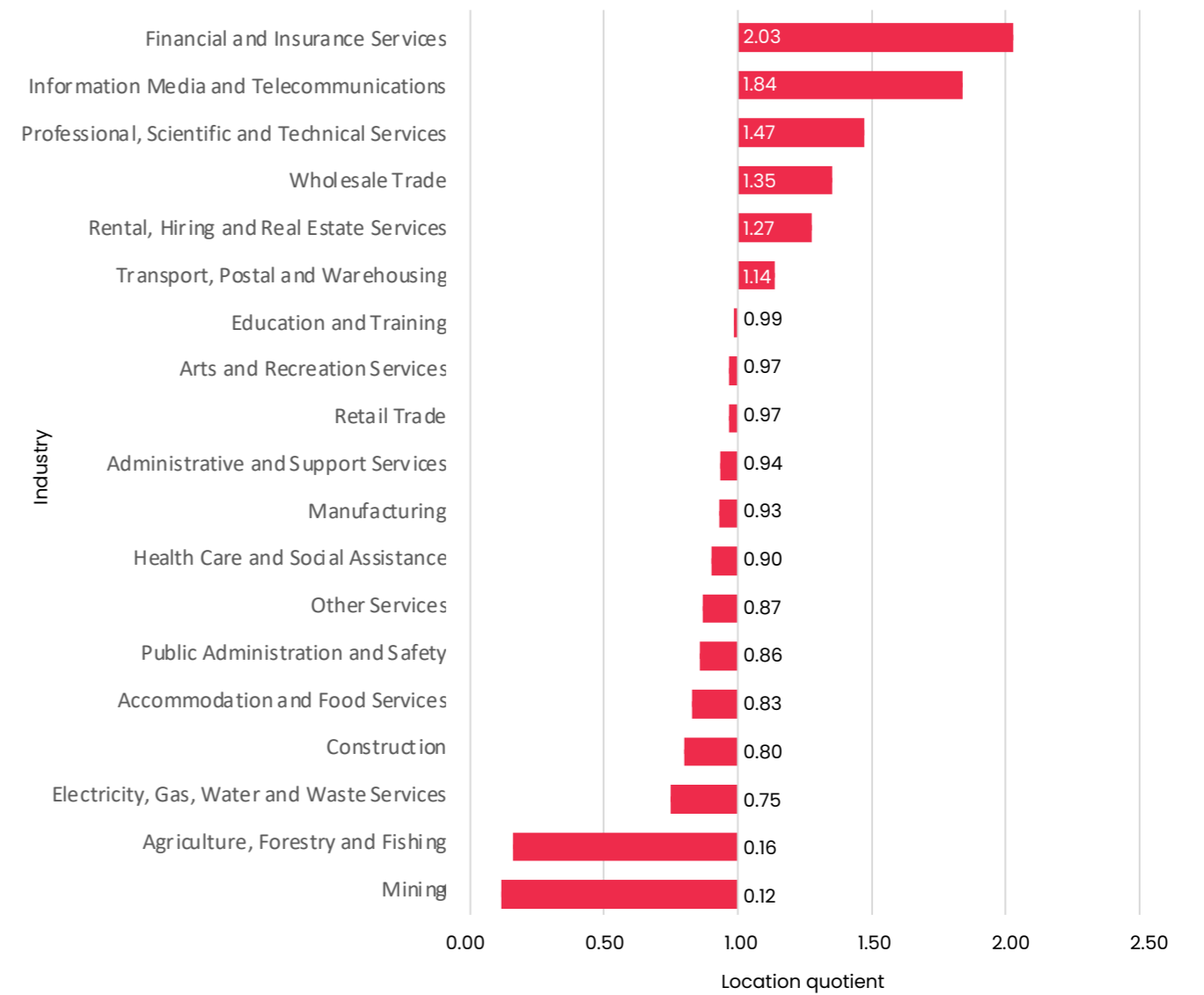
Another way to look at Sydney's economy is by understanding how specialised its industries are compared to other places. When compared to the whole of Australia¹, Sydney's most specialised industries are those in the knowledge and services economy – primarily those in professional and financial services and media and telecommunications.

Sydney's financial services sector is twice as specialised in its concentration in the Sydney economy than the Australian economy. Professional services are nearly 1.5 times more specialised. This specialisation reflects Sydney's status as a critical knowledge economy centre for Australia and will be a key driver of Sydney's economic transformation and global city role.

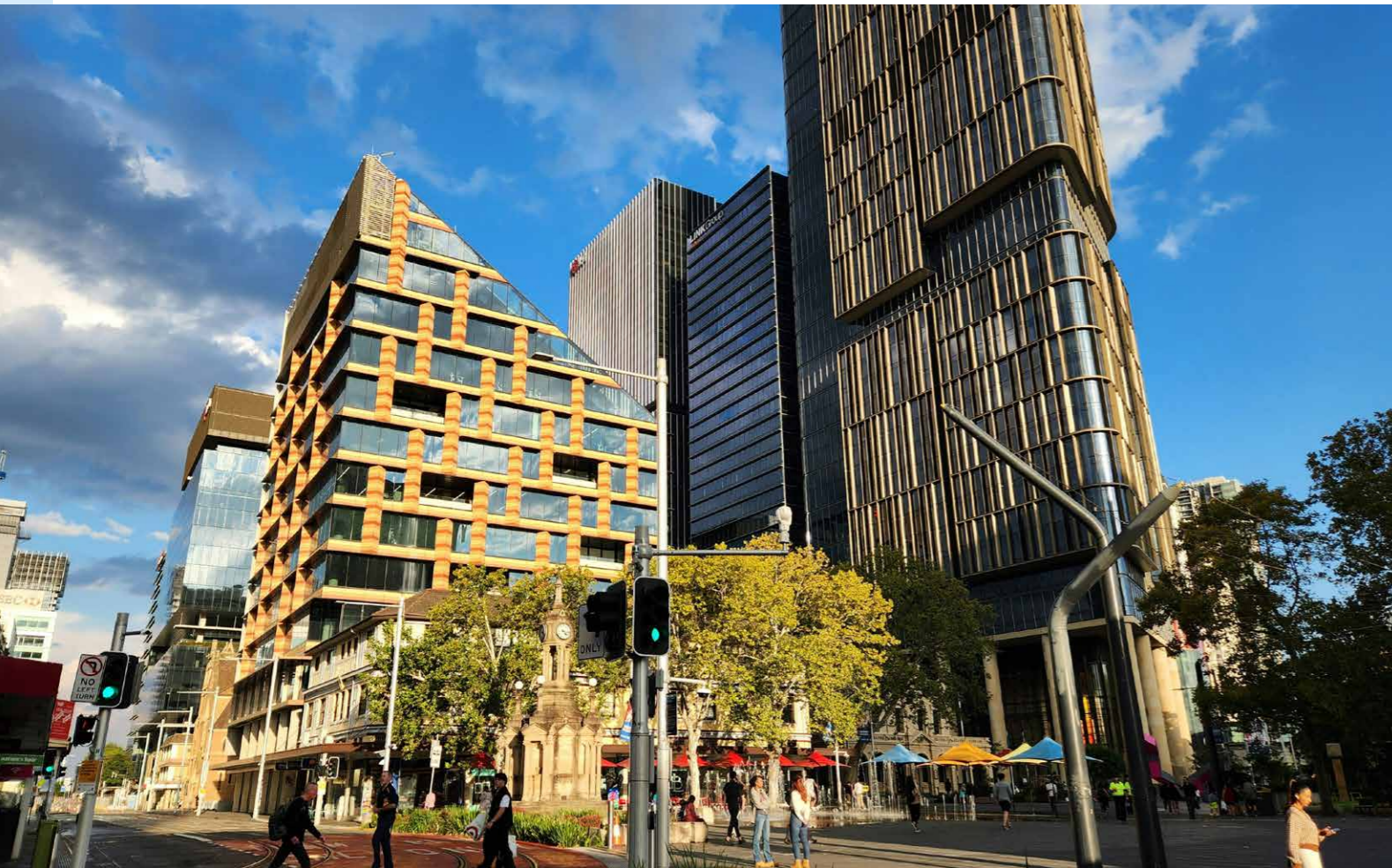
¹ Location Quotient analysis compares the proportion of industries in one geographic area (Greater Sydney) with the proportion in a larger catchment (whole of Australia). An LQ of 1 indicates that Greater Sydney's industry composition matches that of Australia. A score above one indicates that the industry is more concentrated (or specialised) in Greater Sydney than in the rest of Australia.

Figure 6: Sydney has clear specialisations in key service sectors compared with the whole of Australia

Location quotient of greater Sydney's industry composition and specialisation compared with the whole of Australia (1-digit anzsic, 2021)



Source: SGS Economics and Planning, 2024, ABS, 2021



Sydney's economy looks different across the city

There are also differences in the industry composition of the three cities of Sydney and these have changed over the last twenty years.

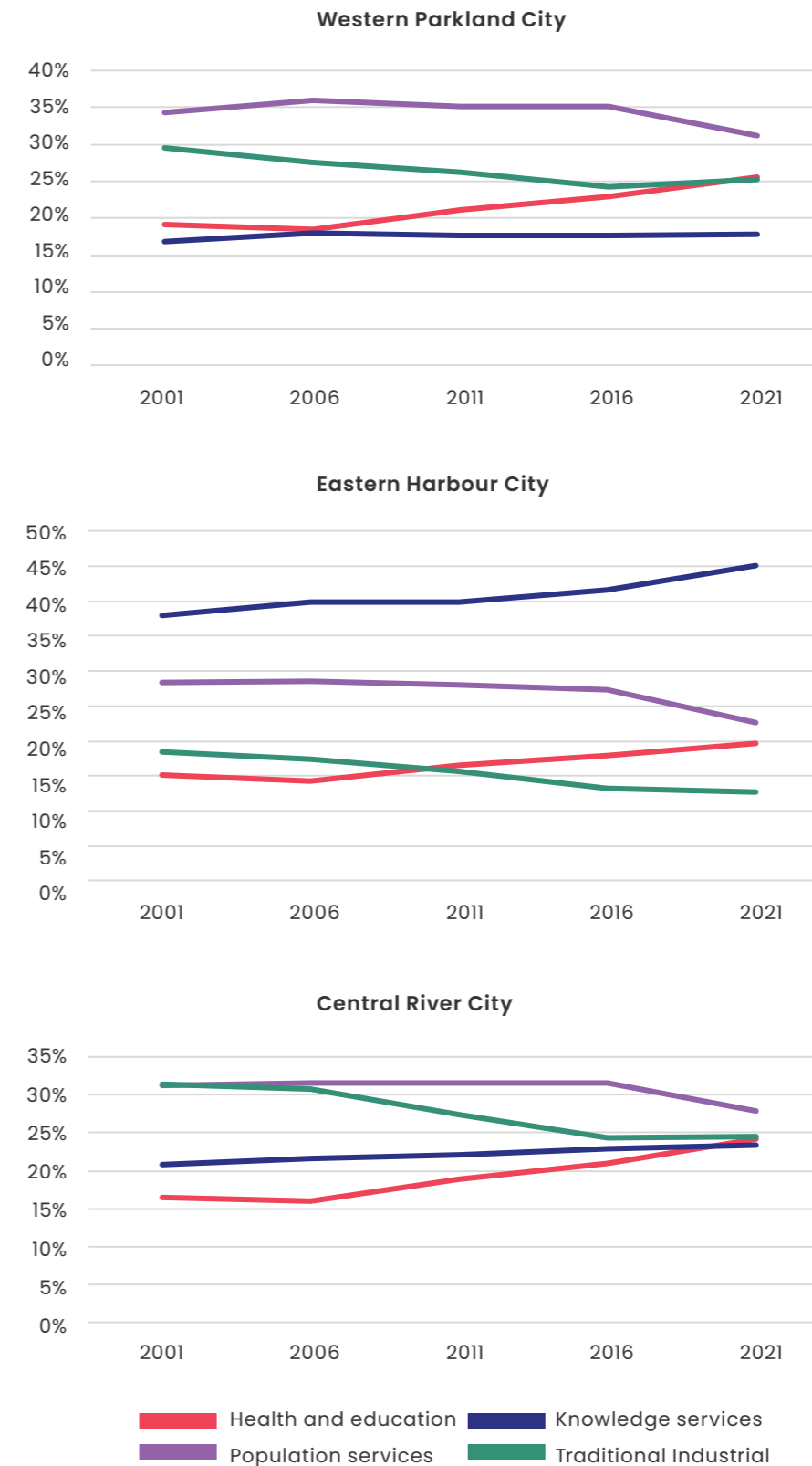
Knowledge intensive industries such as professional and financial services and information technology are the predominant industries in the Eastern Harbour City and this has consolidated over the two decades to 2021. The growth of the Eastern Harbour CBD and the emergence of key innovation

precincts such as Tech Central, Randwick and Macquarie Park have driven this consolidation. This part of Sydney will play a key role in the sectors that will define Sydney's particularly those with a strong research and development focus and link to specialised university infrastructure.

Both the Western Parkland City and Central River City have the largest share of industrial-related jobs in Sydney, and while these have proportionally shrunk over the two decades to 2021, the two cities will play a vital role in the advanced manufacturing and net zero economy industries.

Figure 7: Sydney's three cities have different industry composition profiles, although all are growing their knowledge intensive sectors

Change in industry composition across Three Cities of Sydney, 2001-2021



Source: SGS Economics and Planning, 2024, ABS, 2001, 2021

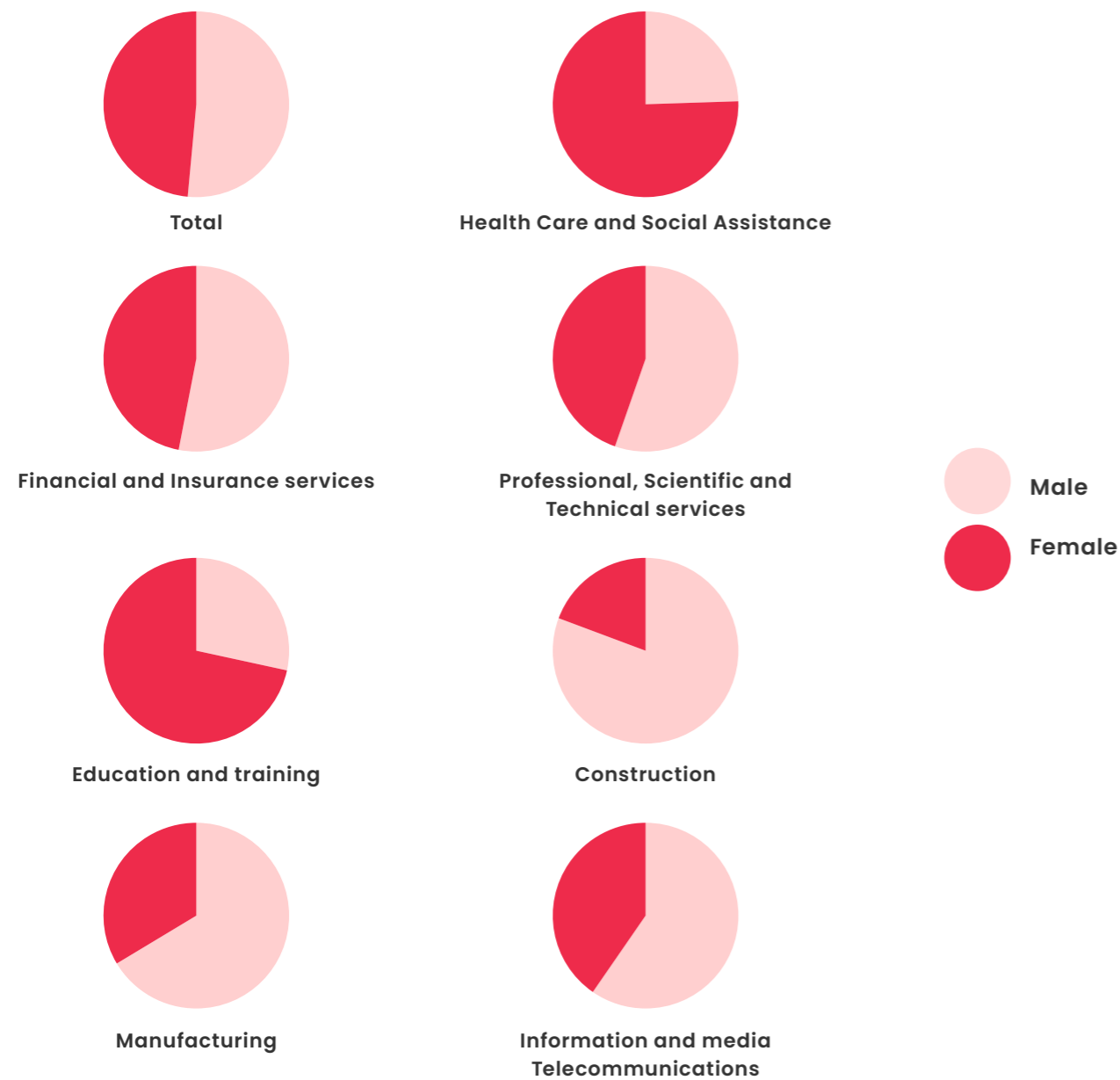


Gender disparities occur across Sydney's industries

The gender composition of the total jobs – paid labour – in Sydney is almost 50% male and 50% female. However, this varies significantly across different industries, highlighting a gender imbalance in certain sectors. Addressing gender disparities across industries is a core part of ensuring that Sydney develops as an equitable city and that regardless of where people live, there is an opportunity in the sectors of their choice, irrespective of gender.

Figure 8: there are stark differences in gender composition at an individual industry level across Sydney

Gender composition of Sydney's industries (1-digit anzsic, 2021)



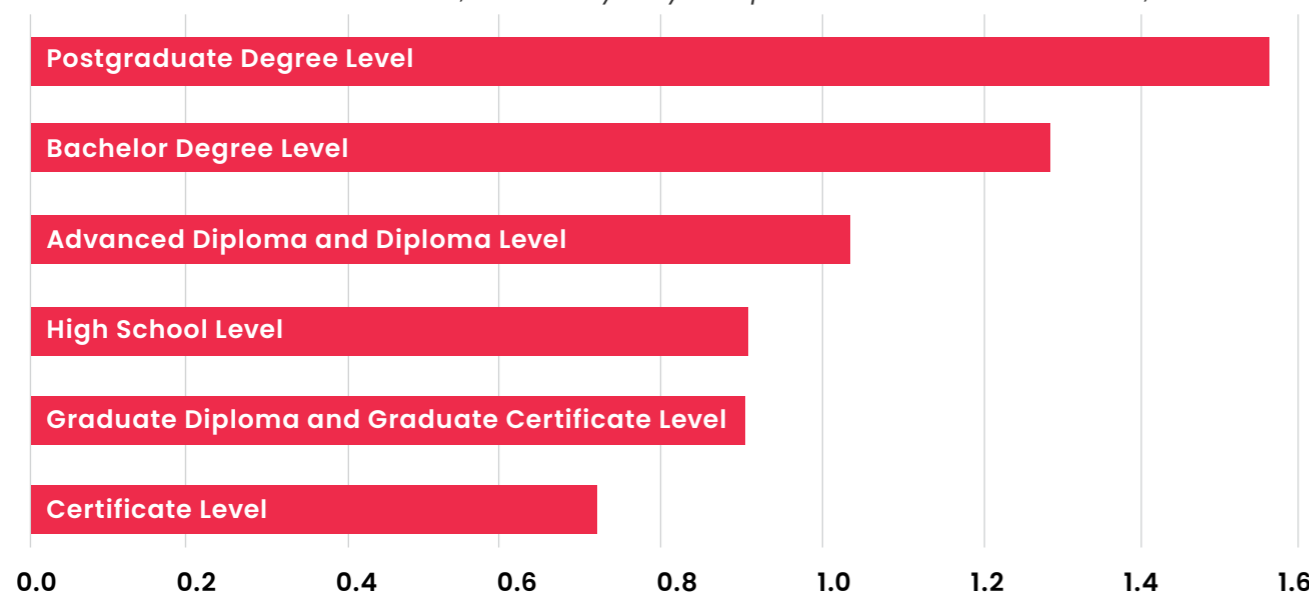


Sydney is an educated city

Sydney has a highly educated workforce which will drive forward the industries of the future economy. Compared to the rest of Australia, Sydney has a greater proportion of people with higher education degrees (22.5% for Sydneysiders versus 17.5% for Australia). This means that we have a deep, educated labour market to draw from.

