



NSW Innovation Blueprint 2035



Acknowledgement of Country

Investment NSW acknowledges the Traditional Custodians of the lands where we work and live. We celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

We recognise the significant contribution Aboriginal peoples have made as Australia's first scientists, engineers and innovators. Their wisdom continues to inform our understanding of the world, with traditional knowledge systems leading to new innovations in medicine, advanced material sciences and environmental conservation practices.

We advise that this resource may contain images or names of deceased persons in photographs or historical content.

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INNOVATION BLUEPRINT SUMMIT

Ministerial Address
The Hon. Anoulack Chanthivong MP
Minister for Better Regulation and Fair Trading, Minister for Industry and Trade, Minister for Innovation, Science
and Technology, Minister for Building and Minister for Corrections

The Hon Anoulack Chanthivong MP addresses attendees during the Innovation Blueprint Summit at NSW Parliament House

Foreword from the Minister



The path from idea to solution to commercial success is rarely straight or easy. Many ideas never get translated into viable solutions and many solutions fail to find a market fit. Those innovative businesses that are navigating the path successfully are at ever-present risk of being lured away from NSW or having their hard work bought and developed elsewhere. Every instance of this is a missed opportunity for the people of NSW. However, those businesses that have chosen to stay and mature in NSW are making an outsized contribution to jobs growth and helping to build our economic resilience.

The NSW Government is committed to fostering and retaining more innovation activity in NSW and spreading its benefits to more people. We want those scientific breakthroughs coming out of our world-leading research institutions and fresh customer insights from businesses to fuel a new wave of innovation-led economic growth.

This NSW Innovation Blueprint is a 10-year plan for making NSW the best place to innovate. The NSW Government will play its part in realising this vision alongside other key players of the innovation ecosystem: our research organisations, entrepreneurs, innovating businesses, investment firms and community-builders. Only by working together on shared goals can we fully realise the promise of innovation to deliver future prosperity.

The NSW Government wants to see innovation thriving across all sectors and types of businesses. It has also released the *NSW Industry Policy*, using missions to focus effort across government, industry and academia on tackling the most pressing challenges facing our state. Innovative products and processes will be critical to building new homes more affordably, reducing carbon emissions more rapidly, and manufacturing goods more efficiently. Success in these areas will open new opportunities to bring NSW know-how to the world.

We are at a significant juncture in the development of our state and nation. We have a chance now to put our society and economy on a more prosperous path as we build a better NSW – more sustainable, more equitable, more productive and more innovative. I am excited to see where the creativity, perseverance and teamwork of our state’s innovators will lead us over the next critical 10 years and beyond.

A handwritten signature in blue ink, which appears to read 'Anoulack Chanthivong'. The signature is fluid and cursive, with a large initial 'A'.

The Hon Anoulack Chanthivong

Minister for Innovation, Science and Technology

NSW Innovation Blueprint – A strategic framework

Our vision

NSW is the best place to innovate, creating economic and social opportunities for our people, and helping tackle the state's most important challenges.

Our goals



Secure the state's future by growing jobs and commercialisation through innovative businesses and industries.



Scale and retain globally competitive, innovative businesses and industries in NSW.



Increase diversity in NSW's innovation ecosystem.



Leverage innovation to address NSW challenges and advance missions.

5 key areas of action



Strategy

Set a clear, long-term vision and priorities for the state's innovation ecosystem and collaborate to deliver them effectively.



Funding

Foster a funding environment that extends the availability of capital to more areas of opportunity.



Places

Help create world-class, affordable spaces around the state to innovate and bring different parts of the ecosystem together.



People

Support talent and activation of key innovation hubs through a targeted set of capability programs.



Engagement

Make it easier for stakeholders to engage with key activities and programs, better showcase NSW innovation, and attract more strategic activity and investment.

Context

What is the NSW Innovation Blueprint?

The NSW Innovation Blueprint ('the Blueprint') sets out a long-term vision and policy priorities for the state's innovation ecosystem.

The rapidly evolving global landscape and rate of technological changes call for a shift in how the NSW Government works with the innovation ecosystem. The Blueprint articulates the importance of innovation to the state's economic prosperity and how the NSW Government will work with partners to make NSW the best place to innovate.

The Blueprint should not be read as a comprehensive list of all the activities the NSW Government will undertake to support innovation in our state. Rather, it is a strategy with clearly defined goals and priority action areas that will guide how we design programs, allocate funding and interact with innovation ecosystem stakeholders. Importantly, the Blueprint supports the NSW Industry Policy and provides clear direction on our innovation priorities and policy intent.

How the Blueprint was created

Consultation on the Blueprint began in January 2024, with over 370 stakeholders engaged through an innovation summit; 8 roundtables hosted by the Minister for Innovation, Science and Technology; and a Have Your Say survey.

Participants were diverse and included senior representatives of industry bodies, universities, think tanks and corporate businesses. Startups, scaleups, venture capital (VC) funds and angel investors, and governments at the federal, state and local level also contributed.¹ Stakeholders shared valuable insights into the role of government in lifting innovation ecosystem performance. These ranged from the importance of a clear vision and goals to direct funding support, stability, partnerships and integrated policies.

The NSW Government then engaged former Tech Council of Australia CEO Kate Pounder to conduct an independent review of the NSW innovation ecosystem (The Pounder Review).²

Together, these 2 streams of work provide a compelling case for changing the NSW Government's approach to the innovation ecosystem – as set out in this Blueprint.

1 A qualitative summary of this input is provided in the Blueprint's *What We Heard* report.

2 The Pounder Review is a detailed assessment of the NSW innovation system and future policy directions that could support ongoing development aligned with NSW Government priorities.

The importance of NSW Government support for innovation in NSW

Innovation is vital to economic, social and environmental prosperity in NSW. By developing new products, services and processes, businesses enhance profitability and foster growth, in turn creating new jobs and contributing to local prosperity.

Innovation also helps to diffuse best practices across industries, making the economy more productive, competitive and resilient. Innovative businesses, entrepreneurs and researchers are critical to addressing many significant social and environmental challenges – from housing and climate change to the management of pandemics and an ageing population.

The NSW Government recognises that innovation-driven growth is a key strategy for enhancing prosperity. For instance, the most innovation-intensive businesses in NSW contribute 3.5 times more than comparable businesses to the state's economic output.³ These businesses grow faster and create more full-time equivalent jobs. They offer salaries that are 9–30% higher than non-innovative businesses in the same industries.⁴

Public investment is a critical and effective tool for creating new innovation-intensive businesses, encouraging existing businesses to adopt innovative practices and realising the broader benefits of innovation for NSW. While private investment plays a major role in driving innovation, individual investors and businesses generally struggle to capture the broader spillover benefits of their innovations. These benefits include:

- economic spillovers such as knowledge spillovers, skills spillovers and technology transfers that lead to improved productivity for local firms and increase competition, in turn driving business performance⁵
- social spillovers in which innovations improve quality of life, health, diversity, equality and/or wellbeing
- environmental spillovers in which innovations reduce pollution or greenhouse gas emissions.

Case study: Economic and social spillover benefits of cancer research

Cancer research in Australia has been estimated to deliver an economic return of \$3.39 for every dollar spent. Importantly, it has helped increase the 5-year survival rate for cancer patients from 55% in 1995 to 71% in 2020.

www.cancer.nsw.gov.au/getattachment/69f39b11-ab7e-487a-8851-a3f096c7d95e/rm-2008-3_health-returns-on-investment.pdf

www.aihw.gov.au/reports/cancer/cancer-data-in-australia/contents/overview

³ The Pounder Review defines innovation-intensive businesses as '1) having raised equity of over \$500,000 and/or 2) having a reasonable level of internal investment in research and development as measured by the Research and Development Tax Incentive scheme'. Refer to The Pounder Review for more information.

⁴ The Pounder Review – NSW Innovation System Assessment (2025).

⁵ Productivity Commission, *Volume 5: 5-Year Productivity Inquiry: Innovation for the 98%* (2023), available at <https://www.pc.gov.au/inquiries/completed/productivity/report/productivity-volume5-innovation-diffusion.pdf>.

Private investment alone is insufficient to fully support innovation, particularly where the spillover benefits are greatest and markets face information barriers or are shallow. In these areas, government investment is especially needed to supplement private efforts and maximise spillover benefits. Importantly, government investment and actions should complement – and not compete with – private investment.

Governments in Australia and internationally have acknowledged the important role of public innovation policy and investment. Notable policies include the United States' *CHIPS and Science Act*; the European Union's *Horizon Europe*; Singapore's *Research, Innovation and Enterprise 2025 Plan*; Japan's *Integrated Innovation Strategy 2024*; and *Advance Queensland's Future Economy 2022–2032 Roadmap*. These policies recognise the importance of government providing innovation policy stability and vision. NSW needs its own plan to compete for ideas, talent, companies and capital, securing its position as an innovative, future-focused economy.



