







About the Innovation Districts Alliance

Innovation Districts are a key driver of economic development in NSW. Their success can directly support the delivery of key NSW Government priorities including job creation, the development of emerging industries, productivity improvement, the provision of housing supply and the creation of jobs where people live.

The Innovation Districts Alliance (IDA) is dedicated to promoting the development of Innovation Districts in Greater Sydney and across NSW.

Our members play an instrumental role in fostering innovation in NSW through research, precinct development, investment attraction and advocacy and include:

- Chair: Committee for Sydney
- Property Council of Australia (NSW Division)
- **Business NSW**
- Australian Nuclear Science and Technology Organisation (ANSTO)
- Connect Macquarie Park Innovation District
- Campbelltown Health and Education Precinct
- **Liverpool Innovation Precinct**
- Macquarie University
- University of New South Wales
- University of Sydney
- University of Technology Sydney

We advocate to Government for policies, infrastructure and support which will further foster sustainable and long-term economic growth, improve equity of access to quality jobs and create new opportunities at Innovation Districts.

About this paper

The Committee for Sydney, the Property Council of Australia (NSW Division) and Business NSW commissioned Astrolabe Group to develop this paper for the Innovation Districts Alliance.

Its focus is to explore the role of governments in fostering successful Innovation Districts. It identifies how the NSW Government can support Innovation Districts at all stages of their maturity and further develop their value.

Acknowledgement of Country

We acknowledge the traditional owners and custodians of this land, and respect Elders past and present.

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Innovation Districts are at the forefront of the NSW economy

Innovation Districts are vital engines of economic development for NSW. They are places that drive innovation and technology advancements that will grow future industries and jobs. Their ability to generate economic value is vital to the future success of NSW. Embedding Innovation Districts in the NSW Government's long-term plans for NSW is essential.

NSW's Innovation Districts are generally anchored by internationally recognised universities and major hospitals. They are supported by a thriving ecosystem of applied and pure research, businesses, startups and scale ups - all contributing to productivity across many industries including health, deep tech, clean tech, education and defence.

Across NSW, the annual Research and Development investment is \$11.4 billion and our members lead nationally in the number of patent applications.\(^1\) The collaborative environment that Innovation Districts create has led to a 70% increase in the likelihood of new-to-world innovation and a 32% increase in the likelihood of new-to-Australia innovation.\(^2\) Research also shows that every dollar invested in R&D creates an average of \$3.50 in economy-wide benefits for Australia.\(^3\)



https://www.investment.nsw.gov.au/innovation/nsw-innovation-and-productivity-council/our-publications/nsw-innovation-

and-productivity-scorecards/

https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf

Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf

https://www.csiro.au/en/news/all/articles/2021/november/value-innovation-investment

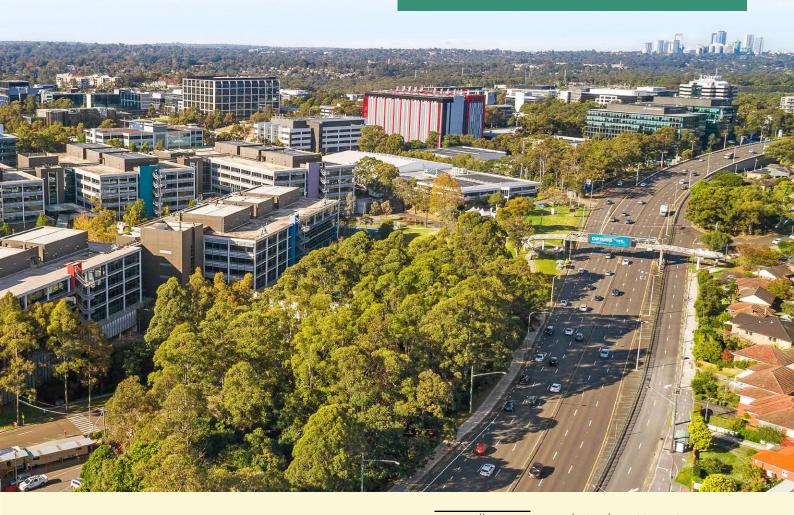
The NSW Government has a key role to play as an enabler of our Innovation Districts, delivering much needed infrastructure, policy and governance support to drive our successes even further. It can stimulate new markets and coordinate resources, policy and people - both locally and internationally.

It is time for the NSW Government to work with Innovation Districts through coordinated whole of government decision making. Initiatives such as place based budget planning and coordinated investment decisions will ensure NSW's Innovation Districts continue to lead in research, innovation and opportunity for the people of NSW for decades to come.

How does an Innovation District work?

Innovation Districts are "geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators. They are also physically compact, transit-accessible, and technically wired and offer mixed use housing, office and retail."

- The Brookings Institution⁴



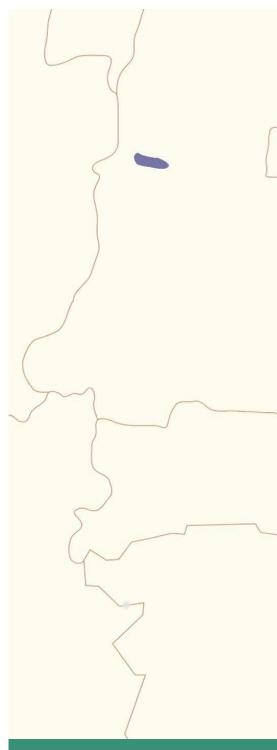
⁴ https://www.brookings.edu/articles/rise-of-innovation-districts/##:~:text=A%20new%20complementary%20urban%20model,ups%2C%20business%20incubators%20and%20accelerators.

Developing place-based ecosystems that bring investment and create employment

Innovation Districts bring together physical, economic and networking assets⁵, creating clusters of people, skills and knowledge capital. These are centred on an Innovation District's specialist facilities and knowledge, which together encourage collaboration, build competitiveness and expedite commercialisation. These Districts tend to attract larger capital investments and are more resilient to economic downturns.6 When considered as an integrated network, they create an innovation ecosystem across NSW (see image on right).

An economic engine

Place-based ecosystems create intersections of innovation and entrepreneurship, accelerating the commercialisation of new ideas and reducing time to market. This makes them key economic development drivers and providers of broader economic benefits. In addition to generating value within the districts, they create a multiplier effect by attracting new industries into and around the district and create jobs in other parts of the economy.7 A 2020 study found that "for every new job in an Innovation District, five additional jobs were created" in other sectors.8



Sydney's Innovation District Network

https://www.brookings.edu/articles/rise-of-innovationdistricts/#:~:text=A%20new%20complementary%20urban%20 model,ups%2C%20business%20incubators%20and%20 accelerators.

https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-The-Innovation-Economy-2018.pdf

https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-The-Innovation-Economy-2018.pdf https://www.giid.org/wp-content/uploads/2020/11/Federal-

Innovation-District-Policy-Paper-DRAFT-11.16.20.pdf



THE ROLE OF GOVERNMENT



How do Innovation Districts complement NSW government policy objectives?

NSW Government objectives

Building a strong innovation sector and creating quality jobs9

In September 2023, the NSW Government announced the development of an Innovation Blueprint, collaborating with experts to boost the value of the innovation sector. The aim is to create well-paying jobs and enhance productivity to foster long term economic growth in NSW.

The Blueprint targets emerging sectors like quantum computing, AI, data, cyber, sensors, and robotics in areas such as energy, advanced manufacturing, healthcare, and agrifood. The Innovation Blueprint Discussion Paper was released in February 2024.

Growing skills and jobs to revive advanced manufacturing¹⁰

The new Minister for Domestic Manufacturing and Government Procurement stated in September 2023 "We need to build things here again and we need to build things that work. Around the globe, countries are focused on rebuilding their local capacity."

Between 2011 and 2023, NSW lost 71,000 manufacturing jobs. The NSW Government will look to delivering solutions to boost skills, jobs and local manufacturing.

