

# The Geography of Australia's Digital Industries

TCA companion report



## About the Tech Council of Australia

The Tech Council of Australia is the peak industry body for Australia's tech sector. Providing a trusted voice for Australia's technology industry the Tech Council comprises the full spectrum of tech companies.

We aim to advise and engage with Australian governments, businesses, and the wider community to help support the ongoing creation, development, and adoption of technology across industries.

Our vision is for a prosperous Australia that thrives by harnessing the power of technology.



# Contents

Introduction	4
1. Tech clusters make an important contribution in every state and territory	5
Brisbane Corridor Supercluster	6
Adelaide Greater City Supercluster	7
Newcastle regional specialist tech cluster	7
Hamish Hawthorn	10
Charise	11
2. There are a wide variety of jobs in tech clusters	12
Nicole	14
Mark Luo	15
Melinda Ho	16
Evan Kilpatrick	17
3. Future cluster growth	18

# Introduction

Tech activity and jobs are a vital and growing pillar of the Australian economy, with 935,000 Australians working in tech across Australia. In a new research project, CSIRO and the Tech Council of Australia (the TCA) examined where in Australia tech activity and jobs are located. Examining the geography of tech activity and jobs is important to understand where activity and opportunity are concentrating, who is getting to participate in that opportunity, and how the specialisation and location of digital activity impacts the design of local, regional and national policies. This report summarises the findings of the main report, *The geography of Australia's digital industries*, published by CSIRO.

## There are 96 tech clusters in Australia, found in every state and territory

Clusters are small geographic areas with a high concentration of tech workers and tech related activity. There are 96 tech clusters across Australia in each state and territory. To find the clusters, we examined 2,473 statistical regions across Australia and found that 4% are tech industry clusters.

There are three categories of clusters in Australia:

- **Four super clusters**, which are a mega group of neighbouring clusters in greater capital city areas. These are the largest clusters of tech companies and workers in Australia. The four super clusters are:
  - » **Sydney Arc**: including North Ryde, Chatswood, Lavender Bay, Millers Point and Redfern.
  - » **Melbourne Diamond**: spanning Parkville to St Kilda
  - » **Brisbane Corridor**: stretching from Bowen Hills to Toowong
  - » **Canberra Triangle**: connecting Belconnen, Phillip and the airport precinct.

- **60 greater capital city clusters**. These are discrete clusters identified within greater capital city areas that have large and diversified tech workforces and companies. Examples include Adelaide, Hobart, Darwin and Perth.
- **36 regional specialist clusters**. These clusters are located in regional areas and have significant tech workforces which often specialise in one or two areas. Examples include Newcastle (NSW), North Geelong (VIC) and Surfers Paradise (QLD).

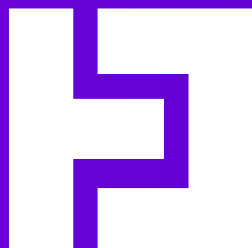
The number and spread of digital tech clusters highlights the geographic breadth of opportunity offered by tech in Australia. It also emphasises that local communities can build clusters based around local economic strengths or other sources of advantage (such as industry specialisation, location and amenity, access to a skilled workforce or proximity to education and research institutions).

## Tech clusters make an outsized contribution to tech job creation and growth

Clusters are the engine room of tech jobs growth. These 4% of areas that are digital tech clusters contributed an outsized 62% of tech workforce growth between 2011 and 2021. Overall, 55% of Australians working in tech do so in a cluster. Firms in tech clusters also make a significant contribution to innovation, generating 63% more patents than firms outside a cluster.

## There are a wide range of people employed in tech

Tech clusters employ a diverse range of people in a diverse array of jobs. In this report, we profile the stories of workers and founders in Australian tech clusters.



# 1. Tech clusters make an important contribution in every state and territory

**There are 96 tech clusters in Australia, found in every state and territory**

A cluster is a defined geographic area where there is a higher than average concentration of jobs and activity in an industry. Clusters are highly valuable to communities, industries and economies because they make an outsized contribution to job creation, growth, exports and innovation.

Given the importance of tech industries as a new, fast-growing and high-value source of economic activity in Australia, we partnered with CSIRO to identify where clusters of activity are located across Australia. To identify tech clusters we examined 2,473 statistical regions (SA2s) across Australia. These SA2 regions are similar in size to a suburb in most capital cities. Across these 2,472 SA2 regions, we found that 96 (4%) have high concentrations of tech activity and workers making them tech industry clusters.

We found the 96 clusters are spread across Australia, in a diverse range of areas. The clusters fall into three categories:

- **Four super clusters**, which are a mega group of neighbouring clusters in greater capital city areas. These are the largest clusters of tech companies and workers in Australia. The four super clusters are:
  - » **Sydney Arc**: including North Ryde, Chatswood, Lavender Bay, Millers Point and Redfern.
  - » **Melbourne Diamond**: spanning Parkville to St Kilda
  - » **Brisbane Corridor**: stretching from Bowen Hills to Toowong
  - » **Canberra Triangle**: connecting Belconnen, Phillip and the airport precinct.
- **60 greater capital city clusters**. These are discrete clusters identified within greater capital city areas that have large and diversified tech workforces and companies. Examples include Adelaide, Hobart, Darwin and Perth.
- **36 regional specialist clusters**. These clusters are located in regional areas and have significant tech workforces which often specialise in one or two areas. Examples include Newcastle (NSW), North Geelong (VIC) and Surfers Paradise (QLD).