The innovation ecosystem in NSW

NSW has the leading innovation ecosystem in Australia and New Zealand. Sydney is ranked as the leading startup ecosystem in the Southern Hemisphere, valued at \$72 billion and employing more people than any competing local system.⁶ NSW has attracted 57% of all VC investment in Australia since 2000.⁷ Recent analysis confirms the state’s continued dominance, with NSW-based businesses accounting for 65% of total VC funding announced nationally in 2024.⁸ The state produces world-class research⁹ and has more Unicorns (private billion-dollar tech businesses)¹⁰ and promising fast-growing startups than any other region in Australasia.¹¹

While NSW has a high-performing innovation ecosystem, it faces several challenges – which are addressed by this Blueprint.

Challenge 1. NSW performs below global peers in important innovation metrics

Although NSW performs better than other Australian states in innovation metrics such as VC investment and patent applications, it lags behind many international peers (Table 1). NSW scaleups across all industries also struggle to access critical growth capital compared with growing businesses in other regions. This gap is around 20% per capita at the Series B stage, increasing to 70% per capita at Series D and beyond.¹²

Shallow markets and information barriers prevent local firms filling these gaps in the VC market. NSW companies therefore often become reliant on international investment and are either drawn to relocating overseas or lose out to competitors. VC is a relatively new asset class in NSW and Australia, and although VC investment in NSW has grown significantly in the past decade, it still lags behind other international jurisdictions. The success of VC-funded startups creates a flywheel effect, attracting further investment and encouraging backers to invest more, which in turn supports more VC firms and larger investments.

Table 1. Innovation performance in NSW and other advanced economies¹³

	NSW	Australia	Canada	Germany	UK	US	Israel	Japan	Singapore	Korea
Patent applications (per 10,000 population, 2020)	0.81	0.71	0.87	2.13	0.97	1.75	2.60	3.59	1.83	3.90
Venture capital investment (as % of GDP/GSP, 2023)	0.35	0.17	0.31	0.20	0.65	0.59	0.84	0.11	1.24	0.46
University–industry collaboration (% of papers with research co-authorship, 2018–21)	4.90	5.10	6.20	8.20	7.90	7.90	4.70	9.40	5.70	7.00

6 Startup Genome, *The Global Startup Ecosystem Report* (2024), available at <https://startupgenome.com/reports/gser2024>.

7 The Pounder Review – NSW Innovation System Assessment (2025).

8 Cut Through Venture. *The New South Wales Venture Capital Report* (2025), available at <https://www.investment.nsw.gov.au/assets/Cut-Through-Venture-The-New-South-Wales-Venture-Capital-Report.pdf>.

9 NSW Innovation and Productivity Council, 2024 NSW Innovation and Productivity Scorecard (2024), available at <https://www.investment.nsw.gov.au/innovation/nsw-innovation-and-productivity-council/our-publications/nsw-innovation-and-productivity-scorecards/>.

10 The Pounder Review – NSW Innovation System Assessment (2025).

11 Of the potential Australian and New Zealand Unicorns, 28 of 47 are based in NSW; The Pounder Review – NSW Innovation System Assessment (2025).

12 Funding rounds typically follow a naming convention, starting with Pre-seed or Seed rounds, followed by Series A, Series B and so on. While the specific stage of a business at each round can vary significantly, Series B rounds generally occur when a company has achieved certain milestones and is past the initial startup phase. The Series B+ round is typically considered the ‘growth stage’ and used to scale operations, increase the customer base and explore new markets.

13 NSW Innovation and Productivity Council, 2024 NSW Innovation and Productivity Scorecard (2024).

Australia and NSW also perform poorly on measures of research commercialisation – Australia ranks 20 out of 34 Organisation for Economic Co-operation and Development (OECD) countries for the propensity of businesses to introduce new-to-market innovations.¹⁴ This poor performance is not for want of research excellence. Australia ranks fourth in the world for research quality and 13th for patent quality, but 78th for trade complexity.¹⁵ This reflects Australia’s strong research and development (R&D) capabilities but highlights how commercialisation and translation of technology innovations into products and services for global markets has considerable scope for improvement.

These measures of innovation are important as technological innovation, commercialisation, investment and economic complexity play a central role in the process of long-run economic growth.¹⁶ Importantly, in a global marketplace for products, services, skills, ideas and infrastructure, being Australasia’s leading state is insufficient to maximise the benefits of innovation. This gap highlights the opportunity to further enhance NSW’s innovation landscape in comparison with global peers and to reap the direct and spillover benefits of greater innovation performance. Globally, governments are reaching similar conclusions, and making substantial investments in innovation generally, but also in innovation-intensive industries such as semiconductors¹⁷, biotechnology¹⁸, quantum computing¹⁹, space²⁰ and decarbonisation.²¹

Challenge 2. NSW’s innovation performance varies across industries

NSW has established itself as a global leader in innovative software, with Australian unicorns such as Canva, Immutable, SafetyCulture and Employment Hero calling NSW home. NSW is also home to many emerging deep tech²² businesses, such as Advanced Navigation, Hysata and Q-CTRL, which are innovating in robotics, clean energy and quantum computing respectively. However, innovation performance in NSW varies significantly by sector – a disparity reflected in rates of innovation adoption.

Although a high proportion (12%) of firms in digital technologies innovate, other sectors such as construction and built environment have much lower rates (0.5%). In priority industries for NSW (including housing, net zero and the energy transition, and local manufacturing), there are low rates of research commercialisation with long-held systemic challenges. Additionally, advanced manufacturing and other deep tech sectors face funding shortages in the local VC market, which invests heavily in software companies.

14 OECD, Business innovation statistics and indicators (2023), available at <https://www.oecd.org/en/data/datasets/business-innovation-statistics-and-indicators.html>.

15 Trade complexity is a measure of the sophistication of our trade flows compared with other countries; The Observatory of Economic Complexity, ‘Countries Economic Complexity Index Rankings’ (2021–22), available at: <https://oec.world/en/rankings/eci/hs6/hs96?tab=ranking>; V Stojkoski, P Koch and CA Hidalgo, *Multidimensional economic complexity and inclusive green growth* (2023), available at: <https://oec.world/pdf/multidimensional-economic-complexity-and-inclusive-green-growth.pdf>.

16 Productivity Commission, *Advancing Prosperity: 5-year Productivity Inquiry* report, available at: <https://www.pc.gov.au/inquiries/completed/productivity/report>; JL Furman, ME Porter and S Stern, ‘The determinants of national innovative capacity’, *Research Policy*, available at: <https://www.sciencedirect.com/science/article/abs/pii/S0048733301001524>; CA Hidalgo, ‘Economic complexity theory and applications’, *Nature Reviews Physics* 3, 92–113 (2021), available at: <https://oec.world/pdf/economic-complexity-theory-and-applications.pdf>.

17 The United States has invested A\$19 billion in semiconductor R&D through the *CHIPS and Science Act*; Semiconductor Industry Association, ‘Tracking the Progress of the CHIPS R&D Initiatives’ (2024), available at: www.semiconductors.org/chips-rd-programs.

18 The European Union has invested A\$4 billion through the EU Innovative Health Initiative.

19 The UK has invested A\$2 billion in quantum technologies through the UK National Quantum Technologies Programme.

20 China has increased its public investment in space technologies from A\$3 billion in 2022 to A\$21 billion in 2023; Asia Pacific Foundation of Canada, ‘China: A Global Power’s Celestial Ambitions’ (2024), available at: www.asiapacific.ca/publication/china-global-powers-celestial-ambitions.

21 The *US Inflation Reduction Act* provides A\$600 billion in funding and tax incentives for clean energy and decarbonisation; McKinsey & Company, ‘The Inflation Reduction Act’ (2022), available at: www.mckinsey.com/industries/public-sector/our-insights/the-inflation-reduction-act-heres-whats-in-it.

22 ‘Deep tech’ refers to technology that is based on substantial scientific or engineering advancements. It involves significant R&D, often addresses complex challenges, creating innovative solutions with the potential for high impact; for example, artificial intelligence, biotechnology, quantum computing and advanced materials.

NSW is not converting research strengths into job creation at the same rate in clean energy, materials, resources and agtech as it is in other sectors, demonstrating the state's market failures in research commercialisation.²³

The state has not yet developed a sufficient pool of expert investors with adequate capital to deploy in these sectors. Early successes in digital startups have drawn more capital and investors into digital – an example of the flywheel effect in action. NSW's lack of success in drawing VC into deep tech and manufacturing companies is hindering NSW companies' ability to scale globally in these sectors. The information asymmetries that have limited capital flows into VC are exacerbated by the complexities of the scientific and technical risks presented by deep tech and manufacturing innovation.

Recognising the need to intervene in the market to support deep tech with specialised investment capital and capabilities, the Australian Government and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) created Main Sequence Ventures in 2017. While it has successfully supported deep tech companies to date²⁴, demonstrating the value of addressing this market failure, deep tech in Australia is still a shallow market with a limited number of investors. NSW needs a broader array of deep tech and manufacturing-focused investors, deepening the market and increasing competition among them, which would increase the amount of available capital and allow these sectors to fully realise their potential.