Figure 9: Sydney has a relatively higher share of its labour market with bachelor or postgraduate degrees than the rest of Australia

Level of educational attainment, Greater Sydney compared with whole of Australia, 2021



Source: ABS Census data, 2021

A score of 1 would indicate that the proportion of Sydneysiders with a particular level of educational attainment is the same as the whole of Australia. Above 1 indicates that relatively more Sydneysiders have achieved that level of education attainment compared with the whole of Australia

Globally, NSW ranks highly in terms of educated workforce, with 52.5% of adults in NSW with tertiary qualifications placing it in the top five jurisdictions globally in the NSW Government's 2024 Innovation and Productivity scorecard¹⁷.

However, the distribution of people with tertiary education is not evenly distributed. In 2021 only 20.8% of people in Campbelltown had a bachelor or higher degree qualification, compared to the Greater Sydney average of 33.4%¹⁸.



NSW – a State of innovation

In August 2024, the NSW Innovation and Productivity Council launched the 2024 NSW Innovation and Productivity Scorecard. The scorecard marks NSW against other Australian states and comparable countries on a range of innovation and productivity metrics.

NSW has a number of attributes that are advantageous for Sydney's economic ambitions.

 <p>5th of 13 countries for skilled workforce</p>	 <p>Highest share of new startups and spinout companies arising from universities and research institutes in Australia.</p>
 <p>7th on venture capital investment as a share of GSP/GDP – the highest in Australia and ahead of Canada, Japan and Germany</p>	 <p>1st of all benchmarked economies for the number of top 200 universities per million population, with six of the state's public universities in the global top 200.</p>

It also has a number of areas where performance is not as high as it needs to be if we are to attract and grow.

 <p>NSW ranks 9th out of 13 economies on the number of patent applications per 10,000 population</p>	 <p>NSW ranks in the bottom tier of benchmarked jurisdictions for university-industry co-authored publications.</p>
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These statistics were taken from the 2024 Innovation and Productivity Council's 2024 NSW Innovation and Productivity and Productivity Scorecard, that can be accessed [here](#).



4. Sydney's future economic opportunities

Sydney is the largest and most complex urban economy in Australia, with the full spectrum of industries creating jobs and economic activity. It is anchored economically by its significant share of professional and finance service sector jobs, but also relies on essential population-serving jobs such as health, education, retail and construction that allow the city to function effectively.

Manufacturing too plays an important role in Sydney's economy. While its share of economic activity has declined across Australia over recent decades, Sydney is still home to nearly one in five of Australia's manufacturing jobs (18%) and specifically, nearly a quarter of Australia's machinery and equipment and chemicals manufacturing jobs that are likely to play a role in more advanced manufacturing-focused sectors.

For Sydney to grow sustainably, increase its economic diversity, be resilient to future economic shifts and most importantly, be an equitable city that provides good jobs for all, each industry must be supported and valued.

This report, however, focuses specifically on industries that:

- attract international talent and investment
- are high value in their economic contribution
- create opportunities for export of goods, services or knowledge
- advance Australia's economic aspirations, particularly in areas such as clean energy
- are identified as national industry priorities by the Federal Government.
- reflect existing strengths or nascent capabilities in sectors of competitive advantage.
- have the potential to be significant employers or create a high number of jobs.

In the long-run, industries need to be self-sufficient and not reliant on government subsidy to remain competitive. However, in the context of the global economic landscape, effective planning for economic development, partially through well

considered industry policy will be a core part of economic development across Australia – including Sydney – over the coming years as countries and cities across the world race to develop or consolidate their global competitiveness in future industries.

Five industries are identified as central to Sydney's economic transformation. These are:

- **Financial services and fintech**
- **Bio-medical technologies and life sciences**
- **Digital technologies**
- **Advanced manufacturing**
- **Net zero and clean energy technology**

These five industries must also be supported by sustained investment in Sydney's higher education system with the role of universities and TAFE in research, research translation (including commercialisation) and skill development essential. Each of these sectors have strong ties to the higher education sector and their strength cannot be fully realised without it.



Financial services and fintech

What is it?

The financial services industry is comprised of businesses in the financial sector, including retail and investment banking, accounting, superannuation, asset management and insurance.

Fintech (financial technologies) refers to digital technologies that deliver financial services. It can have a business-to-customer, business-to-business or peer-to-peer function and includes technologies such as digital wallets, blockchain cryptocurrency and mobile payments.

What is driving it?

Over the past 40 years, as Australia has moved towards a service-based economy, financial services has emerged as a key sector in the Australian economy. It accounts for approximately 8% of Australia's GDP and Sydney accounts for 40% of this¹⁹.

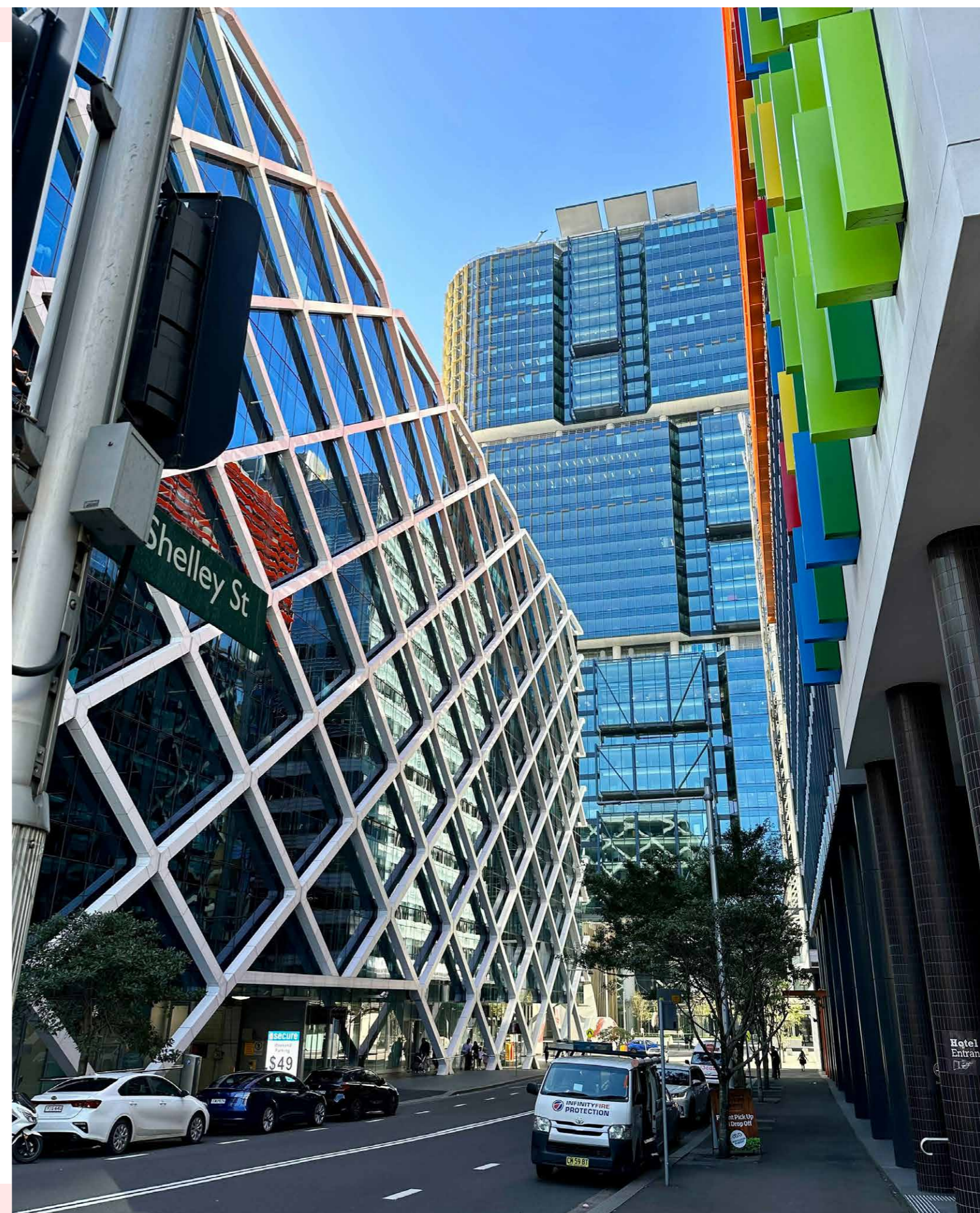
The growth in fintech is being driven by the rapid adoption of technology across all sectors. The continued development of fintech products and services is being driven by the increasing ownership of financial transactions by individuals, through banking and other financial services apps, as well as the rise of cryptocurrency and the enabling blockchain infrastructure that is underpinned by financial technology.

What are Sydney's advantages?

- **A global financial centre.** Sydney is ranked in the top 20 global financial centres and is known as one of the most important financial centres in the Asia-Pacific region.²⁰
- **Australia's epicentre of fintech talent.** Australia is ranked sixth in global fintech

index, with 800 fintech companies active in Australia. 60% of Australian fintech start-ups are based in Sydney, part of an ecosystem that includes global fintech firms Block.²¹

- **Overlapping ecosystem opportunities.** The fintech ecosystem benefits from an overlap with other tech sectors that exist across Sydney. Sydney is home to a large number of digital technology businesses, with many co-located with financial services firms in and around the Sydney CBD.
- **A dedicated innovation focus.** Sydney has a strong innovation ecosystem across the city, including the Tech Central Innovation District south of the CBD with a strong focus on the tech sector and direct connections into Sydney's financial services heart,
- **A critical mass of financial services jobs.** Sydney is Australia's largest financial centre, accounting for 38% of Australia's jobs in the Finance and Insurance Services industry²². Financial services is also NSW's largest sector²³. While jobs in finance and insurance only account for approximately 7% of jobs in Sydney, the two industries account for 16% of the city's economic activity.²⁴
- **A globally respected regulatory landscape.** Australia has a globally recognised regulatory environment. While this can make entry in to the market challenging for new entrants, it also means that businesses developing products are doing so in an environment where regulatory expectations are high. This can give confidence to overseas jurisdictions that fintech products developed in Australia have been developed with a high level of regulatory rigor.





Case Study: Sydney's Fintech landscape

Sydney is home to a wide range of Financial Services, Fintech companies and financial regulators, making it Australia's financial capital

Major financial services organisations

Commonwealth Bank	Macquarie Group
Westpac Group	NAB
HSBC	Citi
ANZ	ING
JP Morgan	Allianz
UBS	Mastercard
Deutsche Bank	Morgan Stanley

Fintech companies

Block	Xero
Bright	Zip
Prospa	Weel
IMC Trading	TransUnion
BrickX	Weel

Financial regulators and government agencies

These bodies and government agencies are national in focus but are headquartered or have significant presence in Sydney.

Reserve Bank of Australia	Australian Prudential Regulation Authority
Australian Securities & Investments Commission	Offices of Australian Treasury

Figure 10: Sydney's financial services and fintech jobs are heavily concentrated in the east
Concentration and distribution of financial services and fintech jobs in Sydney, 2021



Source: ABS Census data, 2021, using ANZSIC groupings defined by the City of Sydney, SGS Economics and Planning, 2024



Bio-medical technologies and Life Sciences

What is it?

Bio-medical technologies and life sciences cut across a number of sectors including health, medicine and agriculture. Biotech focuses on research and production of biological products used primarily in health and agriculture. This includes among other things pharmaceuticals, disease testing, vaccine development, research into crop disease resistance and synthetic biology.

Medtech is the development of technologies for the treatment of patient conditions and includes things such as the production of prosthetics, and implantable devices such as hearing implants and pacemakers as well as the diagnostic devices.

What is driving it?

The growth in bio-medical technologies and life sciences both domestically and globally has been driven by a number of factors. Chief among these is the continued advances in medical research and technology that have opened up trans-disciplinary abilities for health, biology, physics, technology, engineering, data science, and manufacturing to solve complex diagnostic and treatment challenges.

Other factors include changing population health needs, characteristics of ageing populations and an increased focus on domestic capability in key areas of bio-medical science that emerged during the COVID-19 pandemic.

A growth in personalised medicine is also driving advancements in bio-medical technologies. Personalised medicine tailors medical care to the specific needs and genetic make-up of an individual. Rapid improvement in recent years on individualised data collection and processing through the use of artificial intelligence is driving, and being driven by, advancements in bio-medical research and development.

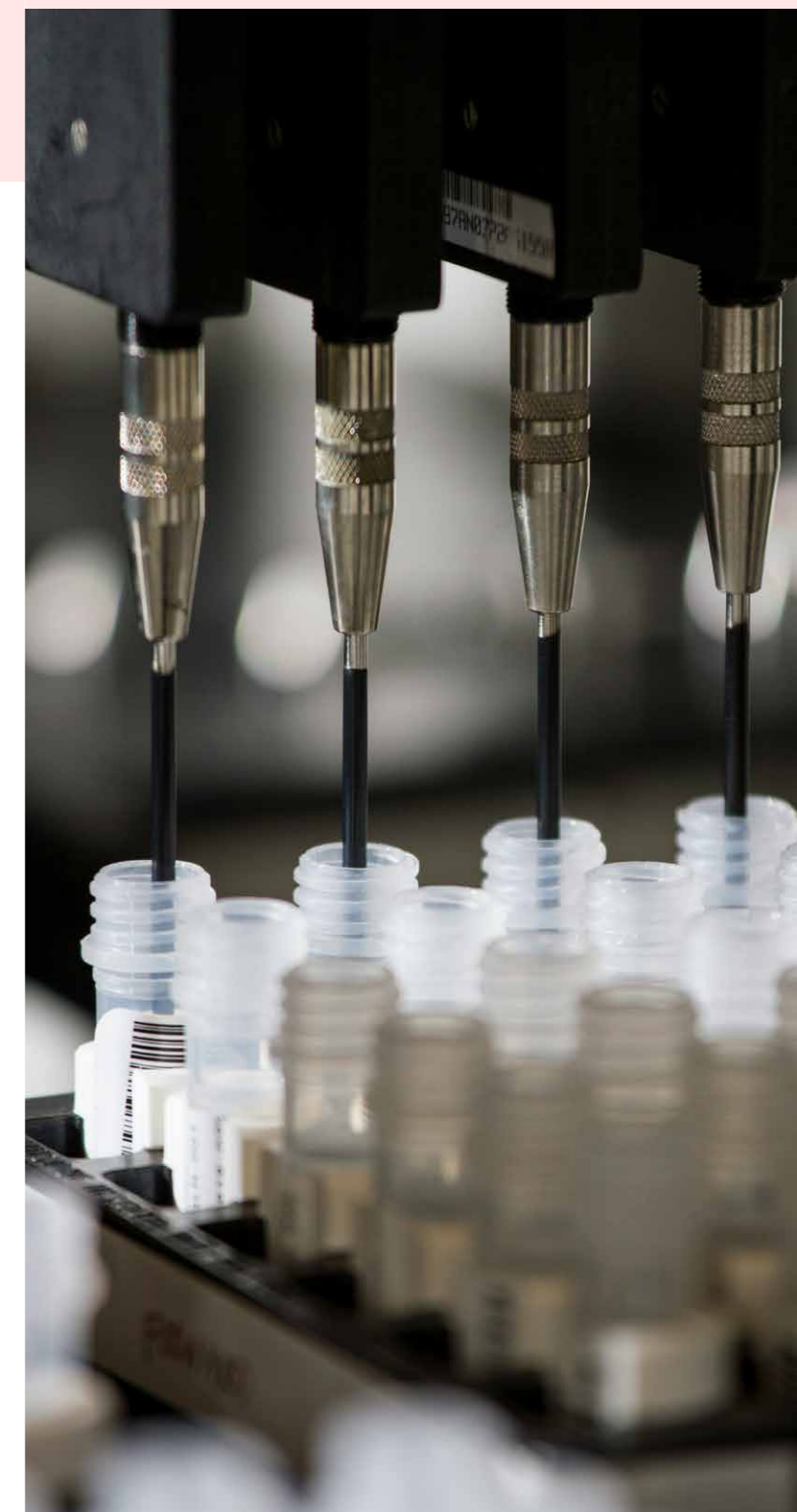
Universities are key anchors driving life sciences innovation through talent development, research infrastructure, and the creation of high-impact spin-out companies.

What are Sydney's advantages?

- **A strong innovation ecosystem.** Sydney has an established network of innovation districts with a focus on bio-medical research, including Macquarie Park, Westmead and Randwick Health and Innovation Precinct, as well as the Camperdown node of Tech Central.
- **Medical Research Institute clusters.** Sydney's innovation districts are home to a strong network of Medical Research

Institutes (MRIs) that undertake research across biomedical and life sciences research. For example, the Camperdown node of Tech Central is anchored by Royal Prince Alfred hospital and the University of Sydney and supports a number of medical research institutes including cancer cardiac health and neurological research.

- **A favourable clinical trial environment.** MRIs are a key part of clinical trials, of which 28% of Australia's occur in NSW²⁵ and Sydney benefits from a large, multi-cultural trial population that is well suited to support research and development of global relevance.
- **Existing medical devices capability.** NSW has a significant competitive advantage in medical device export, producing 80% of all of Australia's exports of medical instruments and diagnostic devices.²⁶
- **A supportive ecosystem for startups.** Sydney is home to one of Australia's most important deeptech accelerators, Cicada Innovations, that has a strong focus on start-ups and scale-ups in the medical technology sector.
- **Nuclear medicine capabilities.** Sydney is home to Australian Nuclear Science and Technology Organisation (ANSTO), Australia's only major nuclear science facility, which supports research into, among other things, nuclear medicine.





Case study: RNA Production and Research Network

In 2021, the NSW Government established the RNA Production and Research Network to nurture the RNA-based therapeutics industry in NSW and the ACT. It was borne from a recognition that research into and production of RNA-based therapeutics was being developed across many of NSW's universities and medical research institutes and that the collective value in this was significant, but potentially not well connected.

Bringing these together as a research network created the opportunity for collaboration between a number of stakeholders working across different streams of RNA development – pilot research, production and services.

