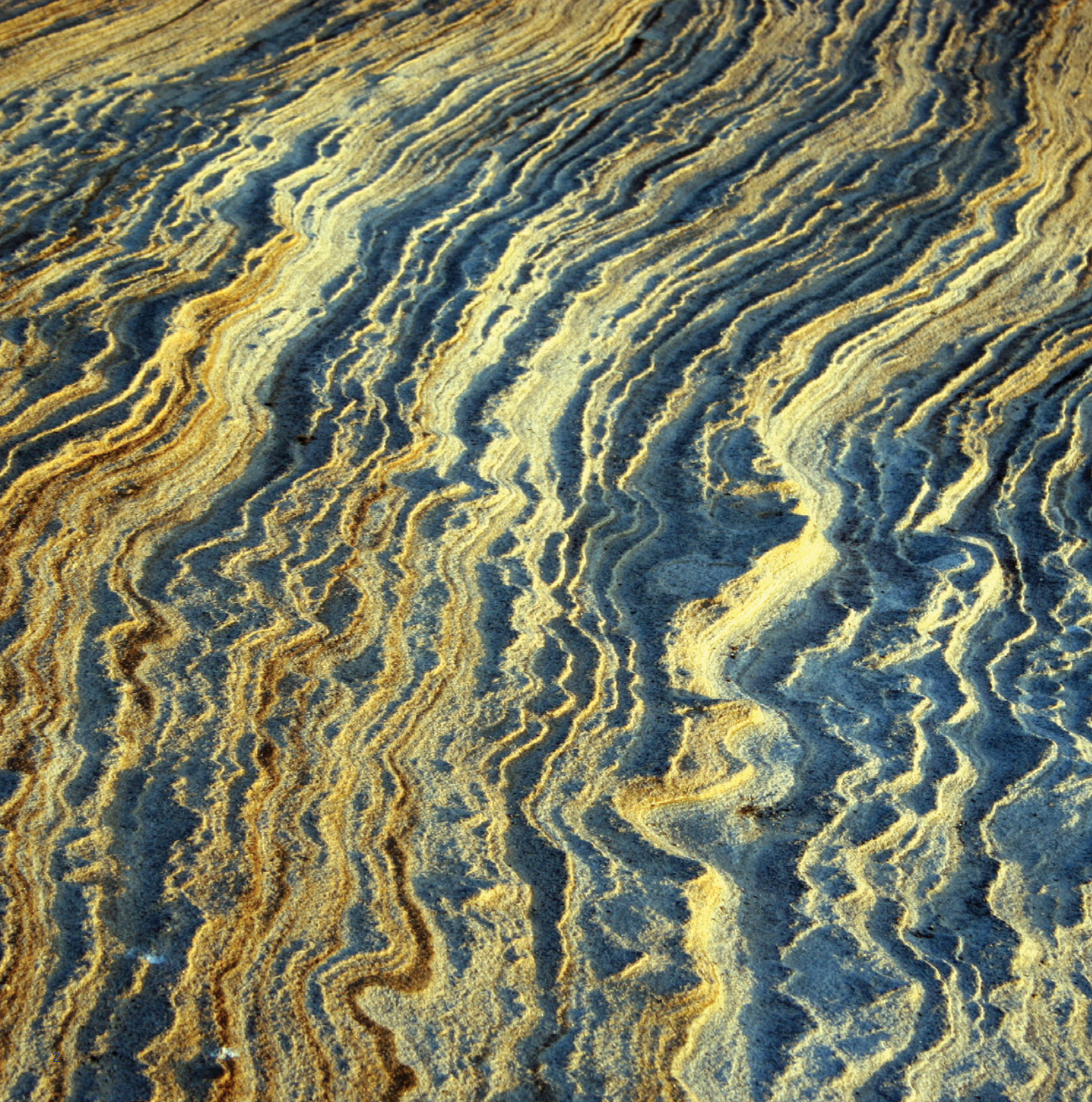# Accelerating NSW:

the impact of coworking spaces, accelerators, incubators, and startup hubs

August 2023

NSW
GOVERNMENT

Acknowledgment of Country

The NSW Innovation and Productivity Council and Investment NSW acknowledge the traditional custodians of the land and pay respects to Elders past and present. Investment NSW also acknowledges all the Aboriginal and Torres Strait Islander staff working within NSW Government at this time.

Contents

About the NSW Innovation and Productivity Council

The NSW Innovation and Productivity Council was established by the *Innovation and Productivity Council Act 1996* (the Act). It advises the NSW Government on priorities for innovation-led economic development and productivity.

Council members are leaders from industry, education, and academia. Members are appointed for three-year terms, bringing a rich and diverse range of experience and expertise to the work of the Council. The current Council was appointed in 2023.

Council publications are independent reports and do not constitute NSW Government policy. This is consistent with the role of the Council and its object under the Act.

Further information is available on the Council's website.

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About Investment NSW

As part of the NSW Government, Investment NSW facilitates economic development and attracts investment, reinforcing New South Wales as the most desirable place in the world to innovate, invest and do business.

We create the links and strengthen the bonds between government, business, industry, academia and investors –bringing together the right people, projects and support from across government and the private sector to maximise economic benefit, jobs growth, and prosperity for the people of NSW.

To learn more about the support and services Investment NSW provides, go to: investment.nsw.gov.au

To contact us, please email: investment.enquiries@investment.nsw.gov.au

Attributions

Glossary of CAISH definitions

Coworking space

A coworking space is a **flexible, shared office space**. These are usually available on short-term contracts. Unlike incubators and hackerspaces, coworking spaces usually provide **minimal business development services** and no **technical facilities**.[1]

Accelerator

An accelerator is a **support program** that is **cohort-based** and of **fixed duration**. Accelerators provide mentoring, peer-to-peer interaction and business skills training, as well as **investment readiness** training and **connections to investors**. Such programs are **typically selective**, based on criteria such as sectoral focus and growth potential.[2]

Incubator

An incubator is a startup support organisation that **provides physical space to startups,** along with **additional growth-related services**. It is **neither cohort-based nor fixed-term**, though it may impose a maximum residence duration. The **provision of services** is an important distinction between incubators and coworking spaces: most incubators also provide services such as investment readiness training, connections to investors, intellectual property advice (directly or via third-party service organisations), technical support, and peer-to-peer interaction.[3]

Startup hub and innovation hub

Startup hubs and innovation hubs are **physical spaces (buildings, campuses)** where startup support organisations/ initiatives (such as accelerators, incubators and coworking spaces) are **co-located**. Hubs involve some form of **intentional coordination** between the entities/initiatives.[4]

Foreword from NSW Innovation and Productivity Council Champion

Welcome to the NSW Innovation and Productivity Council and Investment NSW's first report on the impact of coworking spaces, accelerators, incubators, and startup hubs.

Our report creates a new profile of these entities, which we're referring to as CAISH entities, in New South Wales. It highlights the ways that they scaffold and boost the growth of entrepreneurs, startups and scaleups, which drive job creation, innovation, and economic growth.

CAISH entities can help startup founders and teams to lower their risks and overcome the challenges of creating a sustainable and scalable business. These entities can also boost the development of regional ecosystems and support underserved groups embarking on entrepreneurship. Technology-enabled firms – from fintech to renewables to defence – can also benefit from the specialised support and networks available through these entities.

By looking under the hood of this part of the ecosystem, *Accelerating NSW: the impact of coworking spaces, accelerators, incubators, and startup hubs* reports how our CAISH entities are growing and maturing throughout the state. The report quantifies the huge number of organisations that have emerged and the rapid growth in the sector over recent years – a 325% increase since 2013 to reach 276 entities in New South Wales in 2023.

The Council decided to investigate this part of the innovation ecosystem because it has been a focus area for support and investment from government, universities, and industry over the last decade, yet there has been little measurement of impact. Where there has been measurement, it has been inconsistent and not comparable.

This report examines how policymakers and partners in the innovation ecosystem can more robustly measure the impact of CAISH entities on the wider economy. It also makes five overarching recommendations to further raise the impact of CAISH entities in NSW.

On behalf of the Council, I thank the project team in Investment NSW and University of Technology Sydney, as well as the members of our Expert Advisory Group, for their support for and contributions to this report.

I hope the insights in *Accelerating NSW* inform your work and help make New South Wales a prosperous global hub for business, innovation, talent and visitors.

Richard Kimber
Member, NSW Innovation and Productivity Council

Executive summary

This report maps CAISH entities' growing role in the economy

Entrepreneurship drives job creation, innovation, and economic growth, in NSW as elsewhere. But entrepreneurs take big risks and face big challenges when they start and grow businesses.

A supportive innovation ecosystem can help startup founders and teams to lower their risks and overcome the challenges of creating a sustainable and scalable business.

Four main types of outside organisations directly support these startups:

Coworking spaces	Accelerators
Incubators	Startup hubs
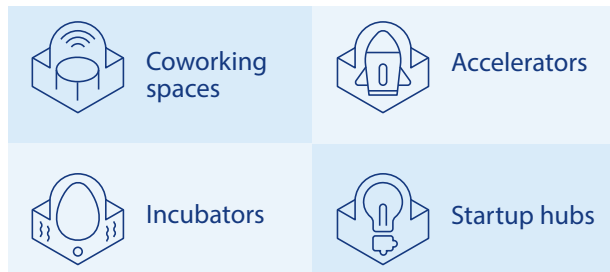
Yet despite a significant growth of the startup support organisations across NSW over the past two decades, there is currently limited understanding of their impact and value to the broader NSW and Australian economies.

This report explores how CAISH entities help improve the NSW and Australian economies. It also sets out how to measure the impact of CAISH entities.

The research includes the first comprehensive mapping of all NSW's CAISH entities, draws on 64 in-depth interviews with entrepreneurs and CAISH managers, and features 27 CAISH case studies.

CAISH entities are expanding in both Sydney and the regions

Australian CAISH entities have multiplied over the last decade. As of June 2023, Australia has **889 active CAISH entities.** This is a dramatic rise from 2013's 120 active CAISH entities.

NSW is home to Australia's largest population of CAISH entities, where the number of CAISH entities has risen from 65 in 2013 to **276 entities in 2023.**

CAISH entities in Australia	CAISH entities in NSW
2013 **120**	2013 **65**
2023 **889**	2023 **276**
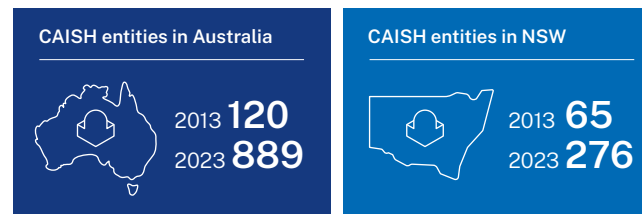
NSW's main hotspots of CAISH activity are **Sydney, Wollongong and Newcastle.** CAISH entities are also active in the New England and North Coast regions.

Most regions outside of Sydney and Newcastle are relatively underserved—particularly the **Central Coast and the Far West region.**

Sydney's entrepreneurship support ecosystem is seeing an expansion of startup hubs and innovation hubs across the city, to promote collaboration between CAISH entities in various geographies.

Over the past decade, the Sydney Startup Hub has become a central hub in Sydney's CBD, and every Sydney-based university has created its own hub. More recently, the openings of the Western Sydney Startup Hub in the Westmead Innovation District and Tech Central Scaleup Hub provide further opportunities for CAISH entities and the entrepreneurs, startups and scaleups they serve to locate near a hub.

CAISH entities are specialising

NSW's startup and entrepreneurship support is becoming increasingly mature. This shows in the **growth in specialised CAISH entities**. The report's CAISH mapping and interviews both show the emergence of specialised CAISH entities focused on particular **sectors and industries**.

These CAISH entities provide tailored support for entrepreneurs in industries and sectors such as fintech, medtech, biotech, healthtech, cybersecurity, and space technology. Different CAISH entities also now specialise in:

- helping startups focused on **societal change and sustainability transitions**
- supporting **diversity and inclusion**
- offering targeted programs to **women, migrants and refugees and young entrepreneurs.**

Many CAISH services generate impact

CAISH entities aim to have impact through services including mentoring, networking, events, cohort-based programs, growth-related services, funding and investment readiness support, and physical space.

- **Mentoring and coaching** is perceived as one of the most useful forms of support that NSW CAISH entities provide to startups, scaleups and entrepreneurs. Entrepreneurs highlight the value of specialised mentors with expertise in similar industries, sectors or product markets.

- CAISH entities curate a **supportive community and networks** whose programs, events, workshops, and online platforms are viewed as having a lasting impact on startups.

- Entrepreneurs highlight the importance of **services tailored to the individual organisation's growth** rather than a one-size-fits-all approach.

- Strong **connections with investors and venture capitalists** allow startups to meet potential funders and secure funding beyond what the CAISH entity provides. At the same time, investors benefit from the improvement of the investible pipeline of entrepreneurs, startups and scaleups.

- **Entrepreneurs value specialised spaces.** For example, university-led CAISH entities offer access to facilities from 3D printing and computer numerical control (CNC) machines to recording studios.