## Brisbane Corridor Supercluster

Superclusters are a set of neighbouring clusters that together form a hub of digital tech jobs and related industries.

The Brisbane Corridor is one of four digital tech superclusters in Australia. It stretches from Bowen Hills to Toowong in Brisbane, taking in the city centre, Fortitude Valle and Milton. Its area has 33,534 people working in digital jobs, and the home of 19 ASX-listed companies worth \$13.29 billion. The cluster is highly diverse. It encompasses a range of digital industries, employs people in a range of occupations, includes companies ranging from startups to scaleups, and has a number of highly-regarded research institutions. It also includes dedicated innovative districts, such as The Precinct in Fortitude Valley. Surrounding the Brisbane Corridor, there are also greater city and regional clusters in areas such as Southport, Logan, the Gold Coast, and Noosa and the Sunshine Coast.

The rise of Brisbane and Queensland more broadly as a tech heavyweight in Australia has resulted from a series of factors. First, the Queensland Government has put in place a series of policies over decades designed to attract, grow and commercialise high-value new industries, including biotech,

software, robotics, quantum, clean energy and agtech in Queensland. Second, Queensland has successfully grown a crop of large, global companies that are generating jobs, sources of investment, and other spillover effects that are helping to grow the local tech sector. This includes companies such as Megaport, TechnologyOne, Go1, SafetyCulture, pax8, OctopusDeploy, Swyftx and Tritinium. Third, Queensland has a strong base of research and education institutions.

Finally, Queensland has a climate and lifestyle that is the envy of the country. This is attracting a growing number of tech workers to want to live and work in Queensland, particularly following the pandemic and the rise of remote work. This has meant that since 2020, tech jobs have grown at five times the rate of all other jobs in Queensland. The South-East corner of Queensland also has five of the top ten regions in Australia that have the fastest growth in tech jobs in the country.

The diversity and strong ties amongst the key companies and institutions in the Brisbane Corridor supercluster, combined with the strong growth in skilled workers in the area, point to a bright future for the region.

# Adelaide Greater Capital City cluster

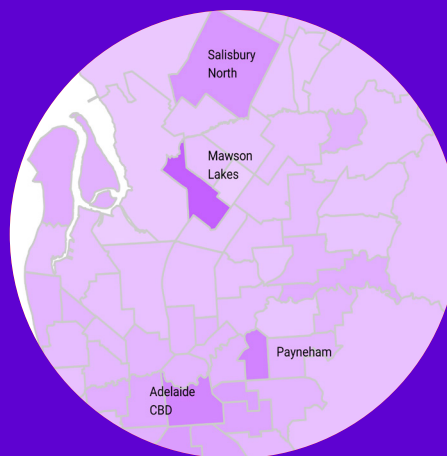
Adelaide is increasingly putting itself on Australia's tech map, becoming one of 60 Greater City Clusters across Australia.

The Adelaide cluster has three hotspots: the Adelaide City Centre, Mawson Lakes and the Payneham area slightly to the North of Adelaide City. These areas correspond to significant sites of tech activity, including the locations of innovation precincts, such as Lot14 in Adelaide city, company headquarters, and university campuses.

The biggest of the areas is Adelaide city, which has over 12,000 people working in digital occupations in it. It is also the eighth top SA2 area in Australia for tech jobs growth in the decade between 2011 – 2021, accounting for 2.3% of digital jobs growth in Australia in that period.

Adelaide's rise as a tech centre has been built on specialisations that leverage the state's existing strengths. It is becoming known nationally for the strength of its defence, space and analytics industry, producing exciting local companies such as MaxMine, Fleet Space and Fivecast. It is also developing strengths in areas such as Edtech, with companies like Lumination and 42, and clean energy.

Building these new strengths in the economy is vital to South Australia's economic future. It will aid South Australia in leading on the energy transition underway in Australia. It will help the state develop greater economic complexity and high-value industries. And it will be a source of high-value, well-paid, meaningful jobs that are open to a broad range of South Australians to enter.



# Newcastle regional specialist tech cluster

The popular image of a tech cluster is an inner suburb of one of Australia's capital cities. But regional centres are sites for tech clusters, with 30 regional specialist clusters registering around Australia.

Newcastle, in the Hunter region of New South Wales, is a prime example of a regional specialist tech cluster. Newcastle is a city known for its industrial heritage, including being the site of the largest coal port in the world.

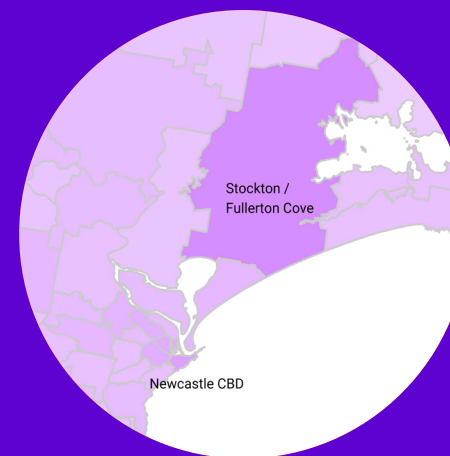
It's a city that has epitomised the different cycles of economic transition in Australia. Built off the back of mining, manufacturing and agriculture, the city's fortunes have waxed and waned with these key industries, from boom periods during coal and commodities boom, to the loss of significant jobs when major employers, such as the BHP steelworks, have folded.