The network brings research partners together from:

- University of New South Wales (UNSW)
- University of Technology Sydney
- Macquarie University
- University of Sydney
- Australian National University
- Children's Medical Research Institute (CMRI)
- Kirby Institute, UNSW
- Woolcock Institute of Medical Research
- Westmead Institute of Medical Research
- Children's Cancer Institute
- Royal Prince Alfred Hospital

Two recent project announcements reflect the value of a networked approach to supporting the RNA Production and Research Network.

The Sydney Biomedical Accelerator (SBA) is an investment of \$646 million by the University of Sydney, the Sydney Local Health District and the NSW Government. It is at the forefront of biomedical innovation both in Australia and globally and upon completion in 2027, it will house 1,200 biomedical researchers and clinician scientists and bring together academic, scientific and clinical activities with industry to accelerate biomedical research development, innovation and commercialisation.

More recently, the RNA Research and Pilot Manufacturing Facility has been approved and funded by the NSW Government for development at Macquarie Park, is an example of the public-private-institutional approach to building bio-medical capability across Sydney.

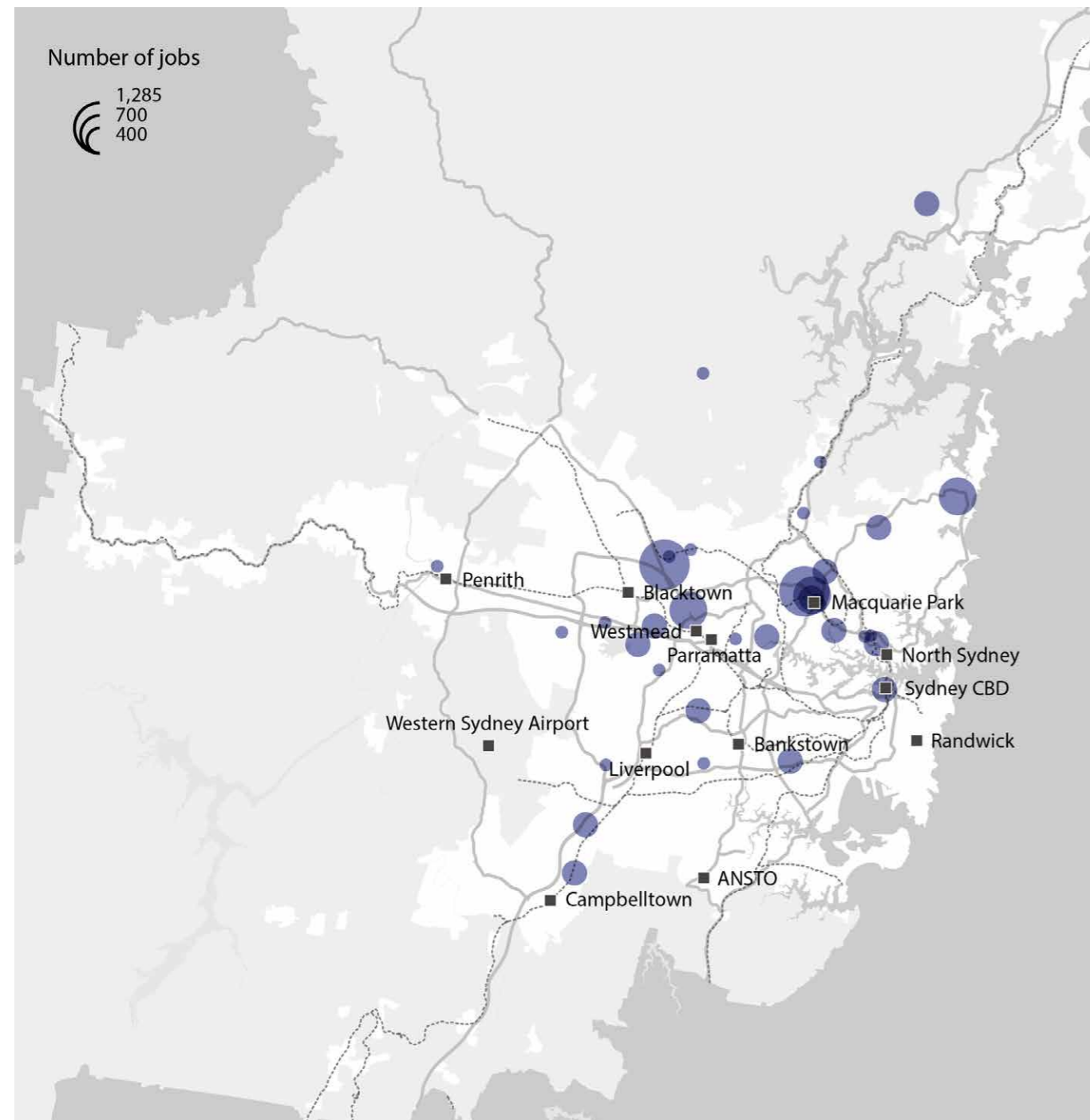
The creation by the NSW Government of the company RNA Australia to develop and support NSW's capabilities in research, development and manufacturing is an example of the role that governments can play in nurturing commercialisation of target sectors with high value opportunity.





Figure 11: Life sciences jobs cluster around hospitals and universities

Concentration and distribution of life sciences jobs in Sydney, 2021



Source: ABS Census data, 2021, using ANZSIC groupings defined by the City of Sydney, SGS Economics and Planning, 2024

Digital technologies

What is it?

Digital technologies cover a spectrum of industries that range from the production of Software as a Service (SaaS) platforms to visual special effects, cyber security, quantum computing and artificial intelligence (AI).

Some digital technologies are consumer or business focused; SaaS platforms such as Atlassian and Salesforce are an example of this. Other technologies, such as quantum computing, are more heavily research sectors that are focused on complex problems and have strong links to universities and research institutions.

What is driving it?

Different sectors of digital technologies are being driven by different forces. Cyber security is being driven by an increasing need to ensure Australia has sovereign capability in cyber security to protect national critical infrastructure systems and personal data.

Quantum computing is being driven by a global race to unlock the computational power of quantum technologies to solve complex problems and capture a share of the value of quantum technologies that the CSIRO estimates to be at least \$86 billion globally by 2040.²⁷

The ever-increasing demand for SaaS systems to support the digitisation and automation of work processes continues to create opportunities for emerging businesses focusing on app and program development.

Additionally, the rapid adoption of AI is set to transform economic and social systems and is driving both a focus on emerging research and businesses as well as enabling its growth.



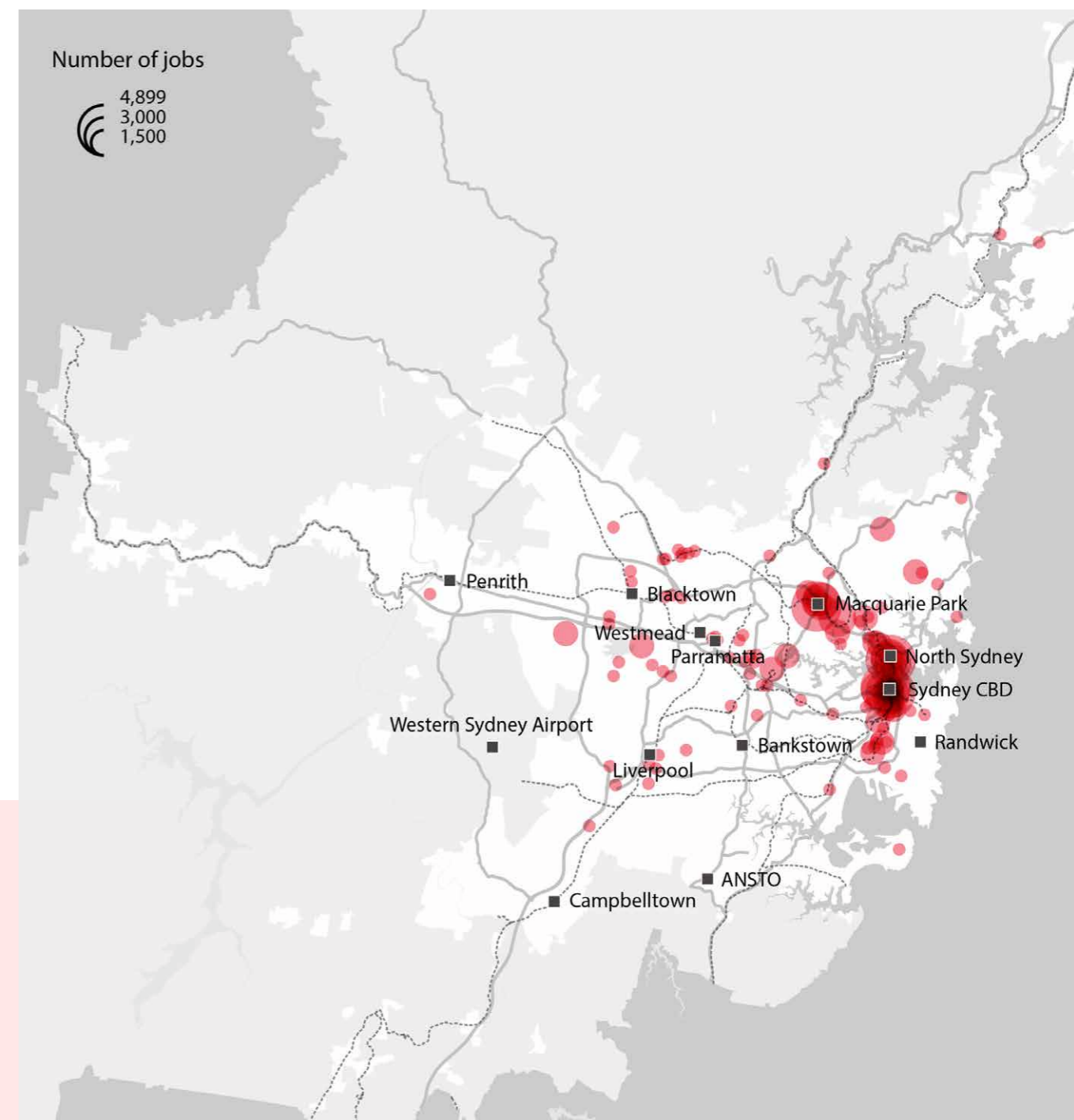
What are Sydney's advantages?

- **A home to globally recognised unicorns.** Established digital and creative tech sectors led by globally significant companies such as Atlassian, Canva, Block and Animal Logic.
- **A strong pipeline of future talent.** Of ten peer global cities, Sydney is first for the retention of digitally skilled graduates²⁸ and first for our engineering and computer science degree programs.^{29,30}
- **Globally significant quantum expertise.** A small but significant quantum computing research and business sector accounting for most of the activity in the quantum computing sector in Australia. This is supported by key institutions such as the Quantum Terminal and Sydney Quantum Academy (a collaboration between four NSW universities) and is anchored by businesses such as Silicon Quantum Computing, LuciGem and Redback Systems.

- **Established venture capital network of investors.** Sydney is the home of many Australian-based venture capital firms, including Blackbird Ventures, Antler and Airtree Ventures and is estimated to contribute approximately \$1.8 billion to GSP.³¹
- **Significant cyber cluster.** Over 120 cyber security companies are headquartered in NSW (the majority in Sydney) which represents over a third of all of Australia's cyber security businesses.³² These are not equitably distributed though, with this cluster, and digital industries more broadly, being very eastern Sydney-centric.
- **Strong government support as a customer.** NSW Government has been a strong customer and adopter of digital technologies, particular yin the services portfolio, which provides an important early-stage customer for innovative businesses.
- **The right skills.** 41% of Australia's software and application programmers and computer network specialists are based in NSW.³³

Figure 12: Digital technology jobs concentrate along the global economic corridor from the CBD to Macquarie Park

Concentration and distribution of Digital technology jobs in Sydney, 2021



Source: ABS Census data, 2021, using ANZSIC groupings defined by the City of Sydney, SGS Economics and Planning, 2024



Advanced Manufacturing

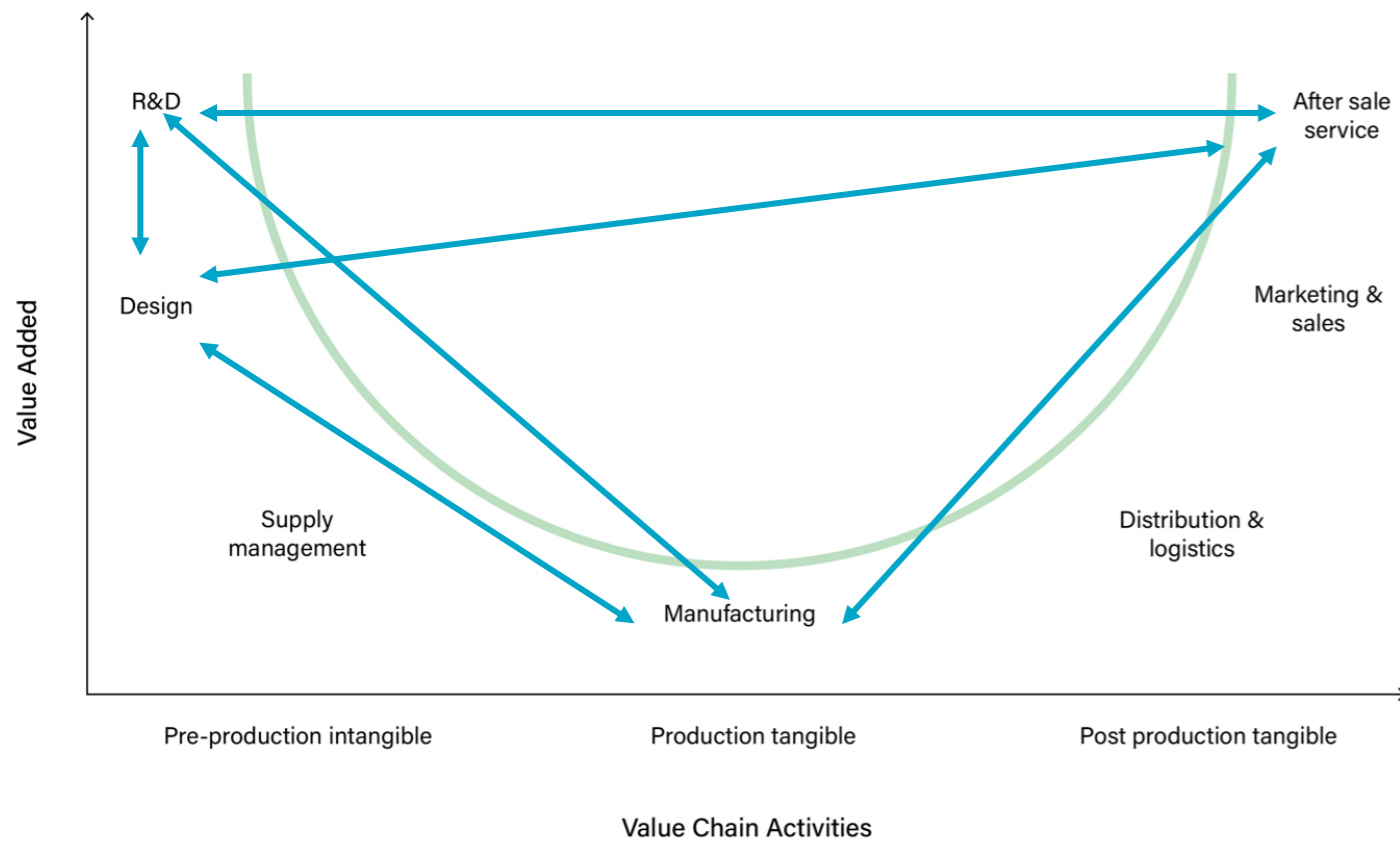
What is it?

Advanced manufacturing has been adopted as an umbrella industry definition to describe manufacturing associated with the production of complex componentry, often linked with sectors such as aerospace and defence, robotics, net zero and bio-medical and life sciences.

In economies such as Australia, there has been a tendency over the past 40 years to move away from a manufacturing base and towards a services economy. Recently, however, many countries are again recognising the importance of building advanced manufacturing capabilities that add value to their knowledge intensive economic activities.

Figure 13: illustration of the value adding process using the smile curve

There is an increasing degree of iteration between different parts of the value chain, with advanced manufacturing of complex and often personalised componentry part of this process.



Source: Smiling curve derived from csiro futures advanced manufacturing: a roadmap for unlocking future growth and opportunities for Australia (2016) and adapted by gill, J (2018)



Source: Image courtesy of Connect Macquarie Park Innovation District

One of the emerging differences in advanced manufacturing processes compared with traditional manufacturing is the close relationship the manufacturing process has with upstream activities such as R&D and downstream interactions with customers. Fabrication and prototyping of university or industry-led R&D requires close collaboration with the fabrication process to iteratively test and improve. At the other end of this, increasingly personalised manufacturing processes require end-users to engage with the manufacturing through personalised inputs to meet specific needs – for example, 3D-printed prosthetic medical devices.

What is driving it?

The COVID-19 pandemic precipitated a global reckoning of the capacity of national economies to be self-sufficient for essential products. Supply chain shutdowns highlighted to many nations, including Australia, a need to resurrect some manufacturing capability, or elevate existing manufacturing capacity, to ensure resilience to future shocks.

A renewed focus on national self-sufficiency has occurred at the same time as a concerted policy shift towards accelerating national decarbonisation efforts as well as mitigating supply-chain risks associated with ongoing geopolitical tensions. For Australia particularly, this has created an opportunity to invest in the domestic manufacturing related to clean energy technologies that increase value-adding activities and create higher value export opportunities.



The current housing crisis, coupled with advancements in construction innovation and the significant challenges with skilled labour supply in the construction sector are also likely to precipitate an evolution of the construction sector towards pre-fabrication manufacturing and modular construction. This also creates a significant opportunity for local manufacturing as part of future residential construction.

Countries across the world are revisiting national industry policy frameworks that were last seen at this scale in the 1970s. In Australia, this has taken the form of the announcements in May 2024 of the Future Made in Australia policy which committed approximately \$23 billion to the development of sectors associated with net-zero including critical mineral refinement and solar battery cell technologies. These will drive Australia growth in advance manufacturing.