Economic and social impacts of Innovation **Districts**

Attracting specialised talent

Innovation Districts create jobs by accommodating public, private and institutional organisations who pursue new market opportunities through collaboration among researchers, industry, and entrepreneurs. Place-based clustering enables resource sharing and lowers entry barriers, increasing new business and job creation.11 These characteristics drive the development of high-impact careers. For example Bradfield City Precinct is expected to support 200,000 high-value jobs across the wider area.12

Jobs for everyone

Innovation Districts offer more employment opportunities for everyone.13 Typically located in dense regenerated urban areas, Innovation Districts enhance overall workforce participation by generating quality jobs in supporting fields.14

Workforce of the future

Innovation Districts provide a robust solution to building the workforce for advanced manufacturing and other emerging sectors. The intersection between industry and institutions ensures a steady flow of talent supply in response to technological advancements.15 This includes developing formal education to create a talent pipeline and reskilling local communities to support the needs of growth industries.16

https://www.nsw.gov.au/departments-and-agencies/enterprise-investment-trade/ministerial-media-releases/building-innovation-departments.sector#:--:text=The%20Minns%20Labor%20Government%20will,support%20the%20NSW%20innovation%20sector

https://www.nsw.gov.au/departments-and-agencies/enterprise-investment-trade/ministerial-media-releases/building-innovation-sector#:-:text=The%20Minns%20Labor%20Government%20will,support%20the%20NSW%20innovation%20sector

https://www.brookings.edu/articles/rise-of-innovation-districts/#:~:text=A%20new%20complementary%20urban%20model,ups%2C%20business%20incubators%20and%20accelerators.

https://www.investment.nsw.gov.au/assets/Workforce-Development-in-Innovation-Precincts_Sept2023_LR.pdf https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf

https://www.giid.org/wp-content/uploads/2020/11/Federal-Innovation-District-Policy-Paper-DRAFT-11.16.20.pdf

https://www.giid.org/wp-content/uploads/2020/11/Federal-Innovation-District-Policy-Paper-DRAFT-11.16.20.pdf https://www.investment.nsw.gov.au/assets/Workforce-Development-in-Innovation-Precincts_Sept2023_LR.pdf

NSW Government objectives

Addressing the housing crisis - build well-located and affordable homes¹⁷

In December 2023, the NSW Government announced its plan to accelerate housing development. The Government committed to providing 47,800 new homes along major Sydney transport hubs and investing \$520 million into essential infrastructure and public spaces.

It also announced that a further 138,000 new homes across NSW will be created following snap rezoning, enabling higher density housing in well-connected areas and regional centres.

Investing in NSW's clean energy future

In September 2023, the NSW Government announced its commitment to delivering a \$1.8 billion boost to support NSW's energy transition including investing to connect new projects to the grid. The boost will accelerate NSW's transition and ensure households and communities have a reliable supply of clean and affordable electricity.19

Economic and social impacts of Innovation

Supplying quality jobs for the residents of the future

Insufficient local economic activity near residential centres and a lack of affordable housing close to workplaces results in long commutes and job inaccessibility, limiting workforce participation.18

A coherent state-wide innovation network of Innovation Districts reduces the spatial mismatch by bringing good jobs to areas with high population density or regional areas with development potential, creating equitable opportunities at our communities' doorsteps.

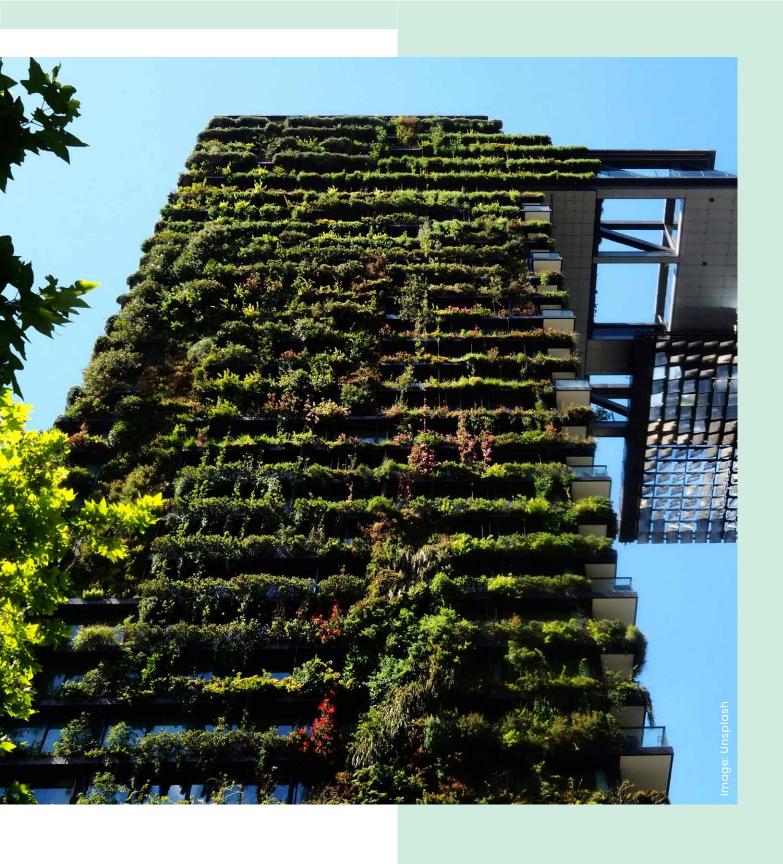
Accelerating climate resilience and adaptation

In the face of climate and cost-of-living crises, prioritising the transition to renewable energy is crucial to safeguard communities. Innovation Districts provide the ideal environment to solve these complex issues. The convergence of talent, research, equipment, industry and investment provide a platform for collaboration, cross-pollination and bringing innovation to market.20

https://www.nsw.gov.au/media-releases/addressing-housing-crisis-nsw#:~:text=crisis%20in%20NSW-,A%20Shared%20Responsibility%3A%20The%20plan%20to%20begin,the%20housing%20crisis%20in%20NSW&text=The%20Minns%20Labor%20Government%20is,transport%2C%20jobs%20and%20

https://www.sydney.edu.au/content/dam/corporate/documents/henry-halloran-trust/exploring-the-role-of-affordable-housing-in-successful-health-focused-innovation-districts.pdf

https://www.nsw.gov.au/media-releases/billion-dollar-investment-in-clean-energy
https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf



Capitalising on existing investments for further competitive advantage

Realising strategic investments

Over the past decade, significant coordinated Government investment has created a maturing innovation ecosystem across NSW, drawing on the strengths of individual Districts to deliver a globally significant metropolitan network of Innovation Districts.

However, without further policy support, infrastructure investment, program development and appropriate governance, there is a significant risk that these districts may not fulfil their current transformational potential.

Relevant policy settings

Long-term innovation vision and strategic development

A state-wide vision that brings together economic development, land use planning and industry policy has been developed to take advantage of anchoring assets and increase NSW's global visibility and competitiveness in the innovation economy.

The dissolution of the Greater Cities Commission and internal changes to Investment NSW and Regional NSW have brought uncertainty to this vision which may put NSW at risk of not capitalising on its past investment.

Economic impact realisation

Innovation-focused network and economy

From established districts such as Westmead Innovation District to regionally based Special Activation Precincts, NSW has set up a blueprint to develop Innovation Districts with different strengths and scales, responding to local demographics and industry bases.21

To sustain the value of the established districts and achieve returns on early-stage investment, such as capital infrastructure projects, it is important to support Innovation Districts as they evolve. Investing and implementing appropriate systems and governance models are needed to facilitate ongoing competitiveness.

Continuous pursuit of district variety is also important to ensure NSW remains a premier location for innovation and investment. This enhances the ability of the State to capture start-ups and firms at various stages of maturity and capital availability, realising the full potential of the innovation economy.

²¹ https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf



Innovation Districts we have invested in and their outlook - NSW Innovation Districts showcase (see Appendix)

Relevant policy settings

Established and emerging innovation ecosystems

Innovation Districts have been established across NSW to foster sector-specific innovation ecosystems, leveraging placebased assets such as research institutions, major facilities and industries.²²

NSW and Australia's most advanced innovation district, Macquarie Park Innovation District, generates \$9.5 billion in economic activity annually.23 This was achieved through ongoing investment and support in the form of policy, infrastructure and programs. Targeted investment and development strategies can replicate this success in more locations across NSW.

Economic impact realisation

Delivering innovation and return on investment

The collaborative environment within Innovation Districts has led to a 70% increase in the likelihood of new-to-world innovation and a 32% increase in the likelihood of new-to-Australia innovation.²⁴ Research also shows that every dollar invested in R&D creates an average of \$3.5 in economy-wide benefits for Australia.²⁵

Generating economic benefits from Innovation Districts requires continuous nurturing of these districts to sustain activities and outputs. The impact of this is substantial - the Randwick Health & Innovation Precinct is forecasted to contribute \$12.6 billion to Australia's GDP annually and support 43,000 jobs by 2040.26

https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf

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https://www.csiro.au/en/news/all/articles/2021/november/value-innovation-investment

Sustaining a competitive edge

NSW competes with other states and countries in attracting innovative firms. A coordinated mechanism across the Innovation District landscape in NSW is essential to driving inward investment and securing significant economic growth opportunities created by innovative firms and the value of R&D commercialisation.