CAISH impact can be measured

Our research has developed a holistic **CAISH impact measurement framework** across four levels of analysis:

1. Individual entrepreneurs	2. Startups
3. The CAISH entity itself	4. The wider ecosystem or environment in contact with the CAISH

Most studies focus on the first three categories because they can be more easily measured. There is **limited data** on the fourth level — the **ecosystem level.** Yet this is the level which lets us understand how CAISH entities improve the overall economic growth of communities, the state and the nation.

The framework set out in this report is already being applied in the revitalised Startup Muster survey of the Australian startup ecosystem.

Five recommendations for policymakers

1. Build a more collaborative community of startup support.

2. Encourage connections within and between regional ecosystems.

3. Co-design tailored support with and for underserved groups.

4. Develop an evidence base for government interventions in the CAISH sector.

5. Invest in CAISH support for later-stage startups, and for scaleup and internationalisation phases.

Western Sydney Startup Hub

Recommendations

Government, universities and the private sector have invested significantly in CAISH entities over the last ten years, and the ecosystem has grown strongly. But we can do more to increase their impact and better measure outcomes.

In conducting the research for the report, the NSW Innovation and Productivity Council (the Council) has uncovered several urgent tasks. The Council makes five overarching recommendations to raise the impact of CAISH entities in NSW.

These five recommendations are principally directed to the NSW Government. But they will require delivery in partnership with all stakeholders across the innovation ecosystem.

Recommendation 1

Build a more collaborative community of startup support

NSW startups would benefit from an ecosystem where CAISH entities are working together and competing less with each other. NSW could achieve this by:

- More clearly differentiating services and functions

- Supporting more co-branded events

- Establishing more collaborative CAISH initiatives, such as the Boosting Business Innovation Program (BBIP).

Participants in this study frequently cited the high level of competition between CAISH entities in NSW.

'There's a level of competitiveness that exists within [the ecosystem]. I think that a lot of people struggle. They think competition at all costs... this is public money on public money on public money, and you're wasting it on being competitive.'

Our interviews suggest that CAISH entities would prefer the NSW Government to shift away from further funding startup and CAISH-focused infrastructure and towards the mobilisation of the startup community.

'I think there could be more incentives for collaboration. I don't think there's an incentive for [CAISH entities] to be collaborative at the moment. And that probably comes from the government down.'

Several interviewees noted that Victoria has more effectively built a community of support for startups.

'Launch Vic has had a major role in creating a community around that ecosystem as opposed to infrastructure around that ecosystem. New South Wales's approach has been infrastructure around that ecosystem.'

Encourage connections within and between regional ecosystems

The study shows that regional NSW is relatively underserved by CAISH entities compared to Greater Sydney. In particular, Illawarra-Shoalhaven, Riverina Murray, Central West and Orana, North Coast, South East and Tablelands, Central Coast, and the Far West Region are underserved relative to their populations.

Insights from the interviews suggest that the lack of CAISH support for startups can lead to them leaving regional areas to seek support offered elsewhere in the state. Research participants from regional NSW highlight the need for localised CAISH support that is driven by local entrepreneurship support entities.

There is an opportunity for the NSW Government to encourage greater connectivity between regional CAISH entities, broader entrepreneurship support initiatives in regional NSW including startup networks and education initiatives, and startups in underserved areas.

Support could include connecting regional startups with CAISH programs open to broader geographies, connecting regional startups and entrepreneurship support initiatives with existing CAISH entities across NSW, and connecting regional startups with programs and grants for which they are eligible. Further, there is an opportunity to ensure more CAISH support is attached to special activation precincts around the state.[5]

Recommendation 3

Co-design tailored support with and for underserved groups

The study shows that CAISH entities are beginning to emerge offering targeted programs to women, migrants and refugees and young entrepreneurs.

Insights from the interviews highlight that these programs — focused on diversity and inclusion — are important for building the confidence of entrepreneurs who can feel excluded from mainstream programs.

There is an opportunity for the NSW Government to support targeted CAISH initiatives focused on diversity and inclusion. CAISH services for underserved groups need government backing to ensure equitable support. This type of support involves more than creating a typical CAISH entity with that segment as a focus; rather it involves having a CAISH co-designed with and operated by the community. This co-design approach should be adopted to design possible government support and to design the CAISH initiatives.

For example, there are limited CAISH entities in NSW explicitly focused on First Nations entrepreneurs, and research shows First Nations communities in regional and remote locations face additional barriers to access support for startups on average than non-First Nations people.[6,7] Numerous Indigenous-led organisations are active in the broader entrepreneurship support ecosystem and could be involved in the co-design of CAISH offerings in NSW such as The Scale Institute, Barayamal, First Innovators, Gandaywarra: First Nations Innovation Hub, The Circle First Nations Entrepreneurs Hub, and Yarpa.

Further, more could be done to create a startup culture in high schools. The NSW Government could support the inclusion of more entrepreneurship education programs in the curriculum. This could assist in boosting the talent pipeline into startups to achieve broader economic outcomes.

'We work too much on the supply side of the pipeline and not enough on the demand side. So we build hubs, we'll create programs, we'll even provide funding opportunities. We don't do enough on getting people interested in doing a startup creating a culture of startups in our schools.'

Develop an evidence base for government interventions in the CAISH sector

Our findings show that there is a dearth of system-level data on CAISH entities and their impact. And we have only limited publicly available data on the impact of individual CAISH entities.

Government interventions require a robust and up-to-date evidence base and clear objectives. Developing and adopting a holistic impact measurement framework and process for data capture and analysis would support that need.

This report has formed a multi-level framework that should guide data collection from government-funded CAISH entities. This framework could help inform standardised metrics for understanding, measuring and reporting the impact of CAISH entities.

Our findings also reveal a 'tragedy of the commons' in terms of impact metrics. The majority of CAISH entities are interested in having access to metrics for the sector but there are limited incentives to contribute their own metrics to the pool. This is compounded by a fear of league tables and rankings that would erode the appreciation of each CAISH entity's specialisation.

A potential avenue to address this challenge is adjusting reporting mandatory requirements for recipients of government support. NSW could collect data that can be shared publicly at the aggregate level. For example, CAISH entities could report to the NSW Government on metrics related to jobs (and job growth); government could then republish the mean, median and approximate distribution for all startups supported by those CAISH entities. The Council notes that the publication of such data could be included in its NSW Innovation and Productivity Scorecard.

There is also an opportunity to compare the performance of startups supported by CAISH entities with that of other startups in the NSW economy. This could be done using firm-level data linked to company ABNs, for example with access to Business Longitudinal Analysis Data Environment (BLADE) data.

Recommendation 5

Invest in CAISH support for later-stage startups, scaleups and internationalisation

The CAISH entities identified in the case studies tend to focus on earlier-stage startups. There are limited CAISH entities in NSW focused on later-stage startups, scaleups and enterprises looking to internationalise.

There is an opportunity for government and CAISH entities to provide a clear roadmap for support for scaleups as they scale.

It should be noted that early stage startups require support due to the high-risk nature of their ventures. More support at the early stage enables more startups to reach the scaling stage. Support for scaleups needs to be more targeted when these organisations reach the scaling stage of development, because scaleups have different needs to startups.

Both the NSW Government and NSW-based CAISH entities should consider funding and developing higher levels of aftercare support. For example, startups could be directed to the NSW Government's Going Global program. Or NSW could develop other support programs targeted at scaleups.
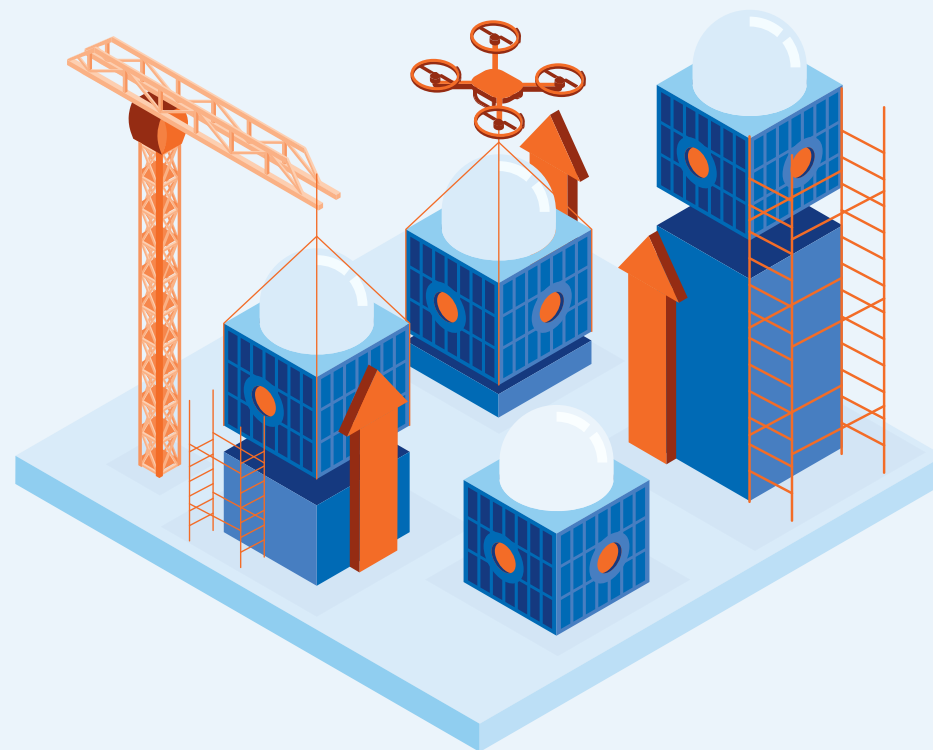
1

Introduction

1.1 Report focus, questions and objectives

Entrepreneurship drives New South Wales job creation, innovation, and economic growth.[8] But for entrepreneurs, starting and scaling a business is risky. Nearly half of Australian new businesses fail within their first four years.[9]

Research has shown that a supportive innovation ecosystem plays a vital role in supporting entrepreneurs through this risky time, and in getting them to the point where they are creating a sustainable and scalable business.[10] A functioning innovation ecosystem includes various entrepreneurial support organisations. They include universities, research institutes, venture capitalists, science parks, coworking spaces, accelerators, incubators, and startup hubs.[11]

Notwithstanding the role of the wide range of stakeholders within NSW's innovation ecosystem, this report deals with four main types of entrepreneurial support organisations that explicitly focus on supporting startup enterprises. These four are coworking spaces, accelerators, incubators, and startup hubs (CAISH entities). The report examines their workings and their impact on entrepreneurs and the NSW economy.

Despite the significant growth of entrepreneurial support organisations across NSW over the past decades,[12] there is currently limited information available about their outputs and outcomes, their value to the wider NSW and Australian economies, and the size and performance of these entities in NSW compared to interstate and international jurisdictions.

This report addresses this gap by providing a comprehensive understanding of the nature and impact of these startup support organisations across NSW.

Using a mix of entity mapping, qualitative interviews, case studies and desktop research, the report addresses the following research questions:

1. How should we define different types of CAISH entities? How do they differ in terms of services provided to entrepreneurs? **See Chapter 1**.

2. How many CAISH entities are currently operating in NSW? How are they distributed across urban, regional and rural areas of NSW? **See Chapter 2**.

3. How specialised are CAISH entities in NSW in terms of sectors/industries and target groups? **See Chapter 3**.

4. What is the impact of CAISH entities on startups and the broader NSW economy? What are the key metrics used to measure the impact of CAISH entities? **See Chapter 4** and **Chapter 5**.

In answering these questions, the report has six main objectives:

1. Define each type of CAISH entity — coworking spaces, accelerators, incubators, and startup hubs.

2. Identify CAISH entities currently operating in NSW.

3. Provide a visual representation of the location and distribution of CAISH entities in NSW to highlight urban, regional and rural clusters.

4. Showcase a series of qualitative case studies to show the diversity of CAISH entities operating in NSW and their impact on supported entrepreneurs.

5. Describe the impact of CAISH entities on startups and the broader economy.

6. Identify impact metrics to support ongoing analysis of CAISH entities.

Overall, the report aims to inform policy development and decisions, impact measurement, and the development of a thriving innovation ecosystem to support startups across all of NSW.