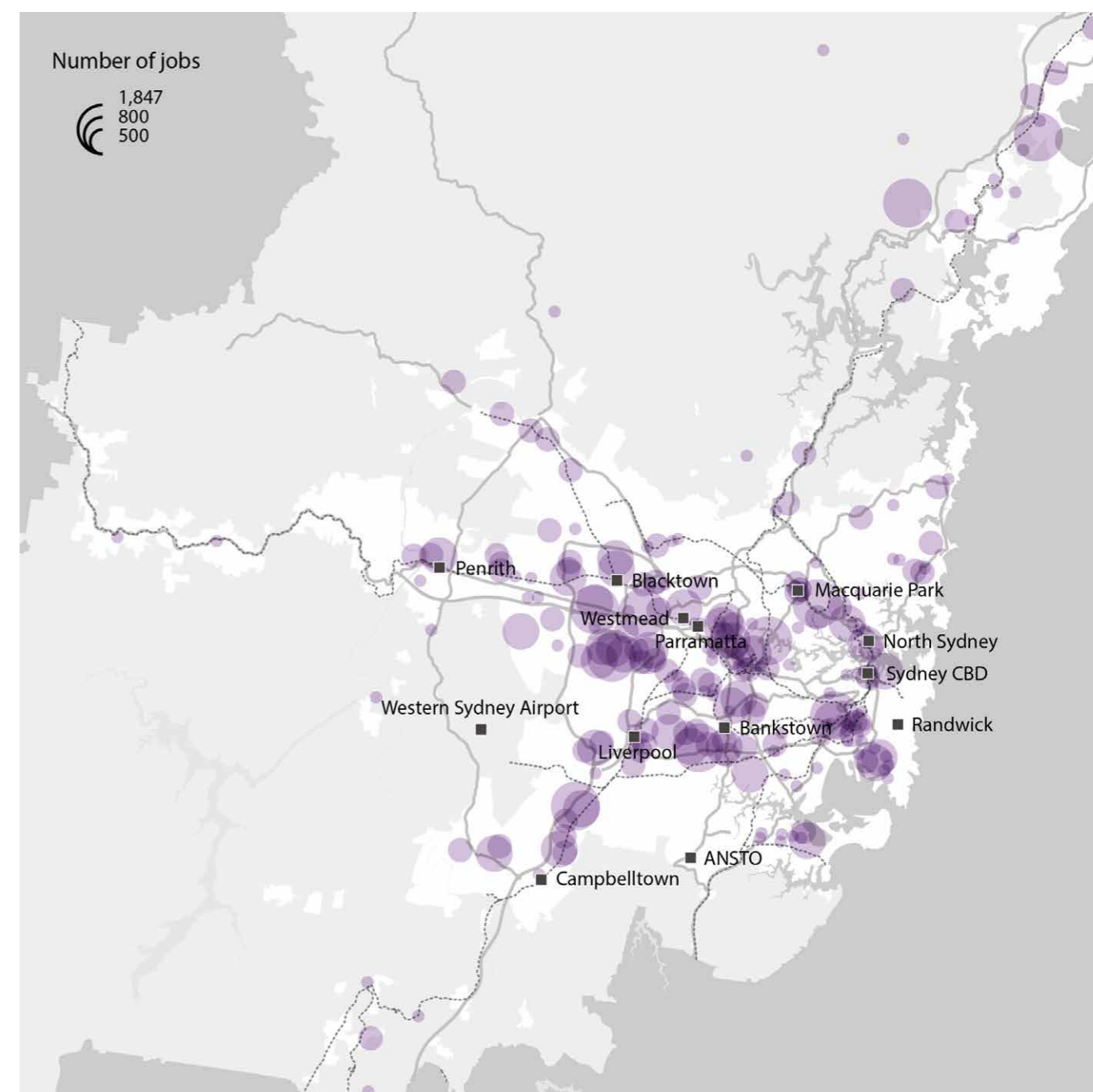
What are Sydney's advantages?

- The overlap of knowledge economy and manufacturing capability. There is a strong potential to overlap activity in the knowledge intensive sectors such as professional, scientific and technical services and the manufacturing sector in Sydney. Nearly 18% of Australia's manufacturing jobs are in Australia, but importantly for advanced manufacturing a quarter of the nation's machine, equipment and chemical manufacturing jobs³⁴². Sydney is 1.5 times more specialised in these sectors than the rest of the Australian economy.

- Strategically located industrial lands. Recent policy decisions have resulted in Sydney retaining remnant industrial precincts in the eastern and central parts of the city. Some of these, particularly in precincts such as Camperdown, Alexandria, Botany and Macquarie Park, are adjacent or near to Innovation Districts that can benefit from spaces to undertake advanced manufacturing, fabrication and research. Others, such as Minto, Ingleburn, Fairfield and others across Western Sydney are strategically located in manufacturing clusters and close to the Western Sydney Airport.
- Strong university capabilities. Sydney's universities have global standing in engineering and sectors related to advanced manufacturing and robotics.
- Clear policy focus in Western Sydney. The concurrent planning of the Western Sydney economy around advanced manufacturing – linked to both the Western Sydney Airport and anchored by the Advanced Manufacturing Research Facility – creates a significant enterprise precinct to scale advanced manufacturing capability in Sydney and link it to the airport for export.
- High calibre regulatory environment. Australia has a strong regulatory and quality assurance environment, as well as world recognised engineering programs including in many of Sydney's universities.

Figure 14: Manufacturing is spread across Sydney, but particularly in the central and western parts of the city

Concentration and distribution of manufacturing jobs in Sydney, 2021



Source: ABS Census data, 2021, using ANZSIC groupings defined by the City of Sydney, SGS Economics and Planning, 2024



Net zero and clean energy technology

What is it?

Net zero and clean energy industries are those associated with the decarbonisation of energy networks and the economy more broadly. In the context of this report, it is focused specifically around decarbonisation processes and technologies and the renewable energy sector.

The Australian Government's commitment to decarbonisation has taken on an added dimension in its Future Made in Australia policy and National Reconstruction Fund ambitions to build Australia as a potential net exporter of renewable energy and the products and technologies associated with the decarbonisation of global supply chains.

Net zero and clean energy also extend to policies around transport mode shift and energy demand.

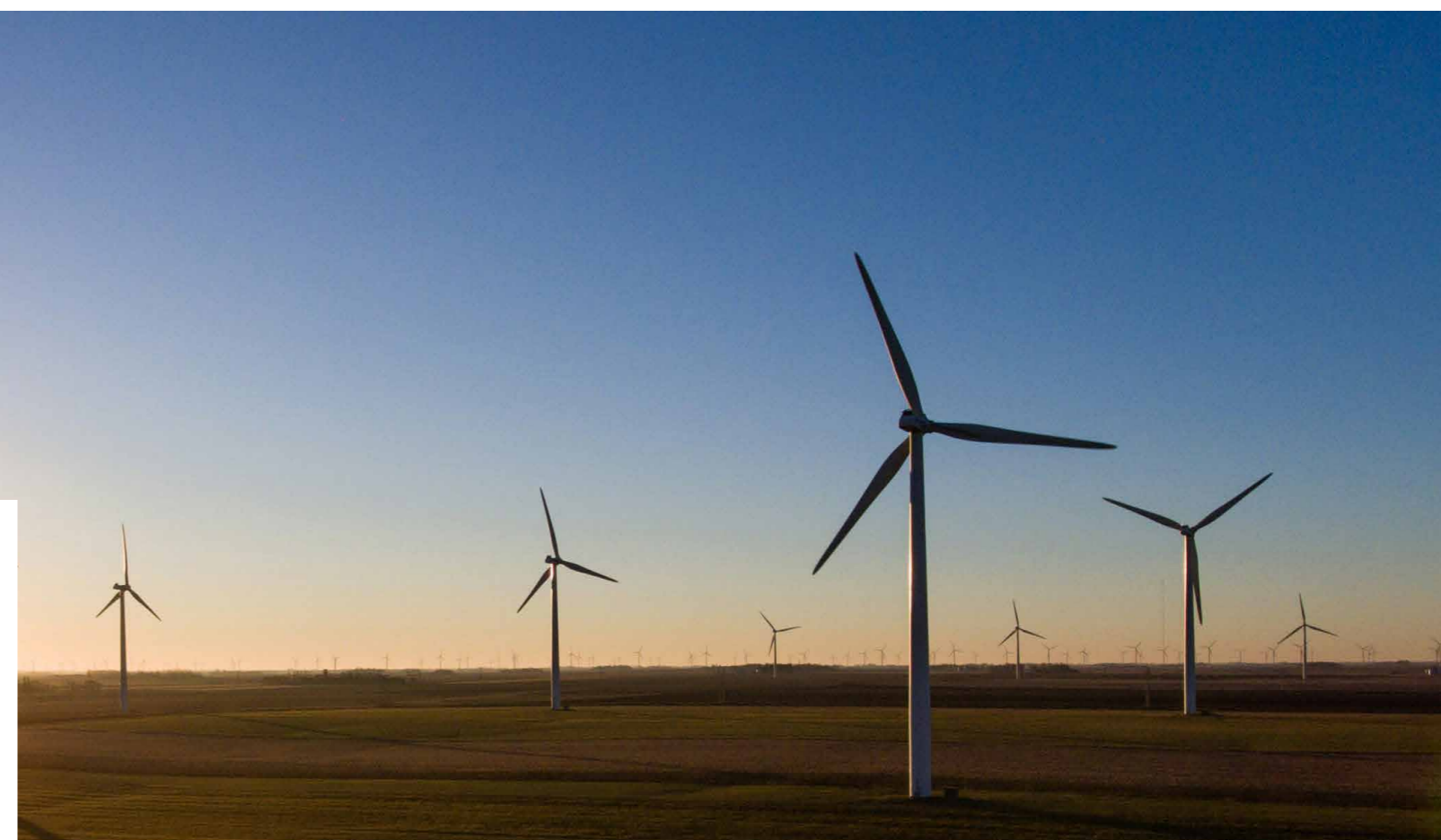
What is driving it?

There is an urgent and global push to decarbonise. We are rapidly approaching the Paris Climate Accord threshold of 1.5°C above pre-industrial levels. The year 2023 was estimated as one of the hottest years recorded within the last 100,000 years³⁵.

This is a global crisis but has presented an opportunity to Australia that has shaped the Australian Government's economic strategy. The Federal Government's 2024 budget identified over \$20 billion in investments in sectors that will position Australia as a clean energy superpower, alongside incentives such as production tax credits for businesses.

This investment, coupled with significant levels of international capital, is likely to drive industry growth in the net zero economy. For Australia, these include critical mineral refining and processing, renewable energy manufacturing supply chain expansion, renewable hydrogen and green metals.

While these are notionally regionally aligned industries, the technology, research and development and innovation associated with developing Australia's competitive advantages will disproportionately be driven by the knowledge economies of Australian cities and the universities where much of the breakthrough research takes place.



What are Sydney's advantages?

- **An established net zero aspiration.** NSW already has an established renewable energy strategy through the Renewable Energy Zone network and program, alongside programs to decarbonise homes and businesses through battery storage and rooftop solar subsidies.
- **World-leading research capability.** NSW universities have led and continue to lead the world globally in key areas of clean energy research. UNSW produced globally leading research in the early development of photovoltaic technologies and continues to lead in driving increased efficiency in solar cell technology.
- **Emerging manufacturing capability.** Sydney is home to Sundrive Solar, a globally leading solar technology company that produces some of the most efficient solar cells in the world and who in 2023 with Commonwealth support opened their manufacturing pilot production and commercialisation facility in Kurnell.
- **Focus by the startup ecosystem.** Sydney is home to the Greenhouse Tech Hub in the Sydney CBD which supports startups and innovators in the climate tech sectors.
- **Value chain integration opportunity.** The advantage that Sydney has in the net-zero economy is diversity of economic activity along the spectrum of value creation. While large-scale renewable energy projects are being delivered across Regional NSW, many of the research and development, engineering and associated services activities are in Sydney. Coordination of activities across NSW will help create regional supply chains and attract further investment where high levels of activity and coordination are present.



Case study: SunDrive Solar

SunDrive is a solar technology company based in Kurnell, Sydney. It grew from a small PhD project at the University of NSW in a garage to producing some of the world's most efficient solar cells.

SunDrive have done this by successfully developing a copper solar cell, which is far less resource intensive and more efficient than the traditional silver solar cell.

Solar consumes more than 20% of the world's annual industrial silver, yet only 1% of the world's energy comes from solar. At the same time, more efficient next generation 'passivated contact' solar technology requires two to three times more silver.

The Prime Minister and Minister for Climate Change and Energy officially opened SunDrive's solar manufacturing pilot production and commercialisation facility in November 2023.

A partnership between SunDrive and AGL to explore manufacturing at the AGL Hunter Energy Hub was announced in March 2024.

SunDrive is an example of the translation of Sydney-based research into Sydney-based manufacturing and holds lessons for how other net zero-related research in Sydney's universities can translate into commercial ventures that, over the long term, will attract investment and grow our capability as a leading city for net zero technologies.

SunDrive Solar is a Sydney-based global leader in efficient solar cell technology



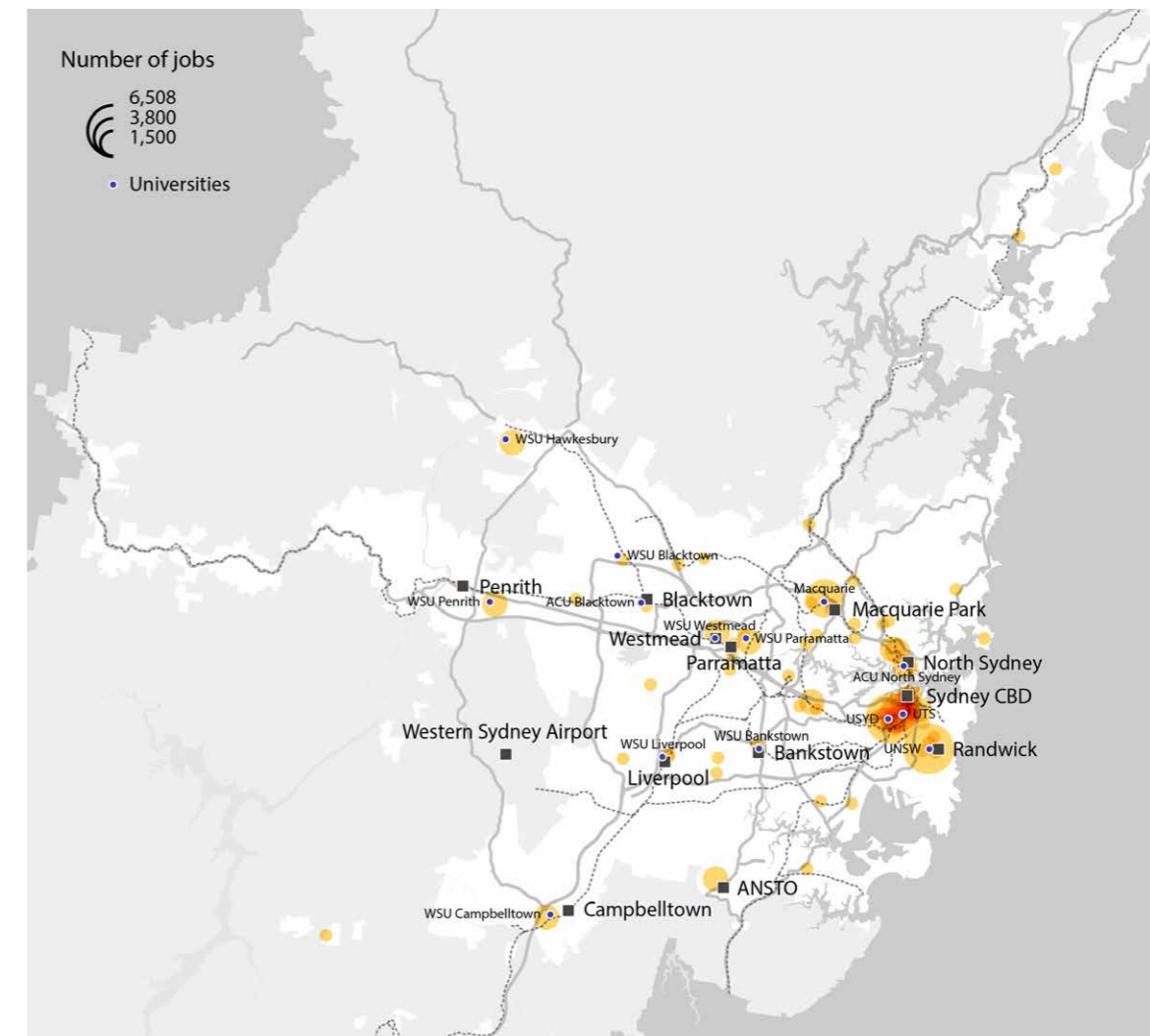
Source: Image courtesy of Sundrive Solar

The importance of universities in Sydney's economic transformation

Higher education accounts for nearly 74,000 jobs in Greater Sydney, but its value extends well beyond direct job creation. Sydney is home to eleven public universities in the global top 200³⁶ and two of these are in the global top 2037. Higher education-related travel is the largest service export in NSW, accounting for nearly 30% of services export in 2022-23³⁸.

For the five sectors identified in this report, universities are also critical creators of knowledge, through their globally recognised research capabilities. Universities are vital for the creation of knowledge sector jobs. The growth of these five sectors will be closely tied to the continued investment in and global standing of Sydney's world-class universities. This is from both a research capability and future workforce perspective.

Figure 15: Higher education jobs are highest in the east but spread across Sydney
Concentration and distribution higher education jobs in Sydney, 2021



Source: ABS Census data, 2021, using ANZSIC groupings defined by the City of Sydney, SGS Economics and Planning, 2024



Sydney's future economy

Sydney is now estimated to have over 2.5 million jobs and projected to have over 4.8 million by 2050. Of the 2.5 million jobs in Sydney today, one in five (21%) are directly associated with four of the identified priority sectors and higher education combined ^x.

Maintaining this share of 21% of total jobs under current employment projections, the priority sectors (excluding net zero but including higher education) identified in this report will account for just under 1 million jobs by 2050 – a doubling of jobs from 2021.

But if Sydney is to capitalise on the global potential of these sectors, and the comparative advantages we already, we can and should aim higher. Even lifting the share of priority sectors from just 21% to 31% will see these sectors account for an additional 500,000 of the future jobs projected by 2050.