Opportunities

Coordinated Government support programs for investment attraction and business innovation

In addition to a competitive range of financial and other support systems, exemplar governments act as a centralised concierge to match businesses with relevant programs, grants and incentives, reducing complexity, costs and risks to entice investment.27 28

Commercialisation of R&D to create significant economic gains

Research found that firms receive a 450% return on investment for every \$1 invested in collaborative university research in Australia.30

Capturing value through investment

Investment NSW identified that there is an overload of entry points and touch points across government agencies, making the innovation ecosystem more challenging to navigate for businesses and startups in individual Innovation Districts.29 A coordinated approach across government will ensure government resources are effectively utilised to entice market entry and make NSW the prime choice among other domestic and global destinations.

The 2022 Innovation and Productivity Commission Scorecard Report highlights that NSW lags behind all benchmarked economies for university-industry collaboration, including Victoria and Queensland.³¹ Creating Innovation Districts will increase the rate of collaboration and ensure that NSW remains competitive nationally and internally.

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https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/easier_access_to_government_business_services.pdf

https://www.investment.nsw.gov.au/innovation/nsw-innovation-and-productivity-council/our-publications/lets-collaborate-smes-using-research-to-divernmentation/ drive-innovation/

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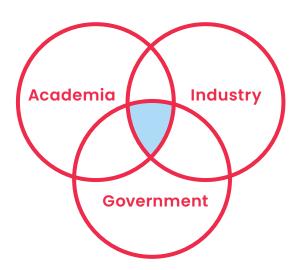


The role of government in successful **Innovation Districts**

Government plays a catalytic and essential role in Innovation Districts from providing leadership and confidence to the market, to designating appropriate land use zoning and providing essential infrastructure and ensuring the ongoing competitiveness of the jurisdiction.

A shared responsibility

Foundational to the success of Innovation Districts globally has been the establishment of a partnership model between industry, academia and government.32 This model describes how industry, institutions and Government interact to foster innovation, sharing the roles of catalyst, integrator and facilitator at different stages. Under this model, Government goes beyond its conventional regulatory role. It supports academia and industry through enabling policy, ensuring innovation activities are strategically aligned with the broader economic agenda. Government also assumes the position of a public entrepreneur to seek investment and curate targeted growth in priority sectors and ultimately achieving better outcomes for the broader community which it serves.33



Globally successful Innovation Districts are those which have all three stakeholder groups working collaboratively towards a shared vision. While government's ongoing commitment to Innovation Districts through these various roles is essential, sustained success can only be realised through collaboration and shared commitments from anchor organisations and institutions. It is often these institutions that own or manage specific facilities, undertake research, employ people and attract students.

³² https://doi.org/10.1177/05390184030423002 33 https://doi.org/10.1177/05390184030423002

Leadership

Government involvement should be deliberate, providing districts with sufficient autonomy to drive innovation while maintaining support for the long-term strategic vision around growth.

Vision and governance

A collective vision for an Innovation District informs how it should be organised and how its competitive advantage is defined and maintained.³⁴ The execution of the vision requires a strong leadership network with key stakeholders – including appropriate Government participation to support and enable autonomy of District tenants such as research institutions and private companies.

While tenants within each District focus on the vision and governance within their individual Districts, Governments have a unique role in developing a whole-of-state view and strategy for an innovation network.³⁵ Overseeing the overall vision across the jurisdiction, Governments facilitate the growth of the local innovation economy and ensure its competitiveness.

The role of Government in the governance structures of Innovation Districts depends on the level of maturity of the District. Its role as enabler rather than controller should always be considered.

Strategy coordination

Government leadership is essential in coordinating policies, strategies and activities across government entities to pursue a strong value proposition as a region.³⁶

Customer and early-stage risk taker

Government investment and endorsement of an Innovation District sends a strong market signal to investors and venture capitalists, which stimulates interest and increases capital investment.

Investment

Government investment can come in the form of funding, infrastructure, workforce development and investment attraction, enabling Innovation Districts to operate and compete.

Funding and investment attraction

Funding, whether through seed funding, capital investment, tax incentives or grants, is crucial to build essential infrastructure and recruit tenants for Innovation Districts.³⁷ Governments also play a role in advocating for foreign investment through trade portfolios. Coordinated Government presence can provide certainty and credibility to attract overseas investors and de-risk their move.

³⁴ https://www.adlittle.com/en/insights/prism/future-innovation-districts

³⁵ https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/ Full-Report-IPC-The-Innovation-Economy-2018.pdf

³⁶ https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/ The-Role-of-Anchors-lessons-from-international-experience-I-September-2022.pdf

³⁷ https://www.glid.org/wp-content/uploads/2023/06/GIID_Why_ Gov_Matters_Final_June-15.pdf

At no point should Governments favour one Innovation District over another or otherwise encourage unproductive competition between them.

Enabling infrastructure and placemaking

A successful Innovation District requires access to physical, digital and transport infrastructure to support research and innovation activities. This includes consideration of assets such as adaptable workspaces, social infrastructure, specially provisioned utility supplies and public transport.38 39 Governments can boost the acceleration of innovation activities through investment in infrastructure that encourages interactions between groups within the District. In doing so, it creates an innovation ecosystem that brings together diverse working groups in common infrastructure and amenity spaces.40

Talent and workforce development

Talent refers to workers with specialised education and skills essential to generating innovations, commercialising ideas, and designing new products or production methods.41 Government-supported talent programs and education initiatives can help attract and retain workers. For example, partnerships between government, education institutions and businesses form a pipeline of workers with skills and disciplines relevant to the needs of the Innovation District.42

Policy

Strategic planning and programmatic support are essential for districts to advance beyond their organic growth ceiling and yield returns to invest back into the economy.

Land use planning

Successful Innovation Districts require flexible planning controls to enable adaptive land uses and supportive regulations around intellectual property, knowledge sharing and commercialisation.⁴³ Governments play a key role in the placemaking of Innovation Districts through its planning controls. Enabling spaces to be easily repurposed or reconfigured based on the needs of firms can maximise utilisation and generate more economic activities.44 Utilising planning controls to provision a mix of housing options and increase housing density can ensure the districts are affordable and accessible to workers, while also ensuring that residential development does not unintentionally crowd out essential research, education, health or business functions through effective strategic planning.45

Social agenda

"Unlike traditional science or business parks, rather than simply functioning as workplaces, Innovation Districts create places where people can live, work and play 24/7, and where you can change jobs without changing your car park."46

³⁸ https://www.brookings.edu/articles/rise-of-innovationdistricts/#:~:text=A%20new%20complementary%20urban%20 model,ups%2C%20business%20incubators%20and%20

³⁹ https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/ Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf

⁴⁰ https://www2.deloitte.com/us/en/insights/industry/public-

sector/role-of-government-in-innovation.html
https://www.brookings.edu/articles/rise-of-innovation-districts/
https://www.investment.nsw.gov.au/assets/WorkforceDevelopment-in-Innovation-Precincts_Sept2023_LR.pdf

⁴³ https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/ The-Role-of-Anchors-lessons-from-international-experience-I-September-2022.pdf

⁴⁴ https://www.giid.org/wp-content/uploads/2018/12/cs_20170622_uscm_handbook.pdf
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https://www.adlittle.com/sites/default/files/prism/The%20 future%20of%20innovation%20districts%20article.pdf



Innovation Districts must engage with local communities and add vibrancy to their surroundings. These activities and exchanges foster a stronger sense of belonging, which translates into better social cohesion and more support for local community projects.⁴⁷

These interactions also make Innovation Districts a powerful tool for addressing inequity in society. By designing the places and innovation activities to enable wider participation and engagement, it creates equitable opportunities for people of different gender, race, education backgrounds and so on. 48 Tech Central's mission is to 'build the most inclusive, sustainable and creative Innovation District in the world'. Whilst clearly aspirational, this approach embodies the inclusive spirit essential to sharing the outputs of the districts with more members of the community.49

https://www.giid.org/wp-content/uploads/2020/11/Federal-Innovation-District-Policy-Paper-DRAFT-11.16.20.pdf https://static1.squarespace.com/ static/5d89dc9laaeb04772b82b23a/t/62ble87673da8e3d7ba

⁷e260/1655826586757/ Inclusive+Innovation+Research+Commission+Report+2022.pdf

⁴⁹ https://www.innovationdistricts.au/tech-central

Recommendations



"The NSW Government should acknowledge and commit to the value of Innovation Districts and ensure there is dedicated leadership with a direct mandate to advance Innovation Districts."

Leadership

Recommendation 1

Commit to Innovation Districts as critical engines of economic growth in NSW

The NSW Government should acknowledge and commit to the value of Innovation Districts and ensure there is dedicated leadership with a direct mandate to advance Innovation Districts.

The NSW Government has flagged that it will embed a networked approach to planning for the state's Innovation Districts through the Innovation Blueprint, which will reflect their central role in NSW's economic development agenda.

