

Property Council Precincts Committee

Discussion Paper



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Foreword

Over 2021 and 2022, the NSW Property Council’s Precincts Committee brought together representatives from the education sector, the property and investment communities and government, to identify ways that these stakeholder groups can better understand each other and work together to achieve greater economic and community benefits for the State. At the heart of this objective was the analysis of where NSW is up to in terms of precinct development and where the relationship between education and the property sector has got to in terms of education being an asset class in its own right.

Acknowledgement should be given to all the members of the Committee, the Chairs of the chapter working groups and all the organisations that the Committee members represented.



Introduction

Julie Wagner, president of the Global Institute on Innovation Districts, the godmother of innovation districts, describes a future where innovation isn't for the few but the many. Wagner argues that well-designed and connected precincts should not be isolated places for the privileged in the likes of Silicon Valley but that all new precincts should be innovative and, by definition, distributed, geographically compact, transit-accessible, technically wired and offer mixed-use housing, office and retail. These precincts should be shaped around anchor institutions and companies that cluster and connect with a diversity of sectors, disciplines, and thinkers.

Education institutions and their facilities are at the heart of this opportunity. As working patterns, disciplines and demands evolve, so must our education systems and their physical assets respond. The community and employers are expecting lifelong education and our emerging workforce to be prepared for a new future of jobs which currently do not exist. Vertical campuses have already started to redefine education experiences for primary, secondary and tertiary students alike. Alternative funding and commerciality are being explored by investors, providers, developers and governments.

Although most of the examples used in this Discussion Paper are of Universities, the Committee recognises that the sector is much more than Universities. We acknowledge that the role of vocational education providers and pathways from secondary school into further and lifelong education as well as positions in industry needs further analysis. We do believe that some of the basic principles around super charging precincts using anchor education assets has equal applicability across the whole sector. We have set out to show how best to create the ideal melting pot of education, social diversity and industry in education precincts in order to trigger great innovation and economic outcomes for communities, industry and government.

In our initial report, The Size of the Prize, published early in 2022, we investigated the significant opportunity that exists for education projects and precincts that bring in key industry partners as stakeholders. We noted that the education sector already contains a weighty asset portfolio, with the book value of the NSW Department of Education alone totalling \$33bn¹. The Committee argued that – if better leveraged to generate returns in line with the institutional real estate sector – these assets could be further harnessed to draw anchor tenants into education precincts and places. The income growth for the sector and the wealth of the State could be exponential. Though there has been a post Covid recovery in the education sector, these conclusions still carry weight.

So, how can this be achieved in an environment where too often planning policy identifies multiple 'precincts', 'districts', 'hubs', 'clusters' or 'corridors' involving large swathes of land with similarly worded general objectives that lead to confusion for education institutions and their partners, as well as land owners or investors in other market sectors.

The Committee has taken a multi layered approach that examined the role of rankings and entrepreneurs in super-charging commercial returns. We have highlighted the importance of understanding what makes a precinct successful and defining that through research and case studies that included analysis of different levels of maturity and geographic locations and recommended changes by government to town planning and taxation positions.

The Committee also undertook a survey of the education sector, government, and industry to identify how to ensure that innovation ecosystems achieve "stickiness", and took a practical view of governance methodologies, including the taxation and planning reforms required to ensure that the governance structures suitable for the level of maturity of the precinct are well supported.

The following chapters of this final discussion paper examine these matters and draw conclusions and recommendations for consideration by Government, the education sector and the property industry itself. These recommendations are the result of the deliberations of the Committee, ongoing engagement with stakeholders including the NSW Government and a workshop discussion session in October 2022 with 100 attendees which included the Committee members and external representatives of Government and the development and investment sectors.



Macquarie Uni Central Courtyard Precinct by Architectus
Photography: Brett Boardman

1. Size of the Prize

In 2020 the value of the NSW education sector's property portfolio was approximately \$52bn². It currently consists of real estate assets that are primed for reapplication toward additional revenue generating ventures. If better leveraged to generate returns in line with the institutional real estate sector, the income growth for the sector could be exponential.

More broadly, the education sector contains a weighty asset portfolio, with the book value of the NSW Department of Education alone totalling \$33bn³.

Despite these hefty real estate portfolios and due in no small part to the impacts of the COVID pandemic, six out of ten NSW public universities reported an operating deficit in 2020 with a decline in net operating results of \$396m since 2019 across all 10⁴.

Whilst operating margins have improved considerably since the depths of COVID, the sector is presented with a significant opportunity to offset any losses in the future by leveraging capital locked up in asset holdings while concurrently revitalising education precincts and honing in on core business operations. Co-investment in developments with the private sector can leverage the economic output of innovation districts and precincts more generally by combining the strengths of academia with commercialisation of industry partners.

The COVID disruption may be the trigger that the Education Sector needs to enable it to ultimately emerge on the front foot and reposition how they manage their portfolios in an increasingly disrupted and digital world. NSW's top 10 universities make up a significant portion of the total NSW education sector. Their combined asset portfolio of \$18.5bn⁵ exceeds the asset holdings of other education players such as TAFE (\$3.69bn)⁶ as well as some of Australia's REITs. However, But by innovating and actively managing their real estate portfolios, the real estate sector has outperformed universities in measures of revenue, asset performance and general fiscal prosperity.

On a financial basis, the State's top Universities have responded effectively to the challenges of COVID and have returned to healthy balance sheets quickly. However, there is much to be done to counterbalance the diminution of Federal Government funding and increasing costs, including of digitisation.

To respond to this and in the current capital rich environment, the education sector can consider short term balance sheet plays for its real estate that will also pay dividends down the line. The property industry should consider what it can do and how it can innovate as an enabler for these opportunities so they can ultimately share in these downstream benefits.

² The combined total of the property, plant and equipment values from NSW Public Universities, NSW TAFE, and NSW Department of Education's 2020 annual reports.
³ Department of Education Statement of Financial Position 30 June 2020.
⁴ Comparison of the 2019 and 2020 combined net operating result for the 10 NSW universities (Higher Education Finance Tables).
⁵ 2020 Higher Education Finance Tables.
⁶ 2020 Higher Education Finance Tables.



\$33bn

NSW Department of Education
land and buildings value



\$18.5bn

Combined property, plant and
equipment of NSW's 10 public
universities



\$396m

Decline in net operating
result since 2019

✓ Deal Structures

Various deals may be explored in the immediate term to help the sector more efficiently use its capital. Leveraged correctly, these short-term actions may also position the education sector and the property industry for longer term plays.

In addition to commonly leveraged debt and equity re-financing, the property industry may consider supporting sale and leaseback as well as wrap and swap opportunities. This may include the purchase of pre-leased or pre-committed developments, on agreed metrics, that are underpinned by the education institution as the lessee (consider time parameters and buyback options). In exchange for the lease of sites in target locations at negotiated rents and terms, agreements for property wraps and swaps may enable the consolidation of surplus land. This provides an opportunity for education providers to share in the potential value uplift from tenancy covenant and tenure.

From a development point of view, investing in multi-use buildings with flexibility will increase value and attraction to potential education investors by allowing them to respond to changing needs and demands with multiple tenant sectors. This also appeals to the growing need for more diverse assets in investors property portfolios. For new developments, consider partnering with consortiums to underwrite tenant pre-commitments, or for developments with integrated fit outs, consider offering better leasing terms and conditions in exchange for early commitments.

✓ The Compounding Effect of Big Capital

Enabling these short-term plays in the face of relatively poor – and certainly disrupted – sector performance could enable long term wins for both developers and the education sector.

The university sector is viewed as an attractive investment for Big Capital who see the potential for future growth. Today, capital is actively being raised for these assets, and due to the compounding effects of Education Precincts on jobs, innovation, and the future economy, this investment has the potential to drive vast economic benefit.

As institutions sharpen their consolidated footprints or re-position their portfolios, the local economies around them will be stimulated. Shifting the focus of education precincts from being purely places to learn, ecosystems of retail, office, research facilities and residential uses will drive real economic and social growth as well attract students and staff.

Investment by the property and investment industry into such precincts will create an opportunity for growth in other asset classes which will strengthen and support universities, such as those in the life sciences space. The life science industry is expected to be a major growth sector for real estate and works best when co-located with education and health precincts. By supporting the mutual exchange of ideas, teaching, and jobs, these kinds of precincts can foster innovation and ultimately contribute to the growth of NSW's knowledge economy.

To do this, educational institutions will need to think more creatively about who they partner with and go beyond traditional bricks and mortar. At the same time developers and landlords should consider what real estate can do to enable this, by moving away from a one-size-fits-all approach to embrace flexibility and bespoke models.

Given the broader economic benefits there is a role for Government too –; to invest in making precincts distinct locations, improve cross-agency communication, provide incentives such as grants and concessions and reduce the planning red tape.

Back cover:

¹ H70 Business School | Trevor Mein Photography

² Macquarie University 1 Central Courtyard Building | Architectus + ASPECT Studios | Richard Glover Photography

³ Macquarie University 1 Central Courtyard Building | Architectus + ASPECT Studios | Richard Glover Photography

2. Definition and Differentiation of Precincts

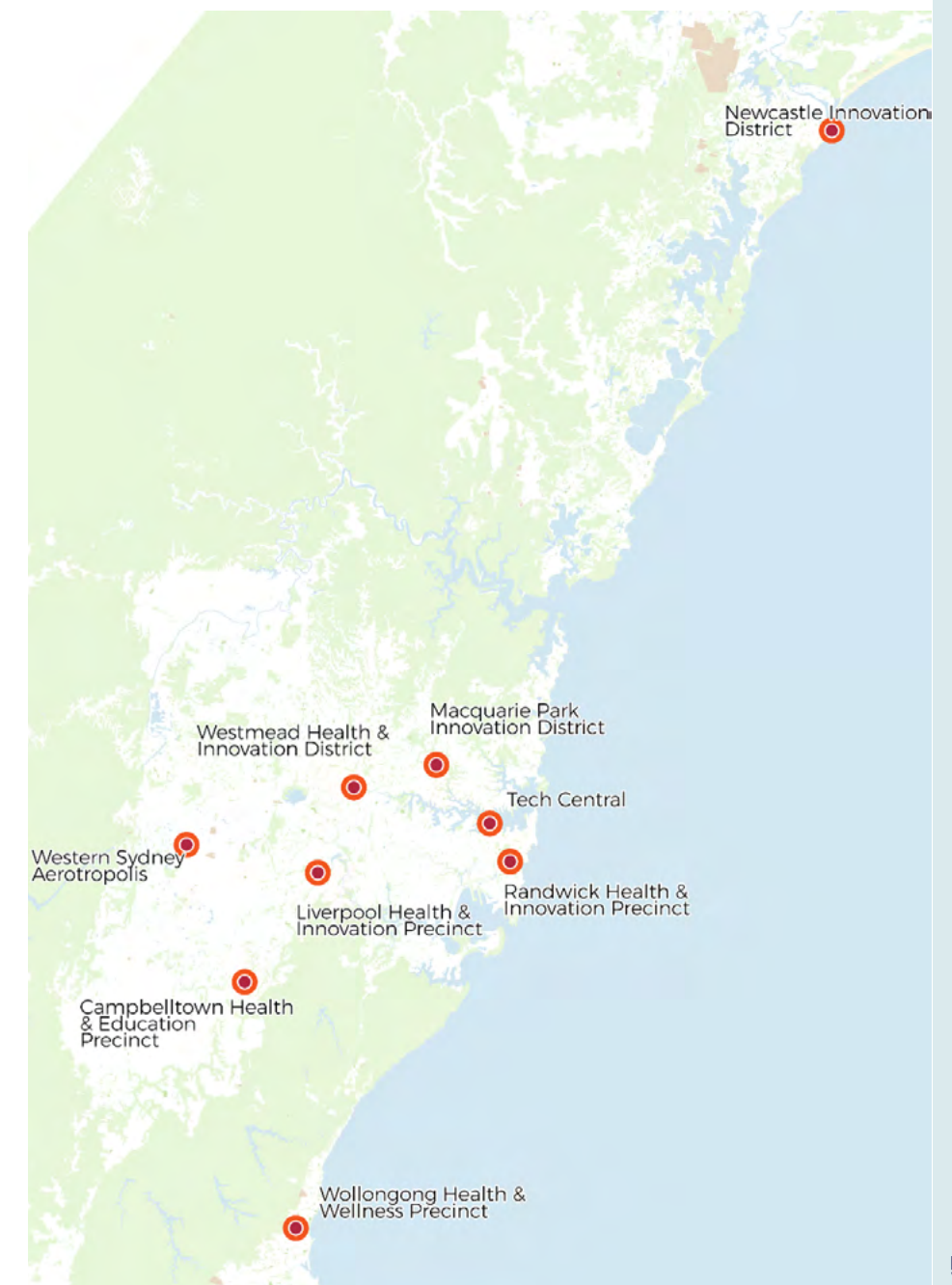
The Committee agreed that precincts should be defined as geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, incubators, and accelerators. Whether precincts or districts, they are places which are supercharging themselves through government, education and industry investing and working together to various degrees and stages of maturity.

The purpose of defining the precincts and understanding what makes them different to each other is to help government, education and industry clearly see the strengths and opportunities within each. By articulating their unique attributes and economic drivers this allows for a clearer line of sight to support the entry of new business and the creation of better overall ecosystems.

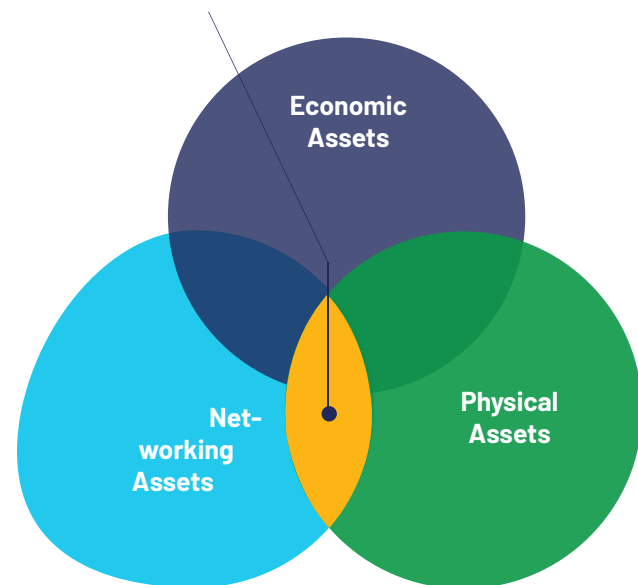
Some of the identified gaps that were uncovered through consultation at the end creating of 2022 included the consideration of childcare, the creation of cultural spaces, better walkability, the importance of an 18-hour economy, housing for the educators within the precinct, centralised convertible parking and developing a sense of pride. The importance of including women and Aboriginal and Torres Strait Islander representation in the design and ongoing management of the precinct, creating the district as a destination, identifying place champions, developing great food hubs and curating entertainment for a wide audience of needs.

An additional area of consideration is around where the future research funding opportunities are proposed along with other growth industries, to ensure a better understanding of what future occupiers of these precincts will look like and what their needs might be. Understanding appropriate adjacencies would support an ecosystem of interconnected industries and knowledge.

By carefully curating ecosystems that are rich in diversity and interconnected, the opportunity emerges for a multiplier of value and overall benefit. By demonstrating the nuances and strengths of different types of precincts a better outcome will be collectively delivered for NSW.



Innovation Ecosystem



Economic Assets - firms, institutions and organizations that drive, cultivate or support an innovation-rich environment.

Physical Assets - are the public and privately-owned spaces (like buildings, open spaces, streets, etc.) that are designed and organised to stimulate new and higher levels of connectivity, collaboration and innovation.

Networking Assets - relationships between individuals, firms and institutions that have the potential to generate, sharpen and accelerate the advancement of ideas. Networks fuel innovation because they strengthen trust and collaboration within and across companies and industry clusters, provide information for new discoveries and help firms acquire resources and enter new markets.

(<https://www.brookings.edu/essay/rise-of-innovation-districts/>)

The Committee acknowledges the work of the Greater Cities Commission and Investment NSW in developing the understanding and definition of the different forms that a precinct can take. Consultation has been undertaken with these organisations to inform the development of this chapter. The GCC are currently focused on four key innovation precincts - Tech Central, Westmead, Macquarie Park and Central Coast. Investment NSW are accelerating the commercialisation of research projects and will look to precincts as locations where new research institutions and companies can cluster and create greater connection with the existing wider assets within the district.

Outlined below is a sample analysis of seven precincts based on lists previously created by the Greater Cities Commission, but also reflecting the work of the members of the PCA's Education and Precincts Committee. The objective of such a list is to show the differences and the similarities when defining precincts in the NSW context, to show the different levels of maturity and the impact this maturity has on the performance and perception of the precinct.

Four of these precincts have been selected for further analysis based on their level of maturity in the Case Study Chapter.

Precincts	Liverpool Health & Innovation Precinct	Macquarie Park Innovation District	Randwick Health & Innovation Precinct	Tech Central	Westmead Health & Innovation District
Maturity Score*	4	4	4	4	4
Economic Assets	WSU, Liverpool hospital, SWSLHD, TAFE and Ingham Institute.	Macquarie University, Private hospital, regional shopping centre, research institutes, incubator assets, startups and colleges. A clustering of life science and technology companies.	UNSW, two major adult and paediatric teaching hospitals, nine world-class medical research institutes.	University of Sydney, UTS, Royal Prince Alfred Hospital, 100+ research institutes and centres of excellence, Australian Technology Park, CSIRO's Data 61, Biobank, Biologics innovation Facility, Sydney Quantum Academy and future Space Industry Hub and Atlassian.	4 major hospitals, 6 leading medical research institutes, 2 university campuses, CSIRO, Telstra Health, Innovation Quarter, Western Sydney Start Up Hub and the largest research-intensive pathology service in NSW.
Physical Assets	Centre for robotics and health including surgical robotics, remote intervention diagnostics, Interventional therapeutics, remote sensing devices.	Regional Shopping Centre, Biotechnology, digital technology, health and Pharmaceutical, 180 large life science organisations, technology and digital corporations, 200 small businesses and incubation hub.	UNSW, UTS, Sydney Children's hospital, medical research institutes, Randwick Hospital, Lab spaces, Office Buildings, parks, plazas, metro, hotels, job training facilities, residential and retail.	Tech Central includes 6 sub-precincts including Central Station Precinct, Western Gateway and Carriage works. Close proximity to the airport. The district has an abundance of culture, city parklands, sporting facilities, bars, restaurants and retail.	To complement existing health and education a mix of spaces include hotel, commercial, co-working spaces, specialist retail, supermarket, restaurants and courtyard cafes. Good local light rail connectivity and new planned Metro stop to connect to Sydney CBD.
Networking Assets	Additional University presence with UOW, UNSW and health, education and research are undertaken individually and collaboratively to drive innovation. The connection with Cicada and the investment from NSW Gov of \$280,000 (2022/23) in Trans-Tasman Biobridge.	New Metro, Macquarie University, Cochlear Research, Macquarie University Hospital, Wise Medical, Industry, CMPID and National Manufacturing Industry driving new Nanotechnology opportunities.	Focus areas include water & environment, ICT, robotics and reliable systems, smart cities, biomedical and life sciences, energy, next generation materials, technologies, and food.	Sydney Quantum Academy for training in quantum engineering and software, and drive industry development and investment in quantum technologies. In addition, Cicada and affordable space grants.	\$10m Ecosystem fund is focused on innovative models of health care enhanced by emerging technologies, data analytics and industry partnerships. CSIRO has collocated their health research in genomics, nutrition, diabetes & cardiovascular into Westmead.
Brand	World class collaborative health services, delivery, research and training.	Macquarie is a place of connection, collaboration, and reinvention where new paths cross and new ideas take shape.	A transformative and collaborative place solving global challenges to enhance lifelong health. The precinct is about being greater than the sum of the parts.	Tech Central where research, ambition and technology collide and collaborate to spark ideas that will change the world.	Health, Education & Research.





3. The Innovation Ecosystem

Delivering a “sticky innovation ecosystem”

When the Brookings Institute highlighted strengthening local ecosystems as one of the key principles to “making innovation sticky”⁷, it reflected an increasing focus on innovation districts and how stakeholders collaborate and partner in the local context, to deliver innovation outcomes. The question of what attracts investment and talent to innovation districts, and what it is that engages them as long-term partners, is part of a continuing conversation when it comes to the success of innovation districts within Australia and New South Wales more specifically.

Greater Six Cities Mega Sandstone Region is home to well-established health, education and innovation precincts, which have been identified by the NSW Government as significant innovation and economic growth locations. These include Tech Central, Westmead, Macquarie Park, Randwick, the Central Coast, Newcastle and Wollongong, with development strategies being led by the Greater Cities Commission (GCC).