Learning from these economic cycles, Newcastle has made a studied effort to diversify its economy

and make Newcastle a great place to live. This has included efforts to revitalise the city of Newcastle and its infrastructure, to expand the operations of the Port of Newcastle away from coal, to attract new businesses to the region – including in clean energy –, to create a program of cultural activities, including the Hunter Innovation Festival, and to build a strong base of industry-relevant training and research via the University of Newcastle. Part of the demand tech skills also stems from the presence of significant local organisations in the area, such as the Port of Newcastle and the University of Newcastle.

These factors have propelled Newcastle to be one of Australia's top 30 regional tech centres.

The Greater Newcastle cluster now covers multiple hot spots in the area, including the Newcastle city area and adjacent suburbs, the Glendale area, and Shortland. The occupations in the cluster include web and graphic designers, IT workers, and telecommunications and IT technicians.

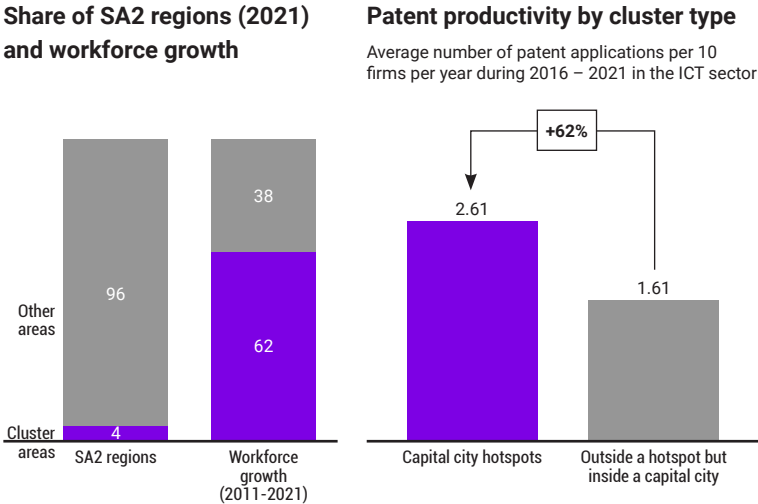


### Tech clusters are vital for national and local economies

Clusters are drivers of jobs growth and innovation. Firms in clusters are highly productive, driving job growth and innovation. Despite these 96 clusters only accounting for 4% of statistical regions, they drove 62% of tech workforce growth between 2011 and 2021, as shown in Exhibit 1. These clusters are also hotspots of innovation with greater patent activity. Firms in clusters generated 63% more patents than firms outside of clusters which indicates much higher levels of R&D activity.

Supporting tech clusters is an essential component of enabling greater productivity across the Australian economy. These clusters are hotspots of innovation and well-paid jobs that create technology and allow other firms to adopt this technology. Through enabling the growth of these hotspots, we underwrite an uplift in productivity across the economy.

### Exhibit 1: Cluster contribution to workforce growth and patent activity



### There are tech clusters in every state and territory

Tech clusters are found in every state and territory in Australia (see Table 1). The number and spread of tech industry clusters highlights the geographic breadth of opportunity offered by tech in Australia. It also emphasises that local communities can build clusters based around local economic strengths or other sources of advantage. These sources of advantage can be driven by a range of factors such as pre-existing industry specialisations, location and amenities, access to a specialist skilled workforce or proximity to education and research institutions.

Table 1: Summary of industry cluster distribution across States and Territories

State	Cluster type	Number of clusters	Examples
NSW	Super cluster	13	Surry Hills
	Greater capital city cluster	4	Parramatta
	Regional hotspot	11	Newcastle
VIC	Super cluster	13	Docklands
	Greater capital city cluster	6	Hawthorn
	Regional hotspot	7	North Geelong
QLD	Super cluster	6	Fortitude Valley
	Greater capital city cluster	1	Brisbane City
	Regional hotspot	18	Sunshine Coast
WA	Super cluster	0	-
	Greater capital city cluster	2	Perth (West)
	Regional hotspot	0	-
SA	Super cluster	0	-
	Greater capital city cluster	3	Adelaide
	Regional hotspot	0	-
TAS	Super cluster	0	-
	Greater capital city cluster	1	Hobart
	Regional hotspot	0	-
ACT	Super cluster	9	Civic
	Greater capital city cluster	1	Greenway
	Regional hotspot	0	-
NT	Super cluster	0	-
	Greater capital city cluster	1	Darwin City
	Regional hotspot	0	-

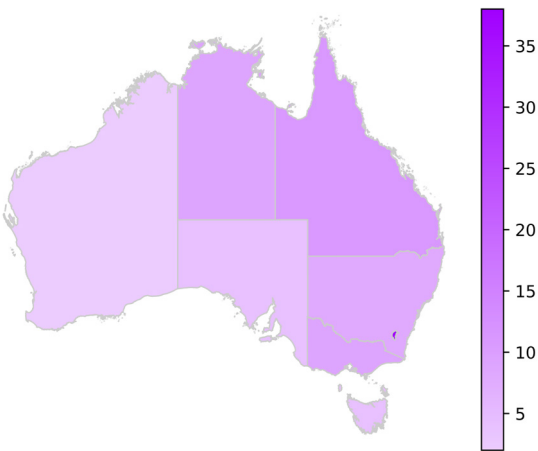
While every state and territory have tech clusters, there are differences in the degrees of concentration. The highest degree of concentration is in the ACT with 38 tech clusters for every million working age people, shown in Exhibit 2. The lightest concentration of tech clusters is in Western Australia, with two clusters per working age people.