This report includes 27 case studies to showcase the diversity of CAISH entities in NSW and their impact on entrepreneurs, startups and the economy. The case studies highlight the following:

1. Sydney-based startup hubs as comprehensive multi-entity ecosystems

2. Regional CAISH entities as ecosystem builders

3. Sector- and industry-focused CAISH entities

4. Equity, diversity and inclusion-focused CAISH entities.

Table 1 27 CAISH entity case studies

Sydney-based Hubs

Sub-focus	CAISH entity
East Sydney	UNSW Founders
North-West Sydney	MQ Incubator
South Sydney	*nandin* Innovation Centre (ANSTO)
Sydney City	Sydney Startup Hub
West Sydney	Western Sydney University Launch Pad

Regional Ecosystem Builders

Sub-focus	CAISH entity
Central West	Charles Sturt University Innovation Hub
New England	UNE SMART Region Incubator
Newcastle	I2N Hub Honeysuckle
North Coast	The Innovation Hub Coffs Coast
Northern Rivers	Sourdough Innovation Hub
South Coast	Bega Valley Innovation Hub
Wollongong	iAccelerate

Sector/industry Focus

Sub-focus	CAISH entity
Biotech	UTS Green Light accelerator
Climate Tech	EnergyLab
Creative industries	The Roost
Defence	UNSW Founders — Defence 10x
Fintech	Stone & Chalk
Health Tech	UNSW Founders — Health 10x
Med Tech	Cicada Innovations — NSW Health Commercialisation Training Program
Social enterprise	SEFA/Paul Ramsay Foundation Growth Incubator
Space Tech	Cicada National Space Industry Hub
Sustainability	Boomerang Labs
Synthetic Biology	UNSW Founders — SynBio 10x

EDI Focus

Sub-focus	CAISH entity
Migrant/refugee	Catalysr
Women	Tech Ready Women
Women Researchers	CSIRO's Lindfield Collaboration Hub
Youth	Young Change Agents

1.2 Definitions of CAISH entities

To support comparisons of NSW with other relevant international and interstate jurisdictions, we use definitions of CAISH entities from the 2022 Incubation Nation Report from the Centre for Entrepreneurs in the United Kingdom.[13]

These definitions are underpinned by supporting definitions from the academic literature (see Glossary). We draw heavily on insights from the recent academic review of research on entrepreneurial support organisations by Dr Brian Bergman and Professor Jeffery McMullen.[14]

Table 2 summarises these definitions and highlights the key defining features of each of these entities, drawing on both practitioner and academic literature.[15]

We acknowledge that the CAISH entity types have a high level of overlap in practice. We also note that the sector in NSW includes organisations that run a mix of CAISH initiatives, with a range of incubators, accelerators and coworking spaces being run by one organisation.

Figure 1 highlights the similarities and differences between the different types of CAISH entities.

Table 2 Four types of CAISH entity

CAISH entity	Definition	Key features
Coworking space	Coworking spaces are **flexible, shared office spaces**. These are usually available on short-term contracts. Unlike incubators and hackerspaces, coworking spaces usually provide **minimal business development services** and **no technical facilities**.	Shared physical space; networking; public events
Accelerator	Accelerators are startup support programs that are **cohort-based** and thus **fixed duration**. Almost all such programs provide mentoring, peer-to-peer interaction, business skills training, as well as **investment readiness** training and connections to investors. Such programs are **typically selective**, based on criteria such as sectoral focus and growth potential.[16]	Fixed length, selective entry, graduation, structured learning, mentoring, connection to investors, online or in-person delivery
Incubator	Incubators are startup support organisations that **provide physical space to startups**, along with **additional growth-related services** but are **not cohort-based nor fixed-term** (though there may be a maximum residence duration). The **provision of services** is an important distinction between incubators and coworking spaces: most incubators also provide services such as investment readiness training, connections to investors, intellectual property (IP) advice (directly or via third-party service organisations), technical support, and peer-to-peer interaction.	Physical space, networking, growth-related services/assistance/workshops
Startup hub or innovation hub	Startup hubs and innovation hubs are **physical spaces** (**buildings**, **campuses**) where startup support organisations/initiatives (such as accelerators, incubators, and coworking spaces) are **co-located**. Hubs involve some form of **intentional coordination** between the entities/initiatives.	Physical spaces/location, co-location of distinct startup support organisations/initiatives that feed into each other, networking, public events

Figure 1 Characteristics of CAISH entities

	Coworking space	Accelerator	Incubator	Startup hub
Shared physical space	● (full)	● (quarter)	● (full)	● (quarter)
Cohort/ fixed-length	○ (empty)	● (full)	● (quarter)	○ (empty)
Growth-related services	● (quarter)	● (full)	● (half)	● (quarter)
Networking/ events	● (quarter)	● (full)	● (half)	● (full)
Investment readiness	○ (empty)	● (full)	● (full)	● (half)
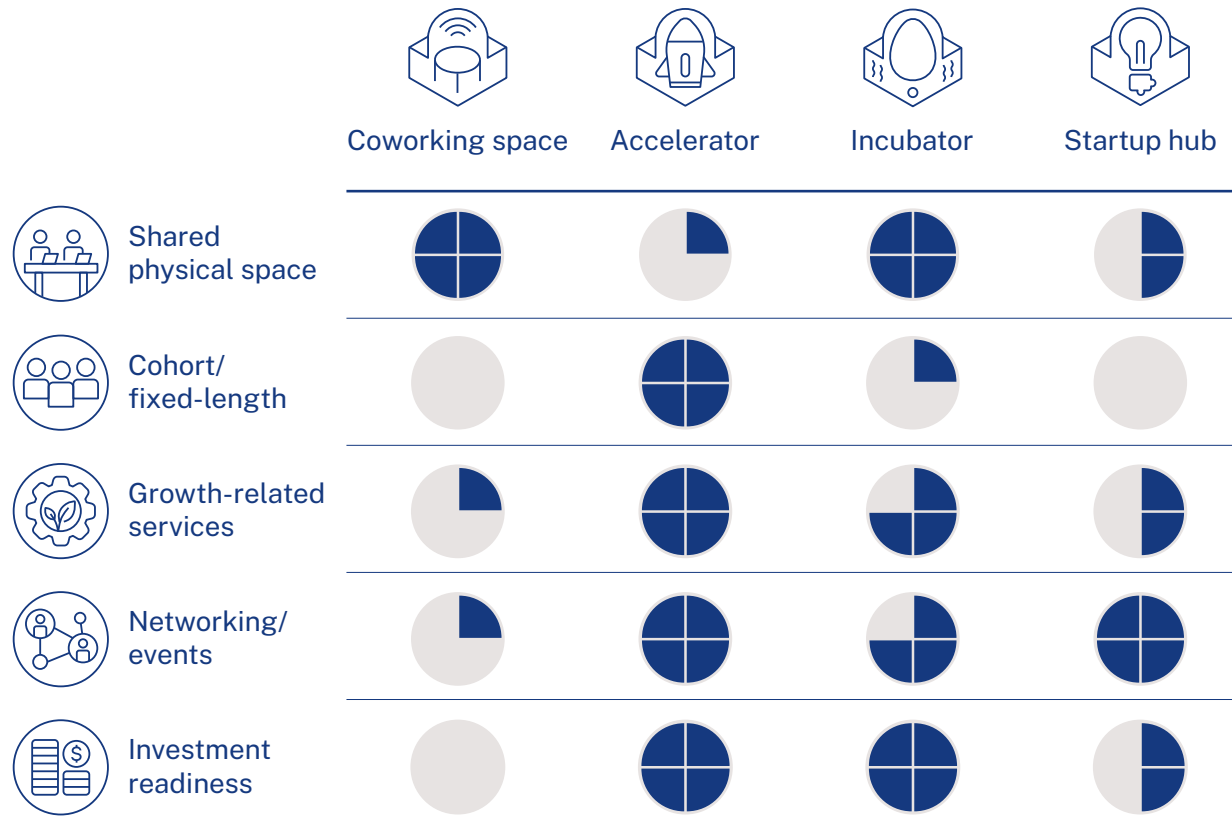
Figure 1 shows the defining services/feature of CAISH entities:

- Shared physical spaces, including offices and labs
- Cohort-based/fixed-length programs, with a stringent selection process
- Growth-related services
- Mentoring/networking/events
- Investment readiness support to help startups understand the investor expectations.

The circles show the relevant emphasis on this service/feature for each type of CAISH entity.

Source: UTS (2023) analysis for the NSW Innovation and Productivity Council

Entrepreneurship support organisations beyond scope

A flourishing entrepreneurship ecosystem requires a range of actors to assist entrepreneurs and other relevant stakeholders at various stages of the startup journey. Various other types of entrepreneurship support organisations are important to the ecosystem but beyond the scope of this study. These other entrepreneurship support organisations are equally important in ensuring a thriving entrepreneurial ecosystem and driving innovation and job creation, since many entrepreneurs with growth intentions start their first businesses with smaller ambitions (such as economic independence).

Entrepreneurship education programs[17] are initiatives delivered in formal educational settings in primary and secondary schools and higher education institutions, as well as in non-formal education settings. These programs often provide initial inspiration for aspiring entrepreneurs.

Innovation and startup networks use events and online forums to bring together entrepreneurs, investors and other relevant stakeholders to share ideas, insights and resources. These more informal support groups provide crucial networking opportunities and knowledge sharing for those in the startup and opportunities for connections between startups, investors and potential employees.

UNSW Founders

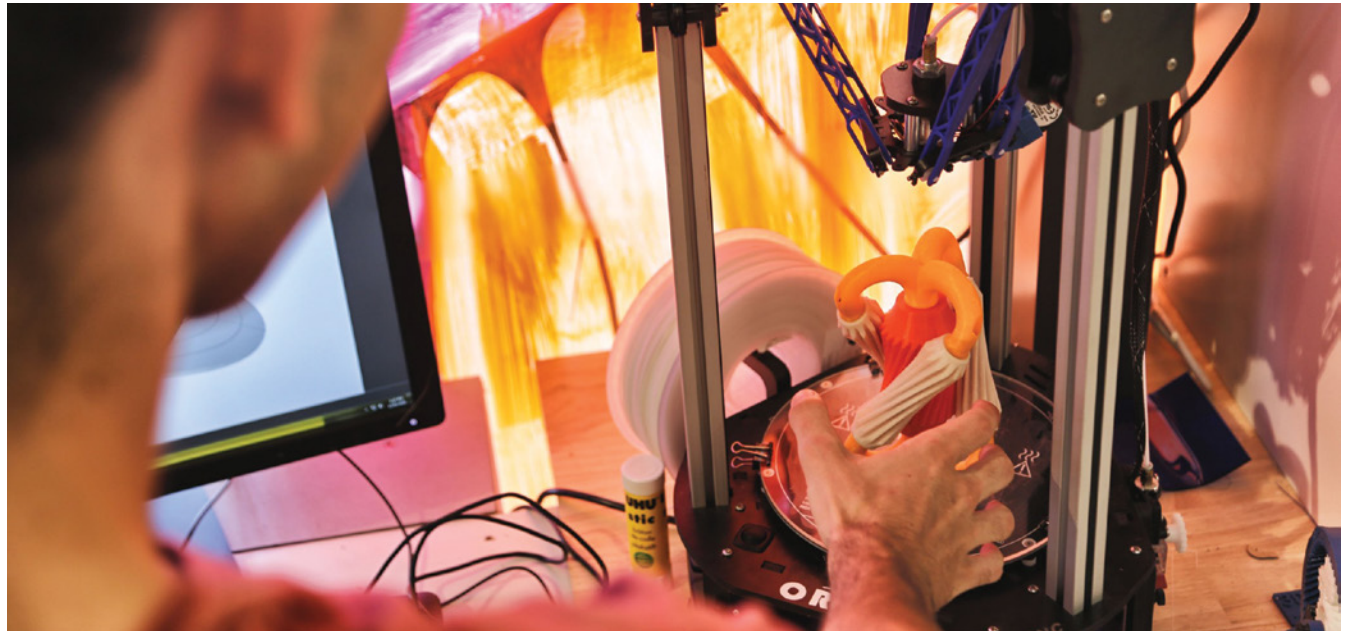**Maker spaces and hackerspaces**[18] are 'spaces with shared facilities for the physical development of a product or technology… [They have] an emphasis on technical workshop facilities, such as 3D printing and rapid prototyping, over office space.'[19] Our research suggests that the spaces play an important role as spaces for experimentation and prototyping for new ventures.

Innovation precincts and districts[20] are broader geographic areas supporting entrepreneurial activities. The NSW Innovation and Productivity Council and other NSW Government agencies and departments have written extensive pieces on the role of innovation precincts and districts. As highlighted in the 2018 NSW Innovation and Productivity Council report on Innovation Precincts:[21]

'Innovation precincts can take a variety of forms — from an agglomeration of innovative activity around a significant research-intensive hospital or university to a single building that hosts a density of startups, entrepreneurs and investors. These geographic concentrations of economic and innovative activity can go by different names. The term 'innovation precinct' is widely used in Australia, while 'innovation district', 'hub', or 'cluster' are more commonly used internationally, but the underlying concept and rationale is the same.'

While there is some overlap between Startup and Innovation Hubs and the notion of innovation precincts, districts and clusters, this report considers these to refer to larger geographic footprint than a building or a campus. Further, although precincts and districts are based in one area, many are actually national in reach.

2

The CAISH landscape in NSW and Australia

2.1 The rapid growth of CAISH entities in NSW and Australia

The number of CAISH entities in Australia has increased rapidly over the last decade. **As of June 2023, there are 889 active CAISH entities across Australia.**[22] This represents a dramatic rise in CAISH activity compared to the 120 CAISH entities active in 2013.[23] According to Startup Muster, these growth rates have exceeded the growth rates for Australian startups.[24]

A high rate of growth in CAISH entities has also been experienced in NSW over this time. Building on data shared by Dr Chad Renando and Startup Status we see that **NSW CAISH entities have increased from 65 entities in 2013 to 276 entities in 2023**. Figure 2 shows the growth in NSW CAISH entities since 2010.[25]

The number of entities in NSW has not grown as rapidly in this time period as it has in the rest of Australia. In 2013, New South Wales accounted for more than half of Australia's CAISH entities; in 2023, it accounted for slightly less than one-third.

However, our interviews with stakeholders in the NSW ecosystem highlighted that NSW has developed into a flourishing entrepreneurial ecosystem with a wide range of support available to startups.