Internationally recognized innovation districts including 22@Barcelona, MaRS in Toronto, University City in Philadelphia, Medellin in Colombia possess a “stickiness” that attracts diverse collaborators and more importantly, entices them to contribute to the organically growing ecosystem and economic multiplier effect.

All these lessons and concepts are applicable, to varying degrees, across the broad category of ‘precincts’ as defined in Chapter 2.

In July 2022 the University of Sydney, in conjunction with the Committee, distributed a survey to investigate specifically the question of “What makes an innovation district sticky?”

Survey Overview and Participant Profile

- **Awareness:** How aware are people of the concept of innovation districts, and the NSW Government’s current agenda to turbo-charge innovation districts and health-education precincts?
- **Engagement:** How do people engage with innovation districts? How can this engagement be enhanced?
- **Stickiness:** What are the ingredients to making an innovation district “sticky”?

Representatives from the following institutions and geographical areas were approached by email to complete the survey. Participants were all New South Wales based, given the investigation’s focus on the burgeoning innovation districts within the State (e.g. Tech Central, Liverpool etc).

Organisations / Precincts Approached to Complete Survey	
Cicada Innovations	Property Council of Australia
City of Sydney	Randwick Precinct
Greater Cities Commission	Sydney Local Health District
Health Infrastructure NSW	Transport for NSW
Inner West Council	University of Sydney
Jones Lang Lasalle	University of Technology Sydney
Liverpool Precinct	Westmead Alliance
Macquarie Precinct	Wollongong Precinct
Newcastle Precinct	

Precincts	Campbelltown Health & Education Precinct	Western Sydney Aero-tropolis	Wollongong Health & Wellness Precinct	Future Lower Hunter and Greater Newcastle Innovation District
Maturity score	3	2	2	1
Economic Assets	WSU, Campbelltown hospital, Ingham Research Centre, Macarthur football club, sports and wellbeing research, Macarthur Medical institute.	CSIRO, Nancy Bird Airport, NUW Alliance, NSW Government’s National Space Industry, Advanced Manufacturing, Industry 4 and Agricultural Technology.	4 research facilities, Incubator supporting a vibrant entrepreneurial ecosystem all located on the university campus.	University of Newcastle, John Hunter Hospital and Port of Newcastle, various small business and business offices in the Newcastle metro core.
Physical Assets	Campbelltown Hospital, Council, WSU and shopping centre. Transport pathways from university to hospital which has helped drive the research.	The Western Sydney Aerotropolis includes 5 sub-precincts including Aerotropolis core and Agribusiness. The proximity to new Nancy Bird airport and metro stations. Planned green and blue infrastructure.	University, the Lend Lease retirement living project within the university and creating a health and wellbeing precinct.	Honeysuckle Precinct including public domain and multi-use areas, University of Newcastle Campus, CSIRO Energy & Technology, Newcastle Institute for Energy & Resources, John Hunter Health and Innovation Precinct, Hunter Research and Medial Research Institution, Future Clean Energy Precinct at the Port of Newcastle, Newcastle Airport and proximity to Williamtown Special Activation Precinct.
Networking Assets	Health, education and medical sciences and community related education, civic, cultural and heritage assets and provisioning for future health manufacturing business area.	Airport, CSIRO, Logistics, NUW Alliance (UTS, WSU, UNSW, University of Wollongong and University of Newcastle).	The Innovation Campus houses a business park and a University where research and industry work together.	The Regional Strategic Growth focus is aligned with various levels of government and private sector. This resulted in networking spaces like as I2n University of Newcastle Innovation Hub and NEWIHUB. In addition, the work on clean energy is connecting many parts of the ecosystem.
Brand	World leading community-based care in paediatrics, Aboriginal health and gastro mobility through science research and discovery.	Trade, Airport and smart city. NUW Alliance is big collaborations that make a difference, unlock new value, impact and benefit for our communities across NSW.	Our Innovation Campus connects businesses with researchers and world-class universities to drive impact in industry and community.	The region is focused on aerospace, clean energy, medical technology, and advanced manufacturing.

*Maturity Score

This maturity score has been developed by the Committee through consultation to find a way to define where each district was in their journey and areas that could be further explored to continue to build and curate highly functioning districts. A further iteration of this maturity score is explained in the Practical Governance section.

- 5 Economic, Physical and Networking assets working to bring innovation into the ecosystem
- 4 Governance structure is in place and well represented across the precinct, bringing all the parties together
- 3 Collaboratively working towards bringing the innovation district vision to life
- 2 Established vision with buy in from government and key stakeholders
- 1 Potential opportunity identified

⁷ <https://www.brookings.edu/blog/the-avenue/2015/09/23/five-ways-to-make-innovation-sticky/>

45 survey responses were received. Pleasingly, respondents were from a variety of sectors, including:

- Start-ups/incubators
- Research
- Health
- Property
- The Arts
- Government
- Legal

Awareness of Innovation Districts and Health-Education Precincts

88% of respondents said they were aware of the NSW Government's agenda to turbo-charge NSW innovation districts or health-education precincts.

Majority of participants became aware of this agenda through a combination of "Government Communications" (e.g. media releases) or "Industry Events" (e.g. PCA Briefings). The platform that received the lowest survey responses to this question was social media, perhaps indicating a gap in the communication platforms deployed in innovation district engagement, or a gap in the demographic of survey respondents.

Respondents were asked the question "Which Innovation Districts and Health-Education Precincts are you involved in?" Results to this question are outlined below:

Precinct	%
Tech Central	19.78%
Westmead	17.58%
Randwick	10.99%
Macquarie Park	9.89%
Liverpool	9.89%
Newcastle	8.79%
Wollongong	8.79%
Other (please specify)	7.69%
Central Coast	6.59%

Responses to "Other" included:

North Parramatta
John Hunter Health and Innovation Precinct
St Leonards Health, Education and Research Precinct
Redfern

When asked "What do you see your role being in the future of NSW innovation districts and health-education precincts?" the top 3 responses received were:

- Strategy Development
- Cross Sector Partnerships
- Research and Innovation Agenda

Written responses received to this question were:

- Building my business
- Government Policy
- Startup ecosystem development



Westmead Innovation Quarter by Architectus
Photography: Brett Boardman

Insights on Awareness

Overall, respondents had strong awareness of the various innovation opportunities around the State, and the NSW Government's commitment to invest in these precincts to establish them as innovation districts and economic powerhouses.

Majority of respondents were involved in Tech Central and Westmead precincts specifically, which may be a reflection of the number of respondents approached from UTS and the University of Sydney.

More investigation needs to be done on precincts outside of the GCC's core 5 "cities" e.g. Hunter New England and St Leonards Precincts.

Engagement with Innovation Districts

This segment of the survey sought to better understand how stakeholder engagement with innovation districts can be enhanced. It also sought to explore the role that Industry Bodies (e.g. PCA) have in engaging stakeholders with innovation districts in NSW.

When asked which industry bodies participants engage with when it comes to innovation districts, the Property Council received the highest percentage of votes. It should be noted however that this result is likely influenced by the number of Property Council members directly approached to complete the survey. Results to this question are outlined in the table below.

Which Industry bodies do you collaborate with on the agenda for innovation districts?	%
Property Council Australia	25.27%
Committee for Sydney	18.68%
Business Sydney	16.48%
Business Western Sydney	14.29%
Other (Please specify)	12.09%
Western Sydney Leadership Dialogue	8.79%
Australian Chamber of Commerce & Industry	4.40%

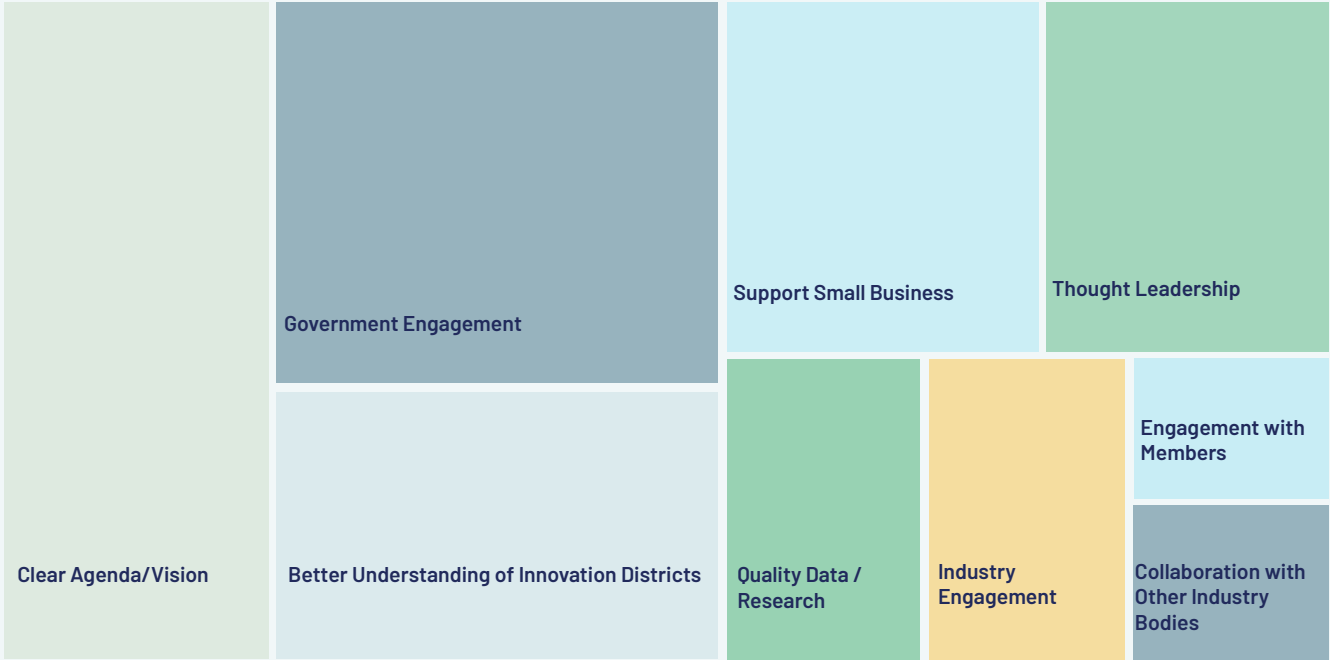
"Other" industry bodies were noted by respondents as:

- Connect Macquarie Park Innovation District
- UDIA
- MTP Connect
- MTAA
- AusBiotech
- Committee for the Hunter
- Global Institute on Innovation Districts
- Business Hunter

Participants were asked to provide a free text response to the question "What do you believe is required to ensure industry bodies are effective for pushing the agenda for innovation districts and health education precincts?" Core themes were clearly apparent from the raft of written responses received. These themes are summarised in the below chart, with the larger the squares indicating a larger volume of similar responses.



What Should Industry Bodies do More of to Push Agenda for Innovations Districts



As indicated in the above, responses to this question were heavily focused on the need for industry bodies to have a clear agenda; credible understanding and thought leadership on what constitutes as an innovation district; and transparency on their engagement with Government.

Respondents were given a series of engagement principles to rank in order of importance to support the success of innovation districts. Results are outlined below, with #1 being ranked of highest importance.

Ranking #	Engagement Principles
1.	Clear understanding of precinct deliverables and outcomes
2.	Buy-in and engagement from key stakeholders
3.	"Easy to engage" with precinct leadership and partners
4.	Strong communication strategies and principles
5.	Precinct programs to connect precinct stakeholders, communities
6.	Strong precinct identity and brand

The fact that "identity and brand" was ranked the least important principle, similarly to the fact that "social media" was the platform least used by respondents to engage with innovation districts could demonstrate two things:

- There is a gap in the engagement inventory used by innovation districts in NSW, with a lack of investment in social media, non-traditional marketing platforms and brand identity compared to investment in government and industry communications which largely attract audiences who are "already in the know" when it comes to innovation districts.
- There may be a gap in the demographic of survey respondents, with significantly less Gen Z and Millennial respondents compared to Gen X and Baby Boomer respondents.

Should either of the above factors be an accurate reflection of the survey data, more needs to be done to establish engagement principles that attract younger generations, generations who are often the sources of talent that innovation districts are so heavily reliant upon.

Insights on Engagement

Stakeholder engagement is a key principle of optimising an innovation district's outcomes and long-term collaboration. Engagement platforms and strategies must facilitate better connections between stakeholders, precinct leadership and decision makers to help create the 'sticky ecosystem'.

Industry bodies play a vital role in facilitating these connections and spreading information and thought leadership to attract potential precinct partners. When it comes to supporting the growth of innovation districts, industry bodies must have transparency and clarity around their agenda; demonstrate credible knowledge and data sources; and have a clear engagement strategy with Government to foster industry-government partnerships and opportunities.

A set of recommended actions against each of the proposed engagement principles is outlined below to support the fostering of cross-sector partnerships and solidifying the 'stickiness' on innovation districts:

Ranking #	Engagement Principles	Actions for Precincts to Deliver on the Principle
1.	Clear understanding of precinct deliverables and outcomes	Share precinct progress, outcomes and metrics with all stakeholders on a regular basis Share precinct vision - and test objectives outcomes and metrics across all sectors and stakeholders
2.	Buy-in and engagement from key stakeholders	Create a precinct dialogue – a two-way conversation with precinct stakeholders to identify and manage challenges / opportunities to develop a set of "collaborative" project engagement & procurement processes e.g. purpose specific working groups, pilot projects
3.	"Easy to engage" with precinct leadership and partners	Map precinct stakeholders and ecosystem networks across all sectors and share (possibly interactive for regular updating) as part of precinct communications and events programs, and facilitate engagement and collision points
4.	Strong communication strategies and principles	Precinct Communications Plan - build on existing institution and individual stakeholder knowledge and resources to position the precinct locally, nationally and globally
5.	Precinct programs to connect precinct stakeholders, communities	Precinct Calendar of Events - build on existing institution and individual stakeholder knowledge and resources to position the precinct locally, nationally and globally
6.	Strong precinct identity and brand	Implement a precinct-wide stakeholder cross promotional strategy to facilitate and highlight collaboration and partnerships and attract international talent and investment





“Stickiness”

In the 2019 “Evolution of Innovation Districts” research paper, the GIID⁸ noted that:
“Innovation districts have distinct institutional and governance challenges that reflect their unique economic function, land use and ownership pattern, and socio-economic composition. Increasingly, stakeholders in mature and emerging districts are finding that they need strong organisations to:
a) leverage their economic, physical, and networking assets;
b) maximise the inclusive potential of innovative growth; and
c) create a sustainable funding model for non-economic elements such as public spaces and programming.”

There is no doubting that emerging innovation districts across NSW exhibit many, if not all, of the above characteristics. But what makes an innovation district “sticky”? That is, what are the ingredients that create a self-sufficient ecosystem that entices occupants and visitors to stay in that ecosystem, be it to recreate, work, learn or live?

Respondents were asked the question: “What do you think are the ingredients that make up a sticky ecosystem that would encourage you to want to work, live or participate in it?”.

Participants were asked to rank in order of importance a set of 17 ingredients for a “sticky” ecosystem. Results were as follows:

Ingredients of a Sticky Ecosystem	%
Calibre of industry partners within the precinct	8.44%
Transport connections	8.18%
Attractive public domain that is inviting and accessible	8.18%
Organised collaboration opportunities for students, researchers, start-ups and investors	7.93%
Depth of research talent available for partnering	6.39%
Feeling welcomed in an inclusive environment	6.14%
High quality, flexible and affordable office space	6.14%
Optimised communication platforms (websites, events, conferences, seminars etc	5.88%
Good wifi access and connectivity	5.63%
Quality coffee and food outlets	5.63%
Precinct wide procurement processes and partnership initiatives	5.37%
Excellent branding and promotion	5.37%
Cultural attractions	5.37%
Recreational facilities (e.g. gym, bike track etc)	4.86%
Affordable accommodation	4.60%
Publicly accessible calendar of events with open participation	4.09%
Other (please specify)	1.79%

⁸ <https://www.giid.org/the-evolution-of-innovation-districts/>

- Written responses for “Other” were:
- Clear efficient approval pathways and NSW govt support for fast tracking IDs
 - Global connections
 - Talent pipeline
 - A focus on SME’s – what they want/need and connecting them to it.
 - High-quality childcare
 - High-quality public primary and secondary schools
 - Good-quality informal meeting places (might be implied by “food outlets” which are in the list, but needs to go well beyond that)
 - This is a list of the qualities of a place, they don’t add up to an innovation district as they are too generic. What’s needed for stickiness is how easy it is for industry to link into the eco-system and access the talent.

Insights on Stickiness

The survey results and written comments demonstrate the undeniable importance of getting the mix of economic multipliers right when it comes to the success of innovation districts. In addition, enabling collaboration and the collision of diverse players within the precinct was highlighted as critical by respondents to fuelling the economic multiplier effect.

High-calibre industry partners; collaboration opportunities; and enabling diverse parties to participate in the precinct through quality transport, accommodation and childcare were all heavily supported themes that came through in the survey responses.

Importantly, innovation districts need time, investment, and an overarching framework and governance model that allows for organic growth, whilst simultaneously providing guaranteed and ongoing support.



4. Role of the Entrepreneur + Innovators in the Success of Innovation Districts

Entrepreneurs + Innovators have a key role to play in the economy of the 21st century

Innovation districts are a growing focus for governments around the globe as they look to nurture and grow national economic prosperity. At the heart of these districts sits the entrepreneurs and the innovators who are the driving force behind change, innovation, disruption, and job and business creation. As such, they represent significant socioeconomic potential for all economies.

Entrepreneurs are the most well positioned to meet the emerging challenges we face and turn them into decisive advantages. They will be the key generators of the job of the future, will disrupt industries and mature businesses, deliver economic diversity, inspire competition, solve social challenges and evolve wealth creation for all.

The innovators are deep tech researchers often sitting within research intensive universities who invent the new technologies that entrepreneurs are exceptionally skilled in taking advantage of - they utilise the new technology to disrupt mature businesses and industries through unique approaches and applications.

Additionally, intrapreneurs that work on innovation and new product development (NPD) in industry are also sources of disruptive technologies and unique applications to disrupt industries from within mature businesses.

The Australian and State Governments are actively committed to supporting entrepreneurs, and innovators as they deliver the next age of economic prosperity for our nation. NSW is the country's startup capital with nearly half of the nation's startup businesses located in Sydney and across NSW. This is a significant advantage for our city.

The startup ecosystem in Australia is now one of the fastest-growing in the world. In less than a decade, our country's startup sector has developed into a thriving ecosystem of people and significant investment.

Universities provide a unique opportunity for start-up and scaleup organisations to engage with highly concentrated innovation ecosystems that are home to researchers (inventors / innovators / deep tech), academics (thought leaders / educators), and students (learners / pool of interns / potential recruits).

Relationships between startups and institutions such as universities demonstrate a critical supportive and nurturing role to fledgling business. This is different from the equity focused incubators and accelerators that charge substantial fees for their services, and some are also underwritten by investment funds looking for deal flow.

⁹ <https://www.bbc.com/storyworks/specials/sydney-start-ups/>



Mac Uni Incubator by Architectus
Photography: Brett Boardman

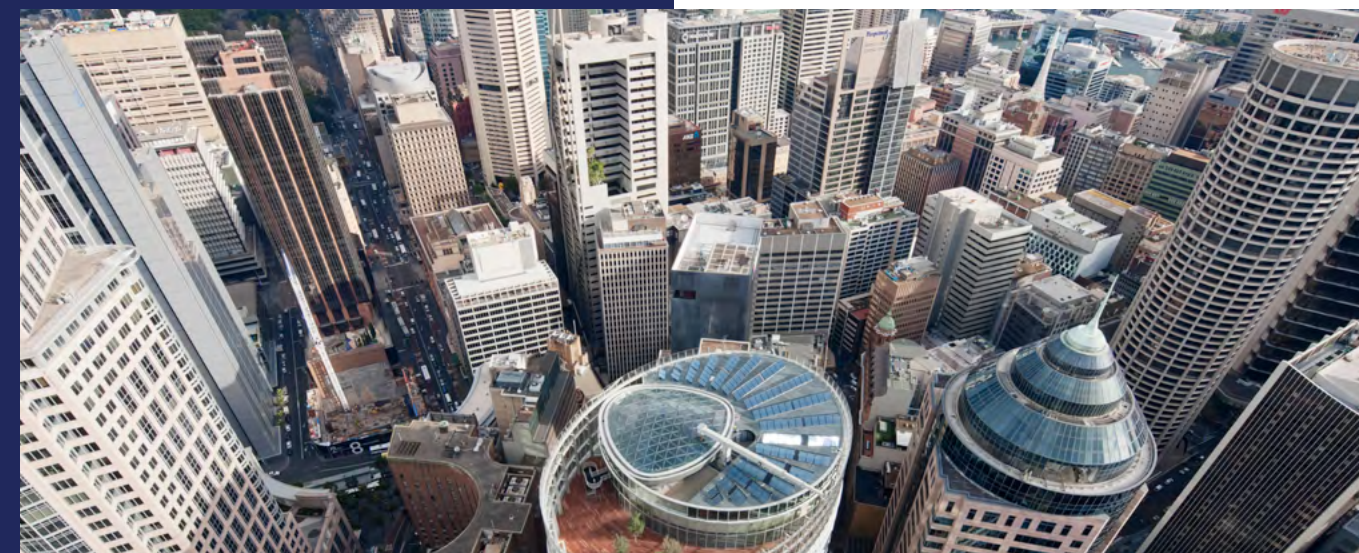
Over 50%
Australia's start-ups
are located in Sydney⁹

The core role of universities in the Australian innovation ecosystem is to provide a neutral partner to assist founders develop their knowledge and confidence in a safe, accountable and professional environment. They also facilitate the opportunity to build critical relationships between innovators (researchers), entrepreneurs and industry.