In recent years, different sectors have had markedly divergent rates of productivity, partly because of lower rates of innovation adoption.²⁵ Uplifting productivity is crucial to increasing NSW's future prosperity. Many sectors with lagging productivity, such as construction, are also key to addressing social and environmental challenges and missions, such as providing NSW residents with safe, secure, affordable, well-designed and sustainable housing.²⁶



23 The Pounder Review – NSW Innovation System Assessment (2025).

24 Main Sequence has raised more than \$1 billion in funds under management and invested in over 50 startups, with a market value of over \$6.8 billion and more than 2,100 jobs created; *startup daily*, 'CSIRO's deep tech VC, Main Sequence, bags \$450 million third fund' (2023), available at: <https://www.startupdaily.net/topic/venture-capital/csiros-deep-tech-vc-main-sequence-bags-450-million-third-fund/>.

25 McKinsey and Company, 'Delivering on construction productivity is no longer optional' (2024), available at: <https://www.mckinsey.com/capabilities/operations/our-insights/delivering-on-construction-productivity-is-no-longer-optional>.

26 Premier's Department (Investment NSW), *NSW Industry Policy* (2025), available at: <https://www.investment.nsw.gov.au/why-nsw/resources/nsw-industry-policy/>.

Challenge 3. Insufficient diversity in NSW's innovation ecosystem

NSW needs to improve diversity and equity in its innovation ecosystem. Between 2020 and 2024, only 7% of VC in NSW was allocated to businesses founded by women. Despite this disparity, women founders have shown remarkable efficacy and generated strong returns. A Boston Consulting Group study found that businesses founded or co-founded by women achieved on average 10% more in cumulative revenue and over twice the return compared with businesses founded by men, underscoring the substantial opportunities that diversity and equity can bring.²⁷ Other under-represented groups that need greater inclusion and representation include Aboriginal and Torres Strait Islander peoples, people with disabilities, and those living in regional, rural or remote Australia. By fostering a more diverse and equitable innovation landscape, NSW can unlock new potential and drive sustainable growth that includes all communities.

Challenge 4. NSW faces substantial economic, social and environmental risks

NSW confronts significant economic, social and environmental challenges created by local and global forces. The *NSW Industry Policy* outlines key 3 connected missions to address these challenges:

- **Housing:** Access to secure and affordable housing has become more difficult. The NSW Department of Planning, Housing and Infrastructure estimates NSW will require around 900,000 additional dwellings by 2041 to meet housing demand for a growing population.²⁸
- **Net zero and energy transition:** NSW has set ambitious decarbonisation targets that require substantial transformations of key sectors and growth in sectors such as renewables and energy storage.
- **Local manufacturing:** Local manufacturing is vital for job creation and economic resilience. However, the sector has faced headwinds for decades, with output falling from 14.9% to 5.7% of GDP between 1990 and 2023.²⁹ Increased global competition and rapid technological advancements have heightened pressure on NSW manufacturers.

NSW must also address other multifaceted challenges and megatrends, including an ageing population, potential pandemics, shifts in workforce dynamics, supply chain dynamics and the central role of freight in strengthening supply chains. Innovation is critical in understanding and responding to these issues – not only to mitigate risks but also to seize opportunities for sustainable growth and improve quality of life for all residents.

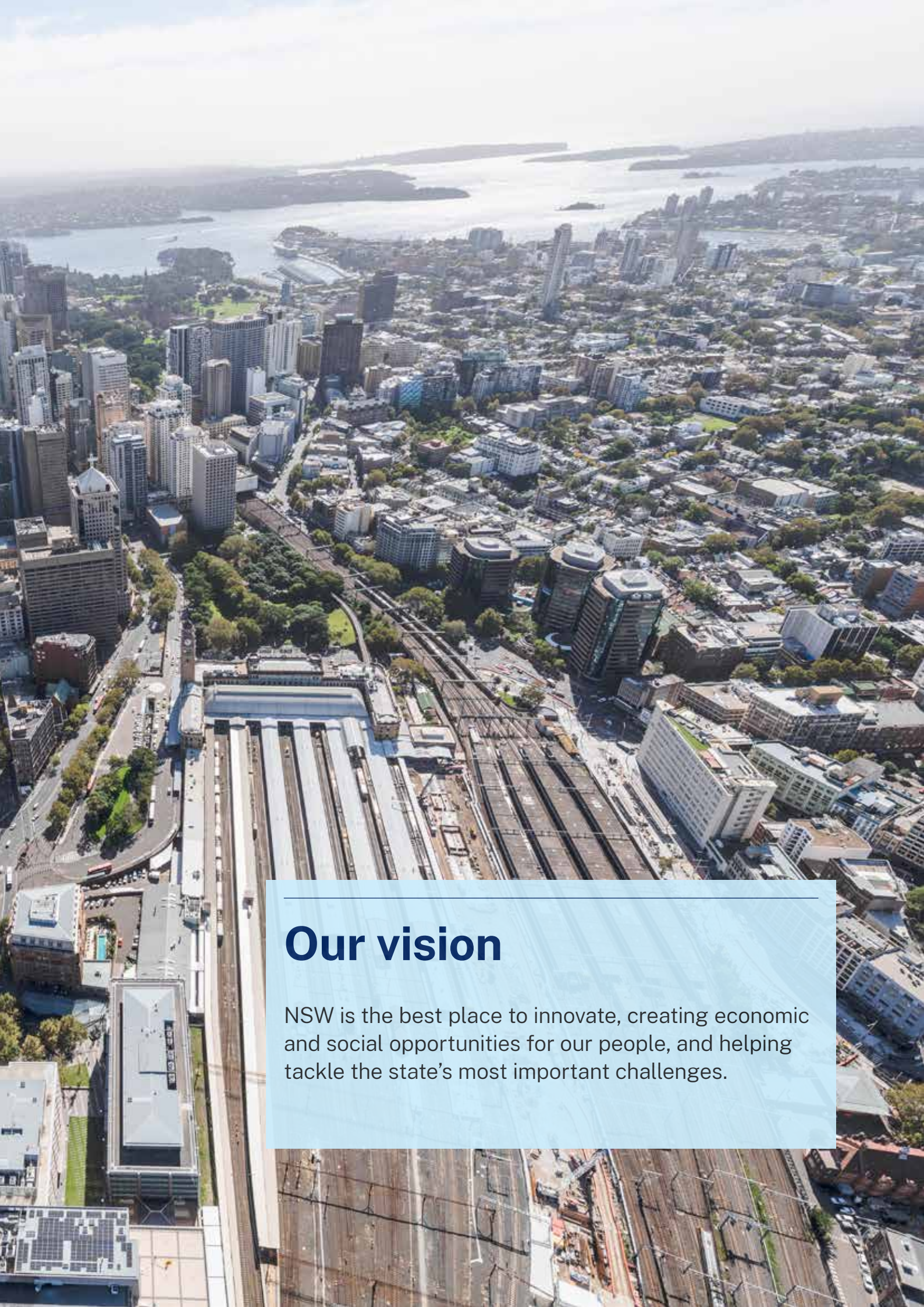
27 Boston Consulting Group, 'Why Women-Owned Startups Are a Better Bet' (2018), available at <https://www.bcg.com/publications/2018/why-women-owned-startups-are-better-bet>.

28 NSW Department of Planning, Housing and Infrastructure, 'Demand for housing in NSW: Quarterly Insights Monitor Q1 – July to September (2022)', available at: <https://www.planning.nsw.gov.au/policy-and-legislation/housing/housing-supply-insights/quarterly-insights-monitor-q1/demand-for-housing-in-nsw>.

29 Australian Bureau of Statistics, 'Australian System of National Accounts' (2024), available at <https://www.abs.gov.au/statistics/economy/national-accounts/australian-system-national-accounts/latest-release>.

Aerial view of Central Station, Sydney





Our vision

NSW is the best place to innovate, creating economic and social opportunities for our people, and helping tackle the state's most important challenges.

Our goals

The Blueprint has 4 goals designed to generate, diversify and accelerate entrepreneurship and innovation activity, investment and adoption in NSW.

1. Secure the state's future by growing jobs and commercialisation through innovative businesses and industries

The Blueprint supports new and existing businesses to commercialise their innovations and adopt innovative technologies and practices.

Innovation-intensive businesses are pivotal to the NSW economy³⁰ and create well-paid, high-quality jobs across traditional and emerging industries.³¹ To maximise our prosperity, the Blueprint aims to help more businesses in NSW to become more innovation-intensive. The Blueprint establishes a stable innovation policy framework for new and existing businesses, ensuring access to the skills and facilities that are essential for developing and adopting the critical technologies that help establish new industries and transform existing ones.

The Blueprint supports NSW's traditional strengths, enabling continued adoption of innovations such as advanced robotics, sensing and fintech. It also recognises significant opportunities for business formation, job creation and innovation commercialisation in emerging industries where NSW holds global competitive advantages. For example, NSW has invested more than \$200 million in ribonucleic acid (RNA) infrastructure and commercialisation. Our 90,000-strong life sciences workforce – which accounts for 40% of Australia's life sciences workforce³² – has deep expertise in vaccine development and clinical trials. In the quantum industry, Sydney is ranked in the world's top 5 for quantum computing hubs.³³ It is home to 4 of Australia's 5 largest quantum startups and has attracted more than \$500 million in quantum VC investment since 2017.