'New South Wales is a very active and involved ecosystem. I think it's at right about the right size. There are still gaps that are missing in terms of funding, but in terms of the broader ecosystem, and support for startups, it is very strong.'

Figure 2 CAISH entities have grown more than sevenfold in 13 years

Number of NSW CAISH entities, 2010 to 2023
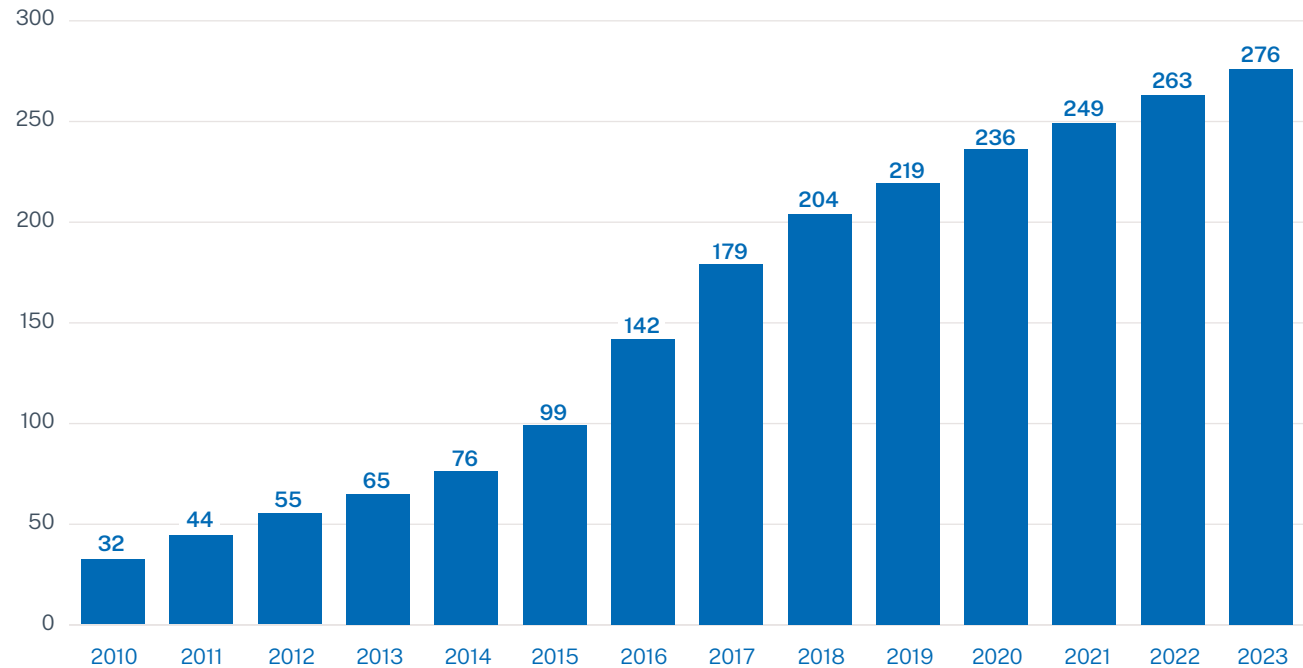
Source: Based on UTS analysis (2023) and data from Dr Chad Renando and Startup Status

'The ecosystem feels very positive. It feels like there's just like a lot of good people leading these CAISH entities. It seems like a lot of our startups and our ecosystem builders are quite values led.'

'So, I think that the ecosystem is flourishing, and I think it's flourishing in the right ways as well.'

The growth of the entrepreneurship support ecosystem has not been completely organic. The policy and funding support from NSW Government has played an important role in accelerating the development of the ecosystem.

'At the state level, you can see the growth of CAISH entities. I think organisations like Investment NSW have focused on funding to help develop the ecosystem. Which is excellent.'

Many university-run CAISH entities also highlighted the role of the NSW Government's $25.7 million Boosting Business Innovation Program (BBIP) and TechVouchers in accelerating the growth of startup support activity.[26]

'The BBIP program was quite unique in that it provided the ability to create a personalised scheme of activities that suited each university and region. So you actually have a distributed network of people who are really in touch with their local innovation communities and can refine an offering there.'

While most participants viewed the growth of the entrepreneurial ecosystem through a positive lens, some more critical voices have suggested that more could be done to invest directly into startups. As highlighted in the following anonymised quote, there is some concern that growing the number of CAISH entities has been the goal, rather than growing the number of successful startups.

'I think we've moved into a space where we have flooded the market with accelerators and incubators... It has gone beyond meeting the needs of the individual entrepreneurs. There's no real investment in the actual entrepreneurs. When they started the ecosystem, it was all about investment within entrepreneurs. And now I think it's swung the other way.'

The impact of COVID-19

There is also some sense that the sector might have plateaued over recent years, with COVID-19 reducing funding support, and the rise of working from home affecting place-based programs.

'Even the startup teams themselves are remote, so post-COVID, our coworking spaces are not so valuable to people at this early stage.'

'There's no doubt about the fact that coworking changed dramatically since COVID. Yeah, so we're still working on building out our in-person events and our coworking back up after us... so virtual programming had to happen. Coworking had to stop, face-to-face events had to stop. And then funding in general, dried up. So, the impacts were definitely felt.'

Whilst some spaces have seen lower levels of occupancy as we emerge out of the disruption of COVID, other spaces are beginning to see a shift back to place-based CAISH entities as startups appreciate the value of co-location. The relatively higher occupancy rate for CAISH entities shows how startups are valuing the opportunity to work in team and interact with peers.

'Our business is to help these companies grow, but the cost base is a real estate model, right? We have got to pay rent... I was reading something the other day, which said that if you look at occupancy rates in the cities, I'm not talking about [our CAISH entity], just generally office buildings, Brisbane is 70% of what it used to be pre-COVID. Sydney is 55% and Melbourne is 35%... at the Startup Hub I think we're just stunned that we're about 85% occupancy.'

'...we moved into this hub in June 2021, we had another lockdown, so we couldn't quite open. And it probably wasn't till the beginning of last year, when people were starting to feel a lot more comfortable coming back and working from here... And then in 2022, that's when we started to see a lot more people inquiring about coworking.'

'And I think we learned a lot from COVID and the mass exodus from the building. In a sense we've come back to a new way of working. I think we're also seeing new startups that we've never seen before. Yes, we are seeing a lot of hybrid working, but I think we are actually seeing people who are going to come back to the office almost full time.'

Despite some of the negative effects of COVID-19, some CAISH entities have viewed the shift towards remote working as an opportunity to expand the reach of their programs through moving into online or hybrid modes. Despite the expanded reach, CAISH entities still reflect on the challenges of building deep relationships though online-only models.

'We went more online during COVID. And we did get interest from a much broader range of startups. So, there's definitely value in doing that. But yeah, I don't think you build the deep relationships so easily through those online forms of engagement.'

2.2 The spread of CAISH entities across Australia

We conducted a comprehensive mapping of all CAISH entities known to have operated or currently operating in NSW.

To develop the map, we synthesised insights from previous mapping approaches at the regional, state and national levels, including the mapping work of Dr Chad Renando from Startup Status & The University of Southern Queensland.[27]

We classified each entity according to our CAISH entity definitions (**See Glossary**). We also categorised the regions within which each CAISH entity was active to understand the geographic clusters of activity across NSW.

Picking up previous mapping exercises from a range of parties, we also included CAISH entities listed by any of 18 separate sources (Table 3).

The figures show that NSW accounts for the highest number of CAISH entities in Australia with 276 active CAISH entities in 2023.

The relatively high number of coworking spaces across Australia can be explained by the presence of multiple sites for various coworking organisations. For example, WeWork and Wotso Workspace each have nine NSW-based coworking spaces.

Table 3 CAISH entity mapping sources

Source	Description of data	Geographic focus
Startup Status	Searchable listing of CAISH Australia wide	Australia
Business.gov	List of government funded incubators	Australia
Airtree	List of venture capital funding (including accelerators)	Australia
GEMaker	List of accelerators and incubators	Australia
Universities Australia	List of university startup hubs	Australia
Simone Eyles	Google map of regional and rural coworking spaces	Australia
DFAT	Mapping 2017	Australia
Martin Bliemel	Ongoing mapping 2015–2019	Australia
XYZ Lab	List of top 84 startup accelerators and incubators in Australia	Australia
Spark Festival	Accelerators and incubators: currently open	Australia
North Sydney Innovation Network	Ecosystem mapping	Australia
Bryon Shire Council	2018 Sector Snapshot Byron Shire	Byron Shire
NewiHub	Newcastle searchable listing on Ramenlife platform	Newcastle
Sydney Startup Hub	Community listing pages	NSW
Failory	List of 32 top accelerators and incubators in NSW	NSW
Jobs for NSW	CAISH regional clusters	Regional NSW
Blue Chilli	2015 StartRail Sydney startup network map	Sydney
TechSydney	Searchable listing on Ramenlife platform	Sydney

Figure 3 CAISH entities by state

Northern Territory
- 0 Coworking spaces
- 7 Accelerators, incubators and hubs
- **7 Total CAISH**

Queensland
- 73 Coworking spacess
- 99 Accelerators, incubators and hubs
- **172 Total CAISH**

Western Australia
- 41 Coworking spaces
- 40 Accelerators, incubators and hubs
- **81 Total CAISH**

New South Wales
- 127 Coworking spaces
- 149 Accelerators, incubators and hubs
- **276 Total CAISH**

South Australia
- 22 Coworking spaces
- 32 Accelerators, incubators and hubs
- **54 Total CAISH**

Australia Capital Territory
- 9 Coworking spaces
- 14 Accelerators, incubators and hubs
- **23 Total CAISH**

Total
- 438 Coworking spaces
- 451 Accelerators, incubators and hubs
- **889 Total CAISH**

0-50 50-100 100-150 150-200 200-250 250+

Victoria
- 161 Coworking spaces
- 100 Accelerators, incubators and hubs
- **261 Total CAISH**

Tasmania
- 5 Coworking spaces
- 10 Accelerators, incubators and hubs
- **15 Total CAISH**

A critical lens on NSW compared to Victoria

The view from NSW-based CAISH entities interviewed for this report is that Victoria has been more effective in building a community of support for startups, whereas NSW has been more focused on infrastructure. Many of the CAISH entities feel like the community is somewhat missing in NSW and that developing the community would help the ecosystem to achieve greater impact.

'I think New South Wales Government has had a big focus on physical infrastructure and less on the actual support of the community. Victoria has been the opposite.'

'Launch Vic has had a major role in creating a community around that ecosystem as opposed to infrastructure around that ecosystem. New South Wales's approach has been infrastructure around that ecosystem. Victoria's approach has been community around that ecosystem, not infrastructure... Tech Central is great, wonderful. But ultimately, businesses are going to do their thing whether they're in the precinct or not. Victoria doesn't even have a precinct. It's got sections. But They've got a community. They've created a community of people that work together very closely... in a really solid group way. You know who to go to in Victoria for government funds, they've got Breakthrough Victoria, they've got Launch Vic, they didn't get distracted by infrastructure, they built the community.'

While infrastructure and spaces are clearly an enabler for interaction and community, the above quotes reveal that there needs to be a balance between an emphasis on infrastructure versus community and suggest that the Victorian government has done a better job in prioritising mobilisation of the startup community.

'I think once you start comparing and contrasting between the states, New South Wales has been habitually constantly behind Victoria. So if you look at what Victoria has done with Launch Vic, what are they now doing with Breakthrough Victoria. It is [a long way ahead of] New South Wales government and their approach. So while New South Wales government actually spends a decent amount of money… Victoria has done a much better job of activating that money.'

'NSW as an ecosystem to support startups is pretty poor compared with Launch Vic. Which I am sure, is quite consistent feedback that you've been receiving. It's getting better… they've got catching up to do, making some good progress, but there's a lot more that they could be doing.'

It's not uncommon for one jurisdiction to monitor what happens in another, before committing to similar investments. However, in this case the feedback indicates that there is a significant and known lag by NSW to invest in the community, which exacerbates the perception that there is an overemphasis on space in NSW.

Making matters worse is the degree of internal competition within NSW about which space gets prioritised, instead of forming a stronger community and ecosystem between them:

'I'm jealous of Victoria. They seem to, based on the conversations I've had, worked better together because of the amount of support that is present in the ecosystem. And so that generates more opportunities and less kind of competitive nature in them. I think New South Wales is maybe the other extreme, where their local support has been very focused on a couple of organisations. And that kind of collaboration goes away at that point when there's a couple of runaway steam trains and everyone else is picking up the pieces.'

Many participants in this study expressed that there is high level of competition between CAISH entities in NSW.

'There's a level of competitiveness that exists within [the ecosystem]. I think that a lot of people struggle. They think competition at all costs… this is public money on public money on public money, and you're wasting it on being competitive.'

'There's a lot of coopetition that goes on… because ultimately, you can be targeting the same people… it can be tricky, I guess, in terms of figuring out how to work together when your core business is similar.'

While there is a sense of collaboration between individuals within the CAISH ecosystem, multiple participants suggested that the NSW Government's funding approach is creating competition between CAISH entities.

'At the grassroots level, I don't think there is that competition. I think at the funding level from government competition absolutely happens.'

NSW startups would benefit from a more connected and collaborative CAISH ecosystem.