MQ Incubator resident startups provide an opportunity for local researchers to engage with entrepreneurs who are highly skilled at leveraging new tech opportunities and identifying ways of disrupting unrelated 'verticals' (industries) with newly developed innovations. They also provide an introduction for students into the startup world through internships and work experience. Some of these relationships have led to a student's first employment opportunities.

These critical engagements help develop Australia's capabilities in developing the next high growth organisations; develop our students' understanding and skills in running their own businesses and fan their enthusiasm in joining startups; and super charge our nation's ability to commercialise research and world first innovation by directly connecting researchers and entrepreneurs.

Australia has seen a continued rise in venture capital funding for new ventures to a record US\$2.5 billion in the year to June 2021, up from US\$1.95 billion in the previous year, according to the latest KPMG Venture Pulse report. That same report noted a record 327 Australian VC investment deals over the financial year, up from a 311 over the previous 12 months - up 28% YOY.



US\$2.5 Billion
of Venture Capital Funding invested
into Aussie start-ups 21FY

Head of KPMG High Growth Ventures, Amanda Price commented: "The investment environment for Australian high growth ventures has never been stronger - with VC firms continuing to attract and deploy capital at a record rate. Alongside the continued progression of Australia's new unicorns, startups that have achieved a valuation of over \$1 billion, we have also seen record seed rounds raised. Startups like Honey, Nourish Ingredients and Carted have attracted over \$10 million of early-stage funding."

This financial year we have seen in the space of 11 days \$1.1BUS has been invested in Australian Startups this September. This has been seen as something of a "coming of age" of the local tech ecosystem; a level-up in terms of maturity. But it also shows the growing economic clout of this sector.*

The Tech Council chief executive Kate Pounder says Australia is in the midst of a "tech boom" that is adding thousands of jobs to the economy and there are now about 100 Aussie tech companies valued at \$100 million or more.

"As we look to Australia's post-pandemic future, the emergence of these digital disruptors has massive potential to contribute to the nation's economy. You only have to look at the influence of their predecessors such as Atlassian to view the positive



impact of home-grown Australian tech giants, creating jobs and wealth for the country,” she added.

To support the development of entrepreneurs in our ecosystem there are three pillars that have been identified by McKinsey. They recommend that public and private efforts should focus on building and strengthening these pillars: shaping fertile ecosystems, financing new ventures from inception to critical size, and infusing the population with an entrepreneurial culture. **

Below are the key pillars matched with activities, environments and structures we need to put in place to support entrepreneurs and innovators:

- Shaping fertile ecosystem** – Build strong local bases / Leverage relevant talent pools / Foster collaboration among key actors via incentives / Provide enabling infrastructure / Protective and fluid environment / Quality of education / Offer targeted tax incentives / Collaboration / Ensure a stable and conducive regulatory environment at regional and supranational level.
- Financing** – Ease of access to capital particularly for early-stage enterprises / Perception of Venture Capital (VC) availability / Financing through local equity markets / Value per capita of VC investment / Number of VC deals per capita.
- Culture** – Develop targeted education programs to foster the development of targeted education programs to boost attractiveness of entrepreneurship / Perception of Personal Capabilities and Opportunities / Perception of Entrepreneurship / Attention to Entrepreneurship / Inclination to Entrepreneurship. ****

Working collaboratively together as a nation to support and grow our entrepreneurs and innovators will ensure we have a strong prosperous future – moving us deliberately away from a carbon driven economy into a sustainable digital economy.

Source:
 * Smart Company, Stephanie Palmer-Derrien, September 27, 2021; ** The Power of Many, McKinsey Report, 2011.
 *** Global Entrepreneurship Monitor; World Economic Forum; Venture Expert; OECD; World Bank.

5. Governance

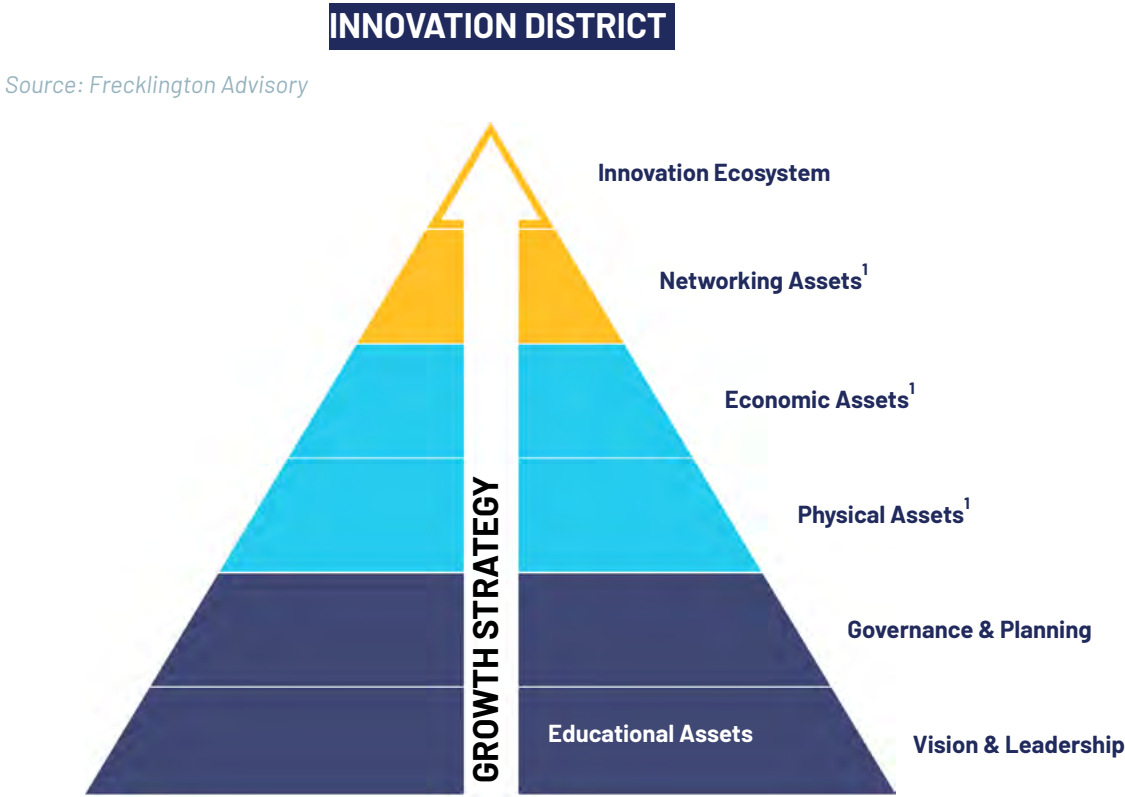
1. Why is governance important?

This section of the Discussion Paper outlines the type of practical governance required to enable universities, schools and TAFEs to grow.

The strategy to create a high performing education precinct is outlined in **Figure 9**, below. This shows the key moves to transform core education assets to a high performing education ecosystem.

Getting the vision, leadership and governance right is fundamental. Without these key attributes, it is extremely difficult for a precinct to attract the necessary inputs from government and industry to support investment and growth.

Figure 9: Growth strategy for education precincts



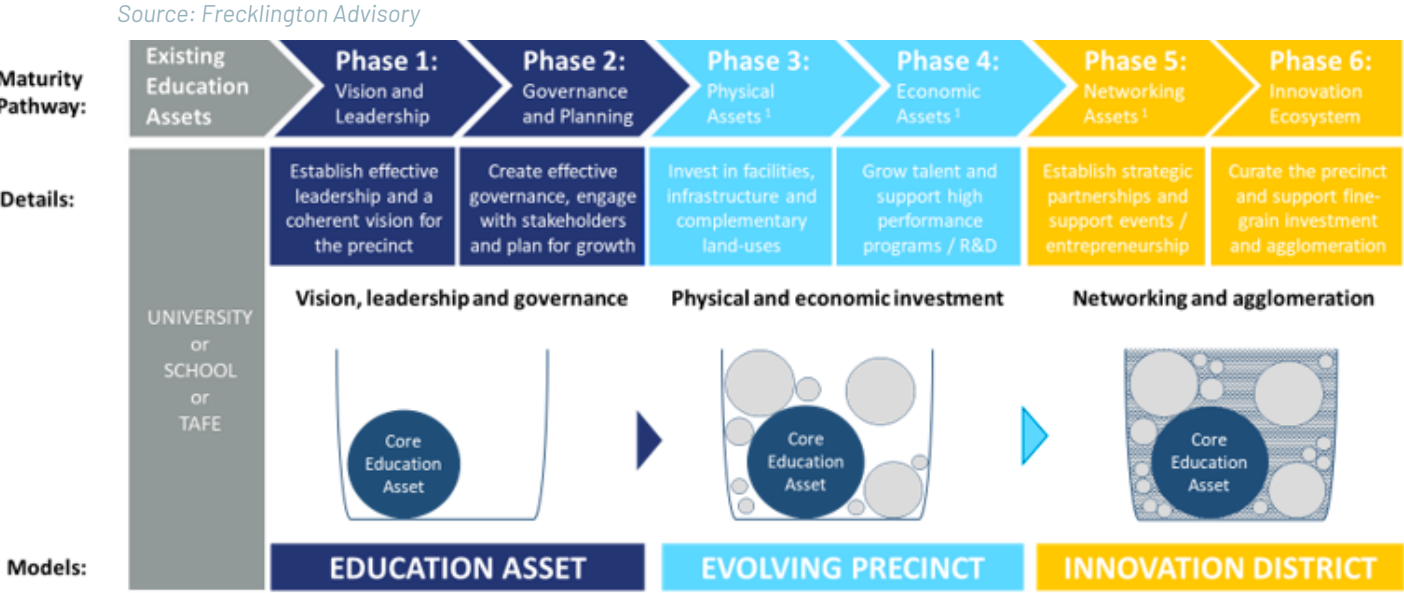
¹NOTE: Refre to the Bookings Institue for a definition of ‘Physical, Economic and Network-ing Assets’ as they apply to Innovation Districts. This theory can be applied to Education Precincts.

The evolution of Education Precincts follows a **Maturity Pathway** which provides a strategic roadmap to unlock economic performance and innovation. This Maturity Pathway is outlined in **Figure 10** below.

This **Maturity Pathway** has six phases, with each phase requiring different interventions from government and industry.

Economic productivity is created by asset clustering, resource sharing and the agglomeration benefits flowing from the creation of an active innovation ecosystem. This does not happen without effective governance.

Figure 10: Maturity Pathway for education precincts



2. What are the key issues for precinct governance?

There are three key problems for education precincts:

- We need to get the VISION right for education precincts.** This means amplifying the existing qualities, culture and characteristics of the places and developing the vision around key opportunities.
- For Universities, we need better and faster ways to partner with the industry to leverage 3rd party capital and capabilities.** This is required to 'build-out' education precincts with complementary uses such as BTR, student housing, medical research and long-term investment. This requires governance structures which enable private sector investment.
- For Schools and TAFE NSW, we need better ways to procure education facilities at lower cost and to support faster delivery.** This requires effective contractor engagement. It also involves promoting innovation in procurement and construction.

In reality, not all education precincts will have the right attributes to become fully fledged Centres of Excellence (i.e. location, scale, capital, infrastructure or access to talent). It is important that each precinct establishes a vision and business plan based on a realistic assessment of their attributes. Schools and TAFE NSW assets are unlikely to evolve into fully fledged Innovation Districts.

3. What is the role of Education Institutions, Government

Effective precinct governance is required to guide the growth of a precinct through the Maturity Pathway. The benefits of effective precinct governance include, without limitation:

- Stakeholder alignment and mobilisation of resources
- More effective land-use and infrastructure planning
- Asset clustering and agglomeration
- Operating efficiencies and additional earnings streams (e.g. retail, childcare etc).

The roles of government, educational institutions and industry vary depending on the level of maturity of the precinct. This is outlined in **Table 2** (below), which illustrates the roles of each party depending on the stage of present maturity.

	Education Institution			Government		Industry
	Uni	School	TAFE	State	Council	
PHASE 1: VISION AND LEADERSHIP						
1. Establish effective LEADERSHIP	Lead	Lead	Lead			
2. Create a compelling VISION for the precinct	Lead	Lead	Lead			
3. Clarify investment priorities for Government	Support	Support	Support	Lead	Lead	
PHASE 2: GOVERNANCE AND PLANNING						
4. Establish effective GOVERNANCE	Lead	Lead	Lead	Support	Support	
5. Create a viable BUSINESS PLAN and growth strategy	Lead	Lead	Lead			
6. Create a coherent MASTERPLAN and investment strategy	Lead	Lead	Lead			Support
7. Engage with key stakeholders	Lead	Lead	Lead	Support	Support	Support
8. Clarify Government infrastructure commitments	Support	Support	Support	Lead	Lead	
PHASE 3: INVESTMENT IN PHYSICAL ASSETS						
9. Invest in campus infrastructure	Lead	Lead	Lead			Support
10. Invest in fine grain placemaking	Lead	Lead	Lead			Support
11. Introduce complementary assets (e.g. student housing)	Lead	Lead	Lead			Support
12. Review strategic planning, taxation and procurement	Support	Support	Support	Lead	Lead	
	Education Institution			Government		Industry
	Uni	School	TAFE	State	Council	
PHASE 4: INVESTMENT IN ECONOMIC ASSETS						
13. Attract talent and drive high performing outcomes	Lead	Lead	Lead			
14. Create new models to enable 'capital light' investment	Lead	Lead	Lead	Support		Support
15. Expand research and commercialisation of R&D	Lead	Lead	Lead	Support		Support
PHASE 5: INVESTMENT IN NETWORKING ASSETS						
16. Sponsor major events and actively grow networks	Lead	Lead		Support	Support	
17. Invest in precinct branding and marketing	Lead	Lead				
18. Encourage entrepreneurial partnerships	Lead	Lead				Support
PHASE 6: INNOVATION ECOSYSTEM						
19. Develop 'Centres of Excellence' and specialisation	Lead					Support
20. Actively curate the precinct	Lead					Support
21. Support fine grain investment	Lead					Support
22. Encourage agglomeration	Lead					Support

Industry has a key role to play in helping education precinct grow. This is particularly important going forward, with government and university balance sheets being 'stretched' and the need for greater private sector capital to be mobilised to support our education assets.

A recent example of innovative private sector involvement is the recent deal between La Trobe University and Plenary to oversee the long-term development of the \$5 billion "University City of the Future Plan." This is outlined in further detail in **Case Study 1** below. It demonstrates how a well governed university with a clear vision and masterplan can confidently attract private sector investment to support growth.

Governance Case Study – Private Sector (La Trobe University)

La Trobe University established a long-term Development Partnership with Plenary in 2022 to accelerate the \$5 billion “University City of the Future Plan.”

This is a governance model for the funding and delivery of major campus development. It involves Plenary bringing capability and capital to support La Trobe’s transformation of their 235 ha Bundoora campus into an active mixed-use city that includes research, innovation, sports and health uses as well as commercial offsets generated by commercial, retail and residential development.

Central to the success of this approach was the establishment by the University of a clear vision, a robust business case and a concept masterplan which was coherent and commercially viable. Most importantly this vision involved, “Turning the campus ‘inside out’ by welcoming the community and industry to transform the campus into a place to live, learn, socialise and stay healthy.”

The governance structure with Plenary involves an overarching Development Partnership which establishes long-term objectives and staging. This is supported by a series of individual development agreements for various investment and development parcels. Benchmark returns are agreed between the parties from the outset by asset class and construction is competitively tendered to ensure value. This arrangement strengthens alignment between the university and the private sector and reinforces a win-win dynamic.

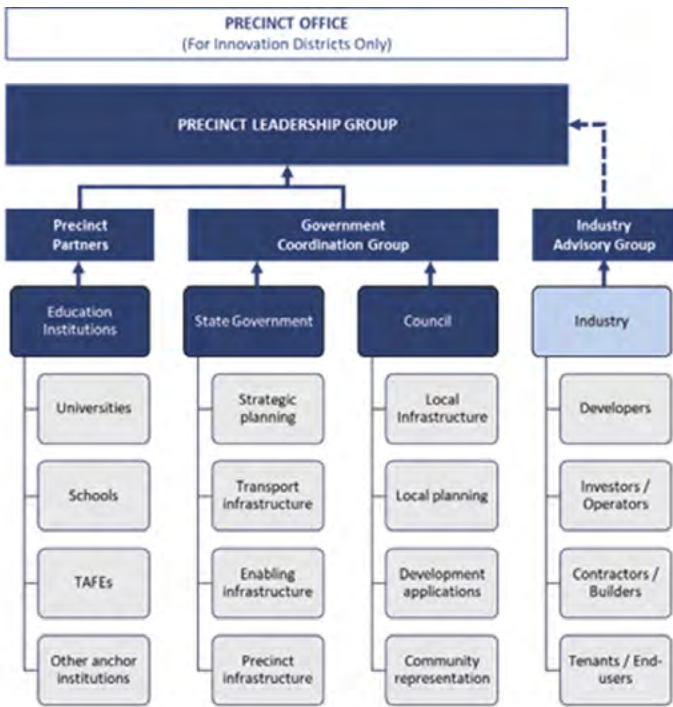
- To ‘seed’ the commercial deal, La Trobe University has committed to the following investments:
- A world-class Sports Park, open for teaching, research, community participation and elite sport – and soon-to-be home of the Australian women’s national soccer team, the Matildas
 - A new 624-bed modern and sustainable North and South Apartments for students
 - A commitment to enhancing and protecting La Trobe’s waterway, Nangak Tamboree
 - A Research and Innovation Precinct ecosystem that connects businesses with research, students and infrastructure.’

Source: La Trobe University – [https://www.latrobe.edu.au/news/articles/2022/release/preferred-partner-for-\\$5-billion-plan](https://www.latrobe.edu.au/news/articles/2022/release/preferred-partner-for-$5-billion-plan)

4. What is a potential governance model for Education Precincts?

The role of governments is to provide a flexible framework for precincts so that they can each reach their full potential. One potential governance model for education precincts is outlined in Figure 11, below. This illustrates the various educational, government and industry stakeholders and proposes that Education Precincts establish a formal ‘Precinct Leadership Group’ to coordinate precinct growth. This Precinct Leadership Group is supported by a separate Government Coordination Group where there is the need to coordinate inputs and workstreams with State and Local Government. Industry has a role to play in advising via an Industry Advisory Group which remains separate from the Government Coordination Group for probity reasons.

Figure 11: Role of Education Institutions, Government and Industry



Source: Frecklington Advisory

Where the precinct is an Innovation District (which will apply to only 3 or 4 precincts), there is the potential to establish a Precinct Office in the NSW Government similar to the office which was established by the Victorian Government to oversee Parkville. More details on this structure are outlined in the Case Study on Parkville below.