Supporting growth in our current and emerging areas of competitive advantage is essential to nurture the next wave of industrialisation, business formation and job creation in NSW. Our goal is to cultivate a growing number of highly productive, innovation-intensive businesses, a skilled and well-paid workforce, and a strong and diversified economy.

30 If innovation-intensive businesses were an industry in NSW, they would be the fifth-largest sector in the state behind finance, professional services, health and construction.

31 136,000 in 2022; The Pounder Review – NSW Innovation System Assessment (2025).

32 NSW Government, 'Construction starts on RNA research and manufacturing facility for NSW' (media release) (2024), available at <https://www.nsw.gov.au/media-releases/construction-starts-on-rna-research-and-manufacturing-facility-for-nsw>.

33 Investment Monitor (2021) 'The world's top five quantum computing hubs', available at <https://www.investmentmonitor.ai/tech/the-worlds-top-five-quantum-computing-hubs/>.

2. Scale and retain globally competitive innovation businesses and industries in NSW

The Blueprint provides high-value innovation-intensive businesses with the support they need to build a global presence from NSW.

Scaling and retaining innovative businesses strengthens NSW's economy, driving job creation, building resilience and ensuring the state is globally competitive. While early-stage businesses play an important role in our innovation ecosystem, NSW must retain these businesses as they grow to full scale, maximising their direct and spillover benefits. At scale, these businesses deliver significant economic returns and substantial export income, attract world-leading talent, and contribute to a robust innovation environment that stabilises the local innovation ecosystem. Notable examples include Atlassian, which has emerged as a cornerstone of the Tech Central innovation district in Sydney, and Cochlear, a leader in the Macquarie Park medtech cluster. The founders, investors and employees of these early successes go on to share their skills, capabilities and knowledge with other firms.

NSW businesses, particularly deep tech and manufacturing businesses, need attractive, stable and supportive business and innovation conditions to secure their headquarters and core operations in NSW. This includes ready access to capital, skilled workers (particularly with scaleup experience), supply chains and global markets. The Blueprint seeks to support NSW businesses to anchor themselves locally and seek global opportunities.

The most successful NSW businesses define their target markets as global. Australian exporters generate 63% more value-add and pay 43% higher wages than non-exporting companies. They also support 1 in 5 jobs in Australia.³⁴ Like other businesses, innovation-intensive businesses operate in a global marketplace for talent and financial capital. Stronger collaboration with global partners (including investors and research partners) is needed to provide expertise, resources and networks to support the growth of innovation-intensive businesses in and from NSW. This will diversify NSW's export profile and enhance its economic complexity. The upcoming NSW Trade and Investment Strategy will complement the Blueprint by outlining how the NSW Government will support export capability development, trade missions, investment attraction and more.

Global successes such as Atlassian and Canva have drawn increasing attention to NSW's innovation ecosystem and the opportunities for international investors, buyers and talent. The Blueprint outlines engagement activities to showcase NSW's innovation capabilities and investment opportunities, and build on our global brand. The aim is for a future where NSW's capabilities are universally understood by international strategic partners and investors. As such, founders and investors will face fewer barriers to raising capital, attracting international talent, and selling and forming strategic partnerships globally that will spur growth.

NSW Trade and Investment Strategy

The NSW Trade and Investment Strategy (currently under development) seeks to attract investment, facilitate trade and diversify exports across markets and products to support the NSW Government's missions and improve the state's economic complexity, resilience and productivity. Building greater export capability further expands the possibility of growth, especially for local small and medium-sized enterprises (SMEs). It exposes them to new markets and new ideas, and is key to driving innovation. The strategy will focus on expanding investment and trade to grow the NSW economy by leveraging the state's comparative advantages and seizing emerging opportunities to maximise growth and productivity.

³⁴ Austrade, *Australian State of Exporters Report (2022)*, available at <https://www.austrade.gov.au/en/news-and-analysis/publications-and-reports/australian-state-of-exporters-report-2022>.

3. Increase diversity in NSW's innovation ecosystem

The Blueprint supports a statewide innovation ecosystem that creates more opportunities for diverse communities to participate in innovation and drive success.

Despite strong evidence that diversity improves organisational performance, many groups remain under-represented across the innovation landscape in NSW. Female founders in NSW receive significantly less VC funding than males and represent a disproportionately smaller share of the workforce in equity-backed businesses in deep tech industries. Other groups, including Aboriginal and Torres Strait Islander peoples, people living with disabilities, migrants, people from racially and ethnically diverse backgrounds, and LGBTQI+ people are similarly under-represented in their access to funding and employment in innovation-intensive businesses.

Lack of diversity in the innovation ecosystem is a missed opportunity for NSW since businesses, researchers, government and communities miss out on the experiences, insights and potential of all our citizens. By actively including under-represented groups through Blueprint activities, we will support the participation of diverse communities to enhance the quality and efficacy of NSW businesses, and drive more equitable economic growth.

The Blueprint also aims to provide innovation opportunities beyond the Sydney CBD – where most innovation ecosystem services are currently located. It recognises Western Sydney and regional NSW as areas of significant innovation capacity, and acknowledges that we must nurture a more diverse and broad innovation ecosystem that incorporates our regional businesses and workforces.

By fostering a more diverse, inclusive and equitable innovation landscape, NSW can unlock new potential and drive sustainable growth that includes all peoples and communities.



Heatseeker co-founders, Fiona Triaca and Kate O'Keeffe, at a Connect @ Tech Central event

4. Leverage innovation to address NSW challenges and advance missions

The Innovation Blueprint supports government, industry and communities to leverage innovation to address challenges NSW faces and advance ambitious missions in critical areas.

Innovation plays a vital role in addressing the missions outlined in the *NSW Industry Policy*. For example:

- Housing – innovations in construction methods, materials and technologies can uplift productivity, helping NSW to build more homes and put downward pressure on housing costs.
- Net zero and energy transition – commercialisation and the adoption of decarbonisation technologies is essential for reducing emissions. New technologies and practices can also contribute to the orderly transition of the energy market.
- Local manufacturing – advanced manufacturing technologies and processes are crucial to ensuring industry competitiveness and creating and retaining jobs in NSW.

Beyond these 3 missions, innovation offers solutions to a range of local and global challenges while presenting opportunities to strengthen our economy, enhance social wellbeing and protect our environment. For example, new medical technologies can improve the quality and capacity of social and health services in NSW, helping to mitigate the pressures of an ageing population. Biotechnology can help NSW better respond to future pandemics. Agtech can increase NSW's agricultural productivity, sustainability and resilience.

NSW Industry Policy

The *NSW Industry Policy* takes a missions-based approach to deliver on the government's strategic priorities across housing, net zero and the energy transition, and local manufacturing. The policy sets out our long-term vision for the economic future of NSW and calls on all stakeholders to work together to further strengthen our economy. Through the *NSW Industry Policy*, we're driving collaboration across industry, innovation and trade to give businesses the confidence they need to invest and grow in NSW.

Key areas of action

1. Strategy: Set a clear, long-term vision and priorities for the state's innovation ecosystem, and collaborate to effectively deliver them

As governments worldwide adopt more interventionist industry policies to spur economic activity in strategically important sectors, innovation-intensive businesses are increasingly drawn to regions where these policies facilitate access to customers, talent and capital. A stable innovation policy will provide a supportive environment that spurs entrepreneurs to create new businesses, business to take risks in adopting innovations, and investors to fund businesses to scale in NSW. A clear vision will coordinate innovation around key missions – housing, net zero and energy transition, and local manufacturing – as well as other local and global challenges.

The NSW Government is responding to the changing global environment by offering a long-term vision and maintaining a stable policy environment for innovation. By providing consistent, accessible policy settings, NSW can strengthen and grow its innovation ecosystem.

Current initiatives

The NSW Government has a significant suite of initiatives to support innovation across multiple portfolios. These include programs to support:

- innovation-intensive businesses
- research and innovation infrastructure
- R&D activities conducted or supported by NSW Government.

It also offers procurement opportunities so that the people of NSW can benefit from the latest technologies.

The Blueprint outlines how the design, development and implementation of policy can be improved to meet changing market conditions and NSW's challenges. By setting a clear strategy and an effective operating model supporting collaboration and best practice, the ability to solve the challenges facing the state is maximised, and public expenditure, where needed, is optimised.

Actions

Commit to a long-term vision, goals and key action areas for the state's innovation ecosystem by releasing this Innovation Blueprint

Stakeholders have called for a clear economic strategy for the state and an aligned innovation policy. They seek confirmation of the goals for the innovation ecosystem, long-term government commitments, and a more stable and coordinated approach to innovation initiatives across the NSW Government. This Blueprint addresses this need by outlining the NSW Government's new, long-term strategic direction for its support to the state's innovation ecosystem. This complements the *NSW Industry Policy* and NSW Trade and Investment Strategy (under development) to provide a cohesive vision of NSW's economic potential and future.