Making this firm commitment alongside the development of the Innovation Blueprint will enable efficient coordination of resources and funding across Government, signalling Government priorities and renewing market confidence.

The current regulatory and governance frameworks supporting Innovation Districts in NSW are not streamlined. An overabundance of entry points, touch points and initiatives within the system is not conducive to accelerating innovation, reducing the efficacy for NSW to attract investment and new businesses.

NSW government has a clear role to play in the ongoing maturation of the state's

Innovation Districts, noting that this role will vary depending on each District's specialisation and level of maturity. Combining existing ecosystems, long-term strategic vision and investment attraction, NSW can establish its position as a leader in a competitive landscape, accelerating the industrialisation and internationalisation of ideas and innovation.

Government leadership should extend also to the coordinated development of a clear economic brand that reflects the scale and opportunity of the innovation district network. it should also ensure a clear line of sight between the brand's positioning, its ability to attract investment and the services that connect this investment with the innovation districts.

This approach also provides a centralised source of truth to coordinate government activities across different agencies, leading to a more efficient entry process into the NSW innovation economy.

Policy

Recommendation 2

Establish a more flexible policy and spatial planning setting for NSW Innovation Districts

The NSW Government should create land use provisions to support the evolution of Innovation Districts, enabling flexible uses

and anticipating future development needs to manage competing priorities.

Current NSW planning and innovation policy frameworks do not adequately support investment and development in Innovation Districts. NSW needs a policy lever which harmonises innovation policy with spatial planning which incentivises the delivery of innovation floorspace by the private sector. Associated funding and investment programs must be calibrated to allow the private sector to leverage these controls and accelerate delivery.

To protect their future viability, prevent land use conflict and ensure flexibility surrounding land use controls, Innovation Districts must be identified in relevant land use planning mechanisms. Doing so will allow for planning decisions to be made with consideration to the objectives of Innovation Districts. This will also ensure that Innovation District areas do not lose their value or potential through incompatible land uses, see strategically located employment-focused land lost to housing and that the benefits of agglomeration can be effectively realised.

An example of this application is State Environmental Planning Policy (Transport and Infrastructure) 2021 Chapter 5 Three ports—Port Botany, Port Kembla and Port of Newcastle,⁵⁰ which explicitly identifies Port Lease Areas. The SEPP also provides a mechanism for the development, protection and management of this land in line with the objectives of Lease Areas.

⁵⁰ https://legislation.nsw.gov.au/view/html/inforce/current/epi-2021-0732#ch.5

Investment

Recommendation 3

Align NSW with the national push for innovation and capitalise on Federal funding

The NSW Government should commit to accessing Federal schemes that provide funding to accelerate innovation and future proof the economic and social landscape of our State.

Funding for Innovation Districts can be acquired through Federal programs. In 2023, the Federal Government launched the following programs that can be utilised to support Innovation Districts and innovation initiatives:

- a \$15 billion National Reconstruction Fund (NRF) that targets rebuilding industrial capabilities in areas such as advanced manufacturing, medical science and renewable technologies⁵¹
- a \$400 million Regional Precincts and Partnerships Program to support transformative investment in regional and rural areas⁵²

Securing funding from these programs will have a profound impact on the innovation economies in the recipient states and territories. To ensure we do not lag behind, it is important to achieve NSW's fair share of these programs (on a per-capita basis). This likely requires a modest fund to support firms, institutions and local government to compete for funding with other states.

Beyond funding, NSW policy should be aligned with national objectives. Identifying priority sectors that align with the NRF priorities and those of other emerging Commonwealth-led industry policy positions will increase the leveraged funding going into these sectors.

In addition, NSW should advocate for reductions in interstate competition for local, national and international investment attraction. Competing for firms has created dead-weight costs across the nation and resulted in overpaying for investment. A more coordinated approach will allow savings to be invested into fostering local talent and increasing innovation pipelines.

Recommendation 4

Ensure funding equity to make NSW Innovation Districts more competitive nationally and globally

The NSW Government should recognise the transformative power of Innovation Districts across both urban and regional settings and allocate funding to uplift our diverse communities.

Innovation Districts in NSW must cater for a broad spectrum of startups and organisations. If Innovation Districts are only located in established areas with high entry capital requirements, the potential to attract investment and support innovation is greatly reduced.

⁵¹ https://www.minister.industry.gov.au/ministers/husic/media-

releases/15bn-national-reconstruction-fund-open-business 52 https://www.infrastructure.gov.au/territories-regions-cities/ regional-australia/regional-and-community-programs/ regional-precincts-and-partnerships-program

To ensure that infrastructure, development and innovation funding is more equitable, the current grants and incentives system must be restructured. A new program for industry attraction and job creation must involve a comparatively modest reservation of funds that can be accessed by Innovation Districts subject to eligibility and criteria and will help to eliminate the internal competition which creates a dead weight on investment as it does nationally.

An evidence-based Innovation District viability assessment criteria offers a potential solution. Taking into consideration stakeholder commitments, major assets and short and long-term benefits, the assessment process ensures funding is made available to the districts with the highest likelihood of success. In this process, a district may propose a project for consideration that is aligned with State Government priorities for innovation. A subsequent merit selection process involving a vitality assessment, including ecosystem readiness, strategic alignment and cost-benefit analysis will further ensure that funding is allocated equitably based on public benefit.

Funding equity across a broad range of regions and types of Innovation Districts will allow for a greater amount of investment at different scales, creating more opportunities for growth and transforming more regions across NSW.

Recommendation 5

Align place-based funding across both state and local government with Innovation District strategic plans

The NSW Government should commit to integrated planning and transport around Innovation Districts to ensure that social infrastructure benefits are realised for the broader place and community.

Innovation Districts require much more than institutional presence to be successful. They must be connected and physically integrated with their surrounding areas. They need appropriate transport infrastructure, high levels of amenity and have high levels of digital connectivity and capacity. They must also have the right social and cultural infrastructure for residents, students and workers. This requires a coordinated approach that is not only about investment attraction, research and innovation. Funding should align with the strategic aspirations of the Innovation District to ensure that it harnesses its collective scale to maximise the chances of success.

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Appendix - NSW Innovation Districts showcase

- Macquarie Park Innovation District
- Liverpool Innovation Precinct
- Westmead Health Innovation District
- Sydney Biomedical Accelerator and The Quantum Terminal, Tech Central
- Randwick Health & Innovation Precinct
- Murrumbidgee Health and Knowledge Precinct
- Campbelltown Health and Education Precinct





nage: Macquarie Park view from aterloo Road (source: V-Mark Design)

Overview

Macquarie Park is the most advanced example of planned innovation geography in Australia.

Macquarie Park is Australia's original Innovation District – first planned in the 1960s as a purpose-built precinct where business and industry could cluster around the research of Macquarie University.

Planning controls were first used to attract complementary industries to the 6.8km2

Park as it developed – including early pioneers in health, telecoms, and electronics.

Today, the nationally significant district generates \$9.5billion in economic activity annually and is Australia's number one postcode for intellectual property registrations.

The district's nickname of "Pill Hill" (due to the number of pharma, MedTech and laboratory tenants) belies Macquarie Park's economic diversity, with significant players in telecoms, digital and technology also present.

Macquarie Park is home to a mature startup ecosystem supported by two incubators – and is the Australian headquarters of 10% of the world's top 100 companies.

With more than 72,000 employees and 45,000 students based in the district today, Macquarie Park demonstrates how consistent planning and investment in an innovation ecosystem can benefit all Australia.

Industries and key players

Medical & Pharmaceutical (19% of district employees)

- Abbott
- AstraZeneca
- Cochlear
- Macquarie
 University Hospital
- Johnson & Johnson
- Novartis
- NSW RNA Pilot Manufacturing Facility
- Sanofi

Telecommunications (7% of district employees)

- Ericsson
- Foxtel
- Macquarie
 Telecom
- · Optus

Industrial & technology (25% of district employees)

- 3N
- BAE Systems
- BOC Ltd
- Honeywell
- Oracle
- Siemens
- Rohde & Schwarz

Digital (20% of district employees)

- Canon
- Fujitsu
- Fujifilm Business Innovation Australia
- · Konica Minolta
- Schneider Electric
- Philips

Point of difference

Macquarie Park is the most advanced example of a planned innovation geography in Australia.

Role of Government

It was State and Federal Government that first envisaged the transformation of Macquarie Park from farmland to the thriving Innovation District it is today. Macquarie University was intentionally designed to be surrounded by business and hi-tech industry, with planning controls used to create an agglomeration effect.

Significant investment in transport infrastructure – including the M2 motorway and Australia's first automated Metro system – has allowed the precinct to accelerate in recent years.