I think [we need] an ecosystem that's connected and open with each other. Supporting one another and not trying to compete all the time. There's little to be gained from that [competition]. Communities thrive through mutual support. They don't thrive when they're constantly competing against one another.

On a positive note, the highest level of praise for the NSW Government when compared to other jurisdictions related to the Minimum Viable Product (MVP) grant — we note that this grant funding is being provided outside the CAISH entities:

'[One area] that I think what New South Wales has done really well, compared to the rest of the country is the MVP grant, for example, which I know many startups have got, it's been really beneficial to be able to get that early funding, it's really hard.'

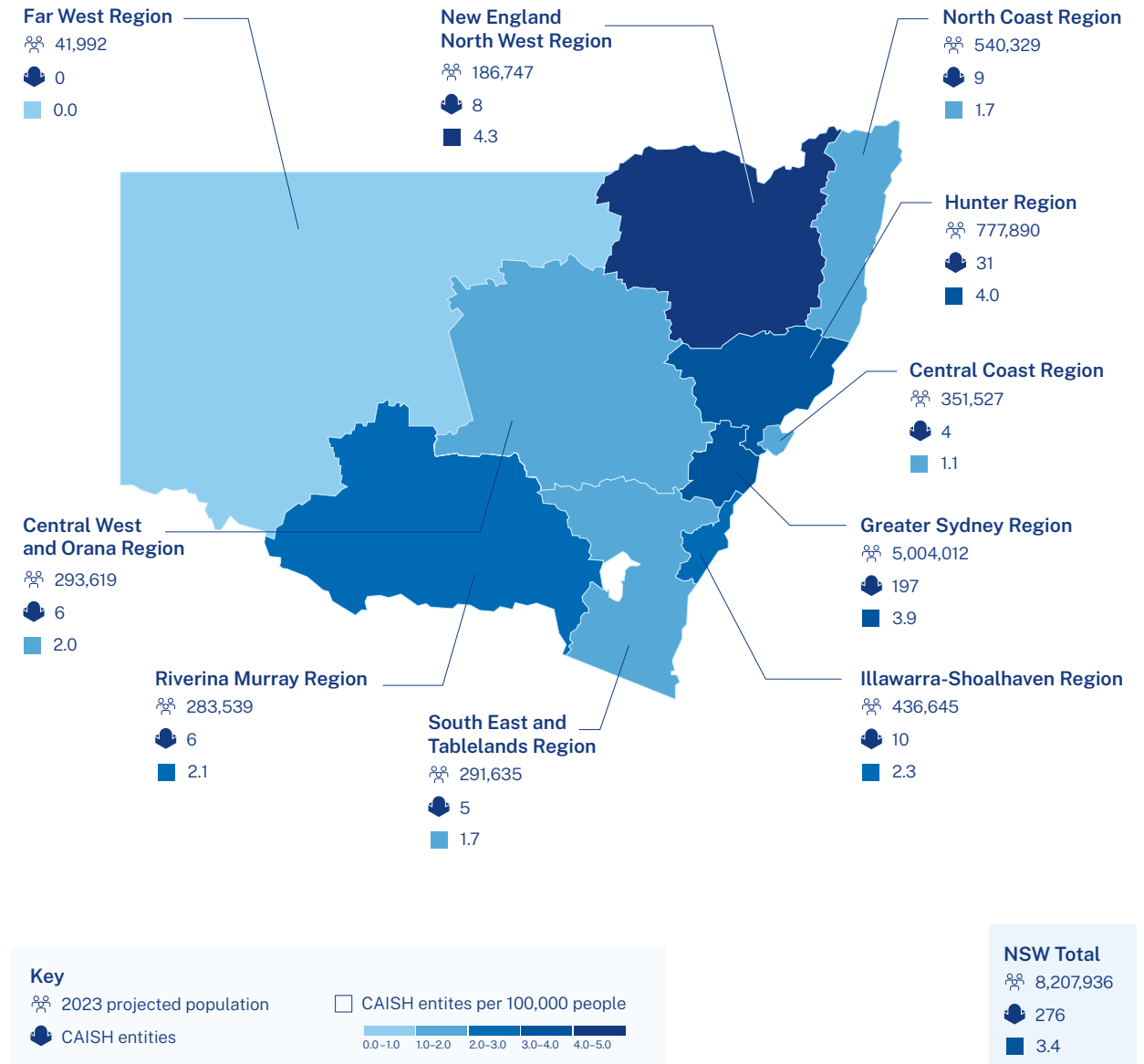## 2.3 The regional spread of CAISH entities in NSW

In mapping CAISH entities the regional spread in NSW of these entities has also been considered. Understanding the regions within which each CAISH entity was active helps to understand the geographic clusters of activity across NSW. The NSW Department of Planning and Environment (DPE) planning regions were used for classification purposes.

Figure 4 highlights the number and density of CAISH entities across NSW. To avoid solely relying on absolute numbers the map shows CAISH density at the regional level in terms of population.

Mapping the CAISH entities across the regions reveals multiple hotspots of CAISH activity and geographic gaps in certain areas. We observed Sydney, Wollongong, and Newcastle as the main hotspots of CAISH activity. We also note the regional ecosystem-building work of CAISH entities active in the New England North West Region and the North Coast region.

The density indicators at the regional level show that New England North West, the Hunter and Greater Sydney are relatively well served in terms of CAISH entities per 100,000 people. On the whole we see that most regions outside of Sydney and the Newcastle are relatively underserved. The Central Coast and the Far West region stand out through the limited density, and absence, of CAISH entities.

Figure 4 Where the CAISH entities are in NSW

Far West Region
- 41,992
- 0
- 0.0

New England North West Region
- 186,747
- 8
- 4.3

North Coast Region
- 540,329
- 9
- 1.7

Hunter Region
- 777,890
- 31
- 4.0

Central Coast Region
- 351,527
- 4
- 1.1

Central West and Orana Region
- 293,619
- 6
- 2.0

Greater Sydney Region
- 5,004,012
- 197
- 3.9

Riverina Murray Region
- 283,539
- 6
- 2.1

South East and Tablelands Region
- 291,635
- 5
- 1.7

Illawarra-Shoalhaven Region
- 436,645
- 10
- 2.3

Key
- 2023 projected population
- CAISH entities
- CAISH entites per 100,000 people
  - 0.0–1.0 1.0–2.0 2.0–3.0 3.0–4.0 4.0–5.0

NSW Total
- 8,207,936
- 276
- 3.4

Tables 6 contrasts CAISH density per 100,000 people in Greater Sydney with that in regional and rural NSW. This highlights that regional and rural NSW is still relatively underserved despite the efforts of regional ecosystem builders over the past decade.

Considering CAISH density in terms of CAISH entities per 100,000 small businesses rather than per 100,000 people perhaps provide an explanation for the imbalance. Table 7 shows the CAISH density per 100,000 small business is almost the same in Sydney as in regional and rural NSW.

Table 6 Sydney and regional CAISH entities by population

NSW DPE planning regions

Greater Sydney Region

5 million
2023 projected population

197
CAISH entities

3.9
CAISH entities per 100,000 people

NSW DPE planning regions

Regional and Rural NSW

3 million
2023 projected population

79
CAISH entities

2.5
CAISH entities per 100,000 people
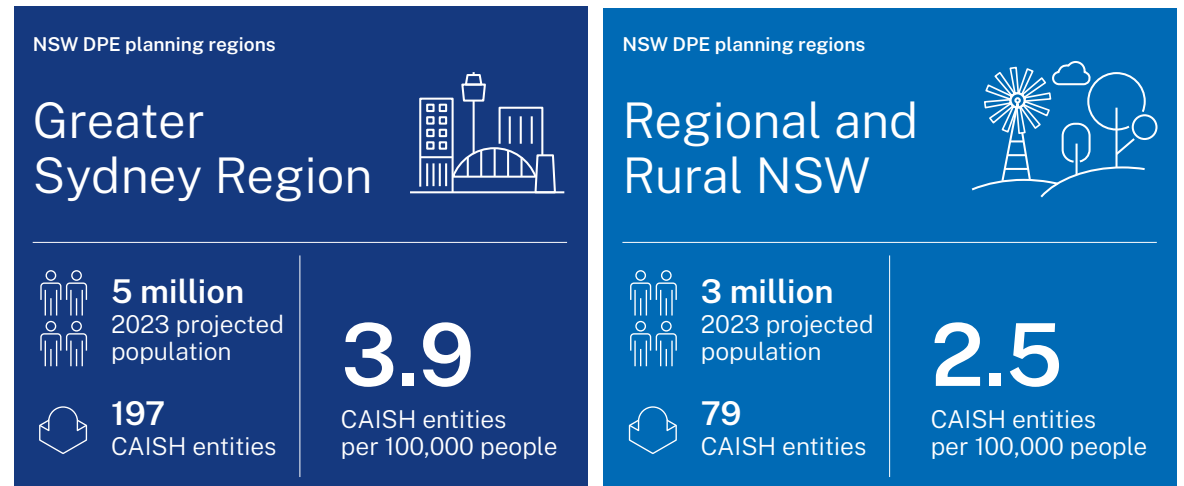
Table 7 Sydney and regional CAISH entities by business count

NSW DPE planning regions

Greater Sydney Region

591,274
Small businesses (30 June 2022)

197
CAISH entities

33.3
CAISH entities per 100,000 small businesses

NSW DPE planning regions

Regional and Rural NSW

245,113
Small businesses (30 June 2022)

79
CAISH entities

32.2
CAISH entities per 100,000 small businesses
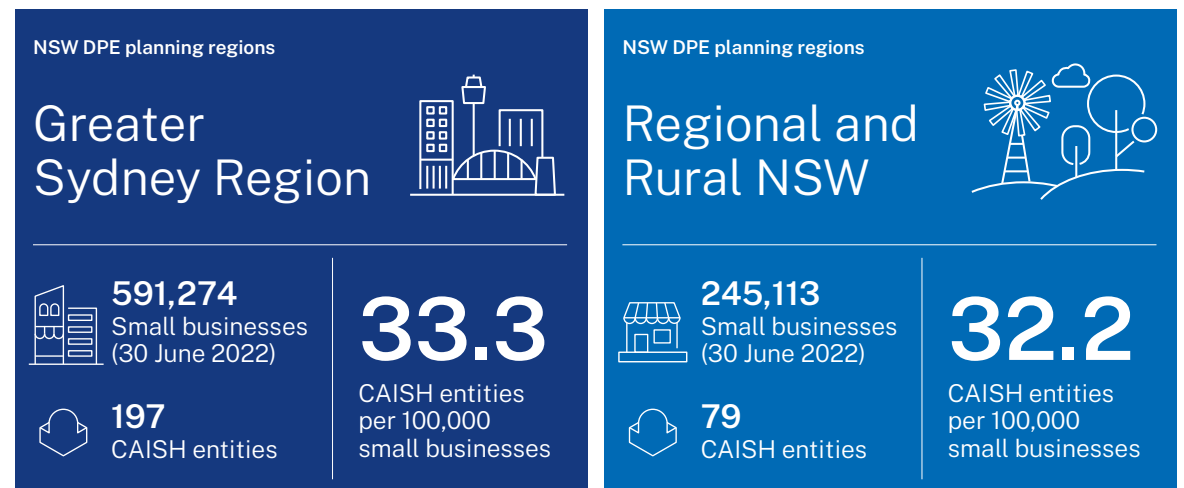
Table 8 Regional CAISH entities

Regional ecosystem	CAISH entity
Hunter Region	I2N Hub Honeysuckle
Illawarra-Shoalhaven Region	iAccelerate
North Coast Region	The Innovation Hub Coffs Coast
	Sourdough Innovation Hub
South Coast	Bega Valley Innovation Hub
South East and Tablelands Region	UNE SMART Region Incubator
Central West and Orana Region	CSU Innovation Hub

Case studies of regional ecosystem building

Appendix 1 includes a series of case studies that highlight the role of CAISH entities in regional and rural NSW acting as regional ecosystem builders in each of the following regions: Central Coast; Central West and Orana Far West; Newcastle (Hunter); Wollongong (Illawarra-Shoalhaven); New England North West; North Coast Riverina Murray; South East and Tablelands.

Two of these case studies are featured on the following pages.

UNE SMART Region Incubator. Photo: Simon Scott.

Case study 1

I2N Hub Honeysuckle

THE UNIVERSITY OF NEWCASTLE AUSTRALIA | **I2N** Integrated Innovation Network

I2N Hub Honeysuckle, run by the University of Newcastle, is designed to attract and retain talent in the Hunter region by supporting regional enterprise skill development, new venture creation, and scaleups. That in turn should create new jobs and diversify the local economy by supporting the development of tech-enabled products and services.

The Hub lets innovators and entrepreneurs connect with researchers and students at the University of Newcastle. It also lets innovators and entrepreneurs connect with mentors, the community, customers, and industry. And it provides pre-accelerator and accelerator programs and incubation services, including coworking space and private offices for startups and scaleups, and Zoom-enabled meeting rooms.

I2N Hub Honeysuckle is open to students, researchers, alumni, and the broader community to help them develop skills and take ideas to market.

Since 2016 it has supported 109 teams/startups who have created more than 125 new jobs. More than $26 million has been raised by Hub-supported startups. The Hub has three full-time equivalent staff; it is funded by the University of Newcastle and the NSW Government.