Exhibit 2: Distribution of tech clusters across states and territories

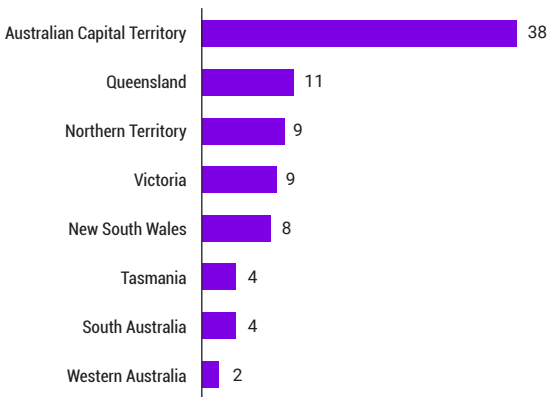
Heatmap of cluster density by state and territory

Average number of patent applications per 10 firms per year during 2016 – 2021 in the ICT sector



State and territory breakdown of cluster density

Number of SA2 tech industry clusters per million working age people



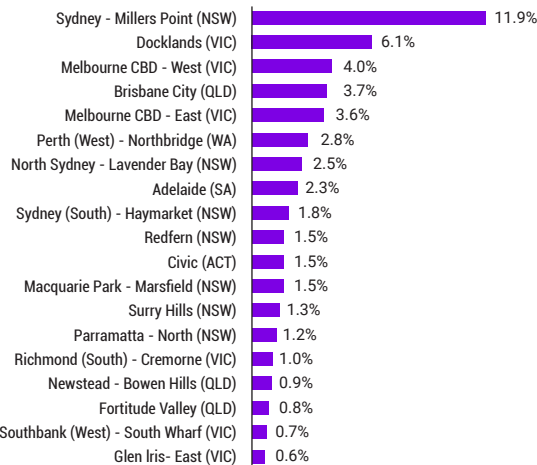
Most of the largest and fastest growing clusters are spread across five states

Across the 96 tech clusters, there are different concentrations of tech workers and rates of growth. Exhibit 3 lists the top 20 clusters by contribution to growth and tech workforce<sup>1</sup> count. These top 20 clusters are spread across five states and territories: New South Wales, Victoria, South Australia, Queensland and Western Australia.

Exhibit 3: Top 20 clusters by growth, workforce count

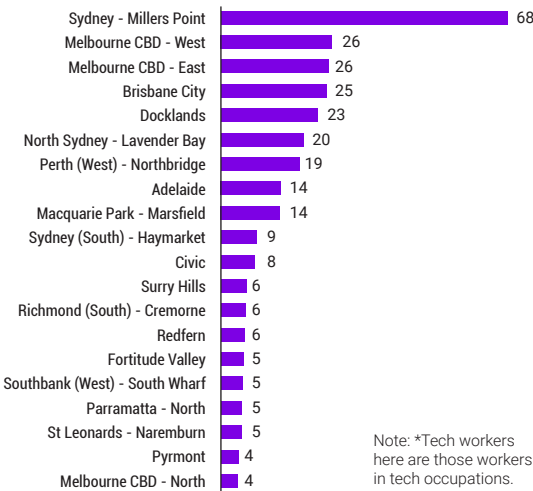
Top 20 SA2 regions by contribution to growth

Share of national tech workforce growth (2011 to 2021)



Top 20 SA2 regions by tech workforce count

Number of tech workers\*, '000 (2021)



Note: \*Tech workers here are those workers in tech occupations.

Tech workers are most likely to live in middle and outer suburban areas

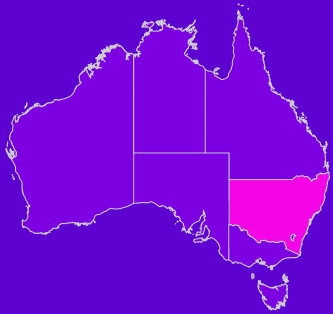
While tech jobs are commonly found in and around capital cities where tech firms are more likely to be located, tech workers are most likely to live in the middle and outer suburban rings of Australian cities, such as the southeast of Melbourne. Other examples include areas like Western Sydney, which houses 100,000 tech workers, the highest share of any area in Australia, and the outer suburbs of Brisbane, which is amongst the fastest-growing area for tech workers in the country.

1. This includes workers in tech occupations which is one part of the definition of the broader tech workforce. A recent accounting of the broader tech workforce in Australia is included in our [Tech Jobs Update, May 2023](#).

# Hamish Hawthorn

VP of Corporate Development,  
Propellor Aero

New South Wales



Hamish is the VP of Corporate Development at Propeller. That means he is responsible for the company's corporate development activities, including capital raising, strategic partnerships, and mergers and acquisitions.