Today State Government agencies work together through an infrastructure coordination group, while both the City of Ryde and NSW Government helped establish Connect Macquarie Park Innovation District – the association tasked with supporting the ongoing transformation of the Park and connecting the ecosystem.

Recent Government support includes a \$96m investment in the State's first RNA Pilot Manufacturing Facility, expansion of Macquarie University's DeepTech Incubator, partnering with industry to establish a Sovereign Cyber Security Centre of Excellence, and local Government support of investment attraction tours.

Looking ahead, the need to balance decades of planning space for an innovative economy with the need to provide space for more homes is a key contention within Macquarie Park.

Outcome and benefits

Macquarie Park has produced significant economic clusters, including in hearing health at the Australian Hearing Hub (Cochlear, NextSense, Hearing Australia, Macquarie University Speech and Hearing Clinic), and MedTech and pharmaceuticals (Australian HQ of Abbott, Biogen, Edwards Lifesciences, Johnson & Johnson, Medtronic, MSD, Sanofi plus AstraZeneca's vaccine manufacturing facility.) More than 11,000 people now call Macquarie Park home, with significant further residential development planned – including the tallest tower in northwest Sydney.

Liverpool Innovation Precinct

Overview

The Liverpool Innovation Precinct (LIP) brings together key thought leaders and institutional decision-makers to leverage the excellent location and capability of Liverpool Hospital. The objective is to increase the opportunity for health, education, research and innovation investment around the hospital and greater precinct to create a new, vibrant environment to boost the Liverpool economy. Further, this will create career opportunities and jobs for the rapidly growing community living in Sydney's South West.



Industries and key players

The LIP is governed by 10 partners, each a significant organisation in their own right within the health, medical research and/or education sectors:

- South Western Sydney Local **Health District**
- **NSW School** Infrastructure
- Ingham Institute for Applied Medical Research
- Sydney Catholic Schools
- University of NSW
 - TAFE NSW
- Western Sydney University
- South Western Sydney Primary Health Network
- University of Wollongong
- **Liverpool City** Council

Point of difference

Liverpool aspires for its innovation precinct to be a 'magnet' for innovators, start-ups, industry, and knowledge workers and to grow to become a hub for technology commercialisation, economic activity and a powerful generator of new businesses and jobs. Anchored by the Liverpool Hospital, this health-centred innovation precinct vision recognises the excellent local economic and employment strengths already present in Liverpool and the opportunities for the future. Unlike other innovation precincts the Liverpool Innovation Precinct is maximising the potential of existing Liverpool organisations, with the precinct's real point of difference being its powerful collaborative approach fostered between Precinct partners and through the many industry partnerships it has secured, locally and internationally.

Role of Government

In 2019 the then Minister for Planning and Public Spaces, Rob Stokes MP, launched the LIP's Land Use Analysis & Precinct Strategy and in 2023 NSW Treasurer, Daniel Mookhey MLC, launched the LIP Investment Prospectus. Other than the support of this event, there has been no direct involvement, support, or contribution by the NSW State Government to the development of the Liverpool Innovation Precinct. Indirect contributions are made by the LIP's public sector partners such as the SWSLHD, NSW School Infrastructure and Liverpool City Council. Conversely, the LIP has directly assisted the NSW Government's investment attraction activities by hosting many national and international industry delegations that were either attracted by the LIP itself or at the request of Investment NSW. The LIP also provides expert advice to the NSW Innovation and Productivity Council on their place-based innovation research series.

Outcome and benefits

The Liverpool Innovation Precinct's collaborative spirit has seen great success securing numerous MOUs and industry partnerships which has brought investment into the precinct in the form of skills and knowledge, people, projects, and project funding. These partnerships include organisations such as:

- Multinationals Microsoft Australia,
 Johnson & Johnson, Samsung and Hitachi
- Manufacturers W&S Plastics, Circuitwise Electronics and Biomedtech Australia
- Industry Y-Careers, Learning Creates, CFO Plus and Pharmalex
- International Israel Innovation
 Authority, New Zealand Consortium for
 Medical Device Technologies (CMDT)

The CMDT partnership is a 10-year agreement (called the Australia New Zealand Biobridge) and connects New Zealand's medtech sector with Australia's

via the Liverpool Innovation Precinct. The biobridge has received NZ\$180K in funding from the NZ government.

Through the various LIP partner capabilities and the LIP's innovation ecosystem partners some 180 startups in the health and medical technology space have been supported to various degrees, including the conduct of formal clinical trials for one Sydney-based startup who has since attracted over US\$10 million in investment capital.

Most recently, the LIP curated a collaborative project between Liverpool City Council, two industry NFPs, and local high schools to create an industry pathway program catering to the current and future employment needs of the care economy (a sector experiencing critical local skills shortages) including aged care, allied health, disability care and home care. Connections were made across a broad stakeholder landscape encompassing education, NFP, businesses, recruitment providers, early childhood learning, aged and dementia care, indigenous health, and the National Disability Insurance sector.

Outcomes so far:

- Recruitment of four local high school students (two from Liverpool Boys High School and two from Liverpool Girls High School) into the roles of Community Associates to guide the program in the future;
- Established two project workstreams including one targeting the provision of work-ready skills to enable employment into care economy roles; and
- Career traineeships for local students (scheduled to launch in April 2024)

Liverpool City Council is continuing to work with the partners to increase the workstreams attendees by 5 additional employer stakeholders as well as incorporate more local high schools into the program.

Westmead Health and Innovation **District**

Overview

The Westmead Health Innovation District has grown significantly since its origins in the early 1970s and has become a pivotal hub for healthcare, research, education, and economic development in Greater Sydney.

The foundation of the Westmead Health Innovation District can be traced back to the establishment of Westmead Hospital in 1978. This was part of a broader governmental initiative to develop healthcare services in response to the growing population and infrastructure needs of Western Sydney. Over the years, Westmead has expanded to include a comprehensive range of specialist medical, dental, and allied health services.

By the early 2000s, Westmead began evolving beyond a traditional hospital into a broader health precinct. This transformation was marked by the integration of medical research and education facilities, including the Children's Hospital at Westmead, the Westmead Institute for Medical Research, and affiliations with prominent universities such as the University of Sydney and Western Sydney University.

The Westmead Health Innovation District is a major economic engine for Western Sydney. It not only provides health services but also drives research and innovation, leading to significant contributions to the local and national economy. The precinct supports a



wide array of businesses, from biotechnology firms to startups focused on health technology, thereby fostering a vibrant ecosystem of innovation.

Investments in infrastructure and new facilities have spurred construction and development projects, further stimulating the local economy. The ongoing development plans aim to integrate more services and facilities, enhancing the district's role as a leader in health innovation.

As one of the largest health precincts in Australia, Westmead directly employs thousands of people across various sectors



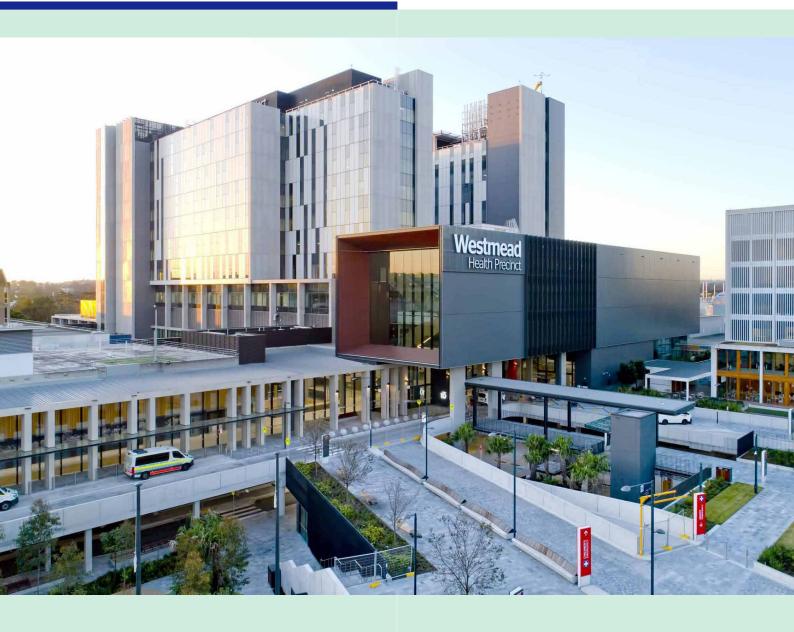


including healthcare, research, education, and support services. It is estimated that the district supports tens of thousands of jobs, making it one of the largest employers in the region. By 2036, it is anticipated that the Westmead Health and Innovation District will employ over 50,000 people and accommodate over 10,000 students.

The future of the Westmead Health Innovation District looks promising with plans for expansion and further integration of services. The district aims to enhance its capabilities in cutting-edge medical research and patient care, potentially increasing its economic and employment contributions to Western Sydney.