Case Study 3: Governance Structure for a Large Scale Innovation District

Governance Case Study – Public Sector (Parkville Innovation District)

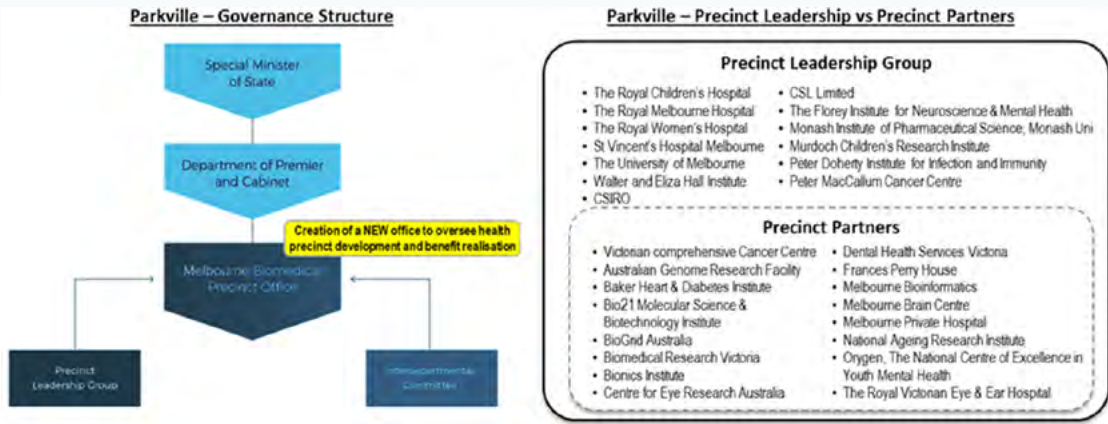
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 - A Research and Innovation Precinct ecosystem that connects businesses with research, students and infrastructure.’



Source: Frecklington Advisory

5.1 Structuring and Tax

1. Tax and Stamp Duty – Overview

One of the challenges in curating a successful Education Precinct has been the regulatory constraints faced by the stakeholders seeking to establish that precinct.

This impacts across a range of areas, including planning, procurement and the structuring of any required transactions necessary to establish the Precinct. For universities, their participation in any precinct arrangement with the private sector must be managed such that their existing tax concessions are preserved.

A University is typically a tax-exempt charity on the basis that it has as its objective the advancement of education. The cost saving these exemptions provide to the sector are fundamentally critical to the affordability of their ongoing operation.

There are a number of transaction structures that would realise value and create taxing points for a University when participating or establishing an Educational Precinct e.g. transfer of property, creation of co-ownership arrangements of property, grant of a ground lease and lease back arrangements, receipt of income distributions from a trust and so on. It is critical that the tax exemptions and concessions held for the benefit of a university are preserved regardless of the structure adopted.

If an exemption or concession is lost because of the development or land structure adopted, this will impact on all transactions entered by a University going forward and could have a significant financial impact on the future of the University. Providing clarity around the taxation position of different development structures (Approved Structures) would allow more efficient implementation of transactions for the creation of Education Precincts, by creating certainty that those structures would not negatively impact the position of the Universities participating in the precincts.

This will assist both Universities and a range of other government and private sector stakeholders to better use and deploy land assets within an Education Precinct, by supporting the development of governance models that can be adopted by precinct participants (ie the State, Universities, Investors and Developers) to simplify and streamline the establishment of such precincts in a way that preserves the tax position of the Universities. It will provide the building block around which development and operational governance structures can be developed.

Currently, when considering participating in an Education Precinct, all stakeholders, and the relevant University in particular, will wish to seek tax and structuring advice to ensure that the development opportunity it engages in with the private sector will not result in the loss of the University's tax exemptions and tax concession status. The key concerns for Universities are:

- I. Risk of losing Tax Exempt status – Charitable Status and clarity around to exemptions when diversifying land use
- II. Retention of exemption from State taxes – Stamp Duty and Land Tax
- III. Retention of exemption and tax concessions under Federal taxes – Income tax; deductible gift recipient (**DGR**) status and GST.



2. Tax Rulings

Seeking pre-approval from both the Australian Tax Office (ATO) and Revenue NSW of Approved Structures to be used in the establishment of precincts will help to streamline the process and ensure losses of the above exemptions and tax concessions don't occur and facilitate a more efficient way for Universities to take up opportunities to participate in precincts.

Such approvals currently take the form of:

- I. a private ruling from the ATO on areas such as DGR status, the GST concession and Income Tax exemption
- II. an advance ruling on the land tax issues; and
- III. private ruling on stamp duty from Revenue NSW.

Receiving clarity upfront from the ATO and Revenue NSW by obtaining binding advice or ruling/s to the Approved Structures will provide guidance and comfort in proceeding with Precinct participation. This helps to preserve the tax concession charity status of most, if not all Universities in NSW as a "registered charity", that is endorsed to access income tax exemption and goods and services tax concessions. Land and precinct development transactions that are used by Universities need to be structured so that they do not adversely affect these exemptions.

Universities also have the status as a Deductible Gift Recipient (DGR) under the category of an institution that is a "higher education provider" within the meaning of the Higher Education Support Act 2003 (Cth), as above, any land and development transactions need to ensure that this status also remains unaffected by any proposed transaction.

Further, it would be beneficial for Universities in NSW (and those transacting with them) to be able to know that by utilising agreed structures for any land and/or precinct development which also involved a third-party developer, that the particular structures used to establish the Precinct and facilitate the development within it would not have the impact of resulting in:

- (a) the payment of stamp duty in relation to any transfer of the University's landholdings, particularly if multiple transaction steps are required to give effect to the Transaction (noting stamp duty relief may be available for any internal restructuring steps but would still need to be applied for)
- (b) loss of the exempt status in relation to land tax for the University, and
- (c) the loss of any exemption the University currently enjoys in relation to the payment of council rates.

Obtaining tax rulings allowing the use of Approved Structures not only creates greater certainty amongst the participants in such transactions as to the structuring opportunities but also reduces the financial feasibility that currently need to be carried out in relation to the repurposing of land within a campus to ensure what is being proposed takes into account both the accurate payment of stamp duty (not all steps will automatically be exempt) and the potential long-term impact of the payment of land tax across the University's holdings.

Under the current system in NSW (Revenue NSW) and at the Federal level (ATO), private rulings are provided to individual applicants who provide a detailed description of a specific transaction (including draft transaction documents), at the point at which a transaction is close to being finalised. As such, whilst it is acknowledged that seeking private rulings for a range of Approved Transactions may take time, it may still be possible to obtain a favourable





private ruling on a timely basis where the facts and circumstances that relate the proposed transaction relate to other substantially similar arrangements and are able to be accurately applied.

In addition, on an ongoing basis, the ATO generally develops public advice and guidance to assist taxpayers in understanding their tax obligations in particular areas which it considers is in need of clarification. Applications can be made to the ATO to include a particular subject matter for consideration. This is one avenue that may be utilised to encourage the ATO to issue general public guidance on the treatment of Universities within an Education Precinct. Consultation can be done on both an open and closed basis and industry groups are generally encouraged to submit topics for consideration.

A draft public ruling may be issued following consultation for comment by those who may be impacted by the ruling. A draft ruling generally represents the Commissioner's preliminary view on how relevant provisions could be applied. If a party relies on a ruling reasonably and in good faith, they will not be charged interest and penalties if in the future the ruling turns out to be incorrect and tax is underpaid as a result. However, a party may still have to pay the correct amount of tax. It is unclear as to what approach such reliance would have on a University where the guidance was applied in conjunction with an exemption or concession. If not apparent on its face from the public ruling, we would recommend seeking clarification from the ATO that such reliance would not result in the loss of such exemption or concession where reliance was reasonably made, and the University acted in good faith.

Whilst this process does not fully address the concerns held by the broader stakeholder University group, it is an open avenue to commence discussions with the ATO on establishing a more comprehensive system of public rulings that set out what should generally be acceptable structures for use within University Precincts in order to preserve existing tax exemptions and concessions.

2.1 Revenue Rulings

At the State level, Revenue NSW has a system whereby individual taxpayers or industry groups can seek a revenue ruling that clarifies Revenue NSW's interpretation of the law, especially when the law is unclear or complex. Such rulings will not relate to a particular situation but rather gives you guidance on how to apply particular laws to assist individuals and organisations in making decisions that affect their rights and liabilities when paying taxes.

Rulings do not have the force of law but generally the Commissioner will stand by the rulings until such time as the laws change or the Commissioner has reason to alter the interpretation (ie the Courts find that a different interpretation should apply).

As with the ATO rulings, as part of the consultation process in the formulation of Revenue Rulings, drafts are circulated to peak industry and professional bodies (ie Property Council) for comment where it is considered that there may be a particular interest in the subject matter of the Rulings.

Such rulings are classified into areas such a Land Tax, duties, payroll tax etc., it is recommended that a range of rulings may be required to clarify the position on how each a University's position under an Approved Structure would be impacted.

2.2 Private Rulings

The aim of such rulings is to ensure that the tax concession charity status of a University as a "registered charity" that is endorsed to access income tax exemption and goods and services tax concessions is not adversely affected by the University's participation in a Precinct.

Generally, the close to final form transaction documents are submitted as part of the process in obtaining a private ruling. It is possible to describe an arrangement or 'scheme' as long as the facts used are reasonably certain and do not change once the transaction is entered into. Private rulings will not be issued about hypothetical institutions or transactions.

A 'scheme' is used to refer to any agreement, arrangement, understanding, plan, proposal, promise or undertaking agreed to be put in place. Unfortunately, private rulings can only be relied on by the entity that seeks the private ruling. As such, the benefit on an industry wide basis of any edited versions of the private ruling which are made publicly available on the ATO's Register of Private Binding Rulings is limited, other than it does provide some guidance to those in the Education sector as to how the ATO will assess the application on similar concessions and exemptions where similar structures are used.

It is currently the accepted position that specialised tax and legal advice needs to be obtained and potentially, private rulings may need to be sought, before any structure is locked in by a University, to ensure the tax concessions currently enjoyed by the university is not affected. This has time and cost implications for all precinct participants, as it may be the case that further structuring cannot be progressed until these rulings are obtained, given the impact on the University if the concessions were to be lost.

2.3 Applications of Private Rulings

It is possible to obtain favourable rulings for a range of structures, including the use of an unlisted fund or unincorporated joint venture, a credit tenant lease, ground lease structures, a listed real estate investment trust, or an outright sale and a lease back of relevant property.

The reason is that developments in the not-for-profit tax law have clarified that an institution undertaking commercial or business-like activities can be charitable if its sole purpose is charitable and it carries on a business or commercial enterprise to give effect to that charitable purpose. In these circumstances, it does not matter that the activities themselves are not intrinsically charitable.

This means that, provided the use of any profits arising from the proposed transaction continue to be used in furtherance of the charitable purpose of advancing education, as reflected in the objects and functions of a University (which in NSW are generally set out under the specific incorporating act for a University), the University should continue to be a "charity" that is entitled to be a "registered charity", and the tax concession charity status of a University should generally not be adversely affected by the proposed transaction.

The status of a University as a Deductible Gift Recipient (**DGR**) under the category of an institution that is a "higher education provider" within the meaning of the Higher Education Support Act 2003 (Cth) should also generally be unaffected.

However, given the importance of maintaining a University's tax concession status and Deductible Gift Recipient status on an ongoing basis, and the fact that a University's status as a DGR is dependent on its status as a registered charity, we generally see Universities applying to the Australian Taxation Office for a private binding ruling.

Previously, a non-binding advice on these issues could also be sought from the Australian Charities and Not-for-profits Commission (ACNC), but resourcing constraints within the **ACNC** has meant that this service ceased approximate five years ago.





By obtaining feedback from the ATO (where possible) to a range of Approved Structures that are typically used in establishing Education Precincts which are anchored by Universities, that may reduce the need to obtain case by case private rulings and provide a better framework for such precincts to be developed and replicated in a more time and cost efficient manner.

In summary, we recommend obtaining clarity around the taxation position of different development structures (Approved Structures) early in the process. This will allow for more efficient implementation of transactions by ensuring structures would not negatively impact the tax exempt and tax concession position of the universities participating in the precincts.

This could be achieved by:

- Seeking pre-approval of Approved Structures from both the Australian Tax Office and Revenue NSW.
- Encouraging the ATO to issue general public guidance on the treatment of universities within an education precinct.
- Using Revenue NSW's system where individual taxpayers or industry groups can seek a revenue ruling that clarifies Revenue NSW's interpretation of the law (especially when the law is unclear or complex) to achieve a recognised case study to provide great certainty.

5.2 Town Planning

1. Clarity and rationalisation required in the identification of Education

Education Precincts will vary in many aspects, including their core area of reputation and strength, scale, physical attributes, surrounding demographic landscape and access to transport.

Many will be population servicing Precincts, some will have the potential for growth and diversification, but only few will have the genuine potential to become genuine 'Innovation Districts.'

Governments, both the State and Local, play a key role in supporting the vision of these various types of precincts and implementing frameworks for infrastructure prioritization and delivery, land use, and building form.

Too often planning policy identifies multiple 'precincts', 'districts', 'hubs', 'clusters' or 'corridors' involving large swathes of land with similarly worded general objectives which can lead to confusion for education institutions and their partners, as well as landowners or investors in other market sectors.

For each precinct to realise and leverage its own strengths, and perform its relevant role within the metropolitan network, it is important that Government Planning Policy provides clarity on the role of each precinct and areas of specialisation to grow or leverage.

This approach should be established at the state and metropolitan strategic planning level and cascading to district and local-level strategic planning. This provides a greater ability to achieve role and status definition, but also clarity and efficiency in the prioritisation and timing of major infrastructure delivery, as well as localised public facilities and improvement works.

Given the importance of the performance of these precincts to the State, oversight and appropriate intervention from the Department of Planning on Councils' interpretation of metropolitan and district-level strategic and their own local-level strategic planning will also be important.

2. Flexibility and certainty of land uses required to support Education Precincts

An essential component of the success and evolution of Education Precincts is the provision of commercial space (i.e. non-core education space which includes commercial, industrial or retail space). This space allows partners, other allied businesses and/or student housing operators to support the normal operation of the precincts, and also to create opportunities for further growth, diversification, profile, or user amenity within the Precinct.

In many circumstances land use zonings associated with major education assets involve a standardised special purpose zoning, i.e. "SP2 Infrastructure (Education Establishment)."

Under the Environmental Planning and Assessment Act 1979, this zoning terminology and definition reflects the core education use, i.e. a University, a TAFE, or a School. The range of permitted land uses under this zoning in a Local Environmental Plan are often to the description below:

"The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose."

The terminology ordinarily incidental or ancillary allows some contemplation of commercial uses, however its legal and practical interpretation have proved to be restrictive. Many commercial partners or allied businesses within successful education precincts will have a direct or symbiotic relationship with the education facility itself, however, will also have other clients, partners, customers or suppliers that are un-related to the education facility.

Some of these partners are minor in their scale providing a somewhat easier opportunity to gain town planning approval, nevertheless still present uncertainty in this process given the nature of their 'third party' commercial practices. Others are more significant in scale providing increased uncertainty of approval, however (because their scale and expertise) are really important in supporting the commercialisation of the knowledge and research capability of the education facility.

This restrictive statutory land use framework seems to reinforce an historic approach to town planning by segregated uses (i.e. teaching and learning functions only being provided at universities, and all business and office activities being located in town centre/high street environments). This approach does not reflect the contemporary role of major education assets, particularly Universities and TAFE, and also does reflect or implement the policy statements that support the maturation of education assets into evolving precincts or innovation districts.

Currently, the ability to address this restrictive constraint is to pursue a site-specific LEP amendment or (in cases where state significant development is involved- progressing a 'partly prohibited' DA with the Department of Planning). The LEP amendment process is both lengthy and uncertain, and the progression of a partly prohibited DA is not conventional and can also involve uncertainty, challenges and delays.

As a consequence, the current land use planning framework that applies to education precincts provides constraint and uncertainty. In turn, this diverts partnering and investment opportunities away from these precincts and limits their ability to optimise particular strengths or to diversify in areas where it makes sense to do. These constraints also limit profile and reputation associated with key tenants being located within the Precinct, as well as inhibiting vibrancy, convenience and user amenity created through the provision of a mix of uses and housing.

Greater flexibility, clarity and certainty is required to address all of the above matters and to ultimately provide successful Education Precincts.

3. Swifter and more certainty required in the approval processes to support Education

In recent years, the introduction of certification against prescribed criteria (via CDCs) as well as 'self-approvals' by Education authorities (via REFs) has increased the speed of gaining planning approval for building refurbishments as well as new development and the associated certainty of such approval. In effect, these pathways avoid a long (and sometimes convoluted, expensive and uncertain) DA pathway. These reforms have been welcomed by the many within the Education sector.

Despite this, further reform opportunities exist to increase the ease and speed of gaining town planning approvals, including the physical scale of development involved. In turn, this increases the certainty required to make investment decisions and mobilize funds.

Current legislation has limits on heights, floor space and other building form matters, as well as the particular types of education functions, that collectively represent the minimum thresholds required to be met to enjoy swifter, and less onerous and expensive, planning pathways. Further, other 'site-related' thresholds (rather than precinct-related thresholds) exist that restrict the applicability of these certification or self-approval pathways being available for seemingly very low-impact development.

Many major Education assets are located on Campuses of significant scale and area. Although, not always, these Campuses are often separated or defined in some way from adjoining residential areas or sensitive uses. In other cases, 'non-education' uses within or immediately adjoining campuses are often related in some way to the Education asset, and hence are a direct stakeholder in the growth/redevelopment of the asset and will benefit as a result of its approval speed and certainty.

These scenarios enable a setting whereby the external impacts associated with the design and function of new Campus development can be more easily mitigated or managed, and ultimately resolved between asset applicant and asset stakeholder.

There exists an opportunity to review the minimum 'eligibility' thresholds associated with these planning pathways. This would increase the spectrum, scale and value of works that could also enjoy the benefits of these 'non-DA' planning pathways, importantly without impacting the integrity of the development assessment process. In turn, this initiative would provide greater confidence for education asset owners and their investors and partners.

4. Reducing or waiving developer contributions associated with Education Precincts

Education Precincts are important public assets that deliver significant public benefits and value to the economy. Yet, Education Precincts are subject to monetary contributions that are levied to fund the demand on public amenities. This regime is set out in individual Council 'contributions plans' that are often applied in an inconsistent manner.

The Department of Planning has released a new framework for Infrastructure Contributions. This framework contained no relief for the tertiary education sector nor Independent Schools in respect to the levying of contributions. Although this framework is not being progressed at the current time, there remains a need to review any future framework to provide greater up-front certainty for the education sector in relation to the payment (or waiver) of financial contributions toward the provision of infrastructure.

We note the draft legislation provided an exemption for 'State development' for the purpose of schools, health services facilities, emergency services facilities or public administration buildings, but not for Universities, TAFEs or Independent schools.

The vast majority of University Campuses (and many larger Independent Schools) are effectively "self-sufficient" in nature as they fund and provide the primary infrastructure required to allow them to function and sustain growing student populations - they provide their own roads; footpaths; drainage and water quality systems; libraries; open spaces and recreational, cultural and sporting facilities; as well as social support services.

As part of the development process, Education institutions are often required to provide road/intersection, footpath and streetscape improvements to the external public streets in which they interface with. Consequently, funding these interface improvements not only provides benefits for their own population, but also the broader residential and business communities.

For many years, the funding of this infrastructure has continued, yet in many situations 'developer contributions' are still imposed as part of development consents, and depending upon the type of Contributions Plan operation, this money can be used in an area outside of the immediate University/School environment and hence provides no benefit to the University/School Campus.

We also note that in addition to these Education institutions funding and constructing their own infrastructure, many of the facilities within the University Campuses (and some Independent Schools) are available for use by the general public. This provision reduces the demand on the same facilities that otherwise would need to be funded by Council.

In the above context, the blanket imposition of contributions without any consideration of the specific circumstances associated with the particular University or School involved, is not an equitable outcome.



Circular D6 (a Circular released by the Department of Planning in 1995) provides guidance on the types of conditions of consent that can be applied to ‘crown applications’ which included Universities and TAFEs (and now through recent amendments to other legislation could arguably include Independent Schools). Historically, this Circular has provided some certainty and relief for Universities and TAFEs on the matter of developer contributions, however over time this has been inconsistently applied. At the very least, this Circular should be permitted to apply to Universities, TAFEs and Independent Schools in respect to the levying of contributions, until a more detailed review is undertaken of this specific issue and a permanent solution is found that provides a more equitable outcome for this critical sector.

Quite obviously the Education sector has been severely impacted by the ongoing Covid-19 pandemic. Therefore at this time in particular, both certainty and relief in relation to any additional financial commitments as part of the development process, should be prioritised. More broadly however, the tertiary sector’s contribution to the NSW economy is significant, as is the direct and indirect public benefits that are provided to society and the residential and business communities in which they are located. On this basis, this value and these benefits should be considered in reducing or waiving financial contributions toward the provision of infrastructure.

In conclusion, Government Planning Policy must provide clarity on the role of individual precincts (including areas of specialization and growth) at the state and metropolitan strategic planning level and cascading to district and local-level strategic planning.