'Supporting entrepreneurs to grow their businesses here makes us very proud. Newcastle and the wider Hunter region offers a beautiful lifestyle base from which founders can start a business. People living here know that it's never been easier to do just that. For startup founders who emigrate here, oftentimes they don't know what to expect, and they're often surprised by the networks and support that are here.'

Siobhan Curran
Assistant Director, I2N Operations and Innovation

'What the dedicated team at I2N are doing to support local innovation is amazing! It's incredible and there is no vested interest for them. That's what I took away from it: here are some really genuinely interested people offering valuable help.'

Kylie Burrett
Co-founder, Design Nuts — I2N Hub Honeysuckle website

Case study 2

UNE SMART Region Incubator (SRI)

Founders at the SRI work on innovations in agriculture, health, environment, creative and cultural industries, bringing research-rich and technology-driven solutions to reach customers in the region, nationally and globally. Funding comes from both the Australian and NSW Governments and from corporate supporters.

'When we work together across the University sector and make sure we are focused on founders being at the centre of the ecosystem, then we can build good collaborations that grow enterprise wherever it makes sense for business expansion in NSW. So, making sure we create a welcoming, collaborative, open arms approach regional innovation is really important.'

Lou Conway
Director, UNE SRI

'There's been a very impressive openness, whether it's from the regional council or the university or the SRI, to welcome businesses like ours and to create linkages... to see Armidale and the region prosper.'

Hamish Webb
Executive Director and interim CEO, Precision Pastures

The UNE SRI is a university-led business incubator that supports innovation across the New England-North West region. It has strong links with the University of New England, and connects founders, researchers, school and university students, mentors, experts, investors, government, and business partners.

The SRI has physical locations in Armidale and Tamworth, and in Moree (in collaboration with Social Co-House), and Narrabri (in collaboration with The Exchange), featuring high-speed internet, meeting rooms, and private and collaborative spaces. The incubator provides a wide range of programs, services and events to help founders grow skills, knowledge and networks whilst being supported within an ecosystem of opportunities.

Entrepreneurs driving early ecosystem support approaches in regional contexts

In line with the growth of CAISH entities across Australia, the number of CAISH entities in regional NSW have increased dramatically in recent years. Insights from longstanding CAISH entities in regional areas highlight how entrepreneurs themselves played a central role in building the startup support ecosystem in the absence of broader support structures.

'In the early 2000s there was [no CAISH entity in the Hunter] and now it has a self-sustaining ecosystem. It's obviously not as large as Sydney, but it's probably less fragmented than Sydney. And it's probably a little bit more real. I would suggest that back in the early 2000s it may have been less than ten people involved in that ecosystem up here. And now that would certainly be in the hundreds, in terms of people doing that sort of heavy lifting.'

'At the start, the ethos that was created was 'by entrepreneurs, for entrepreneurs'. This was basically before most of the coworking spaces existed, especially in Newcastle, around 2013. Really, really early days. It's almost been a decade. But basically, there weren't coworking spaces around, at least nowhere near as many as there are now. And it was created by a group of entrepreneurs that wanted to create a space where they can collaborate and work with each other.'

NSW Government funding underpinning regional ecosystem building efforts

Since 2015, the NSW Government funding has been essential for the growth of regional ecosystem building activities through their support for university-based CAISH entities in regional settings.

CAISH entities in regional NSW acknowledged that there has been a shift in focus over this time beyond Sydney to ensure regional startups and CAISH entities are supported.

'In 2016, the New South Wales Government released the Boosting Business Innovation Program (BBIP) funding, which really was the platform that enabled us to create the first regional incubator in the New England North West region of New South Wales.'

'There's no doubt in my mind that the startup sector in Australia is heavily Sydney-centric. I have observed over the last three to five years and maybe a little bit longer, there's been a very big push to build similar sort of ecosystem densities in regional areas, and certainly in Western Sydney... there are big startup communities around Wollongong and Bega Valley. They are really interesting communities. So, there's enough regional activity.'

Aligning with regional opportunities

Regional CAISH entities have a tendency to offer industry-specific programs that align with the strengths of the local economy. For example, CAISH entities in the Hunter region are playing an active role in supporting the energy transition as Newcastle moves from its past with the coal industry towards a clean technology future.

'The Hunter region is particularly well placed around energy transition. We have the history of the Hunter around coal. It is really well placed around it over the next decades to be home of energy transition Australia. It's very well placed from that perspective... the Hunter region has got a very interesting differentiator... that's probably its best opportunity [for startups].'

'So clearly the Hunter is going to be deeply ingrained in a decarbonised economy and an existing good DNA and bones around manufacturing and coal... I think you're going to have this laboratory here, along with the good bones of the Hunter.'

Supporting regional economic development and the broader community

Regional CAISH entities are heavily focused on regional economic development and supporting the broader community.

'...we've always just focused on supporting rural and regional people.'

'It's very much within our DNA that we're of our region and for our region'

We observed that regional CAISH entities were often open to a broader range of participants compared to programs in Sydney that might be more focused on specific groups. For example, university-based CAISH entities in Sydney tend to be more focused on their students, alumni, and researchers whereas regional university CAISH programs are open to the broader community.

'...maybe we're different because we service the whole community, we don't have a captured market with just students and alumni. But that's the difference between a regional and a metro. In metro areas it makes sense for the Sydney universities to just focus on students because there are already so many other accelerator programs... There's no sense trying to open it up to the community. But up here, it has made sense to do that.'

Siobhan Curran from the University of Newcastle's I2N Hub Honeysuckle highlighted the importance for regional CAISH entities to help retain talented graduates and aspiring entrepreneurs within the region.

'There wasn't a lot of interest by any accelerator programs or investors to come looking in Newcastle for startups to support... We need to be able to diversify the economy here locally to provide new opportunities not only for our graduates, but for everyone in the community to have a job here.

And Newcastle has really suffered a lot in the past from brain drain where students haven't found the opportunities here, or graduates haven't found the opportunities here. So, they've gone to Sydney, Melbourne or overseas... We want to demonstrate to the local community that if you have an idea,... you don't have to go to an accelerator program in Sydney, you can do it here.'

I2N Hub Honeysuckle

Supporting collaboration within and across regions

The interviews with regional-based CAISH entities reveal strong intra-regional cooperation between CAISH entities, evidenced by an explicit desire to develop collaborative networks within the region. This desire to collaborate creates a sense of a broader cooperative spirit within regional communities.

'I think ecosystem wise there's so much potential and there's actually a desire regionally that people want to work in this space cohesively and collaborate.'

'The Illawarra is a community where everyone is connected. Everyone will help everyone and support everyone in a way that I don't think you get in the big cities. Also it weeds out issues really quickly… Everyone talks. It's actually a really beautiful part of the world to do innovation.'

Regional-based CAISH entities also exhibit a strong desire to drive broader collaboration between CAISH entities in different regions across NSW.

'We're the only incubator in this region. But I think we are really great collaborator with University of Newcastle, we obviously work really closely with Charles Stuart University, and also UNSW, Macquarie. I think that makes us different.'

More than just agri-tech

Regional-based CAISH entities also showcase the diversity of startups and innovation emerging across regional NSW. The case of the University of New England (UNE) SMART Region Incubator highlights how regional startup ecosystems are a space for innovation across multiple sectors, not just agriculture.

'Initially when we were funded by New South Wales Government it was thought we would be focused on agricultural technologies because we are in a regional location. And to some extent that is true. Currently, I think 33% of our founders are in agri-technology… But also nearly 30% of our startups are in the health sector, and they tend to be in Tamworth, and they are the fastest growing segment. And then we have about 15% of our startups in clean tech, environment tech and climate tech because we're going to be a renewable energy zone. And then the remainder are creative and cultural startups. So what we've worked out over time is that you need a diverse economy, and you need different capabilities.'

UNE SMART Region Incubator

2.4 Sydney-based hubs

The entrepreneurship support ecosystem is seeing an expansion of startup hubs and innovation hubs across Sydney to promote collaboration between CAISH entities in various geographies.

At the beginning of the 2010 there were a limited number of innovation and startup hubs such as Stone & Chalk and Fishburners, each in their own locations. Over the past decade there has been increased clustering of startup hubs. Sydney Startup Hub has become a central hub in the CBD and every Sydney-based university has created their own hubs of startup support. Western Sydney University's Launch Pad has offered co-location in Western Sydney since 2015, starting at Werrington and now at Parramatta and Bankstown. The Western Sydney Startup Hub in Parramatta and Tech Central Scaleup Hub are also providing more opportunities for the colocation of CAISH entities.

The interviews suggested that the growth in the Sydney-based ecosystem and the diversity of CAISH entities is creating opportunities for collaboration and giving startups a sense of choice.

'At the city level, there's definitely growth in the ecosystem. I think it's starting to get a little crowded in terms of the number of incubators and accelerators, which is good, it means that the ecosystem is growing.'

'Now there's incubators all over the place. I think that has brought back that geographic concentration where you can choose between different incubators. And you choose based on convenience like you would for a coworking space.'

WSU Launch Pad

Western Sydney Startup Hub

Table 9 Sydney-based hubs

Sydney-based Hub	CAISH entity
Sydney City	Sydney Startup Hub
North-West Sydney	MQ Incubator
East Sydney	UNSW Founders
West Sydney	WSU Launchpad
South Sydney	*nandin* Innovation Centre (ANSTO)

Despite the growth of Sydney-based hubs our interviews revealed a sense of exclusion for some Sydney-based stakeholders, with a feeling of bias toward the CBD.

'I think the Tech Central focus can be a little bit limiting and detrimental. Why? Because people who are just geographically a couple kilometres on the outskirts of that completely excluded. Whilst there's a lot of talk to say, yes, you are part of the community. It's illogical that a couple kilometre boundary excludes from a particular precinct where there's so many opportunities. I think that's detrimental to the growth of the ecosystem overall. And I think there's a pretty narrow view.'

'Sydney as an ecosystem has suffered massively, by not recognising and engaging the potential of Western Sydney. So, you know, we struggled for the first five years to get Investment NSW or anyone else to really even listen to us.'

'...the whole raison d'etre of the Startup Hub was to get Tank Stream Labs and Fishburners and Stone & Chalk, which at the time, were all separate, in separate buildings in the city, and shoved them together in one building. And now there's Tech Central Sydney, because the CBD is everything and the more stuff we can pile into the CBD, the better... But we have to recognise the diversity of physicality that we have in the world now, and not pour millions of dollars into a Tech Central, you know, not just this infrastructure that cost a tonne of money and is not necessarily the best way to support a large number of successful startups.'

A series of case studies in Appendix 1 highlights the role of startup hubs and innovation hubs in driving pockets of innovation across the city.

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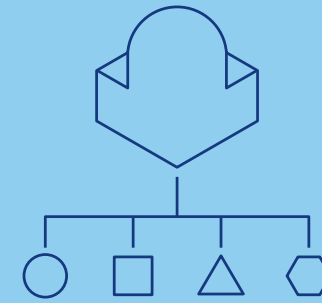
Increasing specialisation of CAISH entities

The research shows that the startup and entrepreneurship support ecosystem in NSW is becoming increasingly mature. The growth in specialised CAISH entities provides evidence for this conclusion.

The NSW experience echoes prior research on entrepreneurship ecosystems in London, Paris and Berlin.[28] A Drori and Wright study of the development of accelerators in these places showed that as the ecosystem developed there was a general trend towards more specialised accelerators over more generic ones.[29] Similarly, research by Autio and colleagues suggests that as entrepreneurial ecosystems develop, they have a stronger focus on cross-sector linkages and specialisation in terms of human capital.[30] The specialisation of CAISH entities could be viewed as a response to increasing specialisation of startups themselves.

Mapping of CAISH entities and interviews with entrepreneurs and CAISH managers reveals the emergence of specialised CAISH entities focused on **particular sectors and industries**. These CAISH entities provide tailored support for entrepreneurs in industries and sectors such as fintech, medtech, biotech, healthtech, cyber security, and space technology.

UNSW SynBio 10x Accelerator

Given the support of NSW Government for specialised CAISH entities, the specialist CAISH entities are closely aligned with NSW Government of priority sectors.[31]

Specialist CAISH entities are active in all of the **emerging industries** identified by NSW Government: clean energy and waste, defence and aerospace, digital systems and software, and medical and life sciences.

There are also specialist CAISH entities supporting startups working on ideas using the **core enabling** technologies identified by NSW Government: advanced manufacturing, biotechnology, and digital technology, including fintech.

In terms of **existing industries** with high trade exposure that are important in terms of their overall contribution to NSW gross state product, there are various CAISH entities servicing startups in the agriculture and agrifood resources, but we did not identify any specialist CAISH entities servicing international education or the visitor economy.

The importance of creating specialised CAISH entities was echoed by many of interviewees:

'I've also heard that a lot of our incubators are quite generalist and cater to all comers with very generic services, whereas what we should be doing is trying encouraging sector specific incubation like a defence tech, space, aerospace, biotech, ag tech. The more specialised they are, the more they can tailor their particular products to the particular needs of the startups working in that sector. That is an area that is lacking, that specialised service, as opposed to the generic one.'

UNSW Founders — Defence 10x

Respondents highlighted that the value of specialisation can ensure that the longer lead times in particular sectors are appreciated.