He also manages the company's hardware team. Hamish's advice to those interested in moving into tech, particularly those moving from more mature organisations, is to embrace the excitement and uncertainty of working at a growing tech company. He also recommends learning as much as possible about the company before joining, noting that networking events are great opportunities to meet the founders and early employees.

“

*"Industries going through digital transformation (such as the construction industry) are fascinating industries to be part of. It has been very rewarding to see an innovative product being sold into a mature and conservative industry - and to observe how engaged users are with improving the product and shaping the value proposition for their benefit."*

Hamish's 20 years in tech have taken him all over the world. He started his career as an R&D engineer at an automotive parts manufacturing company, and later worked for a conversational AI company and a Cyber Security company in the San Francisco Bay Area. He also ran Cicada Innovations, a leading startup incubator in Sydney before joining Propeller.

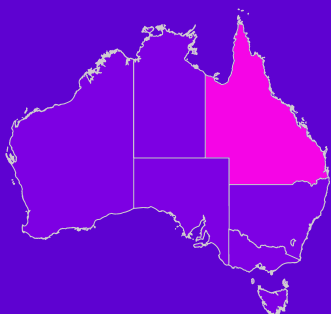
Propeller is a drone technology company that helps civil contractors, mines, quarries and landfills track the progress, productivity, and costings of their earthmoving operations. They do this by turning photos from drones and data from sensors into highly accurate survey grade 3D maps. Their customers can analyse these maps in an easy online portal, which helps them measure quantities, track changes over time, and keep their teams informed. Propeller serves over 80,000 users across 40,000 worksites in over 120 countries.

Propeller makes a mix of hardware and software products. All products are designed and engineered in Surry Hills in Sydney, from physical and weatherproof enclosures, to firmware, circuit boards, through to big data processing and cloud 3D rendering. By using Propeller's technology, customers can plan and manage production using data generated by Propeller rather than relying on speculation, and make better, more data-driven decisions.

# Charise

Software Developer,  
ANZ via \_nology tech training program

Queensland



After completing a 12-week Tech Training program in cloud and software engineering through \_nology, Charise is excited to start her first role in tech as a DevOps Engineer in the Institutional Banking team at ANZ.

'To me, software development is the perfect mix of logic, creativity, and that really satisfying feeling you get when you solve a difficult problem. This is what excites me about moving into tech!' says Charise.

Prior to becoming a software developer, Charise spent 10 years working as a high school languages teacher and department head in Australia and Japan.

“

*'I have seen first-hand the impact good technology can make in the lives of other teachers and so it became a hobby of mine to learn coding'.*

She came across \_nology, a comprehensive entry to tech program which equips individuals with skills such as software development, cloud, and QA, enabling them to launch a new career and effectively work in a commercial tech environment. For Charise, \_nology was an alternative pathway that didn't involve going back to university for another four years and getting into debt. It helped her gain confidence and all the industry skills required to sustain a fulfilling new career with ongoing support. 'It was important to me to get hands-on experience in building projects myself to develop the core foundational skills of being a good coder. This was something I really enjoyed about the \_nology course'.

## 2. There are a wide variety of jobs in tech clusters

The tech workforce in Australia has experienced significant growth over the last few decades, now employing nearly one million people and ranking as the seventh largest employer in the country. These jobs, which offer high wages and stability, are contributing substantially to Australia's productivity and are spread across a variety of industries and regions. The creation of innovative tech companies and the increased technological efficiency they bring to older industries is crucial for providing opportunities for Australians now and in the future. Crucially, clusters offer a broad range of jobs with different skills profiles and pathways to entry.

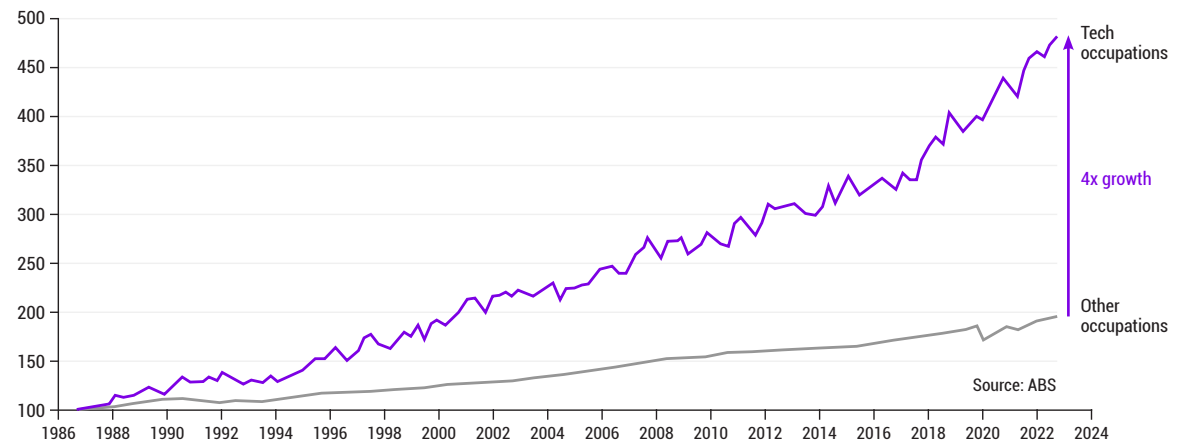
### Tech jobs are growing rapidly

The rapid and sustained growth of Australian tech jobs reflects a structural change in the economy. Since the mid-1980s, the growing adoption and development of digital technologies has created runaway demand for tech skills. This has resulted in tech jobs growing at four times the rate of all other jobs in the economy between 1986 and 2023, as shown in Exhibit 4. The tech sector now employs almost one million Australians, making it Australia's seventh largest employer.