This can be achieved by:

- Amending the restrictive statutory land-use framework, which currently seems to reinforce an historic approach to town planning by segregated uses (i.e. teaching and learning functions only being provided at universities, and all business and office activities being located in town centre/high street environments).
- Reviewing the minimum “eligibility” thresholds associated with current legislation which has limits on heights, floor space and other building form matters, as well as the particular types of education functions.
- Removing the blanket imposition of contributions without consideration of the specific circumstances of the university or school involved.

6. What is the Role of Rankings?

Role of Rankings

The NSW education sector’s property portfolio is worth approximately \$52bn¹⁰. The property and investment players that will be most successful in unlocking opportunities in the education asset class are those that take the time to understand the unique values and goals of each education partner they work with.

As NSW’s top ten universities account for \$18.5bn of the overall education asset class market, understanding this sub-sector is critical. Universities are not just focused on maximising their bottom line (although it is clear that higher rankings assist with government funding), they are equally driven by attaining elite status in global rankings as they play an important part in students deciding where to study and attracting the best educators and researchers. For example, Denmark and the Netherlands use university rankings as part of points-based immigration programs, while others automatically recognise degrees from higher-ranked universities¹¹. Rankings also influence who corporations employ and which universities they partner with for innovation and research.

When approaching a potential education partner about a sale and leaseback or development idea, how do you demonstrate that you understand their values and what is important to them? Start with asking these four simple questions:

- 1) What is important to your education partner?
- 2) Are rankings influencing their decision making and which rankings are relevant?
- 3) How does your education partner currently rank?
- 4) What ranking metric improvements is your education partner targeting?
- 5) How will your proposal help them achieve these goals?

Despite the important role various rankings have played to date, this Chapter will consider feedback from industry that suggests the criteria that feed into rankings may need some further thought, if we are to aim for global leading innovation precincts. For precincts to bring together leading-edge anchor institutions and companies that cluster and connect with start-ups, business incubators, and accelerators, it is suggested that tertiary educators will need to reconsider the current criteria across several ranking approaches and re-design them to achieve the desired precinct outcomes (“Workshop Feedback”)¹².

Rankings are an inevitable result of mass higher education, and of competition and globalisation of post-secondary education. Almost six million students study outside their own countries (almost half a million of those choose Australia); many seek the best universities available abroad and turn to rankings to inform their decision. Academia has also become globalised, and institutions seek to benchmark themselves against their peers worldwide in order to compete for students and staff¹³. Not only do rankings attract high calibre students, faculty and researchers, they also impact university funding models and decision making, and are important to determining the type of corporate tenants that a university may want to attract to an Education Precinct to reinforce its point of difference. Finally, in the last four years rankings agencies have developed impact rankings that compares Universities’ success at translation of their research, the value of their teaching and learning, their regional engagement and socio-ecological footprint.

¹⁰ The combined total of the property, plant and equipment values from NSW Public Universities, NSW TAFE and NSW Department of Education’s 2020 annual reports.

¹¹ College and university rankings. (n.d.). Retrieved 10 18, 2021, from Wikipedia: The Free Encyclopedia: http://en.wikipedia.org/wiki/College_and_university_rankings

¹² NSW Property Council’s Education & Precincts Committee brought together representatives of the education sector, the property and investment communities and government in a workshop held at EY on 12 October 2022, to identify ways that these stakeholder groups can better understand each other and work together to achieve greater economic and community benefits for the State, via the development of innovation precincts (Workshop Feedback).

¹³ Altbach, P. G. (n.d.). The State of the Rankings. Retrieved 10 18, 2021, from <https://www.insidehighered.com/views/2010/11/11/state-rankings>
<http://uis.unesco.org/en/uis-student-flow> (for global flow of tertiary students by Country); <https://www.austrade.gov.au/australian/education/education-data/current-data/summaries-and-news> (for data related to Australian enrolments);



Major world rankings/surveys used by NSW's top universities include:

1) The Times Higher Education (THE): Assesses research-intensive universities across all of their core missions: teaching (the learning environment); research (volume, income and reputation); citations (research influence); industry income (knowledge transfer) and international outlook (staff, students and research). It uses 13 performance indicators and is supplemented by 11 subject-specific rankings. Refer to Table 1 in Appendix A for further details.

2) The Times Higher Education Impact (THE Impact): Established in 2018, it measures the global higher education sector against the United Nations' Sustainable Development Goals (UNSDGs) with an emphasis on UNSDG#17 "Partnership for the goals." Universities can play a transformative role in supporting capacity building in developing countries, improving access to science, technology and innovation on mutually agreed terms. Refer to Table 2 in Appendix A for further details.

3) Quacquarelli Symonds World University and Graduate Employability Rankings (QS): QS is the world's leading provider of services, analytics, and insight to the global higher education sector, whose mission is to enable motivated people anywhere in the world to fulfil their potential through educational achievement, international mobility, and career development. Inaugurated in 2004, QS has grown to become the world's most popular source of comparative data about university performance¹⁴. In late 2022, QS will also release their first impact rankings of Universities, called the Environmental, Social, and Governance (ESG) Ratings. Refer to Tables 3 and 4 in Appendix A for further details.

4) Quality Indicators for Learning and Teaching (QILT): A suite of government endorsed Australian-centric surveys spanning the student life cycle from commencement to employment and measuring Labour Market Outcomes (rates of full-time employment, overall employment, labour force participation and median full-time salaries), Further Study Outcomes and Graduate Satisfaction. The Graduate Outcomes Survey (GOS) is Australian focused and used by institutions for continuous improvement and to monitor and improve the labour force outcomes of graduates in the short term¹⁵. Refer to Tables 5 and 6 in Appendix A for further details.

Link to Traditional Funding Models

THE rankings are inherently tied to a university's traditional funding model as high rankings attract high-profile faculty, researchers and students seeking to have their work published in research journals which enhance success in capturing research grants and resources from other funding bodies. Well ranked institutions will be viewed as having a higher probability of repeat performance and therefore university programs are often built around supporting or improving rankings in their chosen areas of excellence.

Industry can appeal to universities by ensuring Education Precincts are designed to include high quality research spaces that will contribute to building their research centres of excellence. The creation of co-location research spaces is likely to also generate a multiplier effect allowing multiple institutions to produce research that may not have been otherwise been economically feasible.

¹⁴ About QS. Retrieved 17 5 2022, from <https://www.topuniversities.com/about-qv>

¹⁵ Quality Indicators for Learning and Teaching. (n.d.). Retrieved 10 18, 2021, from <https://www.qilt.edu.au/>

Link to Industry, government and community

Industry can appeal to universities by ensuring Education Precincts are designed to include high quality and specialised research spaces that will contribute to building their research centres of excellence and help build the critical skills for the future. The creation of co-location research spaces is likely to also generate a multiplier effect allowing multiple institutions to produce research that may not have otherwise been economically feasible and could attract more into academia as a result of the increased investment into research and translation into business/the community.

The Workshop Feedback¹⁶ suggests research will need to extend into actual practical student experiences (closer collaboration with industry, government and the community). It was recommended that industry and government work with education institutions to redesign ranking criteria – perhaps to establish a national ranking with uniform criteria for precincts – to ensure sufficient focus is placed on the criteria that will lead to desired innovation outcomes. Examples of specialisation precincts include medical, construction and design, engineering, technology and finance and business. As a result, successful precinct designs are likely to invite fresh funding initiatives – whether in the form of government grants, venture capital, real estate initiatives, employment programs and course designs that promote innovative thinking and entrepreneurship. If universities and college research and courses are designed around industry specific precincts, this will likely enable better specialisation and the development of global leading expertise. These outcomes then drive demand and economic value for precincts as well as the education institutions – both locally and internationally.

Link to Getting the Right Corporate Tenant Mix

Interestingly, THE International Outlook score gives weighting to the proportion of international students, staff and publications that have at least one international co-author. Similarly, THE Industry Income score rates a university's ability to help industry with innovations, inventions and consultancy and the proportion of research income earned from industry. This score may be helpful in the context of approving and developing Education Precincts, as it is an indicator of a university's ability to attract funding in the commercial marketplace. Landlords and Developers may be able to leverage existing relationships with tenants to accelerate the commercialisation of a specific university's research by co-locating and sharing collaboration space within an Education Precinct. Property Council members can also contribute by identifying and donating vacant space at low/free rent to start ups and entrepreneurs specialising in the same field of excellence on and around the Education Precinct.

Link to Sustainability

Property Council member companies are likely to find commonality with prospective education partners through THE Impact rankings. This rating system was first established in 2018 and is gaining momentum with over 1,000 participants globally. Increased participation may suggest universities are seeing it as a point of differentiation to attract young and socially minded students, faculty and researchers. THE Impact rankings may also gain relevance as universities continue to access green bond markets.

THE Impact Rankings overall assessment draws on performance against UN SDG #17 "Partnership for the goals" and three other UN SDGs where a university has scored highly. The most common other UN SDGs reflected in the top 20 overall rankings include:

- Industry Innovation and Infrastructure (UN SDG #9)
- Sustainable Cities and Communities (UN SDG #11)

The most common UN SDGs reflected in overall rankings for NSW universities include:

- Sustainable Cities and Communities (UN SDG #11)
- Clean Water and Sanitation (UN SDG #6)
- Responsible Consumption and Production (UN SDG #12)
- Gender Equality (UN SDG #5)

Most Property Council member companies will have sustainability goals in common with their education partner. Accordingly, Education Precincts should be designed and managed to help both organisations progress against their sustainability goals.

¹⁶ Refer footnote 3 above.

Link to Future Jobs

Each of the QS ranked universities have demonstrated an ability to produce graduates with the ‘soft skills’ required for the modern workplace. Given the fierce competition for graduate roles around the world, students are seriously considering how their university can prepare them adequately for full-time employment, by connecting them with global employers and ensuring they develop the necessary skills and knowledge¹⁷.

The QILT survey results also show the link between graduation and employment in Australia. The supplementary GOS report discusses specialised areas of focus such as the impact of COVID-19 on labour force outcomes, gender differences and the gender pay gap, skills utilisation including graduate occupations and reasons for skills based or time-based “under-employment.”

Specialised Innovation Precincts can be used to help education partners further improve their QS rankings and QILT survey results by providing physical spaces that attract talent and facilitating joint research and other forms of greater collaboration between students, academia and corporates – all which translate into increased employment opportunities in jobs that will remain relevant in the future age of globalisation, digitisation and artificial intelligence.

Conclusion

As global rankings may focus on “what can be measured rather than what is necessarily relevant and important to the university”, the validity of the data available globally has been questioned¹⁸. However, global rankings continue to play an important role in determining where students chose to go to university and where faculty choose to teach and conduct their research. The industry must therefore ensure the Education Precincts are designed and managed with these global rankings in mind to demonstrate to education partners that their importance is understood and acted upon.

In order to improve the efficacy of how rankings are designed and applied, the Property Council can work with industry, government and tertiary education institutions to redesign ranking criteria in order to establish a national ranking with uniform criteria for specialised innovation precincts. Greater collaboration between the three will promote sufficient focus on the criteria that will lead to desired specialised innovation precincts, by attracting the best talent, academia, research and translation into industry and the community.¹⁹

¹⁷ QS graduate employability rankings 2022. Retrieved 20 06 2022, from <https://www.topuniversities.com/university-rankings/employability-rankings/2022>

¹⁸ College and university rankings. (n.d.). Retrieved 10 18, 2021, from Wikipedia: The Free Encyclopedia: http://en.wikipedia.org/wiki/College_and_university_rankings

¹⁹ Refer footnote 3 above.

7. Recommendations

Additional detail around the recommendations being made below is included in the previous chapters, as well as in the learnings from each of the four case studies analysed in the following pages.

The Committee also undertook a series of engagement activities including workshops and surveys which have further informed these recommendations.

6.1 How to further develop the relationships between the property and education sectors

Governance	Disconnect Between Industry & Institutions	Lack of Visibility of Precincts Opportunities
<p>Challenges and Barriers Education Institutions have complex or-organisational structures without clear linear reporting lines of authority. Their primary focus is education and are not structured around development and project delivery but rather committees formulated in response to project needs.</p> <p>Large number of stakeholders, authorities and committees add complexity and ambiguity to the decision-making process.</p> <p>Long-term success demands a collaborative and integrated approach to governance</p> <ul style="list-style-type: none">Place governance vs siloed governance is a point of natural tension between precinct players. <p>Current default position is to exclude industry in governance structures.</p> <p>Recommendations Each precinct needs a clear, upfront alignment of desired outcome for each project across all investors in the precinct (public and private sector).</p> <p>Depending on the maturity level of the precinct, a stakeholder-led governance model, broader than government and university stakeholders is most appropriate - acknowledging this is hard to do and requires long term support.</p> <p>Government could provide strategic advice to industry and anchor tenants on how governance structures can evolve as precincts mature (to ensure industry is included).</p> <p>It is important to identify the anchor/lead institution, so they can take a leadership role around collaboration and undertake the operational management of the precinct.</p>	<p>Challenges and Barriers Co-investors or industry partners need to be more flexible, thinking about the range of solutions they can offer institutions to solve their first order problems, rather than using real estate as the one-size-fits-all solution.</p> <p>There is often a lack of industry understanding of university values, needs and objectives. The ‘DNA’ of each institution or education sector category is often very different and not obvious to the property sector.</p> <p>Recommendations Property Industry needs to better flex its currently fixed ideas around rates of returns, risk profiles, investment gestation, assets type and volatility.</p> <p>Education Sector needs to reconsider procurement model to enable a “courting period” where industry can deepen their understanding of the institution’s motivations for the project.</p> <p>Both sides of the ledger need permission to innovate and permission to fail from their leaders.</p>	<p>Challenges and Barriers Industry feels there is a lack of transparency around the specialisations of different institutions.</p> <p>Similarly, there is a lack of understanding of the importance of rankings and their role in the strategic planning and future of institutions.</p> <p>The education sector is often characterised and constrained in its commercial dealings by fragmented land ownership.</p> <p>Clear delineation of land uses would stimulate more market participation.</p> <p>General understanding in industry of the maturity of a precinct and what they expect from this.</p> <p>Recommendations Precincts (and their anchor tenants) need to define and identify differentiators between themselves and others based on existing strengths and future aspirations. This needs to be promoted to industry and included in project briefs.</p> <p>Sector to further explain the significance of rankings in relation to investment (government, student and private sector) to industry.</p> <p>Government and/or a peak industry group should prepare a compendium/central knowledge bank of who is doing what/specialisations unique to each precinct. This should be widely available and updated annually with the cooperation of the institutions.</p> <p>Government and industry should adopt a common approach to the way they express a maturity score. Getting the mix of economic multipliers in the right order to create and sustain successful innovation districts.</p>

6.2 How Governments can help the evolution and success of Precincts

Governance	Disconnect Between Industry & Institutions	Lack of Visibility of Precincts Opportunities
<p>Challenges and Barriers Infrastructure provision across all categories including transport connectivity, provision of social infrastructure and digital capacity.</p> <p>There has been difficulty locally to create an agreed 'framework' for innovation district/precinct governance despite much reference to Julie Wagner's global review work. Big players are not showing up; who are the local experts to influence, design and plan precinct outcomes; the fragmented government framework is difficult to navigate and not set up with a view to the long-term future.</p> <p>Recommendations Each precinct needs a clear, upfront alignment of desired outcome for each project across all investors in the precinct (public and private sector).</p> <p>Depending on the maturity level of the precinct, a stakeholder-led governance model, broader than government and university stakeholders is most appropriate - acknowledging this is hard to do and requires long term support.</p> <p>Government could provide strategic advice to industry and anchor tenants on how governance structures can evolve as precincts mature (to ensure industry is included).</p> <p>It is important to identify the anchor/lead institution, so they can take a leadership role around collaboration and undertake the operational management of the precinct.</p>	<p>Challenges and Barriers Achieving flexibility around private sector capital in public sector projects and precincts</p> <p>Valuing the contribution of education to precincts and mixed-use developments specifically.</p> <p>Addressing the issue housing affordability and in particular relevant key worker housing.</p> <p>Need to recast the approach to planning and taxation across all tiers of government, particularly in relation to:</p> <ul style="list-style-type: none">Planning consistency across all tiers of government.Land use planning that stops segregating lives and disciplinesAnomalies and inconsistencies around land tax (eg BTR has no land tax) <p>Recommendations Agreed Government position on how to measure (and appropriately respond to) maturity levels of different precincts, districts and places.</p> <p>Well-articulated Treasury policy on private sector involvement (not just PPPs) in the delivery of social infrastructure.</p> <p>Changes to simplify the planning system should include:</p> <ul style="list-style-type: none">simplifying the planning pathways for jointly funded mixed use development projects)Providingflexible zoningMerit based assessment. <p>State and Australian Governments to work with investment industry and capital providers to establish education as its own asset class. This will require special consideration of current tax and planning approaches.</p> <p>Undertake research into the value to the State of the education sector as a driver of investment.</p>	<p>Challenges and Barriers NSW Government has identified seven key precincts Bradfield Aerotropolis, Tech Central, Westmead Macquarie Park, Liverpool, Campbelltown, and Randwick (with special emphasis on the first three) but there is little clarity around precinct points of difference, purpose, and objectives. There is also often a lack of co-ordination and communication between government agencies within precincts, thought this is improving.</p> <p>The focus on the three key innovation precincts listed above, means there is generally a Greater Sydney focus to the Government's work with some work being done for the Central Coast, Newcastle and the Illawarra but not for the regions.</p> <p>Ensuring that the entrepreneurial spirit is being facilitated and driven, across all sectors and categories of diversity.</p> <p>There is a lack of consistency in policy across all tiers of Government which makes communications with external parties confusing.</p> <p>There is inconsistency across business cases from different agencies in similar locations.</p> <p>Recommendations Government(s) needs to define and identify differentiators between precincts based on existing strengths, future aspirations and maturity levels. For example: the Australian Government can help define a national ranking with a set of criteria that makes the ranking specifically related to the role of institutions in precincts.</p> <p>Provide government sponsors as points of reference into government for precincts, industry and education.</p> <p>Support entrepreneurialism in collaboration with industry and education using the three pillars identified in the McKinsey Report</p> <p>Introduce place-based business cases through the Treasury process.</p> <p>Build regional precinct development capability through application of policy and lessons learned to regions.</p>

6.3 What Precincts need to do to drive their own growth

Create Communities	Evolve Governance Structures	Promotion
<p>Challenges and Barriers Making the place a welcoming one where people can feel they belong whether students (whatever age), researchers, visitors, workers – across all measures of diversity. This means addressing challenges such as:</p> <ul style="list-style-type: none">Ensuring a sense of community and belongingAchieving the right balance of community engagement/access and education focus.Achieving the right balance of land uses and users. <p>Recommendations Innovation districts and precincts are more than buildings - the stickiness of places depends on the soft features and the curation of these features.</p> <p>For example – programs of organised collaboration opportunities for students, researchers, start-ups and investors.</p> <p>Make the precinct an intergenerational destination:</p> <ul style="list-style-type: none">Create shared spaces for precinct occupiers and the public and which include innovative food, space use and entertainment offerings.Plan with children and families in mind by considering movement, safety, a range of land uses and 18-24 hour activation with space flexibility to change during day.	<p>Challenges and Barriers Depending on the maturity level of the precinct it is sometimes hard to identify a single point of contact. There is often massive churn and consequent loss of intellectual property. Engaging local government whilst at the same time having a whole of Sydney/region view can be a challenge.</p> <p>Creating successful innovation districts is a long game.</p> <p>Recommendations Recognise that precincts need a range of strategies—large and small moves; long-term and immediate.</p> <p>Look to establish precinct wide procurement processes and partnership initiatives.</p> <p>Ensure there is a networking coordination body which is cross sectoral.</p>	<p>Challenges and Barriers It is often difficult to make innovation visible and public.</p> <p>Precincts often cover big areas e.g. Tech Central</p> <p>Even though creating a unique vibe is often evolutionary, it is also important at the current moment.</p> <p>Recommendations Use the Property Council, business chambers and other industry groups to advocate for the precinct. Create small ecosystems where everyone knows everyone.</p> <p>Cross disciplinary place champions who use the language of opportunity should be appointed internally.</p> <p>Define the unique character of the precinct from its geographic location.</p> <p>Improve outward communications including social media.</p>

8. Case Studies

Reflecting both the interests of the Committee members and their analyses of how to further develop education as an asset class in its own right, four more detailed case studies were examined around their context, the nature and characteristics of the precinct and its level of maturity, governance and lessons learned in their development.

The Committee included representatives from outside Greater Metropolitan Sydney and so were keen to analyse these considerations from a regional perspective.

7.1 Tech Central

Context

Anchored around Australia's busiest train station, Tech Central incorporates six suburbs within the three key nodes of Camperdown, Central and Eveleigh. It forms one of Australia's densest innovation corridors.