'I think there's quite a substantial amount of dedicated support around med tech. People acknowledge and recognise the length of time that requires… I don't know that many other sectors have been given that same appreciation of what's required. So, when you're talking about robotics, artificial intelligence, really deep technology products or companies, there's an equally long developmental period there. I think, appreciating that runway, and having that same support along the path would be really helpful.'

'…clean energy and decarbonisation is different… It takes longer. It's more difficult. It requires a particular focus. It's fine to be a generalist, but the expertise required in this area is significant. So that, to be quite honest, is the point of difference that we're focused on.'

The creation and expansion of specialised networks was consistently identified as the main benefit of specialised CAISH entities. CAISH entity interviewees showed a sense of pride in curated networks they create and can offer to entrepreneurs in the sector they specialised in.

'…what makes us unique, it would certainly be our networks, the networks that we have. When I talk to other ecosystems, like I was talking to people from the UK last year, they could not believe the ecosystem and the network of connections that we have built around us and the access we can get for our founders. And those, they are absolutely unique.'

'Our networks really differentiate us… we've got a number of phenomenal experts across the university that we can pull into advise. If it's a really deep tech startup, we can pull in the right people to mentor or help that startup, say, in the med tech regulation space in the investment space etc… We've built out a really big community of networks that we refer our founders to.'

The specialised entities often hope to support NSW to **become innovation leaders in growth industries**. For example, the UTS Green Light accelerator helps support algae biotech startups working in a range of industries in NSW by linking startups with research support from the UTS Climate Change Cluster.

Some participants raised a warning about the need to actually specialise, and not just delivering the same material through a new lens:

'I think it's a good thing that they can specialise as long as they actually are specialising. And they're not just picking a niche that sounds good and throwing the same content through.'

Other critical voices on specialisation noted that government policies shaping specialisation can sometimes be a distraction and mismatch from what is needed in the sector.

'I think accelerators are not funded properly unless they're attached to a fund. If they're not attached to a fund, it's unlikely, they will succeed. The commercial models around those accelerator models can only work with a fund or through government accelerator programs. Government funding can lead to a mismatch too, because government has a mandate and has an agenda that they believe is right. And the funding aligns to that. But it can be a distraction for those that know otherwise.'

Specialised CAISH entities also explicitly support startups focused on **societal change and sustainability transitions**. For example, the newly established Paul Ramsay Foundation (PRF) Social Enterprise Growth Incubator, run by Social Enterprise Finance Australia (SEFA), aims to support social enterprises working to 'break cycles of disadvantage' in Australia. The Boomerang Labs accelerator is focused on supporting moves towards a circular economy in Australia.

UTS Green Light accelerator

Another aspect of specialisation in the startup support ecosystem focuses on **diversity and inclusion**. A handful of CAISH entities that have emerged over the past five years offer targeted programs to women, migrants and refugees and young entrepreneurs. For instance, Tech Ready Women has been specifically designed to support women entrepreneurs working on tech-driven startups. Catalysr, which began in Western Sydney but has expanded to a national accelerator program, focuses on supporting migrants and refugees seeking meaningful work through entrepreneurship. This focus on diversity and inclusion ensures that startup support is accessible to a broader range of individuals who often feel unsupported by or excluded from mainstream programs.

Specialisation at the regional level is becoming increasingly prevalent. CAISH entities have emerged in various regions in NSW that are aligned with the needs of local startups. These regional CAISH entities often focus on supporting dominant and emerging industries in those areas. For example, the UNE SMART Region Incubator supports innovation across the New England North West region in agriculture, health, environment and creative industries, with interconnected hubs in Moree, Tamworth, Armidale and Narrabri.

Three of these specialising CAISH entities are featured on the following pages.

UNE SMART Region Incubator

Case study 3

EnergyLab

(Energy)^Lab

Coworking space and accelerator EnergyLab is a non-profit specialising in clean energy and climate technology. It provides clean energy and climate tech founders with support, expertise and networks to reach their next growth milestone. Its network of mentors, advisors, peers and investors helps founders overcome the challenges of developing technologies and solutions to decarbonise the economy. Since its 2017 establishment, it has supported more than 160 startups and 130 entrepreneurs, including more than 90 female founders.

'We are strategically focused in the vertical of clean energy and climate tech in the startup ecosystem because innovating in this area requires specialist targeted support. The time to market is longer; with complex hardware involved in many instances, the upfront costs are higher; the regulation is more complex than experiences in other startup ecosystems. To summarise it's generally more difficult and the expertise required in this area is significant and multifaceted.

So, our focus on clean energy and climate tech is our point of difference. And we've been doing it since 2017. We've had 160-plus startups go through our programs, we've had 90 women go through our Women in Climate and Energy fellowships, and we've helped countless more startups through our founder programs, angel network, mentor network, events and coworking...'

Megan Fisher
CEO and Director, EnergyLab

We found the agenda to be extremely well-designed, structured and executed. The entire EnergyLab team has a keen appreciation for what is required to bridge the commercial engagement gap between startups and energy utilities. This ensured the program was pragmatic and focused on enabling the greatest likelihood of tangible opportunities to result. It was also fantastic getting to know other global companies navigating similar trajectories and customer engagement.'

Daniel Danilatos
Founder and CEO, Neara

Case study 4

UNSW Founders — Defence 10x accelerator

UNSW SYDNEY | FOUNDERS
FOUNDERS.UNSW.EDU.AU

The UNSW Founders — Defence 10x accelerator is a newly-established national program for startups aiming to speed up the commercial development of innovations for Australia's defence. The accelerator program is backed by the Defence Trailblazer initiative led by the University of Adelaide and UNSW, and supported by the Australian Government Department of Education and more than 50 industry partners. Defence 10x provides startups with seed investment, access to R&D capabilities, tailored coaching and mentoring, and the industry and government networks to scale their innovations.

'There's an urgent need for change within the defence innovation system... UNSW's Founder 10x programs are a proven method for accelerating commercial development, and combining this with the deep networks of the Defence Trailblazer will enable us to uncover Australia's next big defence solutions.'

Sanjay Mazumdar
Executive Director of the Defence Trailblazer —
EX2 for Defence Innovators blog

'There are fantastic startup ideas and powerful innovations being developed all around the country, but tricky market dynamics have meant innovations often struggle to reach commercialisation. Defence-specific expertise, funding, and networks are needed to accelerate our ability to develop and translate great ideas into deployable products, to the benefit of our national security.'

David Burt
Director of Entrepreneurship, UNSW Founders —
Australian Defence Magazine

Case study 5

SEFA/PRF Growth Incubator

Sefa Partnerships is a not-for-profit organisation that builds the capability and capacity of social impact businesses; the Paul Ramsay Foundation (PRF) is a philanthropic organisation working to reduce cycles of disadvantage in Australia. The 10-month SEFA/PRF Growth Incubator seeks to support purpose-driven organisations by helping them strengthen their operations and impact.

The Incubator provides access to customised learning sprints, expert coaches, a dedicated incubator manager and opportunities to connect with fellow participants and the wider for-purpose sector. It is working with eight social enterprises to accelerate their growth and impact on cycles of disadvantage.

'Our coaches provided us with really valuable information, and being away as a senior management team for four days allowed us… a really good amount of time to talk through things and find some clarity about the work we are doing.'

'The impact measurement session was really powerful. The module on culture created some light bulb moments. Outcomes-based contracting was authentic and eye-opening.'

'Having access to such knowledgeable coaches, who really understand what we do, has been great.'

4

Activities to generate impact

Cicada Innovations

CAISH entities offer various services to support startups, entrepreneurs, and innovators. These services include mentoring, networking, events, cohort-based programs, growth-related services, funding and investment readiness support, and physical space.

These CAISH entities aim to cut the risk of early-stage startup failure by helping entrepreneurs and their teams.[32] Furthermore, they serve to correct market failures associated with entrepreneurship, (which has been well covered by literature elsewhere):

'...[I]f you want a vibrant economy, you need people stepping up to take a shot at starting a company. However, that's a very economically irrational decision for an individual... the financial expected value is much better to go get a job at a bank.'

David Burt
UNSW Founders

All these startup support organisations build a temporary environment for entrepreneurs by co-locating them with other enterprises and offering the co-located organisations a mix of services. Entrepreneurs value these CAISH services for helping them grow faster, raising money for their ventures, and building entrepreneurial skills and confidence.

'We did the accelerator and then the scaleup program... and each phase has been really critical. And just being able to help us with our business acumen [was useful] because we're all from not-for-profits and environmental science. We weren't businesspeople. Just having that network of mentors and the knowledge base, having the whole business development, has been really critical.'

'They gave us money; that was the most valuable thing. And the networks, we got a lot of work from there. Money and networks are so important.'

'Startups at the beginning stage, we are so confused. We try to think whether it's going to work or not. There are a lot of doubts; you're not confident. But Catalysr gave us the confidence to push to say, "Yeah, you're heading in the right direction"... And we continue to sort of seek their assistance and guidance and advice as needed.'

'If you're a startup, like if you aren't growing, if you aren't expanding your market share, if you want to be aggressive, then someone is going to just take you out, especially like with the global playing field. So, it's really expand quickly or die for a lot of these guys... If you don't expand, you won't survive.'

Different types of CAISH entities have different aims and hence emphasise different services to assist entrepreneurs and help improve startups.

Accelerators and incubators provide **mentoring** and coaching to help entrepreneurs refine their business ideas, develop their product or service offerings, and improve their overall strategy.

Most accelerators and incubators offer **cohort-based (or bespoke) educational programs** via workshops, training sessions, and access to (online) educational resources for skills and knowledge development. When led by educational institutions, these programs may offer formal qualifications through degree programs. As noted in Section 2.1, COVID-19 has prompted several entities to shift towards hybrid models, with greater online delivery of programs; some have even moved to online-only models.

Accelerators and incubators also provide hands-on **growth-related services** to support business development, including market research, product development, and marketing. Other growth-related services include:

- Support with branding and marketing (such as social media marketing, search engine optimisation, and content marketing)

- Recruitment support to help find and hire talent

- Support with intellectual property protection (such as patenting and trademark registration)

- Support with applying for government grants and programs.

Others offer services to help startups expand their businesses globally, including international market research and business planning.

Accelerators and incubators also provide **access to funding and investment readiness support** by connecting entrepreneurs with angel investors, venture capitalists, philanthropists, government grants, crowdfunding platforms, and advanced incubators and accelerator programs.

While sometimes offering elements of the above, coworking spaces focus on providing businesses with **flexible and affordable office space**, meeting rooms, and other useful infrastructure.

Startup hubs and Innovation hubs operate at higher levels by housing multiple accelerators, incubators and/or coworking spaces in one physical location, such as a building or campus. These hubs focus on connecting entrepreneurs with a mix of the above services through different providers, as well as ensuring **coordinated action between CAISH entities**.

All four types of CAISH entities include **networking and events** in order to connect entrepreneurs and their teams with like-minded individuals, potential partners, and industry experts.

As highlighted in Chapter 3, specialised CAISH entities focus on specific sectors, industries and target groups. They offer services such as **access to specialist equipment**, like lab facilities and manufacturing capabilities, that support the development of new products and technologies. And they offer **tailored programs** that prepare CAISH entities for specific industries, including pitching workshops, due diligence support, and associated legal and financial advice.

4.1 Providing tailored mentoring

Mentoring and coaching are perceived as among the most impactful forms of support that CAISH entities provide to startups, scaleups and entrepreneurs.

These services come mostly from incubators and accelerator programs. According to the literature, the primary role of mentors and coaches is to guide founders and teams 'to achieve the necessary skills for the business and product development'[33] by providing 'technical and business feedback, advice and social support'.[34] For example, this support service is described by Stone & Chalk in the following way:

'[We provide] access to a vast network of subject matter experts who provide guidance and support for both personal and professional development. These mentors assist founders in overcoming challenges, nurturing leadership skills, and equipping them with the necessary tools to build a successful venture.'

Mentors and coaches are generally recruited from the broader entrepreneurial ecosystem, including early stage seed investors, serial entrepreneurs, industry experts and advisors, senior executives, and educators. University-led CAISH entities seeking to support and guide entrepreneurs also draw heavily from the broader research community and from industry, based on their experience in research commercialisation or a particular technical sector. For example, UNSW Founders explained that 'the coaching comes from within the team' while mentoring comes from 'people in the industry very specific to what they're doing.'

iAccelerate

Bergek and Norrman have pointed out that incubators can be placed on a scale from strong intervention to a laissez-faire relationship.[35] Their position on this scale depends on the intensity with which they engage with their incubatees through their business support services.

In general, the entities interviewed in this study have preferred proactive approaches. They carefully curate their networks of mentors and actively manage the connections between mentors and mentees, looking for the appropriate pairing according to the mentors' experience and the mentees' necessities. Macquarie University Incubator provides an example of this approach:

'There's a mentoring program that is actively managed by us. We interview all our mentors and onboard them and manage the connections between our mentors and our startups. So we're more about quality rather than quantity... We want to make sure that the people we have in our mentor network are people we have vetted. We do try to make sure that the mentors that we have can add value to that relationship.'