Industries and Key players

- Western Sydney Local Health District
- Westmead Hospital
- · Westmead Private
- The Children's Hospital at Westmead
- Westmead Institute for Medical Research
- · Children's Medical Research Institute
- · The University of Sydney
- Western Sydney University
- · City of Parramatta
- Cumberland City Council
- Innovation Quarter Westmead



Point of Difference

The Westmead Health Innovation District has a distinct competitive advantage derived from its integration of health services, research, and education within a single precinct.

Westmead has the largest research-intensive pathology service in NSW as part of a highly specialised cluster of medical functions including four major hospitals, four medical research institutes and two universities.

Westmead will be connected to Parramatta, Sydney Olympic Park and the Sydney CBD upon the opening of the Sydney West Metro line, expected to open in 2032. This connects Westmead not just to significant economic centres but significantly increases access for patients, families and employees.

Investment in viral vector advanced manufacturing facility which will focus on trial therapies for infections, cancer and genetic diseases.

Role of Government

The NSW Government has committed over \$3 Billion to the Westmead Health and Innovation District with a concerted focus on strategic planning, infrastructure and facilities upgrades and governance to accelerate development.



Outcome and benefits

The Westmead Health Innovation District has generated significant outcomes and benefits for the region.

Improved Healthcare Outcomes: By integrating research directly with patient care, the district has been able to quickly implement new medical technologies and treatments, leading to better health outcomes. This includes reduced patient recovery times, higher success rates in complex procedures, and better management of chronic diseases.

Enhanced Research Capabilities: The close connection between clinical care and research facilities encourages more clinical trials and studies, which in turn speeds up the innovation cycle. Researchers have access to a large and diverse patient base, which is ideal for comprehensive clinical research and trials.

Educational Synergies: The district serves as a training ground for medical students, nurses, and other health professionals. This hands-on learning environment offers students and trainees direct exposure to cutting-edge medical practices and technologies, enhancing their education and preparing them for future challenges in healthcare.

Economic Development: The innovation district attracts investments from around the globe, including partnerships with

pharmaceutical companies, biotech firms, and health technology startups. This has led to job creation and has established the area as a major economic hub in the health sector.

Community Health Improvement: The district's focus on community health has led to targeted healthcare programs addressing local health issues, such as diabetes, obesity, and cardiovascular diseases. These programs are informed by the latest research and tailored to meet the specific needs of the community, leading to improved public health and reduced healthcare disparities.

Global Health Leadership: Westmead Health Innovation District has positioned itself as a leader in global health innovation. Its contributions to medical research and health sciences are recognized internationally, enhancing Australia's reputation in the global health arena.

Infrastructure and Technological Advancements: Investment in the district has spurred the development of state-of-the-art facilities and adoption of advanced medical technologies. This infrastructure supports sophisticated treatments and surgeries, making it a preferred destination for patients seeking high-quality care.

Source: https://www.investment.nsw.gov.au/innovation/precincts/westmead-health-and-innovation-district/

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Tech Central -**Sydney Biomedical Accelerator and The Quantum Terminal**

Sydney Biomedical Accelerator

Overview

Tech Central hosts the largest innovation ecosystem in Australia. It spans six square kilometres in inner Sydney and comprises three core nodes of Eveleigh, Haymarket and Camperdown. Tech Central combines world class universities, 150 research institutes, the Royal Prince Alfred Hospital, major technology companies, startup and scaleup companies, and the local business community.

Situated within the Camperdown node of Tech Central, an Australian benchmark for the integration of world-leading biomedical science with clinical research and innovation is being conceived in an iconic partnership between the NSW Government, Sydney Local Health District and the University of Sydney. An over \$650 million initiative due for completion in 2027, the Sydney Biomedical Accelerator will bring together over 1,200 clinicians, researchers, and academics; seven science, engineering, and medical schools; and an array of industry partners in a unique global concentration of biomedical research talent.

The Sydney Biomedical Accelerator, designed by architects HDR and Denton Corker Marshall in collaboration with Arcadia Landscape Architecture and Aileen Sage, will consist of three interconnected but distinct buildings spanning the University's Camperdown campus and the District's Royal Prince Alfred Hospital campus.



It will deliver a first-in-Australia facility equipped with education and laboratory research facilities, specialist wet and dry laboratories with assigned and shared benching, and technical support spaces that have the potential to solve some of the most complex medical challenges of our time.

Industries and key players

- University of Sydney Education, Research, Health, Clinical Trials, Innovation and Commercialisation
- Sydney Local Health District/Royal Prince Alfred Hospital - Health, Research, Education, Clinical trials, Innovation and Commercialisation
- Start-ups & Industry Partners (TBC)

Point of difference

The Sydney Biomedical Accelerator exemplifies the potential of collaborative partnerships in unlocking innovation across the health, science, education, innovation and commercialisation sectors. With strategic public investments and diverse funding streams coming through from the government, university, industry partners and developer/s, a fiscal consolidation of this magnitude is fast becoming an economic engine room that is fuelling perpetual growth and development across New South Wales and fostering an innovation-driven economy in Australia that is globally competitive.

By colocating, attracting, and supporting the brightest minds with science and technology and providing them with the most advanced tools in biosciences, linking with Australia's leading health service, and all within a thriving commercial and residential district, the Sydney Biomedical Accelerator will:

- Cultivate knowledge transfer between biomedical research talent and enable the acceleration of the biomedical process – from research to development and commercialisation;
- Enable researchers, clinicians and scientists to complete clinical trials and translate new diagnostic tools and treatments from bench to a patient's bedside at unparalleled speeds;
- Increase the throughput of technology and the development of new drugs and therapies exponentially;
- Facilitate a societal shift towards preventative health and well-being at a personal and community level.

Underpinned by the notions of connectivity and functionality, the SBA is at the forefront of translational health science allowing for seamless transition from bench to bedside. Based on principles of connectivity and

functionality, it facilitates incidental interaction and prioritises staff well-being.

Role of Government

The co-funded partnership project between the NSW Government, Sydney Local Health District and The University of Sydney represents the largest ever capital investment, a landmark over \$650 million, to build a nation leading biomedical precinct to fast-track research and patient care in New South Wales.

Outcome and benefits

A spotlight on economic growth, community development and sustainable job creation in New South Wales, coupled with the convergence of health, education, science, technology, research, innovation and commercialisation has culminated in the emergence of Tech Central. Driven by over 140-years of partnership and strengthened collaborative approach to translational health science and medicine, the innovation district is continuing to build on, future proof and diversify the New South Wales economy and cementing its position as leaders in innovation.

Home to some of Sydney's best higher education institutions and clustered around three core nodes of health, technology and entrepreneurship, Tech Central is surrounded by contiguous schools, universities, health facilities, retail, entertainment and hospitality which is transforming the district into a multifaceted, mixed-use neighbourhood that prioritises community well-being.

As a result, the Sydney Biomedical Accelerator is already attracting the brightest minds from all corners of the globe and is destined to fast-track the biomedical process, translation, innovation and commercialisation, supercharge the local economy, and improve the social and cultural fabric of Sydney for many years to come.

Overview

Situated within the iconic Central Station Sydney Terminal Building, The Quantum Terminal has a prime location in Sydney's CBD. With over 3,000 sqm of affordable coworking space available, this opportunity is open to organisations within the Quantum Technology, High Performance Computing, Artificial Intelligence and adjacent technology verticals along with other key innovation enablers.53

The Quantum Terminal is the first centralised collaboration space for researchers, developers, engineers and entrepreneurs working to advance quantum technology, high performance computing and artificial intelligence in Sydney.54

Industries and key players

Research	Industry	Government
 University of Sydney 	Q-CNRLIBM	 NSW Government
 University of New South Wales 	Quantum	 Citya of Sydney
	MicrosoftKPMG	eMG gineers
 University of Technology, Sydney 	Engineers Australia	
 Macquarie University 	• Psi Quantum	
• CSIRO	• Quantum Al	
	• Xanadu	

Point of difference

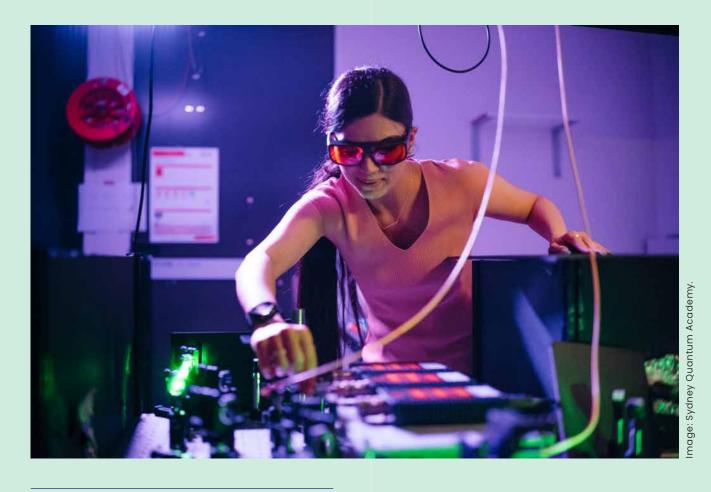
Sydney is at the forefront of Australia's growing quantum industry with one of the highest concentrations of quantum experts globally. The CSIRO estimates that commercialising quantum technologies could create an Australian industry worth \$2.2 billion and 8,700 jobs by 2030.