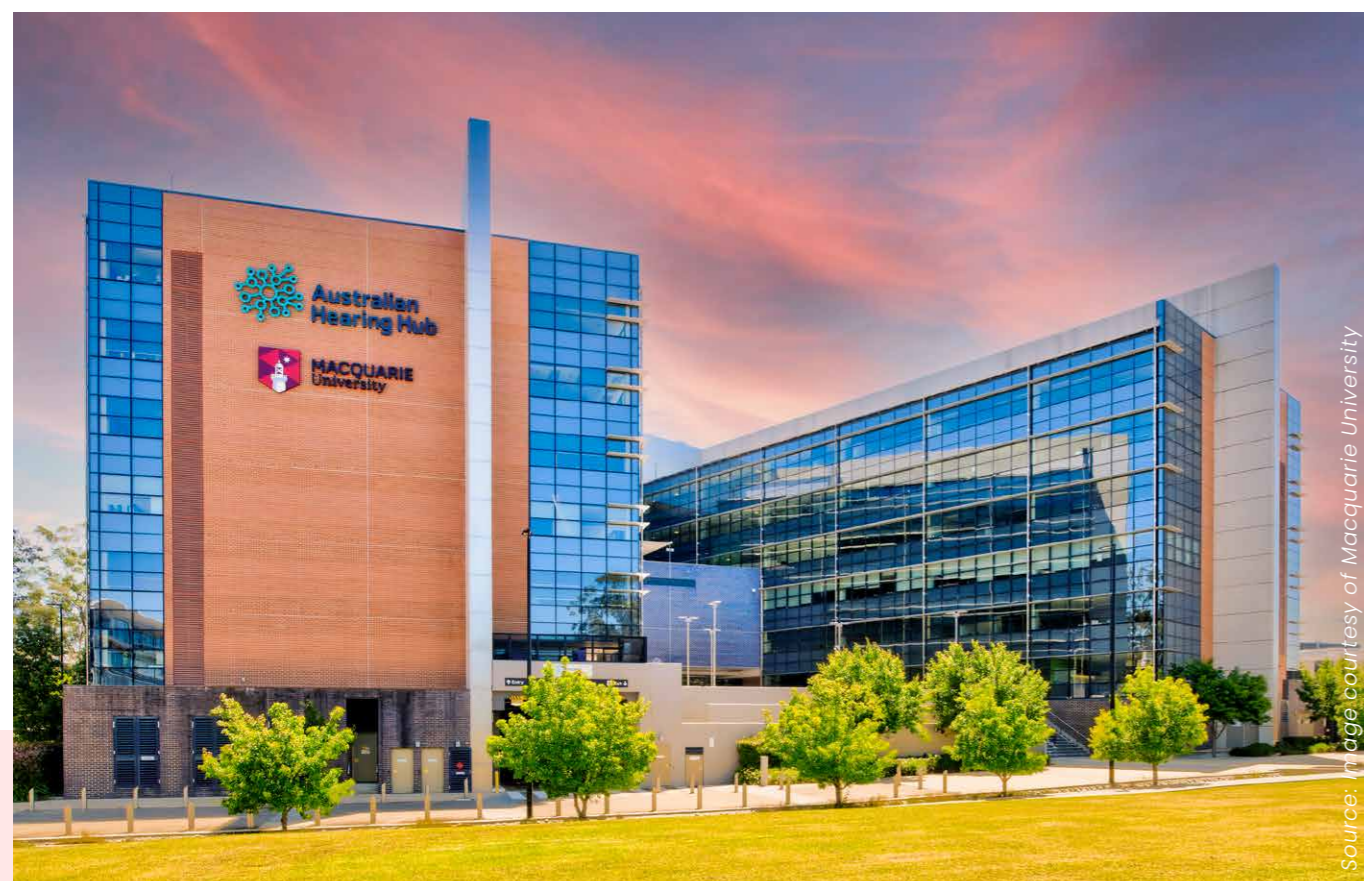
An increased share of high value industries will increase economic contribution, make Sydney more competitive with other global cities and drive the increase in NSW's economic complexity. This is where we can and must aim if Sydney is to be a globally significant centre for future industries.

Table 6: Priority sectors could account for 1 million additional future jobs in Sydney
Share of priority sector jobs, current projections and uplift scenario

Industry	No. jobs (2021)	No. jobs (2050 – maintain share)	Share of total jobs (uplift scenario)	No. jobs (2050 – uplift scenario)	Share of total jobs (uplift scenario)
Finance and Financial Services	198,000				
Higher Education and Research	70,000				
ICT	129,000				
Life Science (Bio-tech)	11,000				
Manufacturing	91,000				
Sum of 5 Industry Jobs	499,000	993,000	21%	1,499,000	31%
Total Jobs (Gtr Sydney)	2,386,000	4,808,000		4,808,000	

Source: ABS Census 2021, SGS ECONOMICS AND PLANNING, 2024, projecting out straight line jobs growth

The industry definitions have been taken from the city of Sydney's floorspace and employment survey data classifications, to ensure that there is some common baseline in these industries. Of course, many more sub-industries will comprise the priority sectors, however these have been used as an accepted set of industry definitions for the purposes of this report. A detailed breakdown of the ANZSIC industries is provided in Appendix A.



^x Because Net zero and clean energy are not a clearly defined industry, it is not possible to accurately identify which jobs, by ANZSIC category, make up the sector. The figure of 21% is therefore made up of financial services and fintech, advanced manufacturing, bio-medical and life sciences, digital technologies and higher education, with higher education acting as a proxy for net zero.



5. How to transform Sydney's economy

Thinking in Three Horizons – an overview of Three Horizons framework

The pathway to economic transformation is complex and will be realised over the long term. However, planning for this transformation must begin now. The challenge with transformation are that incremental steps are required to build a foundations while keeping an eye on the big picture objectives.

The Three Horizons Framework was developed by McKinsey and Company in the early 2000s, initially as a way to structure organisational change. More recently, it has been adapted to apply to economic development and strategic planning as a framework to guide economic transformation.

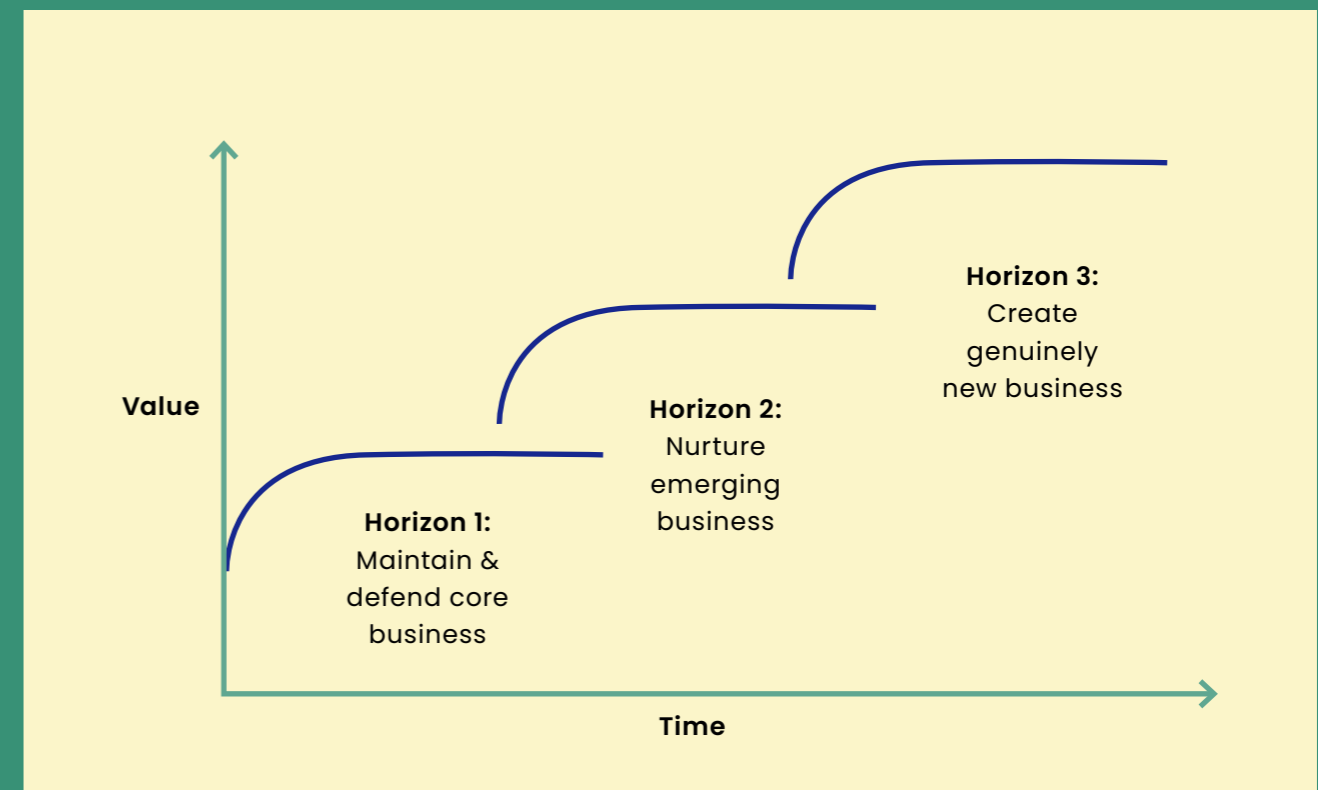
The framework recognises that truly robust and sustainable organisational or economic transformation must simultaneously plan to three horizons or agendas in order to achieve the desired outcomes.

The three horizons model identifies three key stages (horizons) of maturation:

- **Consolidate** – Where an economy protects and builds existing core business and functions to serve existing and growing catchment.
- **Enhance** – Where an economy seeks to leverage existing core functions to diversify into related functions, supply chains or aligned businesses. These improvements can be thought of as 'organic innovations', building on existing strengths.
- **Transform** – Contemplates new opportunities that are not currently present but draw on the place's advantages that underpin current functions. The third horizon is where a place seeks to 'reinvent itself'.

Figure 16: Planning for economic transformation requires simultaneously thinking at multiple timeframes

Three Horizons framework





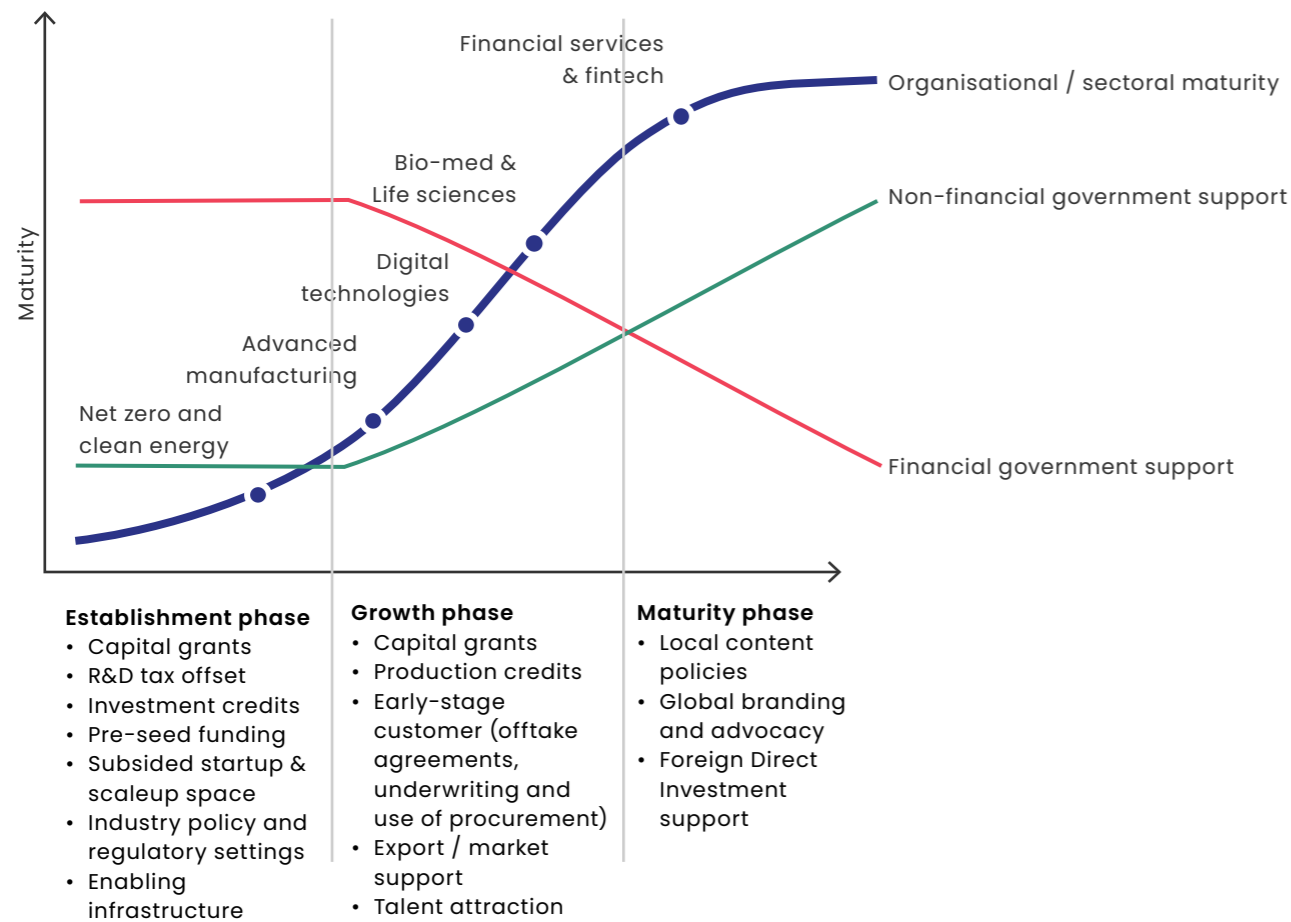
Economic transformation requires investment and involvement by the public, private and institutional sectors. Sydney already has globally significant levels of activity in several of the identified industries and is emerging as a leader in others.

To ensure the ongoing leadership in Sydney's mature sectors and its growth in nascent ones, government has an important role to play. This role varies depending on each industry's level of maturity.

Early stages of industry development often require a government to play a central role in ensuring regulatory settings are appropriate, enabling infrastructure is in place and certainty is provided to the market to encourage investment through strategy and policy. In the latter stages of industry development, a government plays the important roles of advocate, investment and talent attractor and customer.

Figure 17: The role of government investment and interaction varies depending where on the maturity curve a sector is

Illustration of the changing role of government at different levels of sectoral maturity and an indicative estimation of where the five priority sectors sit



Source: Committee for Sydney, 2024



Image courtesy of Corneil Macquarie Park Innovation District



Image courtesy of Macquarie University

It is not a foregone conclusion that the sectors identified in this report will be successful in transforming Sydney's future economy. While some, such as financial services, has an established and specialised base in the city, others are developing in a rapidly evolving, highly competitive and geo-politically uncertain global economy. Their successful establishment and growth rely just as much on global factors as they do on concerted government investment and policy development.

Government must also play an important role in setting expectations for workforce participation and work with industry to convene attention on key issues. While sectors can develop based on market forces, often changes to work force structure – such as the achievement of gender parity in sector-specific workforce profiles or the increased participation in First Nations employment – require government intervention. This may take the form of targets that set expectations, through to specific requirements needed to access government funding or contracts.

Regardless of which of these sectors do come to define the transformation of Sydney's economy, successfully nurturing them will drive the future prosperity of our city and create the jobs of the future for its residents.

Education at all levels is a sector that underpins the success of all priority industries. While it is not identified in this report as one of the five priority sectors that will transform Sydney's economy, it is an essential part of realising this transformation and features across the breadth of recommendations.

What is clear is that government at all levels play a central role in a successful economic transformation. They must work with industry and the community to set the agenda around priority and pace of change.

Transforming Sydney's economy requires sustained focus by government, business and institutions to grow the industries that are existing strengths and nurture those that can become strengths.

This report puts forward 9 recommendations and 30 actions to transform Sydney's economy.



NOW:

SET SYDNEY UP FOR ECONOMIC TRANSFORMATION SUCCESS



Recommendation 1: Consolidate economic development leadership

NSW needs economic transformation to be a state-wide priority supported by clear political and bureaucratic leadership. This requires political leadership to be made clear through ministerial accountability and departmental ownership.

Ownership of economic development within NSW Government departments and portfolios is highly fragmented, reducing clear ownership and accountability. Departmentally, economic development sits across Investment NSW, Office of the 24-Hour Economy Commissioner, Treasury, Primary Industries and Regional Development, and less directly, Health and Education.

Politically, economic development has both direct and indirect carriage across a number of ministerial portfolios:

- Treasurer
- Minister for Innovation, Science and Technology and Minister for Industry and Trade
- Minister for Medical Research
- Minister for Health
- Minister for Domestic Manufacturing and Government Procurement
- Minister for Small business
- Minister for Music and the Night-time Economy and Minister for Jobs and Tourism
- Minister for Energy and Climate Change

While there is some attraction in merging all these into a single department focused on economic transformation, there have already been many amalgamations and separations of departmental functions over the years. The Committee recognises that more machinery of government changes, while well-intentioned, will delay action at a time when speed is required.

Ministerial ownership and accountability, however, is one way of avoiding departmental change while elevating economic transformation as a political priority and enabling cross-departmental oversight.

Actions

- Action 1a: Create a ministerial portfolio of Minister for Economic Development and Transformation who has authority under Administrative Arrangements Order for legislation that directly relates to economic development (the breakout box outlines the proposed distribution of legislative responsibilities).
- Action 1b: Create a ministerial sub-committee, chaired by the Minister for Economic Development and Transformation comprised of all relevant ministers for all portfolios who have carriage of part of the economic development and transformation portfolio.

Proposed lead: NSW Premier
Key collaborators: Cabinet Office



Ministerial responsibilities and the Administrative Arrangements Order

Ministerial responsibilities are assigned to ministerial portfolios via the Administrative Arrangements Order. This legislation is established under each government and identifies which Ministerial portfolio is responsible for the administration of all elements of NSW legislation. Responsibility can be held solely by a minister or shared, depending on the nature of the portfolio and the breadth of the legislation.

A future Minister for Economic Development and Transformation would be responsible for several acts, both fully and partially, that relate to economic development, industry, skills and education. The Committee for Sydney has proposed which acts may sit with this ministerial role and why.

Table 7: proposed ministerial responsibilities

NSW Act	Shared responsibility?	Reason
Climate Change (Net Zero Future) Act 2023 No 48 (Specifically Part 2)	With Minister for Climate Change	The transition to a net zero future will require concerted effort to invest in decarbonising industries and specifically support industries investing in net-zero technologies.
Destination NSW Act 2011 No 21	With Minister for Jobs and Tourism	National and international investment attraction will be a core part of this portfolio. Expanding the remit of the Destination NSW Act to include investment and talent attraction is central to economic transformation.
Jobs for NSW Act 2015 No 25	With Minister for Jobs and Tourism	Job creation is central to economic development and this act is one of the few that has specific reference to 'economic development' in its drafting.
Public Works and Procurement Act 1912 No 45 (specific focus on Procurement – Part 11 and Fifth Schedule)	With: Minister for Regional New South Wales Minister for Planning and Public Spaces Domestic Manufacturing and Government Procurement	Government procurement is a powerful tool, and aligning economic development outcomes with state procurement strategy is core to economic transformation and the nurturing of emerging industries (refer to Recommendation 8).

Growth Centres (Development Corporations) Act 1974 No 49		The development of economic-focused growth centres has recent history in NSW through the regional Special Activation Precincts (SAPs). Alignment of growth centre development with economic development objectives can help develop industry clusters and streamline business approvals processes.
Innovation and Productivity Act 1996 No 77		The objective of this act is to support an Innovation and Productivity Council. The object of this Council "...to assist in the creation of jobs, investment, exports and interstate trade by raising the level of innovative activity in New South Wales". ³⁹
Vocational skills acts: Apprenticeship and Traineeship Act 2001 No 80 Vocational Education and Training (Commonwealth Powers) Act 2010 No 131	Minister for Skills, TAFE and Tertiary Education	To align economic development and industry skill needs and objectives with programs delivered through Vocational Education and Training system.
Various university acts: University of New England Act 1993 No 68 University of New South Wales Act 1989 No 125 University of Newcastle Act 1989 No 68 University of Sydney Act 1989 No 124 University of Technology Sydney Act 1989 No 69 University of Wollongong Act 1989 No 127 Western Sydney University Act 1997 No 116	Minister for Skills, TAFE and Tertiary Education	To align economic development and industry skill needs and objectives with programs delivered through the university system.



Recommendation 2: Coordinate State and Federal strategies and funding for priority sectors

Sydney's economic success will be greater and happen faster if there is clear coordination between state and federal strategies for industry development and funding streams to maximise impact.

Access to capital is essential for all businesses to grow, but those in emerging industries may often be seen as high risk for private investment. A 2023 report by SGS Economics and Planning and the University of Technology's Institute for Sustainable Futures highlighted the need for government support to establish value-adding sectors in the clean energy transformation.