Confirm a future operating model to support whole-of-government innovation policy and program delivery, share knowledge and capability, discover best practices, and build networks across agencies that are supporting innovation

There is significant potential to improve the leadership and coordination of NSW Government innovation initiatives. A future operating model will task oversight of innovation policy and initiatives to a steering committee of the NSW Government executive. This model will allow for better measurement of innovation's impact on NSW and strengthen the evidence base for the effectiveness of government support for innovation. Collaboration and knowledge sharing among public sector leaders will enhance the impact of government support for innovation by ensuring that agencies work together effectively to achieve their goals. By investing in knowledge and capability in innovation procurement for instance, all agencies can benefit from a greater understanding of, and support to test and buy innovative solutions.

Improve navigation and accessibility of government by enhancing connectivity between NSW Government agencies, and clarifying their roles and responsibilities

The NSW Government can make it easier for the public to understand and engage with government at a state and federal level. Clarity and accessibility contribute to a more welcoming environment for innovative businesses, talent and investors to locate and grow in NSW. Better connectivity between government innovation teams will help direct companies and stakeholders to opportunities for government engagement and support. In addition to making it easier to navigate government support for innovation, this will support innovation ecosystem stakeholders to better connect with relevant policy-makers to ensure the needs of the innovation ecosystem are considered throughout NSW Government decision-making.



Stefan Mazy, CEO of DermR Health

2. Funding: Foster a funding environment that extends the availability of capital to more areas of opportunity

While the NSW investment landscape has seen significant growth in both the number of investors and available capital for startups, the availability of capital does not fully extend across all stages, sectors and founders to all areas of opportunity, particularly in sectors vital to the NSW Government's missions as set out in the *NSW Industry Policy*. There is a need for targeted initiatives to support businesses to overcome the multiple 'valleys of death' they face as they prove the value of their product, their ability to access their markets and their ability to scale to compete effectively on a global stage.

Current initiatives

There are significant skews in terms of where public and private investment is allocated in NSW, and key industries are not funded to the same extent as in peer jurisdictions. Funding for women founders is significantly under-allocated in NSW. This is also true at the global level, even though equal representation among entrepreneurs could boost global GDP by 3–6%.³⁵ Additionally, there is substantial untapped potential in founders with diverse backgrounds and experiences. Applying an inclusive and equitable lens to all government-supported funding and programs is recommended to unlock this potential.

The NSW Government has implemented different funding programs over the years to address some funding gaps, including Minimum Viable Product Ventures Program (MVP Ventures Program), the NSW Physical Sciences Fund (PSF), the NSW Biosciences Fund (BioSF), the NSW Small Business Innovation & Research (SBIR) Program and the Medical Devices Fund (MDF). These programs play a critical role in de-risking product development for early-stage startups, like DermR Health and Hysata, and bridge the gap between cutting-edge scientific and technological research and the creation of commercially viable products and services. Targeted at priority areas for government, these programs are laying the groundwork for the economy of tomorrow and address gaps in private-sector funding.

There is an opportunity to improve these programs, making them easier to navigate and more equitable for founders seeking support. In addition, there is an opportunity to look at the mix of measures available to fill the financing gaps in critical, targeted moments of an innovation-intensive businesses' stages of growth.

³⁵ Boston Consulting Group, 'Want to Boost the Global Economy by \$5 Trillion? Support Women as Entrepreneurs' (2019), available at <https://www.bcg.com/publications/2019/boost-global-economy-5-trillion-dollar-support-women-entrepreneurs>.

Actions

Support the growth of innovation-intensive businesses via the MVP Ventures Program, and review its guidelines to ensure equity in who gets support

The MVP Ventures Program is a current NSW Government program that supports businesses to develop their first innovative product to achieve early sales and/or demonstrate the product to prospective investors from the private sector. The existing program helps address critical early-stage funding gaps, and program guidelines will be examined to look for opportunities to increase access and equity.

‘Securing funding as a MedTech startup in Australia is tough. R&D is expensive, and commercialisation can take up to 10 years. Institutional investors that invest in the early stages often require proof of concept and significant clinical data. It’s a catch 22 – we need investment to fund the R&D to move forward. The MVP Grant provided crucial matched funding at a critical stage, helping to de-risk our technology and paving the way for further support and non-dilutive funding opportunities across Australia – enabling us to demonstrate a new method for screening skin cancer.’

– *Stefan Mazy, CEO DermR Health*

Consider the establishment of a standing Emerging Technology Commercialisation Fund for opportunities aligned with state priority areas

The PSF and BioSF have been crucial for advancing the commercialisation of technologies with larger capital needs that typically take longer to generate returns. The repayable grant model is used to attract further investment and support commercialisation and jobs growth. It has proven successful across government programs, with the government already receiving repayments from the PSF and MDF. The NSW Government will explore consolidating PSF and BioSF into one fund, centralising the funding pool to improve accessibility and expanding its remit to cover early-stage technology commercialisation with funding rounds dedicated to state priorities.

‘The NSW Government has long been a source of support for Hysata, kicked off by the Physical Sciences Fund, which provided early funding that helped us scale our technology to where it is now. We’re proud of our ongoing partnership with the NSW Government and look forward to continuing our partnership as we progress our scale-up.’

– *Paul Barrett, CEO Hysata*

Explore the development of an Innovation Challenge and Procurement Program for innovation-intensive firms and government agencies to identify and source solutions – with a pathway to procurement

NSW's multi-billion-dollar procurement spend represents another important opportunity to support innovation-intensive business growth, including the NSW Government's current and future investments into net zero and energy transition, and transformation in government services. The NSW Government could leverage the expertise of innovative NSW businesses and entrepreneurs to address wicked problems facing the government where solutions do not currently exist.

The government could use dedicated procurement pathways to channel existing spending allocations towards innovative local solutions. Government–industry collaboration to develop and deploy these solutions could boost the productivity and quality of government services. Meanwhile, procuring successful solutions can support the growth of local businesses and their ability to commercialise these innovations for other government and private sector customers. An Innovation Challenge and Procurement Program for SMEs and government agencies could offer opportunities to source solutions for identified government challenges. Participation in a structured program could help to de-risk the partnership. Continued support for a centralised innovation procurement support team could drive capability uplift across government agencies.



Hysata CEO, Dr Paul Barrett

Clean energy company commercialises ground-breaking green hydrogen technology

Hysata, founded by Dr Paul Barrett, Professor Gerry Swiegers and Dr Tom Campey, is a clean energy company based in Port Kembla. Hysata is commercialising an ultra-high-efficiency electrolyser to redefine the economics of green hydrogen production. Its cutting-edge electrolyser boasts 95% system efficiency at 41.5 kWh per kilogram of hydrogen. This is already ahead of the International Renewable Energy Agency's 2050 electrolyser efficiency target, and a 20% improvement on existing technologies.

Hysata's breakthrough electrolyser, verified in *Nature Communications* in 2022, significantly lowers the cost of green hydrogen production, positioning the company at the forefront of decarbonising hard-to-abate sectors such as steel and chemical manufacturing.

The company received early funding through the NSW Government's **Physical Sciences Fund (PSF)**, a program designed to support the development and commercialisation of groundbreaking technologies. This funding played a pivotal role in advancing Hysata's electrolyser, enabling further product development and scale-up.

Since receiving the PSF grant, Hysata has opened an 8,500-square-metre beach-front electrolyser manufacturing facility in Port Kembla, supported by approximately \$29.8 million in Australian Renewable Energy Agency grants from the Australian Government. In 2024, Hysata closed the largest Series B deal in Australian clean tech history – a A\$172 million investment round with backing from major strategic and financial global investors such as oil and gas giant BP and steelmaker POSCO.

Investigate the development of a NSW Government Strategic Investment Fund to catalyse private sector investment in target areas

The significant gaps in funding available for innovation-intensive businesses in strategic sectors and for increased diversity in key founder demographics is an ongoing challenge to the growth of these businesses and their contribution to the creation of local, well-paid jobs and economic diversification. The NSW Government will investigate the development of a Strategic Investment Fund to catalyse and crowd in³⁶ VC investment to fill the identified gaps in funding for innovative businesses in priority areas. The Strategic Investment Fund could operate as a Fund of Funds, investing in a portfolio of VC funds to support a larger, diversified investor base for startups. The NSW Government will also explore opportunities to use the fund to attract and coinvest with local and international institutional capital to further bolster investment in NSW.

Personal protective equipment producer taps government expertise and technology to develop biodegradable products



From left: AusAir's Jack Graham and Isaac Honor, NSW Chief Scientist and Engineer Professor Hugh Durrant-Whyte, and AusAir's Elias Honor and Ethan Pearson

Founded in 2017, **AusAir** is a leader in sustainable filtration technology, known for pioneering high-performance, environmentally friendly personal protective equipment (PPE) and consumer products. AusAir's innovations are produced in collaboration with the University of Sydney and have been widely recognised locally and internationally. Sydney's Powerhouse Museum has exhibited AusAir's filtration technology in recognition of the company's leadership in sustainable innovation.