The Quantum Terminal, located in Tech Central, is the first centralised collaboration space for researchers, developers, engineers and entrepreneurs working to advance quantum technology, high-performance computing and artificial intelligence in Sydney. It houses the Sydney Quantum Academy (SQA), startups and established companies, such as semiconductor company Archer and quantum technology companies BTQ and Diraq.

The Sydney Quantum Academy (SQA) is a collaboration between academia, government, and industry to establish Sydney as global leaders in quantum. Established in 2020 with \$15.4 million funding from the NSW Government, it is a joint partnership by University of Sydney, the University of NSW, UTS, and Macquarie University. A key focus of SQA is to enhance quantum collaboration and commercialisation across NSW, drawing on the best that each institution has to offer.

The Future Qubit Foundry (FQF) is situated in the University of Sydney Nanoscience Hub and funded by University of Sydney. Established in 2023, the FQF brings additional lab capacity to advance quantum computing infrastructure and fabrication capabilities in Sydney.

https://thequantumterminal.com/ https://www.investment.nsw.gov.au/assets/tc-prospectus-0623.



Role of Government

In addition to the \$15.4 million establishment funding, the NSW Government continues to fund research, commercialisation and education programs through the SQA, and programs and investments through the National Quantum Strategy.

Outcome and benefits

The CSIRO estimates that commercialising quantum technologies could create an Australian industry worth \$2.2 billion and 8,700 jobs by 2030 Growing Australia's Quantum Technology Industry - CSIRO

Outcomes include:

- The SQA has supported 126 PhD students with scholarships in quantum computing and internships into Australian industries.
- Around 2000 people attend SQA events annually. Including the Quantum Australia conference.
- Outreach to schools through STEM magazine (circulated to every Australian high school) and the NSW Department of Education
- Events with Industry such as student hackathons.
- SQA ecosystem partners include universities, multinational companies, local government, start-ups and industry bodies.

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Randwick Health & Innovation Precinct

Overview

The Randwick Health & Innovation Precinct (RHIP) comprises several established health and education assets with both national and global recognition, including:

- Four founding partners: South Eastern Sydney Local Health District, Sydney Children's Hospitals Network, UNSW Sydney and NSW Health.
- Three nationally recognised teaching hospitals: Prince of Wales Hospital, Sydney Children's Hospital and the Royal Hospital for Women.

- A globally leading university, UNSW, ranked in Top 20 in the world with UTS as a collaborating partner.
- Five co-located medical research institutes including Black Dog Institute, the Children's Cancer Institute, the George Institute for Global Health, Mindgardens Neuroscience Network and Neuroscience Research Australia (NeuRA).
- A collaborating partnership network including the Fertility and Research Centre, the Kirby Institute, the National Drug and Alcohol Research Centre (NDARC), the Centre for Big Data Research in Health, the Centre for Eye Health and more.

Collectively, RHIP includes:

- \$1.5 billion investment by state, federal government, UNSW, and philanthropic donors.
- 7,000 Precinct research community members.
- 22,000 precinct campus workforce (highly skilled and specialised workforce, 40% of the jobs in the Randwick Local Government Area are in health and education).
- 1.8 million patient interactions each year.

RHIP is part of the Eastern Economic Corridor, stretching across Greater Sydney and is one of several identified Health and Education Precincts that together will support a significant number of jobs and contribute to Sydney's collective competitive advantage in health, education, research, and innovation.

The Precinct began in 2016 with a signed collaboration agreement and continues to evolve with ongoing investment in both the redevelopment and partnership initiatives, all of which is underpinned by robust governance.

Industries and key players

RHIP's profound research capability and its rich talent pipeline, create the perfect environment for ideation and invention of new health technologies and partnerships with industry to maximise commercialisation of novel intellectual property.

RHIP's industry partnership opportunities include co-location of heath technology businesses to enrich and grow a vibrant health-dedicated innovation district, as well

as intellectual property licensing, contract research, collaborative grants, consulting work, skills development, internships and careers, and the development of homegrown spinouts. Collaborative innovation and industry partnership are key enablers of economic and social impact and Precinct growth.

RHIP are building next to a growing residential area and bustling retail and entertainment precincts – along the light rail route to Sydney's East. Our intergenerational community is vast and growing and we are bringing these diverse communities together through science, arts, and culture.

RHIP are shaping new ideas and partnerships with artists, performers, and designers to connect our people with place and community, by transforming hospital land into vibrant laneways and streetscapes and testing whether empty spaces can become creative studios, piloting ideas across the spectrum of day and night to shape new economies for culture and contribute to the health of our society.

Point of difference

RHIP is a health-dedicated innovation precinct that maximises the benefits which come from physically positioning a world-leading university alongside some of Australia's most reputable hospitals and medical research institutes and centres. This relationship allows Precinct partners to leverage research and technological expertise across the University's diverse disciplines, leading to a significant positive impact on lifelong health.

RHIP also have seamless care in one location across a patient's lifespan. We are thinking about patient care from preconception through to the complex health needs of the elderly, all in the one integrated location.

RHIP has identified areas of strength in children's cancer, neuroscience, mental health and addiction, RNA therapeutics, and genomics and genetics personalised medicine. In addition, RHIP has emerging, cross-cutting and unique capabilities regarding medical devices & imaging, clinical trials and viral disease, along with epidemics and biosecurity.

Role of Government

Over \$1.5 billion is being invested by state and federal governments, UNSW, and philanthropic donors to strengthen health, research, education and innovation outcomes at the Precinct. More than \$1 billion of this is from the NSW Government through three major redevelopments: the recently opened Prince of Wales Hospital Acute Services Building, Sydney Children's Hospital Stage 1 and the Children's Comprehensive Cancer Centre due to open in 2025.

NSW Health and Health Infrastructure are founding partners and continue to be critical collaborators in both the decision making and execution of our strategy. They work closely with other government agencies, including Investment NSW, to inform the State's innovation blueprint alongside our local government colleagues.

RHIP were recently invited by the Office of the 24-Hour Economy Commissioner to take part in the Uptown Accelerator Program and have received significant investment from Transport NSW and Create NSW which has enabled co-design and engagement with health workers and night-shift workers to better understand their experiences at the Precinct. This support helps to deliver critical improvements that will engage communities, improve our streetscapes and better connect Precinct staff/visitors to active and public transport.

RHIP operates in a competitive but also complementary regional and national environment for health and innovation. Traditionally, these precincts are often thought of as competitors for funding, commercial partnerships, and MRI attraction. In practice, each have specialised strengths and unique cluster characteristics that should be recognised and should quide where investment for certain infrastructure, services or partners is best suited. Combined, this approach can position Greater Sydney as a metropolitan centre of health and innovation excellence that results from its extensive network of inter-connected, specialised health and innovation precincts.

Outcome and benefits

RHIP has a significant number of existing strengths and assets upon which to build a globally recognised health and innovation precinct. Realising this ambition is likely to increase our economic impact above what it would otherwise achieve. To do so, the Precinct requires concerted and sustained advocacy, curation and investment over the long-term ensuring that not only does it attract research & education partners, private sector businesses, students, talent, and other actors required to make it globally successful, but also ongoing program development and fine-tuning of governance structures to ensure the benefits of colocation and knowledge exchange are maximised.

RHIP contributes to the NSW economy in the following ways:

Directly through capital investment; service delivery expenditure (health and education); research expenditure and income from commercial tenants.

 Indirectly through labour force skills development; labour force health improvements; research translation and international student expenditure.

It has been estimated that RHIP contributes:

- \$4.7B to Greater Sydney's Gross Regional Product (GRP) in 2021. Recent modelling by economists SGS has estimated this to increase to \$7.7B per annum in 2040, with approximately 30,000 FTE jobs supported between 2019-2040.
- \$6.1B to NSW's Gross State Product (GSP) in 2021, estimated to rise to \$9B by 2040 with approximately 35,000 FTE jobs supported between 2021-2040.
- \$9B to Australia's Gross Domestic Product (GDP) in 2021, estimated to rise to \$11.6B in 2040.