### Exhibit 4: Long term growth in tech jobs

#### Long term growth in tech jobs

Index, where number of workers in August 1986 is equal to 100



Tech jobs are now found across Australia and industries, from Sydney's software engineers working in fintech to electrical engineers working in mines in remote Western Australia. The growth in tech jobs means that 1 in 14 working Australians are in tech jobs, with more Software Engineers than plumbers, hairdressers or baristas.

While growing rapidly in terms of the number of Australians employed, tech jobs have remained secure and well paid. In 2022, tech jobs were the second best-paid industry only second to CEOs according to SEEK data. This makes the tech sector an increasingly important employer of Australians, providing a significant number of well-paid jobs.

Greater growth in tech jobs is also essential to addressing Australia's lacklustre macroeconomic productivity. Tech jobs are also some of the most productive in the Australian economy, with the second highest hourly productivity behind jobs in Agriculture, Forestry and Fishing. In practice, tech jobs are a significant source of productivity for two reasons. Tech workers are essential to creating new companies, which often develop new technologies or new products that are tech-intensive. Tech workers across the economy help older businesses keep pace with technological developments and become more productive. Tech workers also play an important role in ensuring that data analysis can make services like healthcare more efficient while maintaining quality, supported by tech infrastructure like hyperscale cloud computing.

The productivity and technological value-add inherent to tech jobs makes the companies creating them critical to creating opportunity for Australians now and in the future.



There are a wide range of people employed in tech

Tech clusters employ a diverse range of people in a diverse array of jobs.

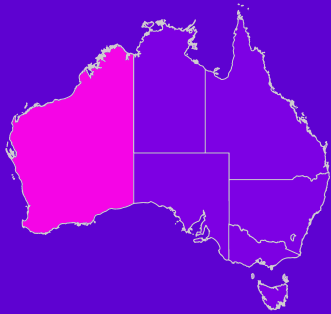




# Nicole

Full Stack Engineer,  
Healthengine

Western Australia



Nicole has worked in a range of tech jobs at Healthengine before moving into her current role as a Full-Stack Engineer. She started out in Data Entry and then moved into Data Analysis and Product Management. In each role, Nicole picked up new skills and gained valuable experiences.

Nicole's favourite part of her job is its challenging nature. There's always something new, and she enjoys working with her team to solve problems and create new features to enable Healthengine in its mission to help everyone find the right care, connect with healthcare providers, and manage healthcare all in one place.

Healthengine is a Western Australia-based Health Tech company that helps people navigate the complex world of healthcare. It is Australia's largest consumer healthcare platform and supports more than 9,000 healthcare practices across a number of services including GP, Dental, Allied Health, Specialist and Pharmacy. Healthengine's consumer healthcare platform helps people find and book healthcare appointments and services 24/7 via its website and app for iOS and Android.

It also offers SaaS software for healthcare practices. Despite WA's challenge of competing for talent with the east and abroad, Healthengine is optimistic about the opportunities of WA's tech sector and its many benefits including its affordable lifestyle, proximity to Asian markets, interest from local government, universities and greater tech community to grow Perth's tech ecosystem.

Nicole's transition into her Full-Stack Engineer role wasn't easy. She had to learn a lot of new skills and work hard to prove herself. But she was determined to succeed, and she knew that Healthengine would support her every step of the way. Nicole believes that anyone can learn technical skills with enough research and practice.

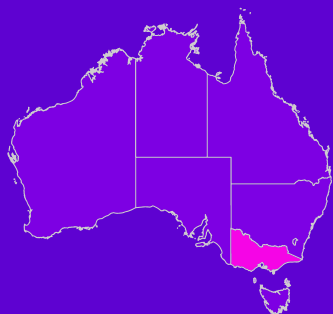
“

*“Technical work just needs knowledge and practice, and can be learned by anyone,” she says. “Just like any other skill, like cooking or playing an instrument.”*

# Mark Luo | Jayden Castillo

CEO | Chief of Staff  
Quantum Brilliance

Victoria



As CEO of Quantum Brilliance, Mark is responsible for translating the mission of Quantum Brilliance and breaking it down into strategic actions.

This often means he needs to make informed decisions about company's future, architecting internal capabilities, attracting investments and securing partnerships to foster collaboration globally. Prior to joining Quantum Brilliance, Mark spent over a decade in deep tech commercialisation and venture investments. As a leader in the Quantum Tech industry, Mark credits the leadership and investor support he received to be critical in supporting his transition into his current role. 'As leaders our business, navigating ambiguous environments needs to be seen as the norm, pushing us towards stretch goals in the right direction is part of daily business, and increasing the velocity of making difficult decisions requires the full support of our investors and staff.'

Quantum Brilliance, founded in 2019, aims to deliver room temperature quantum computing by exploiting the unique properties of synthetic diamonds. Other quantum computing technologies require super cooling, vacuums and complex laser systems to control, making them room sized and expensive to run. With Quantum Brilliance's technology, such systems can be miniaturised to the size of a lunch box, increasing their potential for mass deployment into environments that other technologies are prohibited from entering.