AusAir is on the verge of launching its latest innovation – the FILTRUM biodegradable PPE range. Developed by AusAir through the **NSW Small Business Innovation & Research (SBIR) program** – and in collaboration with health experts from the NSW Government – FILTRUM represents a significant advance in the medical and personal protection industry. Designed to substantially reduce the impact of PPE in landfill, the high-performance solution meets rigorous industry standards while addressing critical environmental challenges.

Leveraging technology developed through the SBIR program, AusAir is developing more advanced PPE. These cutting-edge products will be biodegradable and feature a reduced carbon footprint of 65–85% compared to traditional PPE, increasing sustainability in healthcare and personal safety.

36 'Crowding in' refers to an increase in government spending that leads to more private investment.

3. Places: Help create world-class, affordable spaces to innovate around the state that bring different parts of the ecosystem together

Extensive evidence exists that the clustering of innovative business activity improves both the quality and quantity of these activities, boosts individual firm performance, increases employment, access to finance and R&D expenditure³⁷ and drives economic growth.³⁸ In Australia, this clustering and the collaboration that results is associated with a 70% increase in the likelihood of new-to-world innovation and a 32% increase in the likelihood of new-to-Australia innovation.³⁹ In recent years, NSW has invested significantly in place-based innovation initiatives, including innovation precincts; startup accelerators, incubators and hubs; and, increasingly, infrastructure to innovate, such as flexible prototyping- and pilot-scale manufacturing facilities. In a post-COVID world with changing appetites for coworking spaces and incubators, coupled with an increased focus on manufacturing, the NSW Government's innovation infrastructure priorities will evolve accordingly. An increasing focus on fostering connections within key places will support knowledge spillovers and skills spillovers that can drive innovation and productivity.



Artist's impression of the RNA Research and Pilot Manufacturing Facility

Research and manufacturing facility boosts NSW's capabilities to produce vaccines and therapeutics

The NSW Government is constructing the \$96 million RNA Research and Pilot Manufacturing Facility (the first of its kind in Australia) at Macquarie University's Wallumattagal Campus. This advanced facility, set to be completed and operational in 2026, will enhance the state's ability to develop and produce vaccines and therapeutics based on ribonucleic acid (RNA) locally. It will focus on Good Manufacturing Practice (GMP)-grade production of messenger RNA (mRNA) and lipid nanoparticles (LNP) encapsulation, facilitating clinical trials of new vaccines and therapeutics. RNA technology is emerging as a key enabler of precision medicine, and has the potential to treat infectious diseases, cancers, genetic diseases and other conditions.

The NSW Government has committed \$96 million to build the facility, with an additional \$119 million over 10 years for RNA R&D initiatives. The new facility will be in the Connect Macquarie Park Innovation District at Macquarie University. Aurora Biosynthetics, a subsidiary of Myeloid Therapeutics, will operate the facility. Myeloid Therapeutics is a global therapeutics company co-founded by Australian researcher Dr Daniel Getts.

The facility will integrate with NSW's strong clinical trials system and robust innovation ecosystem, including components local to Macquarie Park, which hosts numerous medical and health-related organisations, as well as industrial and technology startups.

37 Productivity Commission, *Volume 5: 5-year Productivity Inquiry: Innovation for the 98%* (2023), page 56.

38 NSW Innovation and Productivity Council, *NSW Innovation Precincts: Lessons from International Experience* (2018), available at <https://www.investment.nsw.gov.au/innovation/nsw-innovation-and-productivity-council/our-publications/nsw-innovation-precincts-lessons-from-international-experience/>.

39 Office of the Chief Economist, *Australian Innovation System Report* (2014), available at <https://www.industry.gov.au/publications/australian-innovation-system-report-2014>.

Current initiatives

The NSW Government continues to make place-based investments in innovation infrastructure (such as labs and equipment for research, prototyping, testing and piloting, with access to state-of-the-art facilities an ongoing priority). Current funding commitments include the Sydney Biomedical Accelerator, the Viral Vector Manufacturing Facility, the Advanced Manufacturing Research Facility and the RNA Research and Pilot Manufacturing Facility.

Sites hosting publicly funded innovation infrastructure need to be activated to continuously engage relevant stakeholders, encouraging utilisation, collaboration and knowledge sharing. Activation can include tech showcases and demonstrations, masterclasses, investor office hours, mentoring and curated networking.

The NSW Government will work with operators of publicly funded innovation infrastructure to ensure there is a clear plan for industry access, a service menu and activation programs. Greater emphasis on measuring service utilisation, including user demographics, and facility-level outputs will enable evaluation and iteration to meet evolving stakeholder needs.

Actions

Transition to the flagship hub located in Tech Central for technology-intensive businesses at different stages of growth

A dedicated hub in NSW's largest innovation district will support innovative-intensive firms at all stages of growth. It will focus on service delivery through a consortium of partners with offerings that meet the needs of these businesses. Shared facilities to increase collaboration, such as community spaces for networking and knowledge sharing, are expected to attract partners and collaborators from across the state. Transition to the Tech Central hub will absorb the role the Sydney Startup Hub currently fills, providing facilities and services that are fit for purpose for startups' needs now and into the future in the heart of NSW's leading place for innovation.

Explore ways to support businesses at all stages of growth to navigate innovation infrastructure

The NSW Government will explore developing a capability to understand the needs of innovation-driven businesses (for example access to lab space, equipment, expertise and pilot manufacturing capabilities) and create solutions to connect them with the necessary infrastructure and support across universities and other public and private facilities. This tailored assistance would enhance access to and utilisation of NSW's world-class facilities, helping innovation-intensive businesses grow.

Consider the development of an Innovation Infrastructure Co-investment Fund to attract investment in NSW research and innovation infrastructure

An Innovation Infrastructure Co-investment Fund would help attract investment into shared NSW research and innovation infrastructure, such as through the National Collaborative Research Infrastructure Strategy, providing access to shared facilities at lower cost and supporting more businesses in reducing capital expenditure in early-stage product development.

Artist's impression of Tech Central, Sydney



Tech Central Economic Development Strategy

The NSW Government plans to unleash the full potential of Tech Central, Australia's largest innovation district. This 6-square-kilometre area includes Haymarket, Camperdown and South Eveleigh. It's home to many global tech businesses, including Atlassian, Block (Afterpay), Canva, SafetyCulture, and Rakt. It also hosts major venture capital funds like Blackbird, Airtree, Square Peg and Main Sequence Ventures. Additionally, Tech Central includes 150 research institutes, 2 top universities (the University of Sydney and University of Technology Sydney), and a leading research hospital (Royal Prince Alfred Hospital).

A refreshed strategy for Tech Central will establish the district as a leading place to live and work, with a new focus on housing, healthcare, nightlife and transport. The NSW Government is committed to the success of Tech Central and seeing it flourish as a melting pot for groundbreaking innovation, research and lifestyle. The success of Tech Central will help businesses at all stages attract top talent and investment from Australia and around the world.

4. People: Support talent and activation of key innovation hubs through a targeted set of capability programs

NSW is a highly educated and skilled region, full of ambition and big ideas. It boasts world-class universities, ranking first among benchmarked economies for the number of top 200 universities per million people.⁴⁰ NSW also ranks fifth in tertiary qualifications and fifth for highly cited researchers per 100,000 people. High-performing universities attract and develop talent, driving further innovation and growth. NSW is also home to some of Australia's most successful and experienced global founders, executives and investors, who contribute generously to the development of the state's innovation ecosystem.

Mobilising this talent to support the creation and growth of innovation-intensive firms is key to commercialising NSW research and building major global innovation businesses. Availability and access to the right skills and experience at different stages of an innovation-intensive business' growth, especially at scaling stage, is critical to these businesses remaining in NSW. Boosting the connection between innovation-intensive businesses at the startup stage with those who have or are scaling global businesses can effectively leverage the strength of the NSW 'unicorn club'.

Capability networks are powerful mechanisms for connecting 'suppliers' of expertise with those who need that expertise. Targeted capability networks in critical technology sectors can translate NSW's talent and research strengths into an innovation workforce advantage.

Tech Ready program helps agtech developer grow her business



Zondii CEO and founder,
Danielle Morton

Agtech startup **Zondii** was founded by Danielle Morton. Recognising the crucial role micron data plays in determining wool quality, Zondii has developed an effective solution to unlock this data on-farm, helping woolgrowers to maximise return on investment. Zondii's technology enables farmers to scan wool on-sheep or fleeces to capture data that human senses cannot detect, and to see results in real time to support instant decision-making.

Danielle Morton was selected to participate in the Tech Ready Women's Startup Program, a significant opportunity supported by Investment NSW through the **Female Founders Program**. Tech Ready Women provides women with tech and business education, access to world-class mentors and connections to startup communities. Danielle was part of a 50-woman founder cohort that took part in the 8-week program, which guides participants through the various stages of the startup journey, from idea validation through to investor pitching and beyond.