The maturity of Tech Central as an innovation precinct is characterised by its long list of incubators, start-ups and SME companies that have been nurtured to success over a considered period of time and which has led to its status as the country's most innovation-dense and ready precinct. This performance in evolving a rich innovation eco-system is no coincidence and has been catalysed by world class research undertaken by long term institutional players such Royal Prince Alfred Hospital (RPAH), University of Technology Sydney (UTS), and the University of Sydney.

The precinct attracts global talent of well over 100,000 of the best and brightest students enrolled and engaged deeply in the fields of study that will be at the forefront of the next generation of invention and world problem solving.

The NSW Government has injected significant funding into the precinct for the purpose of innovation, with a funding package of \$48.2 million committed to kick-start development and innovators within the precinct.

Tech Central will provide up to 250,000 square metres of space for technology companies, including 50,000 square metres at affordable rates for start-ups and scaleups, in a connected location brimming with heritage, culture and activity.

Description of Precinct

a. Participants

Tech Central has a wealth of established public and private participants, and a growing number of start-ups and scaleups across its 250,000sqm of available office space. Complementing this, the precinct has more than 100 embedded research institutes and centres of excellence, offering the best available opportunities for talent to collaborate with businesses on joint research, commercialisation and graduate programs.

Private Sector Participants

Tech Central is already home to three Australian unicorns: Canva, Safety Culture and Rokr. In addition, two of Australia's largest tech businesses – Atlassian and Afterpay – are shifting their headquarters to Tech Central. Atlassian alone intends to bring over 4,000 employees to the district.

Situated within the iconic Central Station Sydney Terminal Building, Tech Central is also home to the Quantum Terminal which provides over 3,000sqm of affordable coworking space for collaborators and innovators in Quantum Technology, High Performance Computing, and Artificial Intelligence.

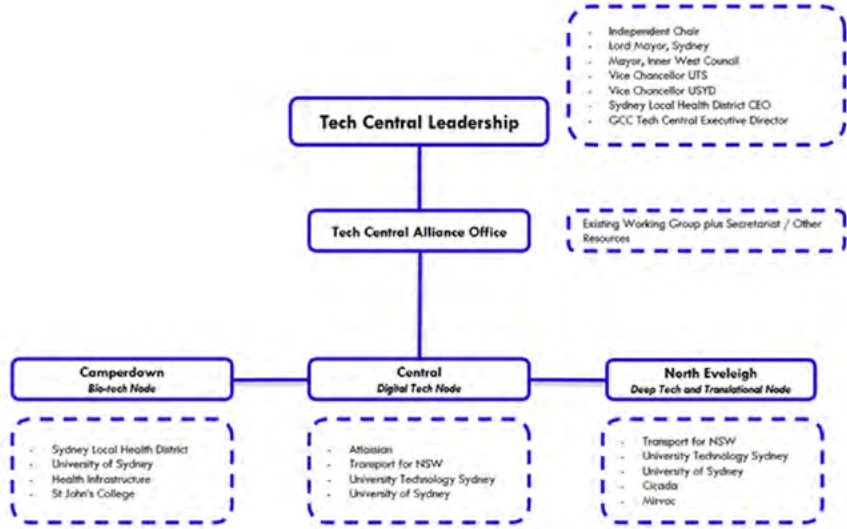
Public Sector Participants

3 years ago, the Tech Central Alliance (then known as the 'Camperdown-Ultimo Collaboration Area') was established as a collaborative group comprising the core institutional tenants of the precinct, with a joint focus to advocate for the infrastructure, policies, funding and governance to propel the innovation potential of the precinct. The Tech Central Alliance continues to work with Government to shape the vision for the precinct, and comprises of the following partners:

- City of Sydney
- Inner West Council
- Sydney Local Health District
- University of Technology Sydney
- University of Sydney

b. Governance Structure

The Tech Central Alliance strongly advocates for a collaborative governance model that has representation from the multitude of voices within the precinct, steered by an Independent Chair. Government should play a key role in the governance structure, particularly during its development phase, but we must avoid a structure that is solely managed by government, which can lead to missed collaboration opportunities, and a vision that does not leverage the diversity of the precinct occupants along with the breadth of the world class capability embedded in our institutions. Below is an example of a proposed governance model for the precinct:



Present

Tech Central's tertiary education tenants provide the perfect environment for private sector partnerships to forge ahead with translation and commercialisation of research and development. Below are some examples of these well-established partnerships:

- » Microsoft Quantum Laboratory at the University of Sydney is one of seven facilities worldwide where Microsoft is developing a quantum machine based on topological qubits. The research team, located within the University's Sydney Nanoscience Hub, is transforming fundamental research into industrial-scale quantum computation. Its focus on the interface between classical and quantum systems is critical to the success of scaling up quantum machines so they can have practical application.
- » The data and digital specialist arm of Australia's national science agency, CSIRO's Data61, holds one of the world's largest collections of R&D expertise in AI and data science. It also hosts the new National AI Centre, part of Australia's Artificial Intelligence (AI) Action Plan. Data61 helped the operators of Sydney's iconic Harbour Bridge reduce maintenance costs and minimise traffic disruption by placing 2,400 sensors on the bridge to monitor 800 steel and concrete supports under the roadway. Data generated by these sensors is analysed using machine-learning and predictive analytics to identify areas that might require maintenance in the future.
- » An example of Universities and industry working together at the coalface of research translation, is the project being led by the Climate Change Cluster (C3) within UTS and Young Henrys Brewing Co in Newtown, which is focussed on innovating the brewing industry to become carbon-neutral. The project team have incorporated the use of algae into the brewing process which acts as a CO2 catchment system. C3 and Young Henrys Brewing Co are hoping the research project will enable the technology to be used in breweries across the world.

Future Aspirations

There are some key areas in the precinct that require a focus on investment and coordination to enable its innovation potential:

- » The Camperdown Health Education and Research Precinct (CHERP) refers to the unique cluster of institutions situated within Camperdown. RPAH and the University are the largest asset owners and employers within CHERP, along with key precinct partnerships including medical research institutes and industry collaborators. The commitment of RPAH and the University to the success of CHERP is extremely mature, with the Sydney Biomedical Accelerator development and RPAH expansion further deepening the seamless connections between our two campuses. Focus must now be on achieving industry at scale on the lands surrounding these two sites (such as the Dive Site, Medical Foundation Building, and Mallett St). Not focusing on industry collaboration and commercialisation will risk the precinct's potential to achieve med-tech innovation and translation at a global scale.
- » Investment in the innovation potential of North Eveleigh is required to support the NSW Government's 20-year R&D roadmap. In March 2021, the NSW Government produced 'The Redfern North Eveleigh Strategic Vision' in its first step in pursuing a revised planning approval for the site. Whilst the document mentions its university and tech neighbours, it has no reference to research and innovation activities and could be applied to any similar precinct worldwide. The opportunity exists to influence the activities that can complement and leverage the other nodes, leading to long-term infrastructure and colocation outcomes.
- » Government, and all anchor tenants must work together to enable the porosity of the precinct. A barrier to collaboration that traditional institutions and many corporates face is a lack of porosity in both their built environment, and cultural environment. The design of the precinct must be purposeful, with people at its core, encouraging its inhabitants and visitors to care for country and have meaningful interactions with each other. The precinct must have a coordinated approach to events and collaboration opportunities to enable interactions that otherwise would be missed, and the discovery of talent that would otherwise be untapped.
- » The development of Tech Central must retain the integrity of the history of the area and benefit the existing tenants as well as new. The existing community and residents must be engaged and involved now in the development of the Tech Central vision to ensure the economic multipliers that come with innovation benefit current businesses just as much as new and relocated businesses (e.g. Atlassian).

Lessons Learned

- » Researchers naturally collaborate with their colleagues in competing institutions. We must take this ethos of collaboration to all facets of the precinct, and to our interactions with other precincts across Australia and the world.
- » Involving the current community in the future vision of the precinct is key.
- » Sustainability, inclusivity and cyber security must be at the forefront of the precinct vision.
- » An inclusive and collaborative governance model is critical.
- » Government funding is needed to support Universities in commercialising and translating their research. Too often do we see research that is supported by grant monies, but for the research to fail to break through into industry due to lack of financial backing.
- » Office space must be affordable, and preferably low-rise.
- » Public transport connectivity is key.

7.2 Macquarie Park Innovation District

Context

Macquarie Park is Australia's original Innovation Precinct and largest business park, established in the 1960's as a vision based on the USA's Stanford University and adjoining precinct. It is situated 12 kilometres from the Sydney CBD within the City of Ryde LGA. It has excellent transport links including the new Metro Rail line (which in 2024 will allow access to Barangaroo in 18 minutes), bus interchange and M2 Motorway, making it one of the most accessible business parks in Sydney.

There are currently over 150 large corporations and 200 small-to medium enterprises employing over 72,000 jobs. It also houses over 12,800 residents, with an additional 3,000 homes planned or under development. It is home to Macquarie University established in the 1960's to be an Innovative thinker and also home to CSIRO. It is the largest non-CBD Office market (more than 950,000m2 of NLA) and the 6th largest CBD in Australia with a local area GDP of \$9.1B per annum, economic growth at 7% per annum, and employment growth to >20,000 in the next 20 years.

Macquarie Park is in a new stage of rapid expansion. Following on from a significant public sector investment in a world-class metro train system and upgraded road network, there is over \$5 billion in private sector investment in new developments which will transform the region.

Macquarie University is also investing substantially into new buildings creating world-class research and learning environments and is launching new courses that rapidly grow its focus in science, engineering, health and medicine. It has been clearly identified as one of Australia's greenest cities due to its close proximity to Lane Cove National Park and the University Campus.

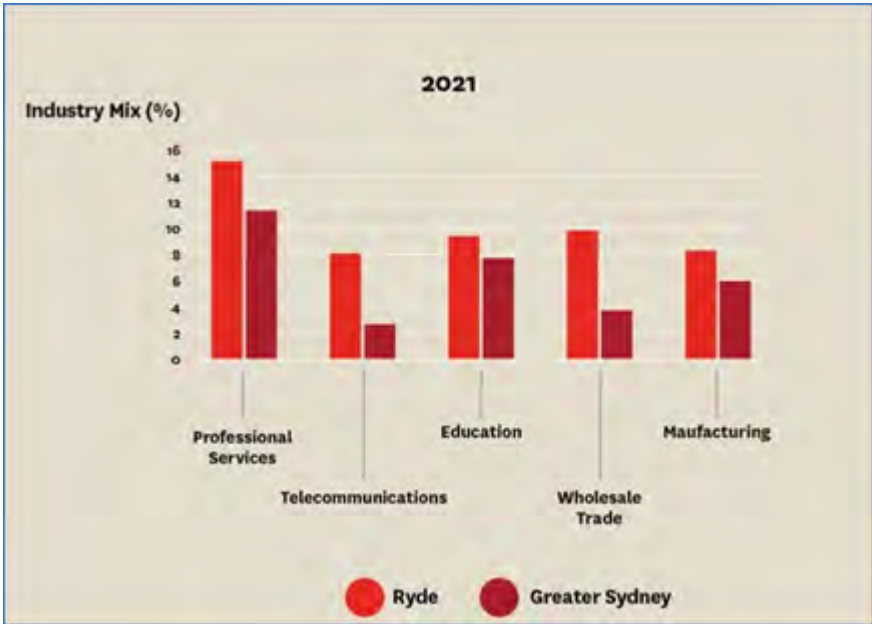


Table 1 – Source Macquarie Business School

The concept of Macquarie Park being an innovation district was first championed by Macquarie University approximately six years ago. The University had successfully established multiple, high quality bilateral relationships in the Park (and beyond). Examples include partnerships with Optus (Cyber Security Hub), NAB, Konica Minolta, Abbot, J&J, Orix, and many more.

These bilateral relationships rapidly developed into MPID (1.0) – the Macquarie Park Innovation District. This was a formal collaboration between several major corporates, the University and Ryde City Council. Led by a steering committee, MPID rapidly established a brand, a presence across Sydney and Australia, and also established many quality global linkages.

Description of the Precinct

The concept of MPID was substantially based on the Brookings model of innovation districts which identified three critical assets described above, being:

- Physical assets: infrastructure, including public transportation, digital infrastructure, shared work and lab spaces, specialised research infrastructure, and community spaces.
- Networking assets: community connectedness, such as established social capital and local communities of practice.
- Economic assets: existing firms, a diversity of complementary industries, a skilled workforce, research organisations and education institutions, natural resources, existing markets, and amenities that can attract innovative businesses and skilled workers.



Macquarie Park and North Ryde Business District

MPID (1.0) included 23 companies that are co-located on the Macquarie University campus including: Cochlear, Siemens, Procter and Gamble, Toyota Finance, Panasonic and Veolia and a range of small software and medical biotechnology companies.

The current top four industries in the region are (see table 1):

- Telecommunications/IT/media broadcasting
- Health & medical/pharmaceutical/medical technology
- Wholesale Trade and Manufacturing
- Higher education/research

Reference links:

<https://greatercities.au/precincts-and-collaboration-areas/precincts>
<https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Macquarie-Park>
<https://pp.planningportal.nsw.gov.au/draftplans/under-consideration/draft-macquarie-park-place-strategy>

Key developments under MPID 1.0 included:

- Several hackathons, Ideation sessions, workshops, thought leadership events
- A global symposium on innovation ecosystems
- The University funded and built the Chi-Wah Foundation – Macquarie University Incubator
- Establishment of a thriving start-up ecosystem, and a suite of entrepreneur training courses
- Leadership of Team Sydney within MIT's REAP program
- Development of a partnership to bring Venture Café to Australia, located within Macquarie Park, in order to activate the ecosystem.



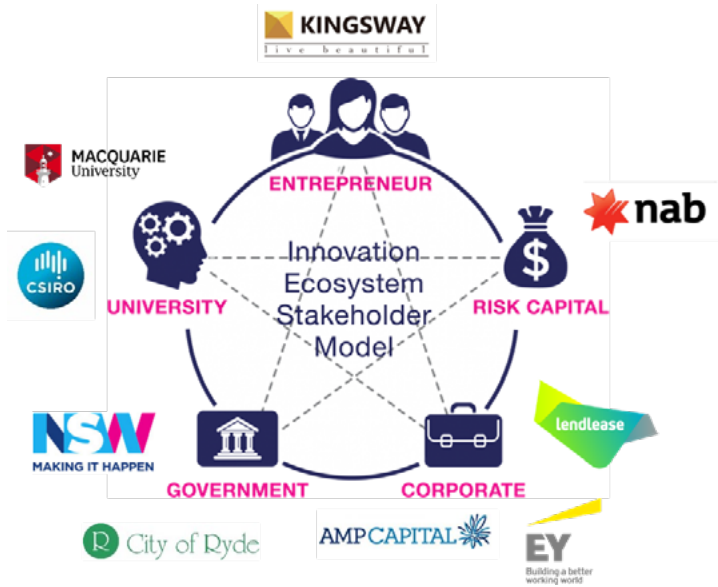
Over 2017, however, it became clear that MPID 1.0 has run its course, and a new framework for MPID – MPID 2.0 – was needed. Macquarie Park has a limited future if it remains as it (largely) is now – a fairly traditional business park. It involves most workers living outside the Park, travelling to work each day, sitting in their cubicle within their corporate building, and with essentially no interaction between organisations. The current building stock is old, and typically comprises corporate once block isolated by boom gates.

In 2019 to 2021 the NSW Government commissioned a strategic master plan be developed for Macquarie Park with three key objectives, to improve the quality of place, to improve the quality of movement and to improve the quality of business through a four-layer action plan around economic action; transport and connectivity action; and the creation of new and improved landscape and open spaces. Following extensive public consultation, the Strategic Plan was published in June 2021, included in which was a detailed Economic Development study and Innovation District Study.

Major stakeholders joined the MIT REAP (Regional Entrepreneurship Acceleration Program) in 2018 to undertake a two-year evidence-based program having examined innovation districts all around the globe but leaning heavily on the 80+ years over which the Boston innovation ecosystem has evolved.

The team was made up of the following stakeholders:

- Risk capital who enables the investment – NAB
- Corporates who are key end users for new technologies – Lend Lease, EY, and AMP Capital.
- Government – who provide policy and regulation – NSW Government (we also keep City of Ryde well informed)
- Academic institutions – who supply the research and talent – ourselves but also recognising CSIRO is a strong academic and technical resource
- Entrepreneurs – who create the businesses – Kingsway Investments.



The core model for innovation ecosystems, developed by the Brookings Institute, remains true of Macquarie Park. It has all the economic and physical asset that it needs, particularly with the scale of the investment in new facilities and transport infrastructure. However, this investment could be optimised with an enhanced vision for Macquarie Park as a whole. MPID is our core strategy for transforming what was Australia's largest (traditional) business park into Australia's leading Innovation District. The coalition assembled includes the leading organisations below comprising corporates, SMEs, local and state government.



Lessons Learned

1. Getting Growth Right

Due to its success, the number of people working in Macquarie Park has grown significantly. This has created a need for supporting infrastructure to "catch up." The Department of Planning's 2015 strategic employment review and 2021 draft masterplan both agree there are 72,000 people employed in the Park today but forecast different long term views. By 2030/2031 the difference between forecasts is equal to 15,530 employees. By 2035/2036 that difference increases to 27,410 employees. Future infrastructure – from additional bus services to new buildings – will be planned around growth forecasts, which is why it is important to get them right.

2. New Access Alignments

Macquarie Park is already home to Australia's first autonomous Metro system, serving three stations in the area. That system will expand in 2024, connecting Macquarie Park to the city via dedicated lines through new tunnels beneath Sydney Harbour. Journey times from Macquarie Park to Barangaroo will be slashed to just eighteen minutes in fully autonomous, to the city in 18 minutes air-conditioned comfort. Journeys to Sydney airport will take about half an hour. More transport options will increase access to talent and improve the perception of Macquarie Park as a well-connected centre of innovation. Macquarie Park needs better connections to the east and west to grow.

3. A Green Connected Centre

Bordering Lane Cove National Park, satellite analysis shows Park is already Sydney's greenest CBD. Opportunities for 23 hectares of new open space have been identified in Macquarie Park master plan, with a target of 25% tree canopy cover. Construction of Catherine Hamlin Park, a new 9,000 square metre public park on Waterloo Road, will begin soon. Green public space is an important component of successful innovation districts. Streets aren't just for cars. Done right, and with programming support, they're also space where people meet, new ideas collide, and connections happen. This requires a careful balance between movement (of vehicles) and place.

4. Space and Support for Innovation to Grow

Macquarie Park already contains significant innovation assets, including the world class research capabilities of Macquarie University, the Macquarie University Incubator, and sectoral partnerships like the Australian Hearing Hub. In addition, it is rich in the physical assets (e.g. roads, railways, buildings) and economic assets (companies, employers) identified by the Brookings Institute as vital to the success of innovation districts. Macquarie Park's development as a 'drive in, drive out' precinct, with stand-alone buildings surrounded by parking, has led to a lack of vibrancy and personal networks, which "limits Macquarie Park's attractiveness for businesses, workers and residents."

Note: The body of this text is referenced to a Paper: MIT REAP (Regional Entrepreneurship Acceleration Program, October 2020, following a two-year study into Macquarie Park and its opportunity to become an economic powerhouse where collaboration and innovation collide, signing the brightest possibilities and attracting outstanding talent, investment, research and entrepreneurship.

7.3 Westmead

Context

a. Westmead

In just under three decades, the landscape of Westmead has undergone a rapid transformation to deliver a hybridised bionetwork of health, education, research and business, to better service the people of Western and Greater Sydney. Emerging as “Australia’s largest concentration of health services co-located with world leading education and medical research,” Westmead proudly supports over 18,000 high value jobs, with plans to expand this number to 50,000 by the year 2036 [1]. While Westmead evolved for the mutual benefit of its people, gaps emerged within the infrastructure and services of the area. Resultantly, a growing appetite for Westmead to be a more functional and effective space and place to live, work and learn within, emerged.

Approximately 30 per cent of the resident workforce in Western Sydney travel to other parts of the city to get to work, underscoring the importance of creating more jobs in the city’s west [2]. Such dispersed employment has placed significant pressure on Sydney’s transport infrastructure and generated many economic costs, including those associated with traffic congestion and disruption. The longer commutes associated with this employment also have a financial and time cost for residents of Western Sydney – affecting quality of life in the region.