In his role as Chief of Staff, Jayden supports Mark to realise the company's strategic vision. Jayden loves the variety of his job. He works with executives across the business to deliver their strategic priorities and deliver special projects on behalf of the CEO. A typical day could include anything from facilitating communication between teams, coordinating internal and external facing projects such as customer workshops and working with different teams to help share the CEO's perspective. 'In the highly dynamic environment of our tech startup, interacting with teams to "grease the wheels" and push through important outcomes is valuable not only for the company but in supporting my colleagues to deliver in alignment with company strategy.'

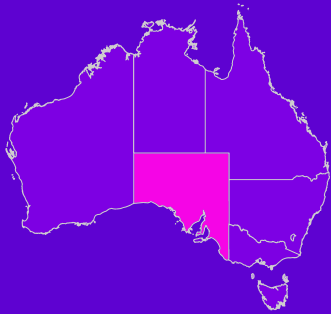
“

*"I've always been around tech but not a technical person myself. The ability to work with technical people, from a leadership, management and business perspective, is just as valuable as the tech skills themselves. If you are passionate about the vision and want to be a part of it, don't be afraid to get take an entry level position and work your way up. Demonstrating value in a startup is a fast track to becoming an integral part of the team and will reward you with access to many more opportunities" -- Mark*

# Melinda Ho

Operations Manager,  
42 Adelaide

South Australia



Melinda is passionate about using technology to create positive impact in society. As an Operations Manager at 42 Adelaide, a coding school that provides quality digital skills education to students from diverse backgrounds, she is working to create a more equitable and inclusive tech industry.

Melinda previously worked in multiple industries including community development, marketing and events management. After graduation, she was looking for an alternative education that could help develop her social enterprise and technical skills. That's when she discovered 42 Adelaide and joined one of their intensive bootcamps. Inspired by the philosophy behind 42 Adelaide, she reached out to the founder, Louise Nobes, and was hired as a social worker before moving to her current role as Operations Manager.

“

*“Being a woman coming from a culturally and linguistically diverse background in the tech sector, it was challenging for me to project my voice during public speaking and networking, and talk about unfamiliar technical terms in the industry. However, with the nature of love of learning and passion towards leadership, I embraced my diversity, actively looked for opportunities for upskilling, and networked and practised my public speaking skills.”*

As 42 Adelaide's Operations Manager, Melinda oversees the pedagogy, operations, and admissions of the school and its programs. Over the past 18 months, she has welcomed more than 800 students into the school. In addition to her operational duties, Melinda enjoys drawing on her strengths on social work skills and her strengths intercultural communication to work with diverse student cohorts and ensure 42 Adelaide's programs continue to enhance student satisfaction, wellbeing and performance. A key highlight of Melinda's experience has been working with the students who have shown determination, dedication and curiosity to advance their own soft and technical skills at 42 Adelaide.

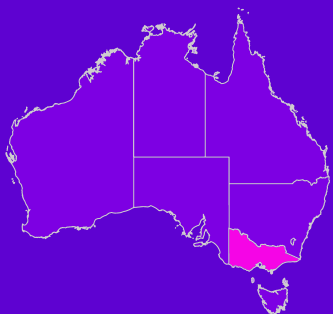
Melinda has great advice to those who are interested in moving into a tech job. “Never stop learning and when you are learning, go wide and go wild before you go deep!” She recommends looking for employers who value previous work experience, strengths, and attitude over qualifications.

# Jasmine Kahan

Senior Strategy Manager

SEEK

Victoria



Jasmine is a Senior Strategy Manager at SEEK, a leading global online employment marketplace. She now has a wealth of experience in the tech industry, having worked in a variety of roles, including legal, product, and now strategy, but it's not where she started her career.

“

*"I began my career at a law firm, and then moved to the legal team at SEEK. In my role as a lawyer lots of product managers sought advice on features they were building and I was fascinated by what they were doing. I did a secondment in a product team to get a feel for the role, and then made the move."*

Jasmine is a natural learner. She loves to take on new challenges and learn new things. This passion for learning has driven her to take a series of strategic side steps into tech.

In her current role as a Senior Strategy Manager, Jasmine is responsible for helping SEEK set its key objectives and improve the ways it works. She works with people from all around the business to gather information, identify opportunities, and develop plans.

Communicating clearly is particularly important for Jasmine. "I think it's important to be able to communicate your ideas in a way that is clear and concise," says Jasmine. "This is especially important in a tech role, where you're often dealing with complex concepts. You need to be able to break these concepts down into smaller, more manageable pieces that your audience can understand."

Jasmine's transition into her current role was eased by having great hiring managers who valued people with the right attitude and willingness to learn over experience.

Like others joining the tech sector, Jasmine faced imposter syndrome and reservations about making a sideways or even backwards move upon transitioning into new roles in tech. To overcome these challenges, she's taken a long-term view of her career, lets go of the need to know everything straight away and has committed to continuously learning. 'Don't be held back by not having experience in a particular area, everything is learnable and in my experience people in tech love to teach!' says Jasmine. She recommends those interested in moving into tech to consider trying a role via a secondment or temporary opportunity (e.g. parental leave cover) to get a feel for the role and decide whether it's right before making a more permanent decision.