Since Danielle's participation in the Female Founders Program, Zondii has grown significantly. Danielle raised over \$1 million in seed capital, expanded her team from one to 10, and won the Australian Technologies Competition Regional category in 2023. The Tech Ready Women program has been instrumental in her journey, providing the support and confidence needed to pitch to investors and grow her business.

40 NSW Innovation and Productivity Council, 2024 NSW Innovation and Productivity Scorecard (2024).



Current initiatives

The Office of the NSW Chief Scientist & Engineer provides funding to the Defence Innovation Network, the NSW Smart Sensing Network and the NSW Space Research Network. Capability networks accelerate and attract investment into emerging technologies and services, bridging the gap between research and commercial viability. They also provide innovation-intensive businesses with a knowledge resource relating not only to the technology, but also to regulatory and market information vital to bringing that technology to market.

Pre-accelerator programs play a crucial role in bridging connections to more diverse founders who may lack access or connection to traditional entrepreneurial networks and education. These programs provide culturally and gender-appropriate training, mentorship and resources to individuals right across NSW.

Actions

Consider support for management programs and networks for founders at different growth stages, with more focused attention to programs at the pre-scaling stage

Providing talent-focused support at the pre-scaleup stage is crucial. Many early-stage founders do not have the requisite experience managing large teams and encounter unique challenges during scaling that traditional management programs overlook. Specialised support and networks could address these specific needs and ensure that founders are equipped to lead effectively. Dedicated support can accelerate the knowledge spillovers from NSW's existing scaleup successes, supporting the next generation.

Explore how NSW can support more diverse founders through targeted pre-accelerator programs to address systemic inequities in accessing innovation services, education and funding

The NSW Government will explore developing targeted pre-accelerator programs to encourage more people from diverse backgrounds to participate in the NSW innovation ecosystem. This could support more inclusive innovation ecosystem services and enrich the broader system with a variety of perspectives and different solutions.

Examine capability networks to connect more SMEs with expertise in NSW's research sector

SMEs are vital to NSW's economy, driving innovation, job creation and economic growth. However, they often face challenges in accessing the latest technologies and technical expertise to innovate. Capability networks can better connect SMEs with knowledge and technologies in spaces like advanced manufacturing, renewable energy and digital technologies, enhancing their global competitiveness.

Consider creating a Housing Innovation Network connecting research organisations, SMEs and entrepreneurs

The creation of a Housing Innovation Network would connect relevant stakeholders who are working to enhance the development, demonstration, deployment and commercialisation of new housing technologies.

Decarbonisation hub and networks

The NSW Decarbonisation Innovation Hub, established in June 2022, is co-funded by the NSW Government and partner organisations. The Hub supports the NSW Government's goal of achieving emissions reduction targets and net zero by 2050. The hub is a network of 3 networks – the Powerfuels including Hydrogen Network, the Electrification and Energy System Network, and the Land and Primary Industry Network. The hub and network program design and delivery are guided by the economic opportunities and priority areas identified by the *NSW Decarbonisation Innovation Study 2023*.

The Decarbonisation Innovation Hub and networks foster partnerships and collaboration between industry, researchers and government to drive decarbonisation forward in NSW and beyond. They also accelerate and attract investment into decarbonisation technologies and services. Co-hosted by UNSW and the University of Newcastle, and supported by other leading universities across NSW, the hub focuses on the development, demonstration, deployment and commercialisation of technologies from Technology Readiness Levels (TRLs) 3 to 6. By bridging the gap between research and viability, the hub and networks play a crucial role in advancing decarbonisation efforts and supporting the state's environmental goals.

5. Engagement: Make it easier for stakeholders to engage with key activities and programs, better showcase NSW innovation, and attract more strategic activity and investment

NSW has an active and vibrant innovation ecosystem, with programs and major initiatives provided by the NSW Government and ecosystem partners throughout the year. However, simplifying how the NSW Government shares information about its initiatives, particularly digitally, will increase engagement in government programs by businesses of all sizes.

Current initiatives

Investment NSW provides support for businesses to access and navigate government programs, as well as support for innovation through newsletters and other information sharing services. Investment NSW's network of global trade offices provide global Venture Capital Investor Engagement. The Fostering Innovation Sponsorship program supports a variety of innovation activities and events.

Actions

Investigate a new, integrated service model for NSW programs and services to make them easier to find and navigate

The NSW Government will investigate a service model with active engagement for businesses navigating programs and services, including a one-stop digital shop for businesses to access government programs supporting innovation and a suite of tools (including the Innovation Infrastructure Navigator) to support easier navigation of innovation facilities and services. This could be facilitated by a dedicated 'front door' team that could execute a multi-channel communications model in Australia and in priority global markets (supporting NSW's international networks and investment attraction capabilities), to share information and answer questions about NSW Government programs and the offerings of the broader NSW innovation ecosystem.

Innovation sponsorship program helps startup develop breakthrough copper production technology

Loop Hydrometallurgy, founded by Dave Sammut, is a startup based at Macquarie University. The company is set to revolutionise global copper production through its breakthrough technology. Recognising the looming international crisis in copper supply, Loop Hydrometallurgy has developed a significantly cleaner, cheaper and more versatile alternative to traditional smelting and refining.

Its chloride hydrometallurgy technology aims to reduce the power consumption of copper recovery by up to 70%, addressing economic and environmental challenges in the industry.

Loop Hydrometallurgy participated in the 2024 Australian Technologies Competition that was sponsored through Investment NSW's **Fostering Innovation Sponsorship Program**. Through the program the business received essential resources, mentorship and collaboration opportunities to help develop and promote its innovative technologies. Loop Hydrometallurgy won the Engineering and Manufacturing category of the competition, highlighting the significant environmental impact of its innovative approach, which not only reduces production costs but also significantly lowers the carbon footprint of copper production.



Loop Hydrometallurgy founder, Dave Sammut

Explore launching an annual Tech Week to attract top global investors and talent

A showcase of local innovations could be used strategically to attract global investors and innovators. The event could feature exhibitions, pitch sessions and networking opportunities, highlighting NSW and Australia's cutting-edge technologies and entrepreneurial talent. By bringing together startups, established businesses, researchers and investors, Tech Week could foster collaboration, drive international investment in local companies, and position Australia as a global leader in innovation and NSW as the most attractive place for innovation in Australia.

Engage with global and local investors to bolster international venture capital investment into NSW

In addition to promoting its global brand, NSW can work towards attracting more specialist foreign capital to NSW by developing strategic relationships with key local and global investors (VC, private equity, superannuation and pension funds) and showcasing NSW's innovation-intensive businesses through NSW's global trade and investment network. Attracting significant international investors will help bridge the funding gap for companies in Australia seeking funding beyond Series A, supporting NSW businesses to scale into global markets while remaining headquartered in NSW. This initiative could include attracting new limited partners for Australian funds or attracting specialised foreign venture capitalists to expand into NSW.

Continue existing support for impactful activities that convene the local innovation ecosystem via the Fostering Innovation Sponsorships Program

The Fostering Innovation Sponsorship Program (FISP) plays an important role in supporting activities that convene the NSW innovation ecosystem by:

- building partnerships
- supporting work that advances missions
- increasing the visibility of and participation in innovation precincts across NSW
- supporting initiatives that represent industry, startup and scaleup interests
- encouraging equitable participation and recognising success.

The FISP can support Industry Policy missions by facilitating activities that contribute to safe and affordable housing, achieving net zero and energy transition targets, and growing local manufacturing. Additionally, the FISP ensures diverse groups, including women and Aboriginal people, and people from across NSW, have access to the innovation ecosystem, promoting inclusive growth and participation from all parts of society.



FootprintLab Co-founder and Director, Dr Tim Baynes, and Co-founder, Janet Salem

Carbon data business gains international traction through NSW Government program

FootprintLab provides credible and commercially ready carbon data to integrate with fintech, open banking or accounting software. This data can be used for procurement, investment or any transaction in any sector in any country in the world. The business, founded by Janet Salem and Dr Tim Baynes, offers comprehensive data sets across 164 countries and is recognised by the Australian Government's Climate Active program and numerous peer-reviewed scientific journals.

When looking to expand into international markets, FootprintLab participated in **NSW's Going Global Techs to Singapore program**. During the program, the business was able to establish valuable connections with local fintech ecosystem partners, including STACS, a key partner of the Monetary Authority of Singapore's project Greenprint Marketplace, a collection of initiatives that seeks to harness technology and create a data-centric ecosystem to support the financial sector's sustainability agenda. These collaborations culminated in FootprintLab securing a Go-Green Co-Innovation grant, which significantly boosted its presence in the Singapore market. This grant has opened doors to new partnerships and customers, boosting FootprintLab's profile as a leader in the global carbon data industry.