"Transformational industry development carries with it inherent risk, upfront investment and market uncertainty. The scale of benefit available to Australia across these and other opportunities in the clean energy sector are evident. However, many need significant upfront investment in order to overcome barriers to market entry or rapid growth to achieve sustainable economies of scale"⁴⁰.

Public investment in the early stages of industry development is a vital source of funding to overcome the 'valley of death' that so often occurs between the research and development and commercialisation phases of industry or product development. This is particularly important at the pre-seed level (the point before private venture capital enters) where there are high research costs, regulatory barriers and high risk of failure. It can come in the form of direct or co-funding with partners such as universities and is extremely valuable in the early stages of as biotech and deep tech development.

Grants and direct funding streams by government can provide upfront capital to support emerging businesses, and help established businesses to invest in transformational improvements to facilities, equipment and systems, before the private sector is comfortable investing. This is often referred to as government investment enabling private capital to 'crowd in'.

Through its Future Made in Australia Policies, National Reconstruction Fund and Medical Research Future Fund, among others, the Federal Government has identified several key sectors for investment and support.

Coordinating NSW's economic strategy and a supporting suite of grants and funding streams directed at businesses in priority industries provides greater certainty to industry, increases the scale of funding on offer and increases collaboration opportunities between the State and Federal Governments.

Actions

- Action 2a: Coordinate state and federal industry policy objectives where NSW has strengths in industries of national priority (as defined through the National Interest Framework⁴¹ or other federal policies), with NSW Government policies adding regionally specific objectives and actions.
- Action 2b: NSW and Federal Government establish a co-funded Priority Industries Investment Fund that supports capital investment by public or private organisations in projects that will enhance NSW's capabilities in priority industries. Investment fund would have clear mechanisms to recoup capital over the long term, with funding targeting:
 - Pre-seed research and commercialisation activities for universities to bridge the gap between early-stage IP development and venture capital attraction
 - Small-to-medium-size Enterprises (SME) to build capacity and invest in technology and systems to increase innovation and competitiveness

- Action 2c: Coordinate NSW Government's economic development funding streams with similar Australian Government streams targeting priority industries and ensuring that access to one does not preclude access to others.
- Action 2d: Commit recurrent operational funding to established or nearly established initiatives aligned with priority industries or research and innovation (for example, Tech Central).

Proposed lead: Proposed Minister for Economic Development and Transformation
Key collaborators: NSW Treasury, Investment NSW, Commonwealth Department of Industry, Science and Resources, National Reconstruction Fund Corporation





Funding alignment opportunities

Significant amounts of funding have been made available by the Federal Government to drive momentum in industries of national priority. These have significant overlap with funding streams established by the NSW Government. Ensuring businesses have streamlined access to these funding streams, and application processes are not unnecessarily complex or duplicative is important to maximise the chances of businesses accessing them. A sample of these overlapping funding streams are listed on the next page:

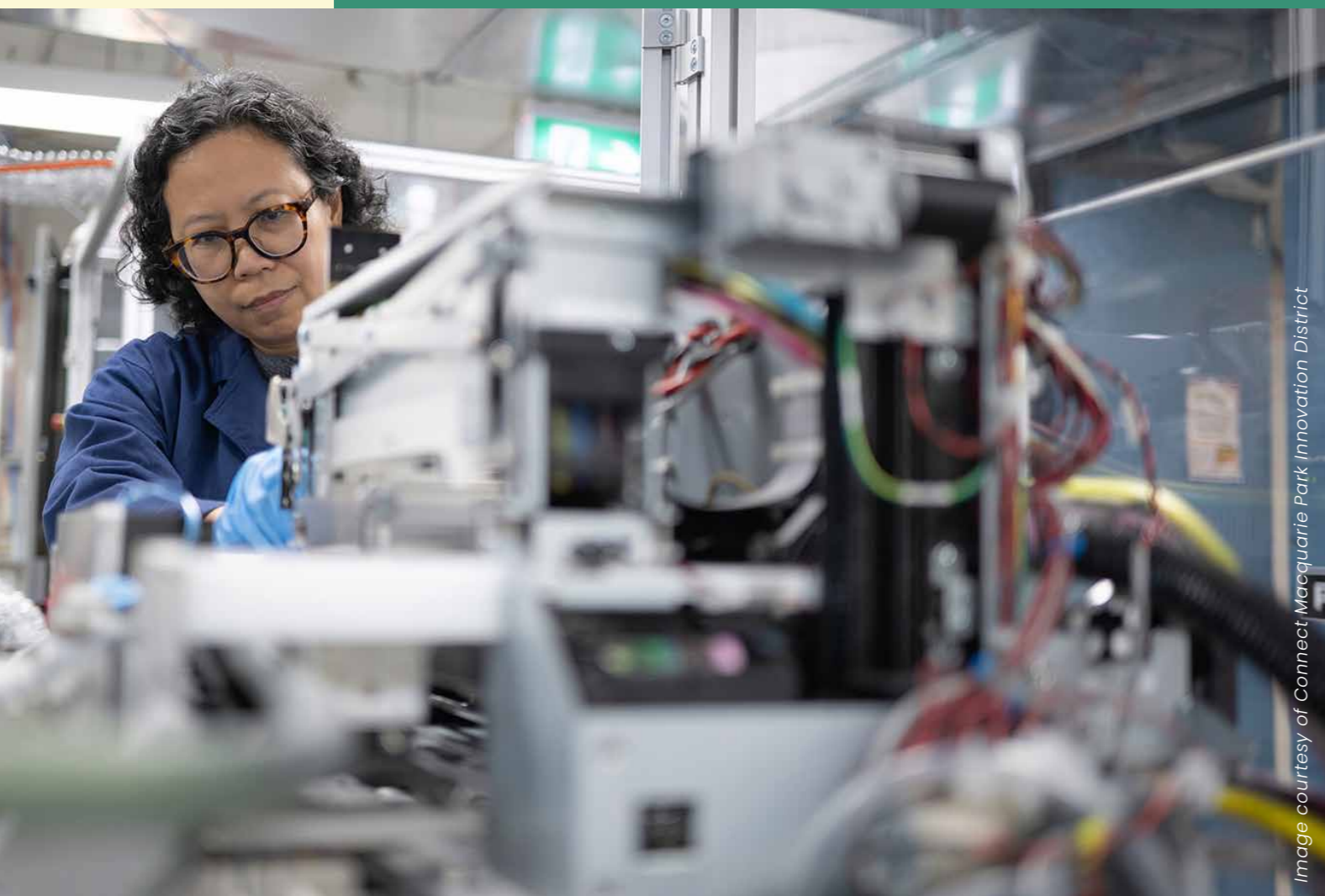


Image courtesy of Connect Macquarie Park Innovation District

Table 7: examples of state and federal funding streams

Federal Government funding streams	NSW Government Funding streams
Medical Research Future Fund \$22 billion	Women in Construction Industry Innovation Program From \$30,000 to \$300,000
National Reconstruction Fund \$15 billion	Emerging Industry Infrastructure Fund Up to \$6,000,000
Housing Australia Future Fund \$10 billion)	Transformative Industry Projects (TIP) scoping studies grants
Hydrogen Headstart program \$4 billion	High emitting industries grants Up to \$305,000,000
Future Made in Australia Future Fund \$1.7 billion	MVP Ventures 2024-2025 From \$25,000 to \$50,000
Solar Sunshot \$1 billion	NSW RMF - Plastics Technology stream From \$1,000,000 to \$20,000,000
Battery Breakthrough Initiative \$523 million	Medical Devices Fund From \$500,000 to \$5,000,000
	Circular solar grants From \$100,000 to \$3,500,000
	Critical Minerals and High-Tech Metals Activation Fund - Stream 1 From \$300,000 to \$500,000
	NSW SBIR Program Up to \$1,100,000
	Clean technology commercialisation grants From \$250,000 to \$5,000,000
	Clean Technology Ecosystem Grants From \$250,000 to \$2,000,000
	National Collaborative Research Infrastructure Strategy Support Program From \$500,000 to \$10,000,000
	Net Zero Manufacturing initiative Up to \$275 million in funding

One example of a specific partnership between the Australian and state government is the SEQ Innovation Economy Fund. In October 2024, the Queensland Government announced a co-funded \$150 million South-East Queensland (SEQ) Innovation Economy Fund as part of a broader \$1.8 billion partnership with the Australian Government as part of the SEQ City Deal.

Funding of up to \$25 million for major capital projects and up to \$5 million for minor capital projects, with the aim of supporting SEQ organisations in developing their innovation capabilities. Funding is contingent on co-contributions from industry⁴².



Moving government from direct expenditure to investment partner

Policy uncertainty is one of the biggest barriers to the financing of startups and encouraging them to remain and scale in Sydney or NSW. Reducing this barrier through the development of clear 'front doors' for businesses looking to expand or receive support from the NSW Government, continuing small business procurement policies or developing a more 'entrepreneurial' approach to regulatory uncertainty can all enable new technologies and sectors to remain and grow in NSW.

There are a number of models that the government could explore that establish funds that act as investment vehicle rather than direct expenditure. They can take the form of:

- Pre-seed funding – Specifically aimed to increase research commercialisation by funding research and activities that are too early and high risk in their development to attract private investment. The Breakthrough Victoria Fund and New Zealand Government's PreSeed Accelerator Fund is an example.

- Venture capital equity investments – through the use of co-funding of venture capital funds focussed on NSW-based firms – similar to the Alice Anderson Fund, or the previously referenced Carla Zampatti Fund.
- Direct equity stakes in firms – similar to the NSW Government's stake in Silicon Quantum Computing, which is currently valued significantly higher than the initial investment;
- Repayable grants – where the repayments are tied to outcomes for firms. The Israel Innovation Authority model is worth considering for this: Firms that reach certain revenue/scale are required to pay back their grant in full, firms that IPO or are sold are required to pay back 300% of their grant, and firms that IPO or are sold outside of Israel are required to pay back 600% of their grant.



Image courtesy of University of Sydney



Recommendation 3: Set clear expectations for workforce diversity and inclusivity

Economic and industry development must be done through a lens of social equity and fairness. The traditional workforce profile of certain occupations within the identified industries is often male dominated. Only one-third of jobs in Sydney's manufacturing sector and in IT are held by women. In sectors related to innovation, there is a similar imbalance.

Analysis undertaken by the NSW government in 2022 identified that across many of the sectors identified as targets in this report, men occupied on average two-thirds of jobs. This includes digital technology, clean economy, medtech and life sciences, defence and aerospace and agrifood. The only innovation sector with a higher share of women in NSW was healthcare.

Without clear expectations of workforce diversity for target industries, there is a risk that the traditional male dominance of some of the identified priority industries will continue.

Actions

- **Action 3a:** Implement all seven recommendations outlined in the Women's Economic Equality Taskforce final report (see breakout box).
- **Action 3b:** Increase participation of, and opportunities for, the Aboriginal and Torres Strait Islander people in priority sectors (see breakout box).

Proposed lead: Premier's Department
Key collaborators: Cabinet Office, Dept. Education, Treasury

The need to ensure gender equity in target sector workforces

In 2022, the NSW Government published a discussion paper titled 'Women in Innovation Precincts'. It highlighted the stark gender imbalance in jobs identified as key innovation sectors. A number of these sectors are outlined in this report as those that have the potential to transform Sydney's economy.

Addressing the gender imbalance in these sectors, and all others, is an essential part of an equitable economic transformation.



Image courtesy of Connect - Macquarie Park Innovation District

Table 8: Men still account for the majority of jobs in target sectors and this needs addressing

Gender Split by Innovation Precinct target sectors

Sector	Men	Women
Digital Technology		
Technology	~75%	~25%
Advanced manufacturing	66%	34%
Clean Economy and Resources		
Hydro-electric generation	75%	25%
Clean energy	61%	39%
Mining (resources)	84%	16%
MedTech and Lifesciences		
Med Tech	57%	43%
Scientific research services	58%	42%
Pharmaceutical & medicinal product manufacturing	48%	52%
Healthcare (Australia)	33%	67%

Source: NSW Government, 2022, 'Women in Innovation Precincts Discussion Paper'

Note: only sectors that are aligned with those identified in this paper as priority sectors have been reported. The full analysis, including data sources, can be found [here](#).



Women's Economic Equality Taskforce Final Report

In October 2023, the Women's Economic Equality Taskforce, chaired by Sam Mostyn AO presented their final report: "Women's Economic Equality: A 10-year plan to unleash the full capacity and contribution of women to the Australian economy," to the Australian Government. The report identified seven recommendations across five pillars to address gendered economic inequality.

The recommendations were:

Recommendation 1

The Australian Government must provide leadership and accountability for driving economic equality outcomes and embed gender equity into its decision making, budgeting and policy design, implementation and evaluation mechanisms.

Recommendation 2

The Australian Government must invest in policies and programs that recognise the economic importance and value of care work in Australia and help families to better share caring responsibilities.

Recommendation 3

The Australian Government must utilise its legislative, regulatory and spending powers to ensure all Australian workplaces create safe, secure, flexible and equitable work opportunities that support women's economic participation.

Recommendation 4

The Australian Government must provide women in Australia with lifelong, accessible, flexible and affordable education and skill building. They must also remove existing disincentives and inequities that perpetuate industry and occupational segregation and sustained pay and wealth gaps.

Recommendation 5

The Australian Government must undertake a long-term, targeted and deliberate investment program to ensure women are leading and building the economy in equal measure to men.

Recommendation 6

The Government must ensure that women have financial security across their lives and are increasingly building lifetime wealth and economic equality.

Recommendation 7

The Australian Government must invest in programs to address community attitudes and bias that prevent women's full economic participation across a lifetime.

The report can be accessed [here](#).

Powering First Nations Jobs in Clean Energy

In October June 2024, the First Nations Clean Energy Network released a report titled 'Powering First National Jobs in Clean Energy'. The report focused on how First Nations Communities across Australia could be better involved in employment and skill development opportunities resulting from the significant growth in renewable energy projects.

The report made a number of recommendations that are also relevant to growth in industries beyond renewable energy. The recommendations were:

Supply-side recommendations

- **First Nations school students: careers programs and outreach campaigns**
- **School-to-VET Transitions: interns, trainees, pre-apprenticeship and apprenticeship programs**
- **University: outreach engagement by Regional Universities Centres and First Nations cadetships**
- Pathways into the workforce: preemployment programs for solar farms

Demand-side recommendations

- **First Nations employment and training targets:** the Capacity Investment Scheme & State REZs
- Industry program for First Nations wind maintenance technicians
- First Nations employment targets and training for Indigenous housing retrofits, micro-grids and diesel replacement programs

- 'Career trackers for clean energy': long term industry commitments to First Nations cadetships

Enabling measures

- **Industry support program: embed project officers for recruitment and training services**
- Tenders for Group Training Organisations to host apprentices across REZs and Indigenous housing retrofits
- **Place-based collaborations between industry, First Nations organisations and training bodies**

Cross-cutting recommendations

- Support for First Nations businesses to participation in clean energy projects through capacity building for tendering
- **Develop a national community of practice for First Nations organisations to collaborate and share knowledge on participation in the clean energy sector**
- **Fund capacity building programs which support the creation of First Nations businesses**
- **Improve cultural awareness through greater take-up of RAPS and equivalent commitments among clean energy sector companies**
- **Increasing cultural competency through incentives, funding and tender requirements**

(Recommendations in bold have direct relevance to this report)

The report can be accessed [here](#)



NEXT:

DEVELOP AN INTEGRATED STRATEGY FOR ECONOMIC TRANSFORMATION

Recommendation 4: Develop a Future Economy Strategy and Vision for NSW, with a clear place-based focus

A state-wide Future Economy Strategy would set out a clear economic vision for NSW's metropolitan and regional economies. This strategy would identify NSW's priority industries, where comparative and competitive advantages exist across the state and provide a roadmap for their investment and growth. This may take the form of providing guidance on aspects such as industry clustering potential, enabling infrastructure investment or skills and workforce capability development. A Future Economy Strategy would be the highest order economic strategy in NSW. Underneath it would sit subsidiary strategies such as:

- Regional Economic Development Strategies (REDS)
- Industry policy
- Innovation Blueprint
- Skills pathway strategies

A NSW Future Economy Strategy would also have a specific focus on the role of Greater Sydney and its role in NSW's future economic development and a particular focus on the priority industries identified in this report. This would need to be supported by a Greater-specific Sydney economic development strategy.

Actions

- **Action 4a:** Develop a place-based Future Economy Strategy for NSW as the highest order economic strategy for NSW, under which all other targeted economic strategies sit. It must also clearly convey the economic vision for Greater Sydney by identifying strategically important industries, align with key enabling infrastructure and outline whole-of-government economic priorities.
- **Action 4b:** Develop a Greater Sydney Economic Development Strategy that aligns with the State-wide Future Economy Strategy while focusing on place-based economic development and industry capability for Greater Sydney that local economic development strategies must give effect to.

- **Action 4c:** Create cross-departmental panels for key economic transformation priorities to co-ordinate whole-of-government delivery, chaired by the Minister for Economic Development and Transformation and with the involvement of Local Government.

- **Action 4d:** Support Sydney's innovation district network by integrating NSW's Innovation Blueprint into the state economic strategy and creating an innovation ecosystem map of assets and capabilities.
- **Action 4e:** Broaden the role of the Advanced Manufacturing Research Hub (AMRH) to become a network of specialised manufacturing-focused research and innovation hubs across NSW, anchored by the initial Bradfield facility.