If additional policy, infrastructure, and programmatic support eventuates, the Precinct will be able to increase and improve the activities accommodated within it to include more capital investment and workers, which, in turn, will enable more (and better) health and education services, research, and commercial production activities to take place on site and virtually. If realised, it is estimated the economic activity will increase by 20% by 2040, leading to the following economic impact:

- Significant contributions to Greater Sydney's GRP (\$8.8B), NSW's GSP (\$10.4B) and Australia's GDP (\$12.6B) in 2040.
- Large numbers of FTE jobs for Greater Sydney (37,000) and NSW (43,000), and real wage improvements at the national level.



Murrumbidgee Health and Knowledge Precinct



Overview of Innovation District

Nestled alongside the banks of the magnificent Murrumbidgee River, the Murrumbidgee Health and Knowledge Precinct brings together health partners, education, industry and our local communities to design innovative and practical ways to provide rural people with exceptional healthcare. It aims to aims to improve the quality and accessibility of health care in our community.

The Precinct has three goals:

- Enhance research to develop new and innovative ways to provide services
- Improve education and job opportunities to grow the regional workforce
- Strengthen the journey through the health service

When we achieve these goals, our communities will be healthier, and our health and education systems will be stronger.

Industries and key players

The Murrumbidgee Health and Knowledge Precinct has developed a wealth of strong partnerships across areas such as education, industry, community, health and first nations services.

We also have strong representation from local councils, politicians, and government organisations, including the Department of Defence, Transport for NSW, Communities and Justice and Health Infrastructure.

The Murrumbidgee region is building a reputation for having strong partnerships and collaboration across a range of sectors as well as state and federal department to improve our communities.

Our Precinct partners include Murrumbidgee Local Health District, Murrumbidgee Council, UNSW Sydney and Charles Sturt University.

Point of difference

The Murrumbidgee Precinct is building the best, most efficient and connected regional health service possible to provide safe and timely care that meets our people's health needs. A health system where our community has a choice in how and where they can go to look after their health.

They support doctors, nurses and specialists who work in our hospitals, general practices, and community health centres to work together across the private and public health system.

They are improving how health workers are trained and employed in our region, so they have the skills and technology they need to care for people in our community to improve their health and wellbeing.

Regional and Rural precincts are important to support the unique challenges faced by the communities within their space, and the Murrumbidgee Health and Knowledge Precinct is focused on developing local solutions for local problems.

Role of Government

Government allowed the progression of the Murrumbidgee initiative through a \$1M grant to pilot our precinct strategy. NSW Health Infrastructure also plays a pivotal role by providing in-kind mentorship to the precinct board and Murrumbidgee Health and Knowledge Precinct Manager.

Outcome and benefits

The Murrumbidgee Health and Knowledge Precinct is a relatively new offering in the NSW Precinct ecosystem and is still firmly within the planning phase of implementation.

Within the last 12 months, they have enjoyed extraordinary acceleration of growth. They have developed a robust governance structure, grown our precinct partnerships set up three productive working groups with identified priorities, and widely promoted our vision, goals and potential to our community. They have developed strong branding and identity to support their work and helped to cement their place in the health and knowledge landscape.

They are working with councils and education partners to identify gaps and need, existing and emerging, to holistically look at training and retention of a highly skilled workforce that has security in ongoing training and employment pathways and access to affordable housing and a safe, high-quality lifestyle. These ideas are generated with support and involvement of our local community representatives such as LHACs and newly qualified health professionals who are best placed to offer their unique perspectives and knowledge through sharing their personal stories.

They are working collaboratively with precinct partners to mutually promote alignment in shared work through cross promotion of events and programs, to synergistically benefit from their combined networks.

Campbelltown Health and **Education Precinct**

Overview of Innovation District

Located in the heart of Campbelltown city centre, the Campbelltown Health and Education Precinct (CHEP) benefits from the significant economic activity in the area and provides support to the wider Macarthur area - one of the fastest growing regions in the country, and one which continues to have communities within it of significant socio-economic disadvantage.

Partners are united by the CHEP vision to become an integrated health, research, and education precinct at Campbelltown, delivering world class research, innovation and improved health outcomes for the Macarthur region and wider community.

CHEP is appropriately described as an emerging precinct. 2023/2024 has seen:

- Completion of a state-of-the-art Genesis Cancer Care developed by Northwest Healthcare Australia Investments Pty Limited
- \$612m Stage 2 of the Campbelltown Hospital re-development completed
- the commencement of the \$55m Lang Walker AO Research Building- Ingham Institute Macarthur
- an application for a new \$68.7m health facility (day surgical hospital, medical office building and other supporting health services)

Industries and key players

The Campbelltown Health and Education Precinct Group is managed by the Western Sydney Leadership Dialogue is a community focused partnership drawing on long standing relationships among key health and education stakeholders and has developed strong identity at the centre of the growing Macarthur Region.

Our Precinct partners are Campbelltown Council, South Western Sydney Local Health District, Western Sydney University, UNSW Sydney, TAFE NSW, Landcom, South West Sydney Primary Health Network, and the Ingham Institute of Applied Medical Research.

Point of difference

The Campbelltown Health and Education Precinct has a focus on human experience and human scale. It is emerging as an integrated precinct in which to live, work, study and play having dimensionality more, akin to regional locations. It is pursuing a strong social agenda. Notably it also has significant land which remains available for innovation activation.

Via the M5 motorway, it has direct access to Liverpool, Sydney Airport and CBD as well as the Southern Highlands, the Illawarra and Canberra. It is adjacent to the Mount Annan



lage: Campbelltown Health (ecinct--- (source:CHEP)

Botanic Gardens and enjoys a vibrant Gallery and Arts Centre, which has recently received \$79m state government funding to create a new 320 seat theatre and expand existing gallery, rehearsal, studio and education spaces.

Geographically, it follows the backbone of the heavy rail line spanning Macarthur, Campbelltown, and Leumeah, with its Health and Education core based around both sides of Macarthur station with Western Sydney University and TAFE's Campbelltown campus sitting between the station and Narellan Road.

To the south of the train line, are the Public Hospital, including a clinical school and site of the Lang Walker AO Medical Research Building housing the Ingham Institute for Applied Medical Research - Macarthur. This project demonstrates the enduring

commitment of CHEP partnerships, being funded by Western Sydney University, South Western Sydney Local Health District, UNSW Sydney, the Ingham Institute of Applied Medical Research with generous support from Walker Corporation.

Adjacent to the public hospital is
Campbelltown Private Hospital operated by
Healthscope and medical offices and
related health facilities. Adjacent from here
is new private investment into health and
medical research within the precinct with
the \$50m Genesis Integrated Cancer Care
centre, the result of a partnership between
Campbelltown Council, Northwest
Healthcare Properties, Genesis Care and
Erilyan. The proposed Stage 2 development
is a further \$68.7m development.

Role of Government

The CHEP has received direct and indirect support from the NSW Government. Campbelltown Council (on behalf of CHEP) was awarded a WestInvest funding of \$9.4m for the Campbelltown Health and Education Precinct (CHEP) Connectivity, Wayfinding and Identity Project. The \$612m investment for the Stage 2 redevelopment of Campbelltown Hospital was also a key contribution.

The NSW Government (through Planning NSW) is also responsible for making a determination on a current application for a State Significant Development for Macarthur Health Precinct - Stage 2 which proposes the construction and operation of a health services facility including day surgical hospital, medical office building and other supporting health services.

Outcome and benefits

The Campbelltown Health and Education Precinct is an emerging identity in the NSW Precinct ecosystem.

It has strong and developing health care infrastructure being matched with critical health and medical research investment focusing on key areas of need for the region including:, Indigenous Health, Paediatrics and Child Wellbeing, Diabetes, Addiction Medicine, Mental Health and Cancer. These areas also focus on the promotion of equity for the citizens of the wider Macarthur region.

The CHEP partnership has actively supported the development of these new key public and privately funded projects.

This zone, in conjunction with Macarthur Gardens North (sitting between WSU and TAFE and Macarthur station) will also deliver transport accessible housing responding to diverse market and community needs.

With the new developments outlined above, the next two years (with the opening of the Walker Medical Research Building) provide a countdown style focus which will shine the light on local education, training, research, and employment opportunities. Western Sydney University's campus is home to its medical school, including laboratories supported basic and translational biomedical research and a range of allied health student education. A health hub is being opened on the TAFE campus to support training for students in health and care programs. Schools in the wider zone will be embraced as the breadth of job opportunities (beyond the traditional health worker into related engineering, IT, biomedical technicians, and researchers) emerge.

CHEP in 2024 will also be focused on working with Council's Economic Development team in promoting the opportunities that the coming years herald for Campbelltown's Health and Education precinct in order to attract additional and more diverse sources of investment.