Summary: 5 key areas of action

1 Strategy: Set a clear, long-term vision and priorities for the state's innovation ecosystem, and collaborate to effectively deliver them

- Commit to a long-term vision, goals and key action areas for the state's innovation ecosystem by releasing this Innovation Blueprint
- Confirm a future operating model to support whole-of-government innovation policy and program delivery, share knowledge and capability, discover best practices, and build networks across agencies that are supporting innovation
- Improve navigation and accessibility of government by enhancing connectivity between NSW Government agencies, and clarifying their roles and responsibilities

2 Funding: Foster a funding environment that extends the availability of capital to more areas of opportunity

- Support the growth of innovation-intensive businesses via the MVP Ventures Program, and review its guidelines to ensure equity in who gets support
- Consider the establishment of a standing Emerging Technology Commercialisation Fund for opportunities aligned with state priority areas
- Explore the development of an Innovation Challenge and Procurement Program for innovation-intensive firms and government agencies to identify and source solutions – with a pathway to procurement
- Investigate the development of a NSW Government Strategic Investment Fund to catalyse private sector investment in target areas

3 Places: Help create world-class, affordable spaces to innovate around the state that bring different parts of the ecosystem together

- Transition to the flagship hub located in Tech Central for technology-intensive businesses at different stages of growth
- Explore ways to support businesses at all stages of growth to navigate innovation infrastructure
- Consider the development of an Innovation Infrastructure Co-investment Fund to attract investment into NSW research and innovation infrastructure

4 People: Support talent and activation of key innovation hubs through a targeted set of capability programs

- Consider support for management programs and networks for founders at different growth stages with more focused attention to programs at the pre-scaling stage
- Explore how NSW can support more diverse founders through targeted pre-accelerator programs to address systemic inequities in accessing innovation services, education and funding
- Examine capability networks to connect more SMEs with expertise in NSW's research sector
- Consider creating a Housing Innovation Network connecting research organisations, SMEs and entrepreneurs

5 Engagement: Make it easier for stakeholders to engage with key activities and programs, better showcase NSW innovation, and attract more strategic activity and investment

- Investigate a new, integrated service model for NSW programs and services to make them easier to find and navigate
- Explore launching an annual Tech Week to attract top global investors and talent
- Engage with global and local investors to bolster international venture capital investment into NSW
- Continue existing support for impactful activities that convene the local innovation ecosystem via the Fostering Innovation Sponsorships Program

How we will measure our progress

Economic growth




Tracking the growth of the number of innovation-intensive firms is a good way to broadly measure an innovation ecosystem’s ability to:

- create and support businesses to invest in R&D and/or raise capital
- create jobs and add economic value.

An innovation-intensive business is defined as one that has raised significant amounts of equity financing (startups and scaleups) and/or made significant investments in R&D as a share of expenditure.⁴¹

This covers companies starting and scaling, with the greatest job creation occurring where NSW firms are able to anchor in NSW and grow globally.

The targets here reflect the expected impact of the actions set out in this Blueprint, but also incorporate the ‘flywheel effect’, where a healthy system exponentially attracts more of the elements it needs to grow, such as additional capital and talent, thereby driving further success.

	Current year ⁴²	5-year target	10-year target
 Total innovation-intensive firms	5,218	6,049	7,012
 Innovation-intensive firms’ gross value-add to the NSW economy	\$39.0 BILLION	\$50.7 BILLION	\$66.0 BILLION
 Innovation-intensive firm jobs created	136,000	176,800	230,400


41 The Pounder Review – NSW Innovation System Assessment (2025).

42 Data from the Pounder Review – NSW Innovation System Assessment (2025).

Inclusive participation in innovation

Setting outcome metrics for diversity in startups and innovation-intensive businesses is inherently challenging due to a lack of consistent and comprehensive historical data, which makes it difficult to establish benchmarks. Where diversity has been tracked, the focus has often been on women’s representation, leaving the participation of other groups largely unquantified. Additionally, there is often significant variation in different groups’ representation across founding teams, equity structures and senior leadership teams. This makes designing programs to address gaps more complex.

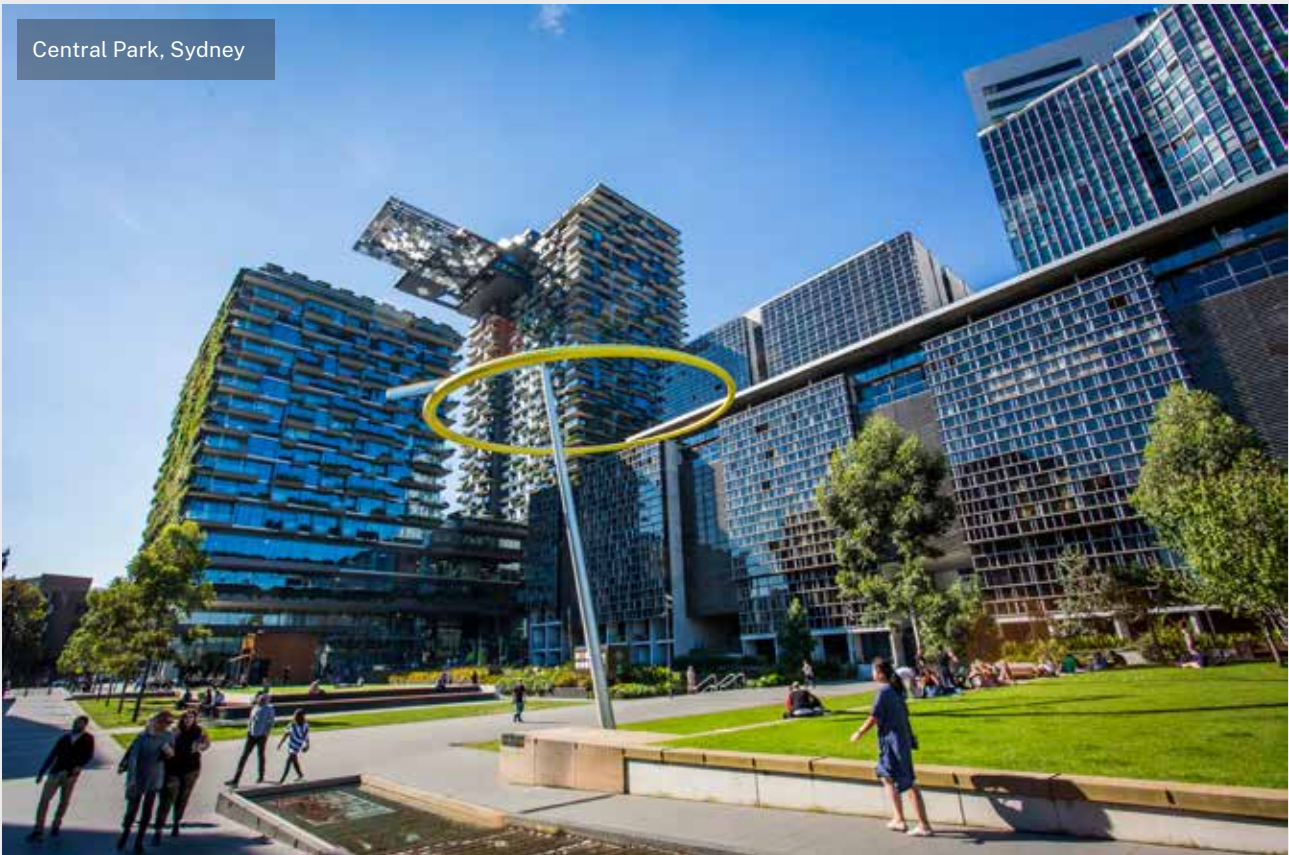
To begin setting and measuring meaningful diversity metrics, an internal government standard for data collection on diversity in innovation will be developed, from which a current baseline of participation in NSW Government innovation programs will be set. From this baseline, program teams will work towards increasing diverse participation in programs to align with population-based targets over time.

	Current year	5-year target	10-year target
 <p>Increase participation of under-represented groups in NSW Government programs – including women, racially and ethnically diverse people, and Aboriginal and Torres Strait Islander peoples</p>	SET BASELINE	10–20% INCREASE	30–50% INCREASE



Connect @ Tech Central September 2024
– Techstars cohort launch

Central Park, Sydney



What the future holds

The Blueprint will set NSW on a path to being the best place in Australia to innovate. With 4 strategic goals and 5 key action areas, we will create more economic and social opportunities for the people of NSW to innovate and help tackle the state's most important challenges.

Over the next decade, innovation will be an important lever for the NSW Government to achieve its strategic priorities. Innovation-intensive businesses, with more diverse founders, will thrive in NSW – creating jobs, commercialising important technology and contributing to our economy, environment and shared prosperity.

The NSW Government will continue to champion the NSW innovation ecosystem, working alongside local industry, universities, investors and system advocates to attract more global capital and talent. We will continue to listen to stakeholders and analyse data in order to adapt programs to achieve the intended goals of this Blueprint.

This Blueprint seeks to orchestrate the key actions for Strategy, Funding, Places, People and Engagement to capitalise on NSW's innovation potential alongside its many partners in the ecosystem. We will develop future programs in line with the strategies set out in this Blueprint, allowing for initiatives and collaborations to work towards the goals and vision outlined for the NSW innovation ecosystem.

Investment NSW

More information

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