The development of the Westmead Innovation Precinct will impact on both Western and Greater Sydney’s economy in a number of different ways, with the economic benefits to be realised through, beginning with its construction, and flowing through to its ongoing operations over time.

b. Institutional Framework

According to the 2016 Australian Census, Westmead was home to an approximate 16,000 residents, with 50.4% of persons identifying as male, and 49.6% of persons identifying as female [3]. A culturally and linguistically active region, the most common ancestries in Westmead were those of Indian (37.1%), Chinese (7.6%), English (6.6%), Australian (5.9%), and Sri Lankan (2.4%) descent [3]. 25.4% of respondents indicated they were born in Australia, while 80.4% of respondents’ parents were born overseas [3]. By extension, 73.1% of households spoke a non-English language, while 20.8% of households spoke English exclusively [3].

Through assessment of the ABS data, it is clear that Westmead is a location of vibrant multiculturalism. However, recognising that such a multicultural environment requires continued support, and a maximisation of services and amenities will be integral to the continued and future success of the Westmead Innovation Precinct.

As recognised in Harvard Business Review’s 2013 study, an absence of multiculturalism has potential to affect under stimulated, stagnant and inequitable environments. The research revealed that women, LGBTQIA+, and people of colour were 20-24% less likely to gain support for their ideas when compared to ideas pitched by a person who identified with the cultural majority [4]. Through a recognition of the ways in which our individual differences may gift purpose, assets and power to our communities, Westmead Innovation Precinct may effectively maximise its margins for growth and prosperity, while attracting further investment through a reputation for opportunity and equality. As fundamental facets to placemaking and innovation ecosystems, a tangible diversity of culture and language, orientation and sex across the Westmead Innovation Precinct will benefit the region by celebrating diversity and delivering melting pots for synergy and symbiosis.



Westmead Innovation Quarter by Architectus
Photography: Brett Boardman

Through a vast scope of public, private, and entrepreneurial entities co-located within the precinct, Westmead offers micro and macro benefits to residents and workers, wherein individuals, groups and teams are comprised of a harmonious balance or mix of demographics and are afforded an opportunity to gain exposure to those with different skillsets, beliefs and thought patterns. With its long-established network of cultural and linguistic diversity, Westmead is therefore positioned to achieve greatness through diversity and innovation.

Multiculturally supportive and diverse health services across Westmead are paramount to ensure the people of the region are best cared for, and best represented. With the population of Western Sydney expected to reach an additional one million residents by 2031, the accessibility of jobs, housing and education remains paramount to the future success of the region [1]. As such, Western Sydney University and Charter Hall are committed to the continued expansion and development of the Westmead Precinct to facilitate a strong economic and community centric product founded upon knowledge and innovation.

While Western Sydney has around 47 per cent of Sydney’s residents (approximately 2.1 million), 36 per cent of Sydney’s jobs and 33 per cent of Sydney’s Gross Region Product [3], Westmead is one of the largest health, education and research precincts in Australia, delivering health services to almost 10 per cent of the national population. Cementing itself within NSW’s urban fabric as a unique and thriving urban centre, Westmead is renowned for its world-class healthcare, research and educational output.

The complementary nature of innovation precinct partnerships has a flow on an effect of 71,000 post graduate STEM and health workers, 3,700 PhD candidates, and 120,000 new residents living within and around Westmead by 2026, with a health service catchment of 900,000. In doing so, a strong, economic and health focused web of services is emerging within Westmead, producing a stronger, more integrated and better serviced environment.

While significant changes and improvements have been realised over recent years, Westmead is preparing for its second wave of growth and expansion via the Westmead Innovation Quarter. With a presence in Westmead already established, Western Sydney University is committed to developing its world-class education, research, and treatment capacity, with three of the University’s renowned research institutes – the MARCS Institute for Brain, Behaviour and Development, NICM Health Research Institute and the Translational Health Research Institute – residing within the Westmead Innovation Quarter, alongside key tenant, CSIRO.

Description of Precinct

Integral to Westmead’s attainment of ‘innovation district’ classification is a complementary system of technologically infused and advanced partnerships [1]. An innovation district thrives on the integration of leading institutes to deliver education, research and health business to the regions. The flow on effect of these systems then materialises as firms such as hospitals, specialist centres and insurance companies.

a. Participants

Precinct partners include the Western Sydney Local Health District, Sydney Children’s Hospitals Network, Westmead Private Hospital, Westmead Institute for Medical Research, Children’s Medical Research Institute, University of Sydney and Western Sydney University.

Western Sydney University (WSU) is one of Australia’s leading tertiary education institutions, ranked in the top 2% of the universities across the globe. WSU is globally focused, research-led and committed to making a positive impact on the communities it engages with, and values academic excellence, integrity and the pursuit of knowledge.

Western Sydney Local Health District (WSLHD) is one of New South Wales’ fastest growing areas. As a leader in clinical services, research and education, WSLHD tends to the needs of almost 1 million residents across the region, and delivers \$1.7 billion in public healthcare [5].

Sydney Children’s Hospitals Network (SCHN) cares for thousands of children per annum in both hospital and home care settings. Across 2020/21, in excess of 170,000 children were given care, with circa 56,000 hospital admissions and 97,000 Emergency Department presentations. Supported by a team of more than 8,000, Sydney Children’s Hospitals Network is committed to world-class paediatric care in family-focused environments [6].

Westmead Private Hospital (WPH) tends to a broad range of healthcare needs, including day surgery procedures and highly complex surgeries. In conjunction with a highly skilled network of staff, the hospital is allied with Westmead Hospital and Westmead Children’s Hospital. The hospital has a 212 bed capacity, and contains a number of critical healthcare facilities, including 15 Operating Theatres, 16 bed Intensive Care Unit, 8 Birthing Suites, and a Day Surgery Unit [7].

Westmead Institute for Medical Research (WIMR) is a multidisciplinary institute dedicated to the research and treatment of major disease challenges faced by the global populace. WIMR tailors their approach to treatment on a personal level to cure disruptive health challenges faced by the public, and has a core focus on infection & immunity, cancer, liver and metabolic, neuroscience and vision, and cardio-respiratory health [8].

Children’s Medical Research Institute (CMRI) conducts fundamental medical and biological research into the greatest health issues affecting children. The Institute drives a core research focus on the search for a cure for children’s genetic diseases [9].

b. Governance Structure

i. Level of Maturity

Innovation districts have the unique potential to spur productive, inclusive and sustainable economic development. The development of these precincts will impact on both Western and Greater Sydney's economy in several different ways. Evidence on innovation precincts both domestically and internationally demonstrates that successful precincts encourage increased collaboration between researchers and end users, fostering higher levels of innovation, knowledge transfer, and commercialisation to drive sustainable economic growth and job creation.

- Increased collaboration: collaboration partners, such as firms and researchers, expend significant energy seeking each other out. The geographical concentration of innovation precincts provides greater opportunities to form deep and trusting relationships between businesses, researchers, educators and the community.
- Sustainable economic cultivation: the key driver in the formation of innovation precincts is that entrepreneurs, firms and researchers benefit from locating near each other. This is often described by 'agglomeration economics,' linked to the idea of economies of scale and network effects. Growing the number of internal and external alliances that desire a presence and involvement in the precinct actively stimulates further attraction and investment [1].
- Government support: continued work alongside the NSW Government drives future investment, growth and innovation across the precinct. Integrating government initiatives and planning strategies throughout Westmead ensures that the precinct is foreseen as a healthy, responsive and fluid environment worthy of further investment.

ii. Stated Goal & Ambitions

Consistently found throughout the literature is the knowledge that successful innovation precincts command an acknowledgement of weaknesses, and the promotion of strengths. Building success across Westmead in particular is contingent upon effective leadership, dynamism, and meaningful connections. Tapping into existing resources and seeking further investment opportunities is, therefore, critical to the modernity and growth of Westmead as a region.

Across Westmead, Western Sydney University and its partners' work is contributing to the unification of world-class research and education with relevant business and industry streams - aligning with the needs and expectations of the region in which the University serves. Through the strategic clustering of innovative sectors and research themes, Westmead is emerging to successfully co-locate and co-create with purpose - leveling barriers, and reimagining futures. By acknowledging and learning from invaluable precedents across the globe, Westmead demonstrates a commitment to harnessing best practice strategies and planning that seek to deliver a network of technologically infused, sustainable and innovative outcomes across the region.

The Brookings Institution outlines various categorisation of precinct success factors, and look to three types of local assets that are essential to a successful innovation precinct [11]:

1. Physical assets: such as infrastructure, shared workspaces, community spaces etc.
2. Networking assets: such as tangible social capital, community connectedness etc.
3. Economic assets: such as firms, a skilled workforce, education institutions etc.

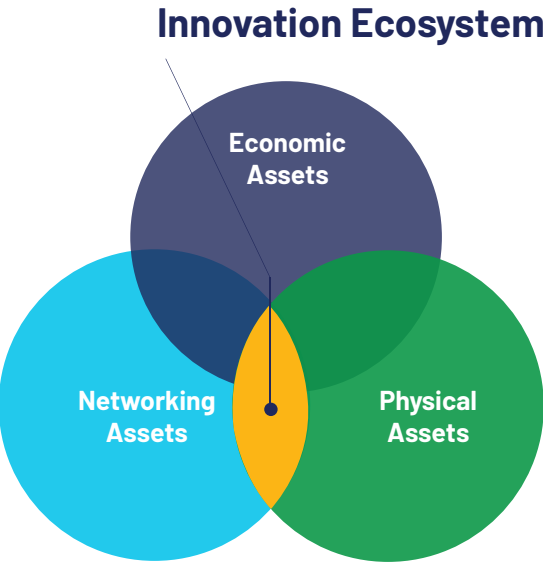


Figure 1. Comparative strengths of high-performing precincts. Bruce Katz and Julie Wagner, The Rise of Innovation Districts, Brookings, 2014.

The Westmead Precinct will be a substantial contributor to the economic transformation of Western Sydney, and is predicted to generate 50,000 knowledge jobs and a further \$2.8 billion per annum of economic uplift to the NSW economy by 2036 [1]. Stretching across four hectares, Western Sydney University's Westmead campus emerges as an indispensable gateway to the Westmead Precinct and mixed-use development. The proposed expansion will deliver on facilities essential to achieving the University's health, education and medical research objectives, co-located alongside industry partners, urban living, retail and community spaces. Critical to Westmead's success is the development of a collaborative bionetwork of public and private health, education, and medical research entities.



Diagram is provided for conceptual purposes only and includes selected anchor institutions, networks and locals drivers of Westmead's existing eco system. Source: Deloitte Access Economics and Health Care Real Estate Australia.

Figure 2. Deloitte, Westmead Innovation District: Building Western Sydney's Jobs Engine. 2016.

Partnerships with Private Sector

To ensure an innovation precinct runs smoothly and operates with efficiency, strong partnerships are essential. Being a space with pre-existing network links, Westmead is in a favourable position to work alongside its historical partners, while also connecting with new entrepreneurial firms to harness and drive novel thought and action.

While new partnerships are critical to the continued expansion and modernisation of Westmead, it is crucial for all groups to work toward a common goal. Expectations must be clearly defined, with current and future roles and contributions clarified, and a clear plan for the people of the region and their future needs must be embedded in every aspect of the development to ensure a holistic and productive end product is achieved [1].

a. Past

Past engagements at Westmead were such that health, education and research fields were aligned and complementary; though, the crucial link to embracing the broader community was absent. A lack of retail facilities and diversity within the precinct created a requirement for consumers to venture outside Westmead, failing to secure community based financial investment within Westmead. This, in turn, results in a flow on effect to negative impacts on the environment, due to an increased necessity to utilise individual modes of transport, or to travel to a number of destinations, due to Westmead’s previously unwalkable climate.

b. Present

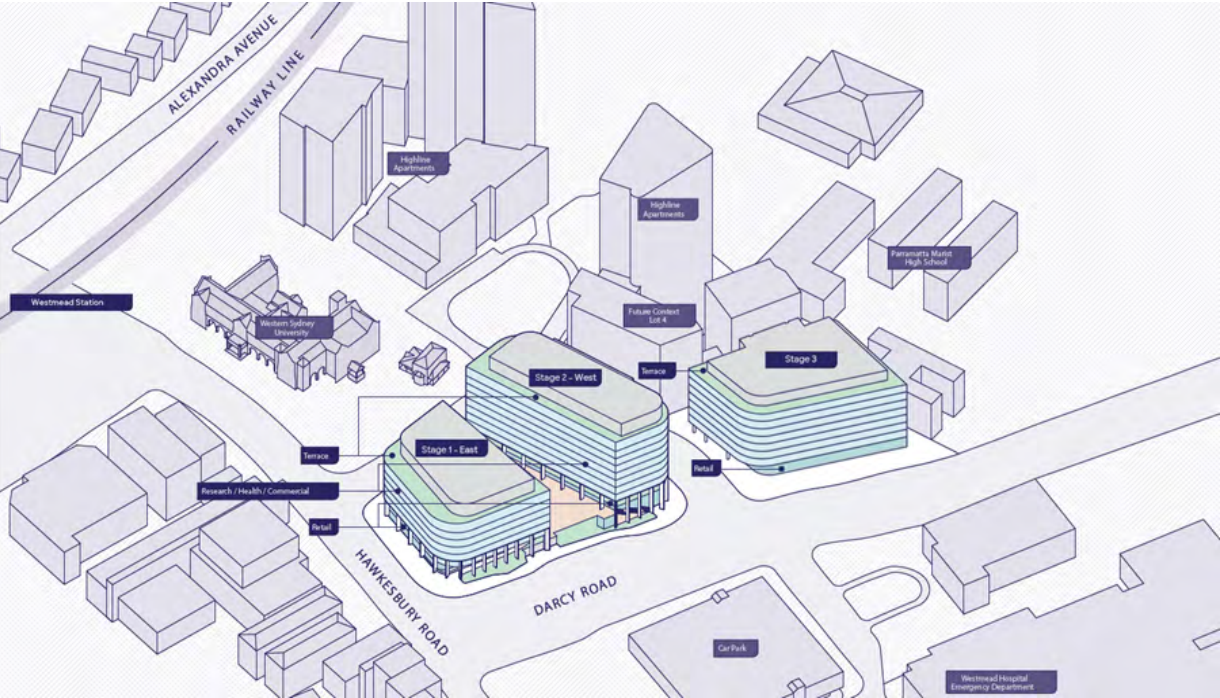


Figure 3. Charter Hall, Westmead IQ: Stage 1, 2 & 3. 2021.

The Westmead Innovation Precinct is now emerging as a highly connected, diverse and responsive frame of work. Figure 3 reflects the emerging changes to the landscape, wherein a unified and holistic approach strives to meet community needs and lifestyle preferences.

The amalgamation of retail, commercial, education and residential spaces across the precinct reflects a growing change in appetite, wherein residents are fatigued by the need to commute long distances to work or study. Targeting a 30 minute city ideal through a consolidation of services, facilities and amenities has inherent multiplier effects across the board [1].

In containing the needs of a modern individual and/or family unit to a single suburb that condenses living, working, playing and studying to a 30-minute radius, we ensure more time is leisurely spent, and the burden of the daily commute is eased.

This, again, powers a surge of sustainability measures and actions through a decreased need (and in some cases, in fact eliminate the need altogether) for individual transport, in exchange for a short walk or use of public transport.

As an attempt to rectify the pitfalls of an urban environment seemingly lacking in amenity, the Westmead Innovation Quarter (WIQ) has skilfully bridged the consumer gap to generate a more walkable, fit for purpose centre. WIQ’s stacking plan is a successful consolidation of private sector health entities, such as Telstra Health and WentWest. In establishing tangible connections with national leaders, further investment within WIQ is considered more likely, given the general desire to be within close proximity to, and affiliated with, entities of nationally recognised standard and reputation. Flowing on from this is the strategic endorsement of the capitalisation of convenience. WIQ has successfully introduced a number of retail outlets, such as Leaf Café and Allan’s Barber, opportunely activating the ground floor landscape. It is through an amalgamation of services and amenities that successful innovation precincts are produced.

Future Aspirations

Westmead beholds an historical background in producing both public and private capital. Currently, with over \$3.4 billion of capital flowing through the precinct, there is a recognised capacity to identify a further injection in excess of \$2.4 billion over the coming decade [1]. The continued flow on of funds through the Westmead precinct is testament to the growing expectations of Westmead, with specialised services and employment further encouraging capital investments and generating appeal to market investors.

Lessons Learned

Following a case study analysis of a number of successful innovation districts across the globe – namely, ‘Discovery District’ in Canada, ‘Manchester Corridor’ in the United Kingdom, and ‘Kendall Square’ in the United States – it became evident that, comparatively, Westmead has significant room for growth and development. While comparable in square footage, the quantity of jobs deliverable within Westmead (currently standing at approximately 18,000) was significantly less than the aforementioned innovation districts, each of which exceeded 50,000 [1]. The number of student positions also contrasted, with Westmead’s 3,400 suffering in comparison to Kendall Square’s 12,000, and Manchester Corridor’s 70,000.

Through comparative analysis, it is evident Westmead has potential and capacity for evolution, and hence opportunity for a proportional increase in jobs, students and networks flowing on from an innovation injection. Resultantly, WSU and Charter Hall recognise and support the need for an investment into the health and research environments of Westmead.

In terms of research, Westmead receives \$79 million in public research fundings per annum, supporting 600 PhD students, 1,100 researchers and 400 clinical trials per annum across 46,180 sqm of research floor space. By 2036, with a targeted \$250 million in public research fundings per annum, Westmead has steps in place to double its PhD student and researcher capacity, while tripling its clinical trial and outputs and research floor space.

While the foundations of the future of Westmead are cemented in the ideology of health and research, it is critical to Westmead as an Innovation Precinct that its economic and social affluence is nurtured and realised with a holistic and strategic intent, rather than being isolated in policy making and business thinking [1].

1. Deloitte, Westmead Innovation District: Building Western Sydney’s Jobs Engine. 2016.
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7.3 University of Wollongong & Lesson Learned for Regional NSW

Context

Location

The University of Wollongong (UOW) Innovation Campus is a unique coastal site within an urban context. Nestled between the Illawarra Escarpment and the Tasman Sea on 33 hectares of beachside property, Innovation Campus is at the heart of the Illawarra region (being only 7 km north of the Wollongong City Centre) and situated only 80 km from Sydney CBD. The 33-hectare site shown in Figure 1 below includes riparian and floodplain lands, with a development area of approximately 27 hectares.

Size & Characteristics

The Precinct is relatively flat and is an elongated 33 hectares running north-south, flanking the ocean. The northern third of the Precinct is subject to flooding; the southern third is slightly higher in elevation, with several significant mounds of coal wash and excavated material that have been deposited over the years. The site has some spots of contaminants that are contained in the mounds, which can be remediated as a part of any site upgrades or development works. There are also some slight traces of methane from biodegradable material from an adjoining creek which can be addressed in a design process if required. The creek has been diverted around the Precinct over the years with a number of ponds developed for run-off containment and site amenity purposes.

Approximately 50% of the developable land within the Precinct has been developed. A further 30% of the Precinct is planned and scheduled for development over the next five years. Landscaping is predominantly native vegetation with strict development controls on species that can be introduced to the site.

History

The area known today as Wollongong was originally inhabited by the Dharawal people, who remain the Traditional Custodians of this land. Traditional Dharawal clan groups and their people occupied the southern part of the Dharawal area with several campsites around Lake Illawarra, including Berkeley and Hooka Creek. Prior to European settlement and land modifications, the site would have been a low-lying series of small peninsulas merging into the estuarine wetlands associated with Fairy Creek and Cabbage Tree Creek. Given the geomorphology of the environment, the site itself was likely to have been used by Aboriginal people primarily for resource-gathering, however archaeological traces of this activity are likely to have been removed by flooding and subsequent modern land use practices.

Post-colonisation, the site can be traced back to the home of the Balgownie Migrant Workers' Hostel, Fairy Meadow Migrant Hostel and Brandon Park. Brandon Park was the home ground of the Wollongong Wolves FC and in 2001 the park was formally transferred from the Wollongong Sportsground Trust to the University of Wollongong.

Land

The land is zoned Special Purpose 1 (SP1) in the Wollongong Local Environmental Plan (LEP) which is primarily designated for education, research activities and related uses. The Development Control Plan (DCP) governing development within the Precinct is highly prescriptive and outlines in detail the development opportunities and constraints. This is due to the DCP having a precinct plan/master plan level of detail.



Figure 4. Innovation Campus site location

On transfer of the land to the UOW, a positive covenant was placed on the land that specified the approved uses and types of development that are permissible. To address early community and local government concerns that the Precinct could compete and develop into a second Wollongong CBD, strict development GFA constraints were also placed on the Precinct, with a specific development cap imposed.

The UOW is fast approaching the approved development cap and is initiating a DCP review & LEP amendment process with Wollongong City Council and the NSW Department of Planning and Environment to amend or scale back the current development restrictions. While the UOW is prohibited from selling parcels of land within the Precinct, the University was granted the right to offer the land for development on a leasehold basis for a term not to exceed 99 years. This is consistent with the LEP/DCP objectives for the UOW to partner with business to deliver on innovative research and learning.