Proposed lead: Proposed Minister for Economic Development and Transformation
Key collaborators: NSW Treasury, Investment NSW, Bradfield Delivery Authority



Moving to an Advanced Manufacturing Research & Innovation network

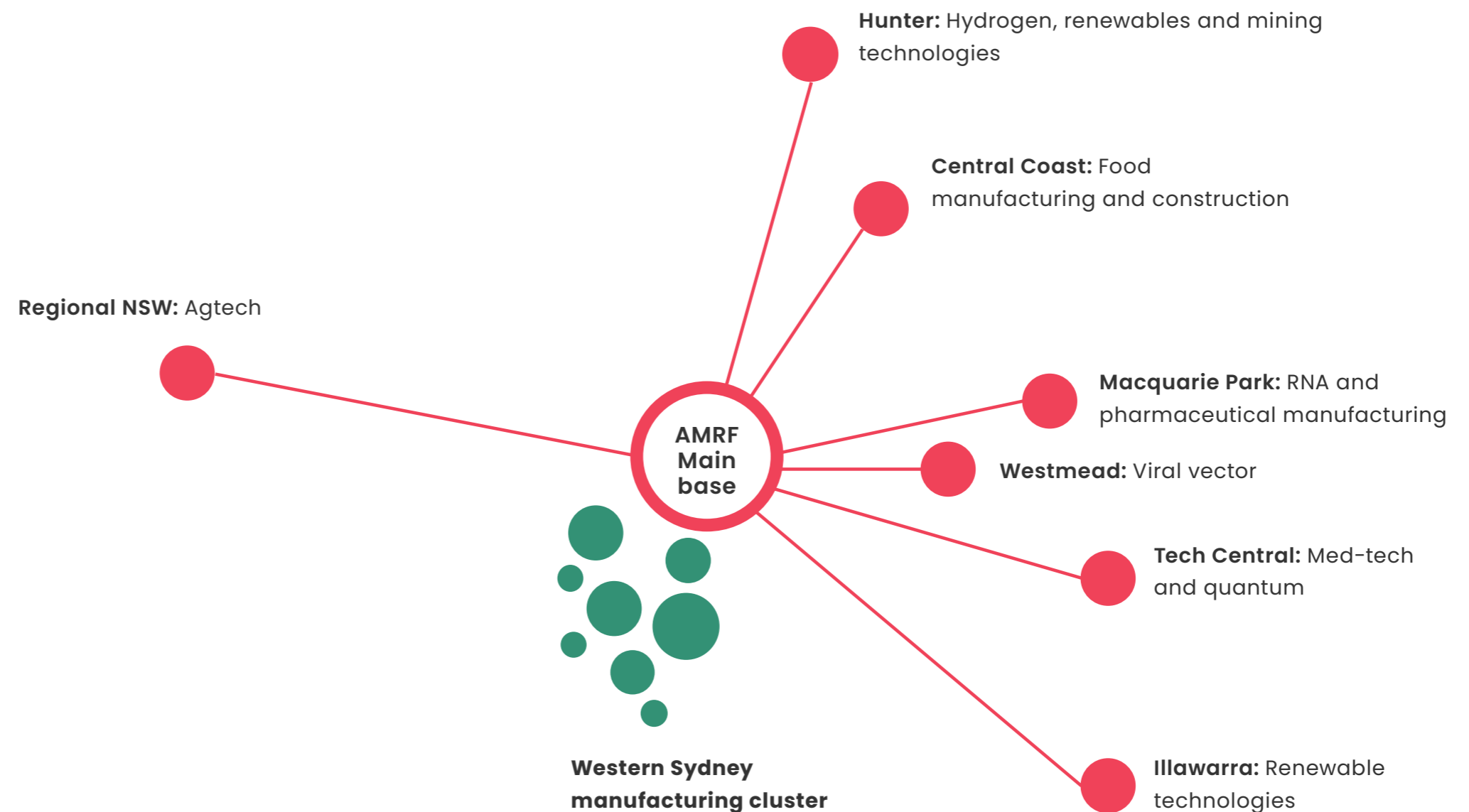
The Advanced Manufacturing Research Facility (AMRF) is scheduled to open its doors in 2024 and will be one of the first buildings completed as part of the Bradfield City Centre. The AMRF will allow manufacturing businesses access to high tech machinery, technology, systems, training and networks, and is a core part of the NSW Government's focus on the manufacturing sector in Western Sydney.

There is an opportunity for the AMRF to evolve beyond a single facility in Western Sydney and become a network of AMRF research and innovation hubs across NSW, each plugging into the regionally specific manufacturing specialisations represented across the state.

This model would reflect the UK's Catapult model and ManufacturingUSA Institutes, with the Bradfield hub being the 'main base' in a network, supported by satellite facilities in areas of manufacturing concentration. The illustration below indicates how these specialisations may look across Sydney and NSW.

The Bradfield hub would connect the wider network with the cluster of manufacturing businesses in Western Sydney and help support export potential through the Western Sydney Airport and the three major NSW seaports.

Figure 18: The AMRF could evolve to become a regional research and innovation network, anchored by the Bradfield hub, facilitating regionally specific manufacturing competitive advantage





Global examples of spatial economic strategies

Spatial economic strategies have emerged across the globe in recent years as a response to a re-engagement with national industrial policies. These have taken various forms and been applied at various scales.

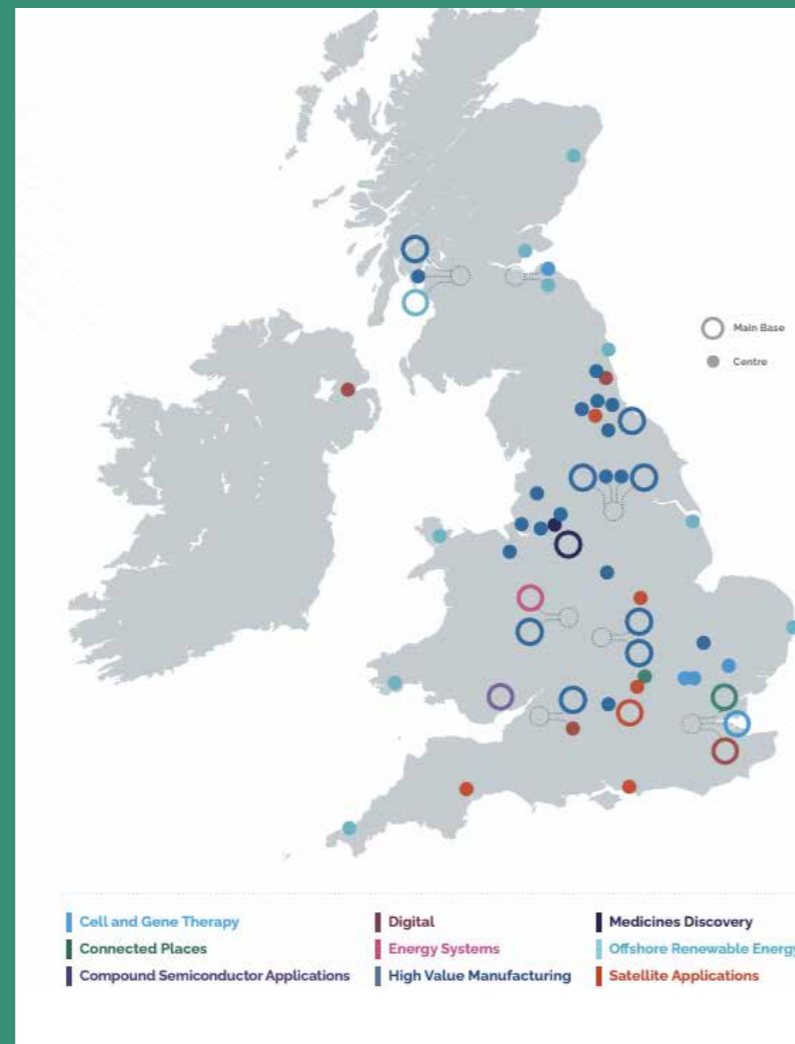
Canada and the United Kingdom are two examples of how these strategic economic visions have evolved to have a place-based focus on industries of national significance.

The Canadian Global Innovation Clusters Program, established by the Canadian Government in 2017, was born out of a national Innovation and Skills Plan. The program was intended to identify and develop a series of nationally significant clusters of innovative industries to “...make it easier for innovators and potential customers to work closely together on research, development and demonstration activities that pursue major commercial opportunities, to boost productivity, and create jobs and drive economic growth”⁴³. The Innovation Clusters Program identified five clusters nationally, with each focused on a different region across Canada:

- British Columbia – Digital technology
- Prairies – Protein industries
- Ontario – Next generation manufacturing
- Quebec – Scale AI
- Atlantic Canada – Ocean

In the United Kingdom, the Catapult Network was established in 2011 to build regional economies and focus on productivity and innovation development in priority sectors, or ‘catapults’. Nine catapults were identified and each has a Main Base, centred on an area of industry or research specialisation and is supported by centres across the country.

Figure 19: UK's Catapult network



Recommendation 5: Co-ordinate development of future economy strategy with infrastructure and land- use strategies to support priority industries

The link between economic development, industry attraction and land use planning is essential but not often properly understood or planned for. This is because the responsibilities for these sit with different departments and levels of government. Effective development of priority sectors requires a deep understanding of their locational and operational attributes to ensure they are appropriately planned for.

Different industries require different locations and land use functions. Some priority industries will be CBD-based, particularly financial and professional services. Attracting international investment will require a clear and serviceable pipeline of premium commercial floorspace, as well as more affordable floorspace in key centres such as the Sydney CBD, Parramatta and Macquarie Park.

Other priority industries such as advanced manufacturing and those associated with research and development, such as deep tech require land zoned for industrial, enterprise and institutional use. This demand is spread right across Sydney, from the high value inner city industrial zones south of the Sydney CBD to the larger floorplate precincts in Central and Western Sydney. Currently, Sydney has some of the lowest vacancy rates for this type of floorspace in the world, sitting at just over 2% in the first quarter of 2024 and having a significant impact on price. This has resulted in an increasing number of businesses choosing to locate outside of Sydney or being unable to expand their current operations to meet demand.

The effective establishment and growth of industries that are being sought by cities across the world requires a clear alignment with the city's urban form and infrastructure provision. Providing the right land for the right industries and activities, in the right places is essential if Sydney is to grow industries that do not always operate in a CBD.



Actions

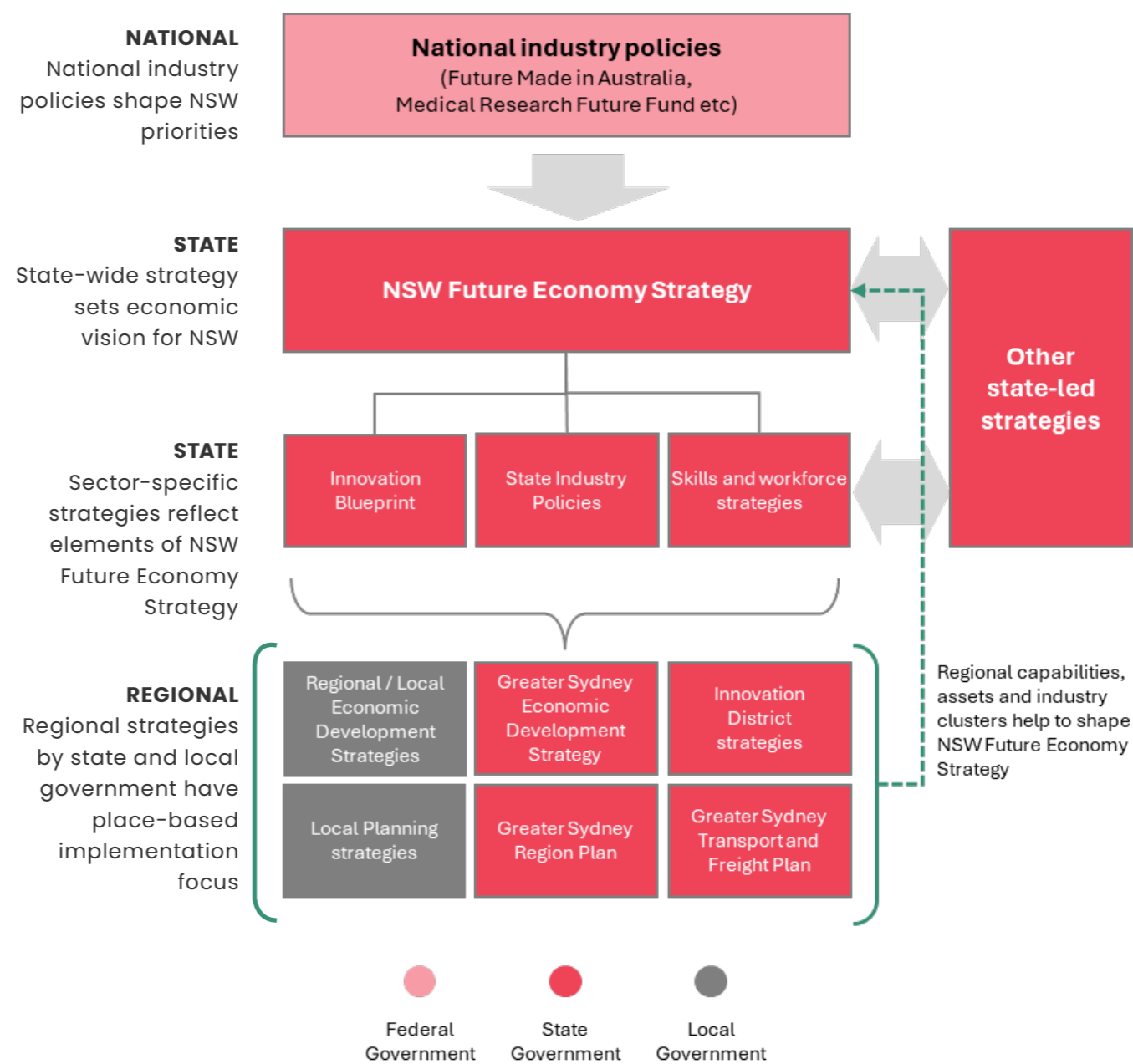
- Action 5a: Develop Greater Sydney Economic Development Strategy concurrently with other metropolitan strategies such as planning strategy, long-term transport masterplan and future freight studies to ensure policy and infrastructure planning co-ordination.
- Action 5b: Require a 15-year pipeline of supply of serviced and connected industrial land supply be maintained and retain existing industrial precincts across Greater Sydney through the Retain and Manage policy designation to plan for long-term industry investment and attraction of manufacturing and associated sectors.
- Action 5c: Make all levels of government data accessible at an LGA or SA3 level and at higher frequency periods than the five-yearly census to ensure regionally-specific data is available and current to ensure informed policy decisions.

Proposed lead: Proposed Minister for Economic Development and Transformation

Key collaborators: NSW Dept. Planning, Housing and Infrastructure, Transport for NSW, Infrastructure NSW, Investment NSW

Figure 20: Better aligning national, state and local economic strategies will help give clarity to industry and maximise complementary policy development

Illustration of how hierarchy of economic policies can be co-ordinated





Recommendation 6: Identify future skill needs and embed in education pathways

The skills needed in the identified priority industries vary significantly, but it is essential there is capacity in Sydney's labour market to allow these industries to grow over the coming decades. The skilled workforce for future expansion includes highly trained expertise from across the world, to developing domestic expertise. Quantum computing, specialised photovoltaic engineers and battery chemists are examples of the skills that require Sydney to simultaneously grow domestic capabilities and attract international talent. This extends to already accredited and experienced highly skilled migrants and to international students seeking to study in emerging priority fields.

There is also a need to upskill people in the existing labour force. These are skills that people who are already working will need to add to their existing capabilities. They include skills such as digital literacy, data analytics, complex problem solving, organisational management and international business development. These are essential for many businesses looking to maintain a competitive advantage, to transform to more advanced operating processes or reach international markets. Access to lifelong learning with be fundamental to both mobilising our existing workforce and expanding our workforce to include under-represented communities (for example women and First Nations people).

Sydney's multicultural diaspora also present significant potential as a highly skilled but not fully utilised labour force. A June 2024 report by SSI, 'Billion Dollar Benefit' identified

that 44% of permanent migrants to Australia work in jobs that are below their skill level and that better harnessing this under-utilised talent could unlock \$9 billion in economic benefit each year⁴⁴. And that's just of those permanent migrants already here.

It will be essential to work across the tertiary education sector, including Vocational Education Training (VET) and universities, to cohesively develop skills pathways and education programs, that are aligned with NSW research expertise and industry priorities. This needs to be contextualised within the University Accord, and sector harmonisation, with consideration of the visa settings that can adversely affect education as one of NSW largest exports.

Actions

- **Action 6a:** Require firms applying for grant funding (from streams linked to priority industry development) to demonstrate how they are investing in priority skill development within their programs to unlock full funding access or bonus funding opportunities.

- **Action 6b:** Improve the overseas qualifications assessment and recognition process to more easily recognise and accredit existing and new residents to work in priority industries*.
- **Action 6c:** Increase interaction and mobility across VET and university sector by:
 - encouraging trans-sectoral innovation and research partnerships across VET's Centres of Excellence and Australian Research Council's Industrial Transformation Research Hubs.
 - enabling students to undertake VET courses as part of university degrees and have them count towards qualification
 - ensuring VET courses better reflect prior educational attainment from both VET and university qualifications

***This recommendation mirrors those made in SSI's Billion Dollar Benefit report that can be read here.**

Proposed lead: Proposed Minister for Economic Development and Transformation
Key collaborators: Department of Education, Universities, TAFE NSW



A net zero future requires the right skills now

The transformation of Sydney's economy and the achievement of Australia's net zero ambitions require the right skills across large parts of the labour force. In key occupations however, there are a lack of people with the right skills and this puts Australia's decarbonisation efforts and the ability for Sydney to lead as a centre for net zero skills and industry investment at risk.

In August 2024, Jobs and Skills Australia's launched the Jobs and Skills Atlas. This interactive online atlas identifies detailed occupations that are critical to Australia's clean energy and net-zero aspirations and where skills shortages exist in the labour force. The Jobs and Skills Atlas identifies several occupations where there is a current or anticipated skills shortage of relevance to the net-zero and clean energy sector. These include:

- Construction managers
- Electrical distribution and electronics trades workers
- Electricians
- Electrical engineers
- Structural steel and welding trades worker
- Industrial, mechanical and production engineers

The Jobs and Skills Atlas identifies a number of reasons for this undersupply of skills. These include:

- Retention challenges within workforce
- Long lead time to achieve qualifications
- Skills suitability for specific roles

If Sydney is to develop as a centre for net zero research and highly skilled labour, a sustained focus on skill development across the labour force is important. While many of the net zero infrastructure projects will be built in regional areas, the skills needed across the development, construction and operational and maintenance phases are Sydney-based.

Figure 21: Key industries continue to face an undersupply of skilled labour
Electrician labour vacancies in NSW



The Jobs and Skills Atlas can be accessed [here](#).



NEW: TELL THE WORLD AND BACK OURSELVES

Recommendation 7: Develop a global investment brand for Sydney

If we build it, will they come? Developing a clear and aspirational economic strategy is one thing. Showcasing it globally and using it to attract investment and talent is another. As it stands, Sydney's global brand does not fully reflect our potential. We are famed as a tourism destination but not properly recognised for our industry strengths, innovation capability or highly educated, multi-cultural labour force.

If Sydney is to nurture these priority industries and attract talent and investment, how we are perceived globally matters. Sydney's brand needs to reflect our capabilities and opportunities.

Geo-political shifts across the world, including in the Asia Pacific region, create opportunities for Sydney as a globally important centre for strategic industries. Leadership and co-ordination are essential if an economic strategy for transformation and industry attraction is to be successful.

Fostering global connections between businesses and research institutions in Sydney's priority industries and those based overseas is an essential part of investment and talent attraction.

Many businesses will have products or services that are attractive to overseas markets, but not have the capability to navigate international trade agreements or foreign regulatory systems. This can lead to unrealised export and growth opportunities for these businesses, particularly small to medium-sized businesses.

Global connections also increase the awareness of Sydney's sectoral strengths and investment opportunities by organisations overseas.

Actions

- **Action 7a:** Commit ownership of Sydney's economic brand within NSW Government to Minister of Economic Development and Transformation and co-develop investment strategy with Destination NSW.
- **Action 7b:** Broaden the remit of visitor attraction beyond tourism to include investment and talent attraction. Align metrics of success to this broadened focus.
- **Action 7c:** Connect international businesses with local counterparts working in priority sectors where such a connection can fast-track domestic capability and international investment.

- **Action 7d:** Align international business events calendar with state and national industry priorities and use as a way to increase global perceptions of Sydney with target sectors
- **Action 7e:** Support NSW Government's Study NSW to ensure Sydney remains a destination of choice for international students to universities and encourage newly skilled people to remain in Sydney.

Proposed lead: Proposed Minister for Economic Development and Transformation
Key collaborators: Destination NSW, Investment NSW

Sydney's perception- performance challenge

In March 2024, The Committee for Sydney released its Benchmarking Sydney 2024 report. One of the key findings of the report that compared Sydney with nine other global peer cities was that we are often a city where a gap exists between how we actually perform and how we are perceived to perform.