## 3. Future cluster growth

Clusters will continue to drive jobs growth towards the national tech jobs target. Between now and 2030, two-thirds of jobs growth is expected to come from existing clusters and two-thirds of that growth will come from existing super clusters based on the trends in the last 10 years. That means policymakers need to support the growth of local segments that will drive a disproportionate share of growth.

Tech industry clusters are concentrated groupings of interconnected companies and associated institutions in particular fields which often reflect local strengths. This model of economic development is essential as it leads to higher levels of productivity and innovation, fuels competition, and facilitates cooperation and learning between businesses.

Understanding the pattern of this growth in Australia is important for policymakers. Given the increasing role of technology in our economy, fostering the growth of these clusters can help Australians harness the benefits of our growing role in the global tech industry. The concentration of tech jobs within clusters boosts our national productivity, increases competitiveness and accelerates innovation.

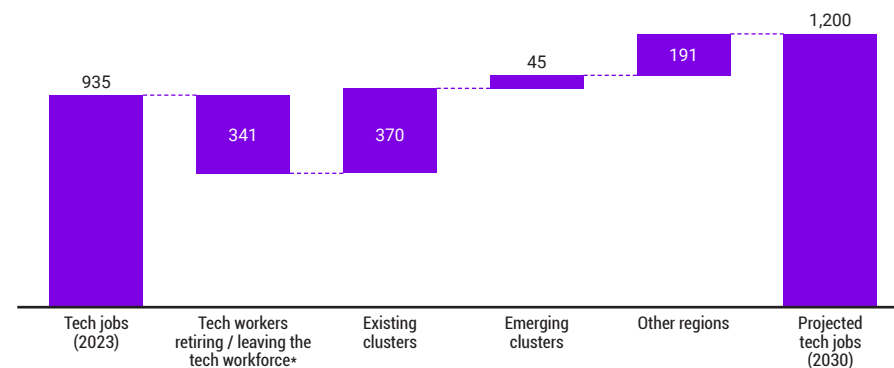
To increase the concentration of tech jobs in Australia and reach a target of 1.2 million jobs in this sector, we need to understand where growth is more likely to come from and ensure we can support that growth.

Based on the trends in the last 10 years, we anticipate that existing clusters will employ approximately a two-thirds of the additional 600,000 tech workers required to meet the national tech jobs target, as shown in Exhibit 5. The remaining third will mostly come from non-cluster areas, and a small number will come from emerging tech clusters. This suggests policymakers should concentrate on supporting growth in all areas, but with a particular emphasis on underpinning growth from existing clusters.

### Exhibit 5: Tech sector employment by 2030

#### Tech sector employment by 2030

'000, employed persons in the tech sector

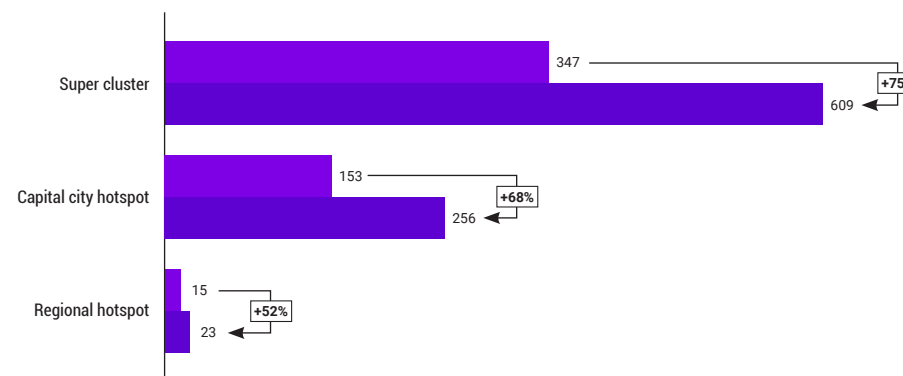


Note: Emerging clusters are defined as SA2 regions that are not clusters in 2021 but become clusters in 2030.

### Exhibit 6: Growth for existing clusters by cluster type

#### Tech workforce growth for existing clusters by cluster type

Number of tech workers, '000





Among existing clusters, we anticipate that super clusters, capital city hotspots and regional hotspots will experience significant growth by 2030 as shown in Exhibit 6. Super clusters are expected to grow by 75% and other capital city hotspots by 68%, based on trends in the last 10 years. While regional hotspots are a small share of the national tech workforce, they are fast-growing areas and forecast to grow by 52% by 2030. We estimate this will create 370,000 more jobs by 2030 in existing clusters alone.

Policy initiatives will be crucial in fostering growth in all types of clusters. National-level policies that support broad-based growth in the tech sector by increasing access to skilled workers, to funding, and that ensure a balanced, proportionate, and globally coherent regulatory environment are crucial to ensuring that all parts of Australia can grow their tech ecosystems.

Many policy levers that affect tech sector growth can also be localised. For instance, State and Territory Governments can create targeted funding measures, skilling programs, infrastructure investments, and trade and investment attraction programs. This can help support growth in distinct areas of comparative advantage that 'spike' on a local level.

To implement localised policies to support tech sector growth, States and Territories need a strong evidence-base on their areas of comparative advantage.