Land Uses

Permissible land uses for the Precinct currently include education, research, commercial, retail, student accommodation, retirement living, residential aged care, community health facilities, community amenities, hotel and other related activities and functions. The positive covenant for approved uses was recently modified to address the scope of the planned Health & Wellbeing Precinct on Campus.

Development Controls

There are numerous state, regional and local planning instruments that apply and govern development. These specify the range of permissible and prohibited land uses as well as building design guidelines, maximum building heights and gross floor area caps. These instruments specify the development process to be undertaken, application requirements, the required alignment to the overall master plan, and specific milestones for master plan review.

Description of Precincts

The Campus

Innovation Campus features world-class buildings which complement our suite of specialist research and learning. Regular pipeline investment means that we can maintain an exceptional environment for facilitating research in diverse areas including materials, health, maritime and renewable energies. Our buildings are leading-edge and support our mission to create global impact through our research. Each building creates a unique platform for innovation and has its own story to tell.

The buildings and facilities at Innovation Campus are extensively used by our students, researchers, entrepreneurs and industry partners to realise global change, enable business and industry connectivity and to drive community engagement. These buildings also accelerate our Ideas Network and entrepreneurial spirit by housing state-of-the-art facilities and amenities to aid the brightest minds in executing various programs.

The Campus was awarded the Association of University Research Parks' (AURP) outstanding new global research park at the association's convention in Oklahoma City in 2016.

Master Plan

Innovation Campus is shaped by a clear and deliberate vision set out in the UOW Campus Master Plan, developed through extensive consultation and collaboration across all levels of government, industry and community. The University's ambition is to continue to grow and diversify the research and learning offerings on Campus and this will require additional floor space to exceed the current development constraint of 135,000 square metres. The master plan accommodates 25 buildings and a workforce of 5000 people within research precincts of innovative manufacturing, health and wellbeing, sustainability, ICT and finance.

Mix of Uses

Figure 5 below compares the Innovation Campus mix of uses with other Precincts of significance.

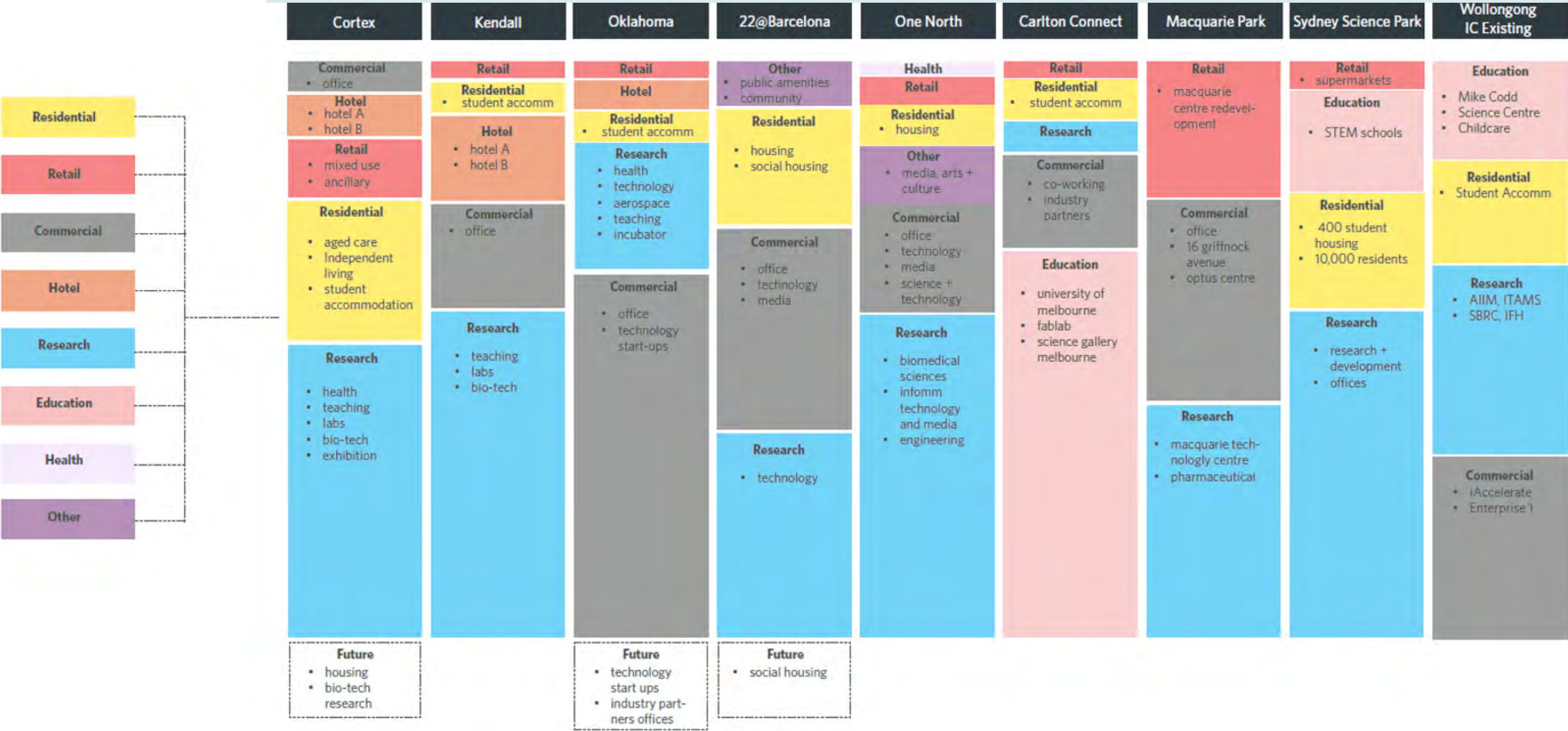


Figure 5. Innovation Precincts Benchmark Mix

Research Institutes

The campus houses four UOW-specific research institutes including the Sustainable Buildings Research Centre (SBRC), Australian National Centre for Ocean Resources and Security (ANCORS), the Australian Institute for Innovative Materials (AIIM) and the Australian Health Services Research Institute (ASHRI).

Business Incubator & Accelerator

The University of Wollongong's iAccelerate centre – Illawarra's purpose-built business incubator and accelerator – is the most recent addition to the Innovation Campus, having opened in July 2016. The iAccelerate initiative has already assisted 65 businesses and created 143 start-up jobs, with the ambition to create 500 direct and 1000 indirect jobs, attracting \$70 million in investment to the regional and state economies by 2020.

iAccelerate supports students, staff and the greater Illawarra community by offering practical and engaging programs to help build businesses fast with a focus on mentorship, entrepreneurship workshops and seed funding. The two-stream iAccelerate program is the first of its kind in Australia. It's a thriving community of like-minded entrepreneurs with vision, purpose and passion, growing their impact through exceptional education, mentoring and support among inspiring surrounds.

Operating Structure

The Innovation Campus is managed by the UOW Commercial Developments Unit, based on site, which ensures the ongoing function of the campus including commercial leasing, marketing, communications, facilities management and events. Alongside the management team, the facilities management, landscaping and security teams are also coordinated and managed by UOW. All of these departments report to the Chief Operating Officer.

Current Research & Industry Partnerships

Collaboration

The University and Innovation Campus collaborate with government, industry and the community to drive our outcome-orientated approach to research and development. These bodies form our multidisciplinary Ideas Network, which equips our tenants with actionable insights to drive local and global growth in research and education.

Whether for education, research, business or community engagement, collaboration is fundamental to the success of this regional precinct. Commercial leases have clauses drafted to ensure collaboration and engagement on campus. Development and property leases have associated collaboration agreements that are executed simultaneously.

Commercial Tenants

Currently, there are over 85 commercial tenants occupying space within The Central and Enterprise 1 buildings. These tenants range from health services to banking corporations, not-for-profit and IT companies, all engaged with research and innovation across their industries.

Research

To date, the Innovation Campus has helped to advance research in intelligent innovative materials with the potential to regenerate damaged human nerves, the development of superconductors that make energy transmission more efficient, new techniques for sustainable building design, maritime law and security, and innovative approaches to health services delivery and policy.

Future Aspirations & Focus

Early Development

While the current LEP / DCP illustrates an indicative master plan for the Precinct, the development plan and projects undertaken on site have been somewhat reactive for the initial and medium terms. This has changed in recent years with the University developing a more focused vision for the Precinct and overall development on site. While the current research programs and facilities remain a specific objective and priority, the University's vision for the Precinct has focused on several key sectors including community health, community wellness, an aging population, sustainability, and community and business/industry engagement.

Development early on was primarily focused on the central area of the Precinct with several greenfield sites left for future development in the core. The primary focus of development was the individual buildings themselves with less of a focus on the exterior areas and the environment between the buildings. This has led to beautiful buildings somewhat isolated in the landscape which has resulted in less activation and social engagement than would have otherwise been possible. A key design and planning objective is a current focus on density, place-making, exterior activation and environmental design.

Current Focus

The UOW's Health & Wellbeing Precinct is the next phase of major development proposed for the Innovation Campus and is central to achieving the University's bold vision for the future of health in the region and beyond as outlined in the UOW Health and Wellbeing Strategy. The Precinct will be Australia's first intergenerational university community – a place for living, learning, working and growing in an environment that supports complete physical, social, and mental health and wellbeing. The aim is to revolutionise the integration of research, clinical practice and patient-led care, dramatically improving the level of community-designed and preventative healthcare in our region.

The objectives of the Health and Wellbeing Precinct development include:

- Advancing the University's Global Challenges Program's research initiatives of transforming lives and regions and living well, and longer
- Continued implementation of UOW's Innovation Campus Master Plan
- Supporting UOW academic, health and research programs
- Assisting the economic transition of Wollongong and the Illawarra region, and
- Creating jobs and employment opportunities for UOW graduates.

With the UOW's strategic focus on communities, several additional developments are currently proposed or planned for the Campus. These include an expanded alliance and the development of a professional rugby sports centre of excellence and a community emergency response centre for NSW Health Infrastructure. Community engagement has always been a significant focus. Science Space and its onsite planetarium is welcoming families back to Campus. The recommencement of social networking evenings, community markets and the UCI cycling world championships are also a current priority.

Another significant project to be launched on Campus is the review and amendment of the Local Environmental Plan and Campus Development Control Plan governing Campus development. This is required to ensure future development opportunities and realise the full potential of the Campus to the UOW and Illawarra Region.

Lendlease Partnership – Health & Wellbeing Precincts

With the University's strategic focus on communities, health, wellbeing and aging, the UOW undertook a nationwide EOI/RFP process seeking a development partner – Lendlease Retirement Living – for the development of a Health & Wellbeing Precinct on the Innovation Campus. The 8-hectare Precinct is a planned intergenerational community consisting of 240 Independent Living Apartments, a 140-bed residential aged care facility, a wellness and community activity centre, an 80-place childcare centre, retail hub, public green space and a community health facility. The \$350 million stage 1 development has a late 2024/early 2025 opening currently planned. Figure 6 below shows the proposed location and layout of the Precinct within the Campus.

Lendlease is a globally integrated real estate group with core expertise in shaping cities and creating strong and connected communities. Lendlease has an outstanding and proven track record of delivering health infrastructure and commercial and residential projects across Australia. Communities by Lendlease are designed with an emphasis on positive environmental and social impacts while seeking to enrich the lives of residents and foster opportunities for connection, collaboration and growth.

The Lendlease development partnership has been exceptional to date. The level of collaboration, engagement, planning and development expertise is commendable. Key objectives of the partnership include activation, place-making, sustainability, design for Country, expanded education and research opportunities.

Human health and aging present complex and pressing challenges for our society – and it goes far beyond simply the absence of disease. The University of Wollongong and Lendlease are committed to driving innovation in healthcare research, education and delivery for a better, healthier future for all.



Figure 6. Innovation Campus's proposed Health & Wellbeing Precinct and existing uses

Current Research & Industry Partnerships

Business Engagement

A key intent of the campus is to promote business and industry engagement, research and collaboration. There are currently 85+ local, regional and national businesses located on campus, with several hundred additional start-ups participating in the iAccel-erate business incubator and accelerator programs. Commercial leasing, business engagement and research opportunities are continuing to expand through the established research institutes and commercial facilities on campus. A key component of commercial leasing and development on campus is a requirement for collaboration agreements to run in conjunction with commercial development and leasing.

Commercial Outcomes

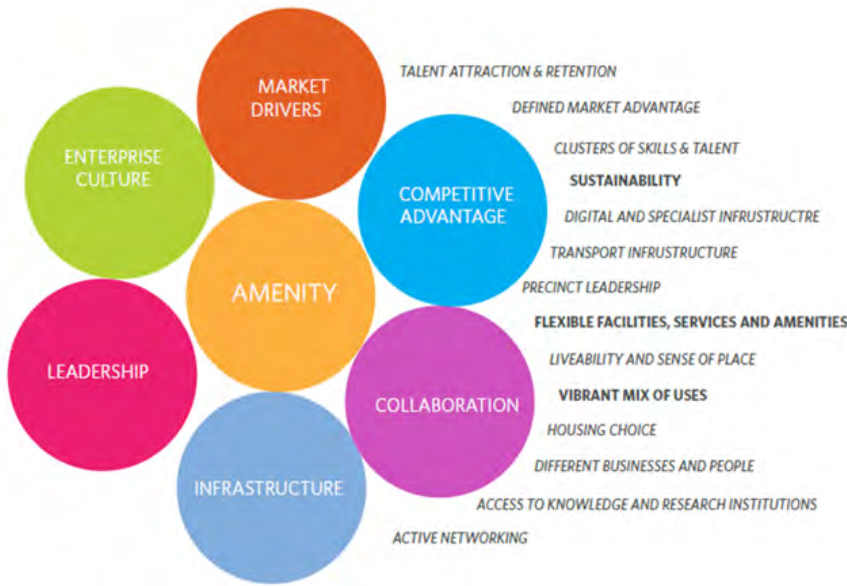
The Health & Wellbeing Precinct alone will deliver more than \$600 million in increased economic output to the region during construction. The development of this Precinct will be a major stimulant to the local economy, generating hundreds of jobs and opportunities for the Illawarra region across the construction and operation phases at a time when Wollongong is working to recover both socially and economically from the impacts of the COVID-19 pandemic.

Designing for Country

The University continues with initiatives to engage the local and regional First Nations Communities and the Illawarra Local Aboriginal Land Council (ILALC) regarding the Precinct and associated community opportunities and development issues of potential concern. Designing for Country and Aboriginal community involvement in the design program remain as key early objectives and outcomes of the project.

External Spaces, Sustainability & Success Factors

The University continues with initiatives to engage the local and regional First Nations Communities and the Illawarra Local Aboriginal Land Council (ILALC) regarding the Precinct and associated community opportunities and development issues of potential concern. Designing for Country and Aboriginal community involvement in the design program remain as key early objectives and outcomes of the project.



A successful precinct has:

- a unique sense of place and offers well-designed, safe and accessible public spaces
- a range of concentrated 'hot spots' for social interaction and a high level of informality and 'trendiness'
- access to affordable, diverse housing for workers and students
- vibrant public and private spaces used from early in the morning to late in the evening and over weekends
- a balanced mix of commercial, research, education, childcare, community, civic, cultural, retail, entertainment and potentially residential uses
- easy access for people to move through and within it
- flexible land-use regulations to allow high-quality public space repurposing, artistic events, a mix of innovative activities and help to meet the shifting infrastructure needs of fast-growing smaller firms and specific sectors.

Figure 7. Precinct Success Factors

Regional Development Opportunities & Challenges

Opportunities

There is a unique opportunity to positively impact a regional community with a well-planned and developed regional Precinct or Campus. The Precinct can be a magnet for business attraction and economic enhancement, provide additional community amenities and enhance social and community engagement. The development and operations within the Precinct will add jobs and create ongoing employment opportunities. Research institutes on the Innovation Campus are working to solve some significant global issues. There is the potential for continued development of an innovative ecosystem aligned with local and regional community plans.

Stakeholder Objectives

The University, Wollongong City Council, Council Planning Officers, government officials, local business and the wider community all have opinions on what the Innovation Campus and this innovative Precinct should be: its focus design, planning and design outcomes. Both the opportunity and the challenge is to bring community stakeholders together to explore options and agree on a revised or updated vision, if needed, and a planning pathway forward.

Revised & Updated Development Control Plan & LEP Amendment

There is general consensus the current 2009 LEP and DCP do not reflect current best practice planning and require review to ensure the documents and planning regime will facilitate the best development outcomes for the community and the University. This review will commence shortly.

Collaboration

Whether for education, research, business or community engagement, collaboration is fundamental to the success of this regional Precinct. Commercial leases have clauses drafted to ensure collaboration and engagement on campus. Development and property leases have associated collaboration agreements that are executed simultaneously. The existence of quality and ongoing collaboration between all stakeholders is a key determinant in the successful development and operation of a regional Precinct on Campus.

Innovation Campus Lessons Learned

None of these lessons are likely to be new, however they are worth restating in regard to regional Precinct development.

Development Partners

In securing a development partner or partners for the Precinct, take the necessary time to assess potential partners and ensure alignment of development objectives, collaboration and communication.

Master Plan

Ensure the master plan reflects the vision and remains relevant.

Community Engagement & Activities

Ongoing, broad and extensive community and stakeholder engagement is essential.

Council Engagement

Ongoing communication and engagement with local government and planning authorities at all levels will assist any planning or review process.

Council Resourcing

Local councils are facing pressures with high numbers and complex DA submissions being lodged. There currently appears to be resourcing challenges to employ experienced planners, engineers and other critical staff for timely DA lodgement assessments.

Alternative Planning Pathways

Alternative State planning paths may simplify DA pathways (e.g. the need for a combination of local, regional and State DAs). The UOW Health & Wellbeing Precinct has both a Regional DA and SSD path requirement. Clear, simple planning pathways for University precincts would likely be supported by councils and be less confusing for communities.

Project Approval Process

Approval processes remain complex, duplicated and lengthy. A previous DCP review of the Innovation Campus took over five years for local assessment due to complex flood studies and review requirements. Streamlining the process is challenging, however greatly needed.

Local/Adjacent Residents

Local residents have a keen interest in project outcomes and should be engaged early and often. Key issues include traffic, access, parking, scale and flooding as a result of the development.

Regional Infrastructure

There is at times a lack of adequate regional infrastructure to support significant Precinct developments. Local and state levels of government are looking for owners/developers to fund as much infrastructure as possible, often leading to significant cost increases and development challenges.

Logistics

There is general consensus the current 2009 LEP and DCP do not reflect current best practice planning and require review to ensure the documents and planning regime will facilitate the best development outcomes for the community and the University. This review will commence shortly.

Collaboration

Cost and procurement complexity in regions.

Emerging & New Regional Precinct Lessons^[1]

Key lessons for regional Precincts that are emerging or are being considered for development:

Established Precincts

Established Precincts
Learn from the innovation precincts that have already been established.

Education

More education on the economic, social and community benefits of innovation precincts in the regions is required to promote a willingness to invest time and energy into the concept.

Test The Feasibility

Invest time in testing the feasibility of an innovation precinct in your region before committing to the concept.

Activation Takes Time

Be realistic about the time required to establish an active innovation precinct. An innovation ecosystem and culture take time to develop and perhaps longer in regional centres.

Funding Timing

Government funding for the establishment and ongoing operations of Innovation Hubs is required well in advance of the need for large development and development capital.

Vision Development

The innovation precinct vision must be developed in consultation with all levels of government, community and industry in order to maximise effectiveness and success.

Government Alignment & Support

The alignment and support of state government agencies and local government are critical, however, they must also engage with industry and the community prior to the creation of their own innovation precincts.

Community Knowledge

A thorough understanding of the social and economic challenges in the region is essential. Know the strengths of the anchor organisation and local and regional industries – structure the innovation ecosystem in response to these strengths.

¹ Damian Burke, New Futures Capital Projects Director, University of Newcastle "Emerging & New Regional Precincts Lessons".

Land Ownership & Uses

Land ownership, zoning, and approvals for established university sites are problematic when considering alternative land and building uses. A state-level approach is required to assist universities to open their campuses to industry partners and development..

Precinct Vision & Objectives

The vision for the Precinct must be clear and resonate with the region – the objectives of the precinct should guide decision-making.

Acknowledgements

The teams at Lendlease Planning, Lendlease Retirement Living, UOW Commercial Developments Unit for their contributions, and Damian Burke, NeW Futures Capital Projects Director, University of Newcastle.



Figure 8. Sustainable Buildings Research Centre, UOW Innovation Camp