"Sydney is a city with so much potential that isn't yet fully realised. Sydney's global brand is strong, but it often doesn't reflect our innovation economy, our cultural diversity and the vibrant places that make our city so great."





Recommendation 8: Direct government procurement to support priority industries and economic development objectives

For many industries, government is a key customer. Governments of all types can deploy their significant procurement capacity to create early markets and ensure demand certainty for businesses in growth sectors. This capacity enables it to wield this purchasing power in way that supports investment in industries considered strategically important.

Government investment, either directly or through strategic procurement, is also an important strategic lever in de-risking private sector investment in emerging industries. It sends a signal to investors that there is confidence in the success of that sector.

The NSW Government is a major procurer of goods and services across a broad portfolio of sectors. It therefore has the capability to create and sustain demand for these goods and services and can use this effectively to nurture the development of priority sectors.

Actions

- **Action 8a:** Align NSW's strategic economic and industry development outcomes with NSW Government procurement objectives to incentivise government expenditure in sectors the state is seeking to develop.
- **Action 8b:** Use local procurement opportunities to build capacity in Sydney's economy by including a weighting towards local businesses, or national and multi-national businesses that partner with local businesses.
- **Action 8c:** Increase risk tolerance in public sector business cases where investment is focused on development of priority industries or infrastructure and programs to facilitate their establishment and growth.

Proposed lead: Proposed Minister for Economic Development and Transformation
Key collaborators: NSW Treasury, Cabinet Office, Department of Customer Service

Recommendation 9: Increase investment opportunities and pathways

Both public and private investment will play an important role in the growth of industries that will transform Sydney's economy. Private investment is vital if priority industries are to grow and anchor Sydney's economy. Government cannot compel private investment, but through strategy and public investment, it can induce private investment to 'crowd in' by creating greater certainty. Early-stage investment is often backed through venture capital, but the superannuation sector is also one of these sources of capital looking to invest in emerging industries.

Australia's superannuation sector has \$3.9 trillion in total assets (as at the end of the March 2024 quarter⁴⁵) and is considered to be the fourth-largest pension fund in the world. The scale of this funding pool, and the relatively small size of the Australian economy, means that increasingly, it has looked overseas for investments. Internationally listed shares now account for 27% of Australian super asset allocation⁴⁶.

What is not clear in current reporting is how the spread of superannuation investment is distributed across their business maturation phase. Superannuation funds regularly report about their spread of investments in domestic and international listed shares, infrastructure and other asset classes. They do not regularly report against their spread of investments in businesses in start-up, early phase and more mature business phases, or where the businesses supported by the venture capital investments are domiciled.

Investment can also come in the form of infrastructure or assets that enable the development of priority industries. The private sector is often well-placed to lead these proposals. Well-structured Unsolicited Proposal (USP) processes can enable innovative ideas that clearly deliver industry development outcomes while managing the downside risks for proponents such as rewarding innovative ideas being brought to government, even if the proponent is not awarded the final contract.

Actions

- **Action 9a:** Require superannuation funds to report on spread of investments across business maturity stages, industry type and investment location to increase transparency and better align with strategic industry priorities. This would be in the same way they currently report on asset type allocation.
- **Action 9b:** Refine the NSW Unsolicited Proposals (USP) process to incentivise non-government proposals that have a focus on advancing the development of priority industries or economic development objectives with clear public benefit by minimising downside risk for proponents.
- **Action 9c:** Co-ordinate NSW Government investment concierge services with Future Economy Strategy and region or district-level industry capabilities and economic development priorities. Co-ordinate this concierge service to align where possible with the Australian Government's 'Single Front Door' model identified in the Future Made in Australia policies.

Proposed lead: NSW Treasury
Key collaborators: Association of Superannuation funds of Australia, Investment NSW

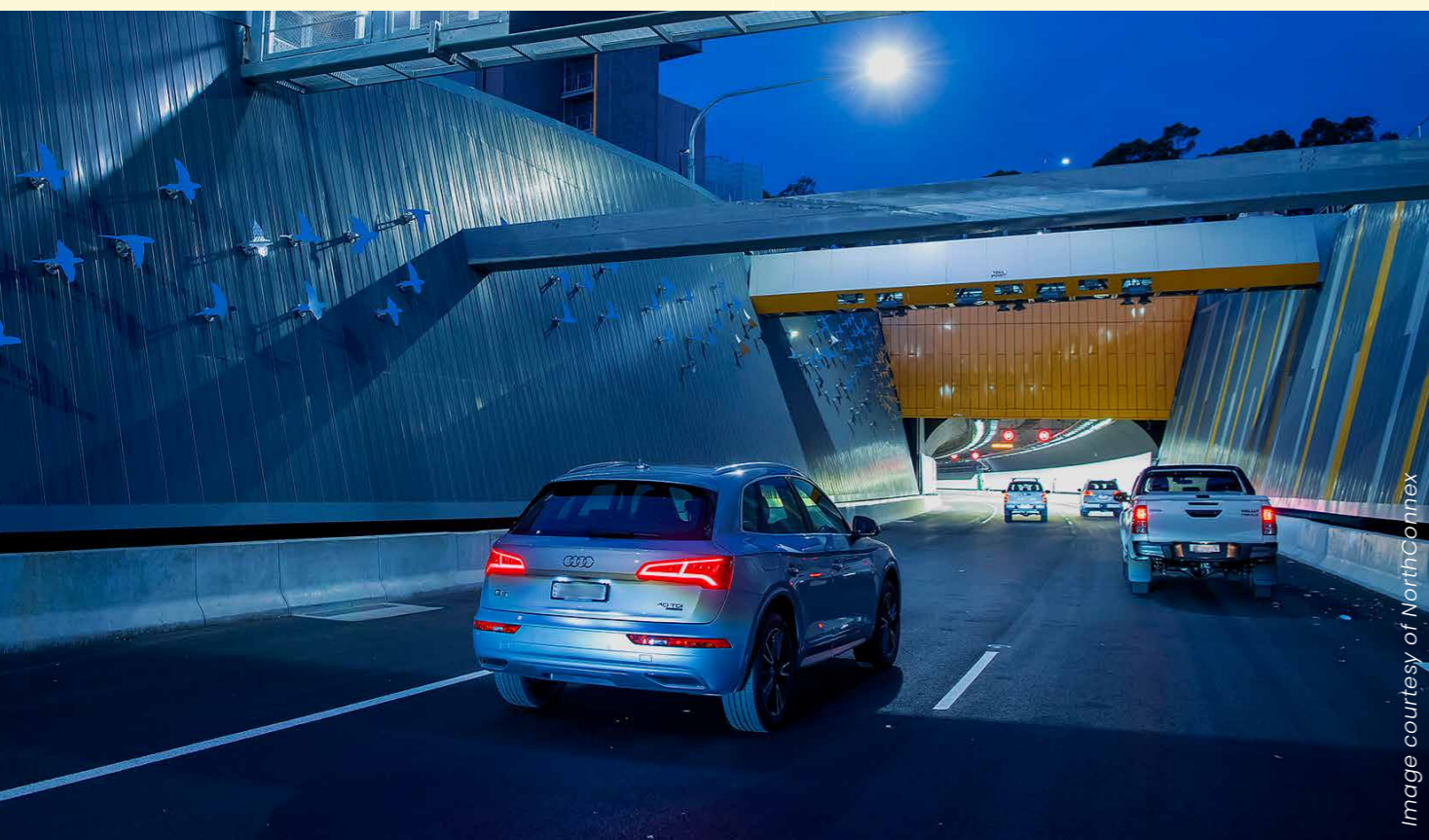


Image courtesy of NorthConnex

International examples of Unsolicited Proposals

What are Unsolicited Proposals?

Many jurisdictions around the world use Unsolicited proposals (USPs) as a procurement mechanism for public-private partnerships and direct deals.

Unsolicited proposals are an avenue for the private sector to work directly with government on conceiving ideas and delivering public projects, or projects using government land or assets that were not part of formal government plans.

A primary feature of a USP is that it is unsolicited; meaning the proponent can

approach government outside of a formal procurement or grants process. An unsolicited proposal can be submitted at any time, allowing the private sector to capitalise on timely opportunities.

Jurisdictions all over the world use USP systems at a national or sub-national level, including; Australia, Chile, Peru, South Africa, Colombia, Philippines, Italy, South Korea, Kenya, Ghana and the United States. Each incorporate different structural frameworks and assessment criteria for USPs. All share the similarity that they are designed to attract innovative proposals, while balancing against the Government's existing procurement policies, strategic priorities, and existing project pipelines.

Common themes in the USP process

- Accounting for upfront costs.** The proponent typically covers some or all up-front costs for preparing and submitting their USP submission. This includes time, internal resources and potentially consulting fees. Government usually covers internal resourcing costs to assess the initial stages of an unsolicited proposal. However, Arizona & Virginia, USA both require tens of thousands of dollars in initial evaluation fees to properly resource government agencies tasked with the assessment of the proposal.
- Uniqueness and innovation.** Almost all jurisdictions with USP mechanisms require some form of justification as to why the proposal is unique or innovative enough to warrant government support. This varies from country to country, with some defining unique as not part of the current project pipeline and others focusing on the technological uniqueness or demonstrable use of proprietary processes or financing.
- Demonstration of public benefit:** All USPs require that the proponent display public benefit – although the definition of public benefit does vary.
- Alignment with national or regional priorities:** Most regions require USPs to align with national or regional strategic priorities. Some jurisdictions allow exceptions where innovation or uniqueness is significant.
- Value for money.** The uniqueness test often implies that the Government is getting value for money in a unique product, design or delivery that cannot otherwise be satisfied by a competitive process. Value for money test often rule out USPs that may propose an innovative solution, but if they fail to provide the best value for money in the government achieving their strategic outcomes then the project may be knocked back.
- Incentives for proponents to submit.** One of the major challenges of USPs in NSW is the significant financial and commercial risk disincentivising proposals being brought to government. This is largely due to the competitive tender process that follows a submission not necessarily guaranteeing the proponent any reward. In some countries, proponents bringing a USP to government are guaranteed some level of financial compensation if they are not the successful tenderer for the project once it goes to a competitive tender process.



Appendix A:

ANZSIC definitions of industry groupings

Chapter 4 of this report identifies five priority sectors, as well as higher education, that it maps and provides analysis on current and potential future job shares.

These industries are not direct representations of the general classification used by the Australian Government – the Australian and New Zealand Standard Industry Classification (ANZSIC).

To approximate the size and distribution of these industries, this report derived its industry definition from the city of Sydney's Floorspace Employment Survey classification system, with some refinement to ensure that it was broadly reflective of the sub-industries across the whole of Sydney.

The concordance of these industries is provided below.

Note, there is no concordance for net zero and clean energy because it is not possible to accurately capture how much of the share of jobs across industries such as engineering and professional services are related to net zero.

Financial Services and Fintech

ANZSIC 2006 Industry - Expanded	Code
Central Banking	6210
Banking	6221
Building Society Operation	6222
Credit Union Operation	6223
Life Insurance	6310
Health Insurance	6321
General Insurance	6322
Auxiliary Insurance Services	6420
Other Depository Financial Intermediation	6229
Non-Depository Financing	6230
Financial Asset Investing	6240
Superannuation Funds	6330
Financial Asset Broking Services	6411
Other Auxiliary Finance and Investment Services	6419
Accounting Services	6932

Bio-medical technologies and Life Sciences

ANZSIC 2006 Industry - Expanded	Code
Human Pharmaceutical and Medicinal Product Manufacturing	1841
Veterinary Pharmaceutical and Medicinal Product Manufacturing	1842
Cosmetic and Toiletry Preparation Manufacturing	1852
Medical and Surgical Equipment Manufacturing	2412
Accounting Services	6932



Digital technologies

ANZSIC 2006 Industry - Expanded	Code
Photographic Chemical Product Manufacturing	1891
Photographic, Optical and Ophthalmic Equipment Manufacturing	2411
Other Professional and Scientific Equipment Manufacturing	2419
Computer and Electronic Office Equipment Manufacturing	2421
Communication Equipment Manufacturing	2422
Other Electronic Equipment Manufacturing	2429
Electric Cable and Wire Manufacturing	2431
Software Publishing	5420
Internet Publishing and Broadcasting	5700
Wired Telecommunications Network Operation	5801
Other Telecommunications Network Operation	5802
Other Telecommunications Services	5809
Internet Service Providers and Web Search Portals	5910
Data Processing and Web Hosting Services	5921
Electronic Information Storage Services	5922
Other Information Services	6020
Computer System Design and Related Services	7000
Other Specialised Industrial Machinery and Equipment Wholesaling	3419
Professional and Scientific Goods Wholesaling	3491
Computer and Computer Peripheral Wholesaling	3492
Telecommunication Goods Wholesaling	3493
Other Electrical and Electronic Goods Wholesaling	3494
Other Machinery and Equipment Wholesaling nec	3499

Advanced manufacturing

ANZSIC 2006 Industry - Expanded	Code
Meat Processing	1111
Poultry Processing	1112
Cured Meat and Smallgoods Manufacturing	1113
Seafood Processing	1120
Milk and Cream Processing	1131
Ice Cream Manufacturing	1132
Cheese and Other Dairy Product Manufacturing	1133
Fruit and Vegetable Processing	1140
Oil and Fat Manufacturing	1150
Grain Mill Product Manufacturing	1161
Cereal, Pasta and Baking Mix Manufacturing	1162
Bread Manufacturing (Factory based)	1171
Cake and Pastry Manufacturing (Factory based)	1172
Biscuit Manufacturing (Factory based)	1173
Bakery Product Manufacturing (Non-factory based)	1174
Sugar Manufacturing	1181
Confectionery Manufacturing	1182
Potato, Corn and Other Crisp Manufacturing	1191
Prepared Animal and Bird Feed Manufacturing	1192
Other Food Product Manufacturing nec	1199
Soft Drink, Cordial and Syrup Manufacturing	1211
Beer Manufacturing	1212



Spirit Manufacturing	1213	Other Basic Non-Ferrous Metal Product Manufacturing	2149
Wine and Other Alcoholic Beverage Manufacturing	1214	Iron and Steel Forging	2210
Cigarette and Tobacco Product Manufacturing	1220	Structural Steel Fabricating	2221
Shipbuilding and Repair Services	2391	Architectural Aluminium Product Manufacturing	2223
Boatbuilding and Repair Services	2392	Metal Roof and Guttering Manufacturing (except Aluminium)	2224
Railway Rolling Stock Manufacturing and Repair Services	2393	Other Structural Metal Product Manufacturing	2229
Aircraft Manufacturing and Repair Services	2394	Boiler, Tank and Other Heavy Gauge Metal Container Manufacturing	2231
Other Transport Equipment Manufacturing nec	2399	Other Metal Container Manufacturing	2239
Electric Lighting Equipment Manufacturing	2432	Sheet Metal Product Manufacturing (except Metal Structural and Container Products)	2240
Other Electrical Equipment Manufacturing	2439	Spring and Wire Product Manufacturing	2291
Whiteware Appliance Manufacturing	2441	Nut, Bolt, Screw and Rivet Manufacturing	2292
Other Domestic Appliance Manufacturing	2449	Metal Coating and Finishing	2293
Pump and Compressor Manufacturing	2451	Other Fabricated Metal Product Manufacturing nec	2299
Fixed Space Heating, Cooling and Ventilation Equipment Manufacturing	2452	Glass and Glass Product Manufacturing	2010
Agricultural Machinery and Equipment Manufacturing	2461	Clay Brick Manufacturing	2021
Mining and Construction Machinery Manufacturing	2462	Other Ceramic Product Manufacturing	2029
Machine Tool and Parts Manufacturing	2463	Cement and Lime Manufacturing	2031
Other Specialised Machinery and Equipment Manufacturing	2469	Plaster Product Manufacturing	2032
Lifting and Material Handling Equipment Manufacturing	2491	Ready-Mixed Concrete Manufacturing	2033
Other Machinery and Equipment Manufacturing nec	2499	Concrete Product Manufacturing	2034
Iron Smelting and Steel Manufacturing	2110	Other Non-Metallic Mineral Product Manufacturing	2090
Iron and Steel Casting	2121	Prefabricated Metal Building Manufacturing	2222
Steel Pipe and Tube Manufacturing	2122	Wooden Furniture and Upholstered Seat Manufacturing	2511
Alumina Production	2131	Metal Furniture Manufacturing	2512
Aluminium Smelting	2132	Mattress Manufacturing	2513
Copper, Silver, Lead and Zinc Smelting and Refining	2133	Other Furniture Manufacturing	2519
Other Basic Non-Ferrous Metal Manufacturing	2139	Jewellery and Silverware Manufacturing	2591
Non-Ferrous Metal Casting	2141	Toy, Sporting and Recreational Product Manufacturing	2592
Aluminium Rolling, Drawing, Extruding	2142	Other Manufacturing nec	2599



Petroleum Refining and Petroleum Fuel Manufacturing	1701
Other Petroleum and Coal Product Manufacturing	1709
Industrial Gas Manufacturing	1811
Basic Organic Chemical Manufacturing	1812
Basic Inorganic Chemical Manufacturing	1813
Synthetic Resin and Synthetic Rubber Manufacturing	1821
Other Basic Polymer Manufacturing	1829
Fertiliser Manufacturing	1831
Pesticide Manufacturing	1832
Cleaning Compound Manufacturing	1851
Explosive Manufacturing	1892
Other Basic Chemical Product Manufacturing nec	1899
Polymer Film and Sheet Packaging Material Manufacturing	1911
Rigid and Semi-Rigid Polymer Product Manufacturing	1912
Polymer Foam Product Manufacturing	1913
Tyre Manufacturing	1914
Adhesive Manufacturing	1915
Paint and Coatings Manufacturing	1916
Other Polymer Product Manufacturing	1919
Natural Rubber Product Manufacturing	1920
Paper Stationery Manufacturing	1523
Printing	1611
Printing Support Services	1612
Wool Scouring	1311
Natural Textile Manufacturing	1312
Synthetic Textile Manufacturing	1313
Leather Tanning, Fur Dressing and Leather Product Manufacturing	1320
Textile Floor Covering Manufacturing	1331
Rope, Cordage and Twine Manufacturing	1332

Cut and Sewn Textile Product Manufacturing	1333
Textile Finishing and Other Textile Product Manufacturing	1334
Knitted Product Manufacturing	1340
Footwear Manufacturing	1352
Log Sawmilling	1411
Wood Chipping	1412
Timber Resawing and Dressing	1413
Prefabricated Wooden Building Manufacturing	1491
Wooden Structural Fitting and Component Manufacturing	1492
Veneer and Plywood Manufacturing	1493
Reconstituted Wood Product Manufacturing	1494
Other Wood Product Manufacturing nec	1499
Pulp, Paper and Paperboard Manufacturing	1510
Corrugated Paperboard and Paperboard Container Manufacturing	1521
Paper Bag Manufacturing	1522
Sanitary Paper Product Manufacturing	1524
Other Converted Paper Product Manufacturing	1529

Higher education

ANZSIC 2006 Industry - Expanded	Code
Technical and Vocational Education and Training	8101
Higher Education	8102
Arts Education	8212
Adult, Community and Other Education nec	8219
Educational Support Services	8220
Scientific Research Services	6910



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