The University of New England Smart Region Incubator provides another example:

'You get what we call a regional connector. So, you get a person who meets with you regularly and actually knows how you're going in your business, who asks that question about: "Who can I introduce you to? What help are you looking forward to?" Then we might connect to an expert-in-residence for one-on-one coaching… So, we work really hard to have a really great list of mentors. We have three experts and residents who are really experienced, who are kind of building that knowledge as it's needed.'

But some organisations prefer more flexible approaches to mentoring. Instead of offering a formal and established network of mentors, they reach out to different experts depending on the specific necessities of startups and entrepreneurs. iAccelerate takes this approach:

'The companies have said they don't want a formal [network]. We've got experts and residents in the building that they can have meetings with. But they don't want a formal network. They seem to want us to have a Rolodex of mentors that we can connect with them. So, what they don't really want is a formal mentoring network. They want us to be able to say: "This person's done that grant before. This person had that problem before." And so what we're trying to do is come up with 20 or 30 key supporters that we can network people. So that's probably going to be our approach, rather than formal mentoring.'

Some entities provide sector specific mentoring and advice. This can be more productive for startups, because it gives them the expertise and training of others working in the same industry.[36]

'So it's not purely a collaboration. Lindfield Collaboration Hub is broader than that. We've looked to establish people who've got a lot of years' experience in hardware and tech development to act as mentors — a cohort of mentors that we draw on…

'[I]f it's a really dig-deep tech startup, we can pull in the right people to mentor or help that startup.'

Mentors engage in a wide range of activities. They range from providing guidance and advice to conducting workshops and participating in events such as pitching sessions and competitions.

Some organisations also provide the support of entrepreneurs in residence. These are designed to 'help entrepreneurs set goals and keep them accountable to those goals throughout the program', according to UNSW Founders. The entrepreneur in residence generally offers their extensive experience to build entrepreneurial skills and mindsets:

'I sort of fell into a mentor-in-residence sort of role, which technically should be called entrepreneur in residence… I've got a formal training and business background… and I've been doing software development for the last 30 years, or 20 years when I'd started as a mentor in residence. So, I sort of understood what they were all trying to do. And I was doing a lot of translating between them… I was getting them to understand what they actually needed to do… So, I don't want acolytes… I want them to fail at a more complete level or at a higher level and I want them to go out into new spaces and do new things, find their own way through. So that the terminology that I fumble around, is that I'm not fishing for people. I'm not teaching them how to fish, I'm teaching them how to work out new ways to fish.'

Overall, this type of support service is critical in helping entrepreneurs to either validate their ideas and move their business forward into the market or discard it (Cohen et al., 2019). The entrepreneurs and startups interviewed in this study raised the importance of this assistance and consistently highlighted the value of accessing specialised mentors who have expertise in similar industry sectors or product markets:

'The mentors were very valuable. And having a mentor, like one of my mentors he had a capital raising company. He was really valuable because he had so much feedback, and he could see how hard I worked at what I was doing.'

'I just don't think that we would have continued on [without Energy Lab]. There were so many bits that were well out of our skill set. We probably would have hit the wall without that support of Energy Lab. Mentorship is really, really important. To me, particularly, I've gained so much out of it.'

'…[D]efinitely the mentorship that we got [had the most impact]… The mentor was great. He was the guy that understood me and [my co-founder] really well. He understood what sort of challenges we were facing… because he himself was working on a hardware-focused startup at the time as well. We were able to get really good feedback out of him. Really good suggestions, that to date are still, you know, paying dividends.'

'Michael [head mentor at Startmate] had, prior to being at Linktree, also commercialised YouTube, and so having his advice around our pricing strategy and how we were pricing our product, it just like fast-tracked what we would have done otherwise.'

4.2 Embedding startups within a broader community

All CAISH entities aim to embed the startups they support into a broader network — by creating, facilitating and maintaining a supportive community.

'The whole premise of Cicada Innovations more broadly is that we recognise that it takes a village. This is not Cicada on its own. It's all the residents that are in the building helping each other out. It's the external mentors that give their time freely. It's the alumni who give back. It's the government and industry support that we receive. The investors. The business service providers that have the expertise and all the rest of it… It's a challenging path that these companies are taking. And they're trying to solve wicked problems. So, it takes a village.'

'Overall, [it is] about our community. This is not how we started. This wasn't part of our thesis. But actually, every single program we run, the biggest feedback that we've gotten is: "All this is great, but the biggest impact is we now have a community where we can belong, where we can come back to ask any questions and we will not be going to get judged."… It's very simple, but it's real.'

These entities provide the scaffolding for entrepreneurs to share experiences and challenges, learn from each other, and give back to the community. The process builds a sense of belonging between like-minded people. In the case of university-led CAISH entities, entrepreneurs are encouraged to dedicate time to helping others and give back to the community as part of becoming members. Hence, student entrepreneurs and startups are not only supported based on the potential of their idea, but also based on their capacity to add value to the community.

Cicada Innovations

'I think, like, for me, the thing that really matters is this being around enough people that make you feel normal, and being really strongly connected to the person that's doing the stuff that you really need to learn from. And for that person to have an incentive to actually give you stuff they wouldn't otherwise give you.'

'The first one is community. So, we have a bunch of people that are like-minded individuals who think like them, so other tech companies, in similar stages to them, in similar tech verticals, that they can talk to, and not work alone, because that can tap all these other resources. And we curate the community as well.'

'Selection process is really based on looking at how they fit with the culture that we have here, that they have an open learning mindset. So there's no point in us working with people that aren't interested in other people's opinions because we can't really help them. I'm not saying that they might... they may be successful. But if we're going to have a symbiotic relationship with the startup, then we look for people that have an open learning mindset and are willing to listen to others on the startup idea. And to take feedback. We're also looking for people that are willing to be involved in a community. So they have to be giving to the community in a positive way. So they have to engage with the other founders. They have to attend programming. We expect them to attend networking events and to contribute.'

The opportunity to exchange knowledge and experiences, and to gain support from others, is considered by entrepreneurs as a significant outcome of participating in CAISH entities. By building a supportive community of people who share similar attitudes, values and motivations, these entities are able to create synergies and promote cooperation and collaboration between entrepreneurs/startups. Furthermore, the active alumni network of CAISH programs helps to connect graduates with one another and provides opportunities to share resources and collaborate on new projects.

'[I]t's amazing when you have other people to talk to and discuss things going on. Especially because all of you can relate to the same kind of similar struggles, and also celebrate and support each other. I think that's really nice. It's actually really important because, as an artist, you're on your own, and you're in your own headspace.'

Western Sydney Startup Hub

'Meeting other colleagues in there as well, peers in that group, was really important. And just seeing what works for people and what doesn't. And being able to share stories, I think, was really, really important'

'...the biggest thing for us was the community, the people who are involved. Once we got in and really had contact with people who were part of the Startmate community, that was when we went kind of went, this is actually like really cool. Like, it's a really good community. There were just so many people willing to help, like, everywhere you turn, people wanted to help you and try and make you better and make business better.'

CAISH entities can play a role as intermediaries in building networks from which entrepreneurs and startups can access information, knowledge, expertise, and funding opportunities. This has been pointed out in the literature as critical for their survival and reduction of the uncertainty in which they operate.[37]

The interviews with CAISH representatives show that these networks are crafted through a combination of activities, including **cohort-based programs**, mentorship, public/private events, workshops and online platforms. In addition, networking and social events are designed to improve the entrepreneurship experience and introduce founders to the broader community and industry sector to expose ideas and explore potential partnerships.

'We want people who are going to give back to the innovation community — so either be open to sharing their knowledge and experience, or act as mentors for other people within the hub, or be active participants in life events and the general vibe that we're trying to create. So... the focus is on the collaboration... and striking a balance between giving people, you know, privacy and rooms that are theirs, and spaces that also enable those, you know, organic collisions to happen.'

'But the team [at Cicada Innovations] is incredibly supportive. They have this broad network, and it goes beyond just the companies that are in the building. It goes into previous companies that have moved on. It expands to other deep tech businesses in the country and, in some cases, beyond that. It expands into government. It expands into other private businesses we can work with to help us.

It expands into investor networks and research networks as well. So you've got this great ecosystem that the team at Cicada can connect you with.'

Partnerships with other organisations in the ecosystem, including universities or industry associations, help expand the opportunity to build networks. They also offer more resources to startups. On top of that, partnerships provide access to additional mentors, funding opportunities, and events.

'We are always a part of the broader community. We also have access to 600 researchers specialising in primary industries and agricultural technology. So when somebody wants to validate or verify, they come to us. And we know that we're connected, but we also have to be at arm's length at the same time.'

By facilitating a range of face-to-face and online networking opportunities, CAISH entities aim to connect different players throughout the entrepreneurial ecosystem. By doing this they can build local and regional networks and expand connections at the state, national and international levels.

'They helped us with a lot of introductions to potential customers and potential suppliers, and then also with a mentoring network. Because usually, I've heard that some of [these programs] chuck cash you at the MVP stage and just call it a day. I'm glad that they're actually mentoring you and also giving you all these [connections] and making your network huge.'

Many respondents commented on the opportunities for CAISH entities to support the internationalisation of Australian enterprises. CAISH representatives spoke about the value of developing collaborative relationships between Australia and countries in the Asia-Pacific region that go beyond exporting natural resources. These were seen as highly beneficial in helping startups capitalise on a broader range of opportunities and improve their business potential.

'[The CEO] wanted to set up a startup hub to help entrepreneurs capitalise on the growing opportunities in not just Australia but also in the Asia-Pacific. Australia, you know, enjoys a very close relationship with Asia but doesn't do a whole lot of business there outside of the rocks and crops. You know, the primary production and attracting students and, of course, the rocks. So this was sort of a way to get that start... [A]nd where we differentiate ourselves from, say, the Stone & Chalk, Fishburners, and whatnot in this world is that we focus on value-added services in the forms of programs to help companies internationalise. So that is our sweet spot... helping companies skill into new markets and, by doing so, increasing their customer base, increasing their valuations.'

'[Our organisation] has a focus on the Asia-Pacific and taking Australian scaleups into these markets to solve challenges, particularly in Climate and Clean Tech and food security areas in the Asian region. So, we see a lot of potential in that area for Australian tech, and fairly low visibility.'

Specialised CAISH entities focus on building community within specific industries or related to specific technologies. This allows for a more tightly knit community of entrepreneurs to form by bringing together founders working on similar projects or facing similar challenges.

'So, companies come here primarily for two reasons. One is that they want to join a community where they can help people that are trying to kind of go in the same direction for everyone here. Like where, I guess, vertical specific in terms of climate innovation, that's the vertical on the clean tech […] So that's what we support. And people want to join this community, because they know that everyone part of this community supports that mission. And then the other part is that it's the space that's flexible, that they know that there's no pressure on, they can leave whenever they want.'

Collaboration between CAISH entities can take diverse forms, from referring entrepreneurs and startups to other entities and network contacts to partnering on delivering services such as events. Most of the CAISH representatives interviewed in this study acknowledged, to different degrees, that they collaborate with their peers. The most mentioned collaboration mechanisms include referrals between organisations, promotion of other entities' events and offerings, and the creation of commercial partnerships.

'We collaborate with all of them [CAISH entities], because most of them need to get women into their programs. And because we have a community of women, you know, we collaborate with a lot of them. But for the most part, it's kind of just collaboration on referral.'

'We work closely with university incubators and accelerators, and you name it. We refer people to them, they refer people to us, and that's within the startup ecosystem, so to say. And then we also have commercial partnerships.'

'We are focused on deep tech. So, you know, companies come to us and say, "I'm working on this tech solution" or whatever; we will refer them to Stone & Chalk. Or we will refer them, you know, if they're like, "we've got four university shareholders, but we received no funding from them at all", you know, if they're from one of the universities, we might refer them that back to there. So if it's not us, we will recommend other providers that we know are great within the ecosystem, or if maybe they're just too early for us or any of those sorts of things.'

'In terms of other partnerships, we post people's events, we promote other people's offerings to the community we have. So, to all the accelerators, we are a promotion channel for them… It's wonderful when a company can be supported by multiple universities. And we end up trying to optimise for that where we can end up matching or this connecting up companies to different organisations. Because then the kind of facilities access and talent and everything else gets multiplied, and everyone gets to take credit for this. So that's an easy win. Outside of that, I haven't found something where it really makes sense to run programs together or spaces together.'

Coopetition between entities — cooperating with a competitor to achieve a common goal or get ahead — is a key value-add for startups; it improves their access to broader and/or deeper networks in specific areas. CAISH entities can use coopetitive relationships to create value by, for example, gaining tenders in collaboration (as the quote below illustrates), while remaining competitors in capturing part of that value.[38]

Stone & Chalk

'…[T]here's sort of a lot of coopetition that goes on, I think, is how I would phrase it — because ultimately, you can be targeting the same people. But if you've got the right actions in the ecosystem, then people are putting the interests of the startups first. And, you know, helping each other out promoting their activities… [W]e've just actually won a tender to open a new incubator at Westmead, for example. With that one, we are partnering [with an investment fund]. So that they're providing that bespoke investment advice and support and that kind of thing alongside us doing the capacity building and training. So that's like an example of where we're working specifically with somebody else in the ecosystem. Yeah, it can be tricky, I guess, in terms of figuring out how to work together when your core business is similar.'

4.3 A suite of growth-related services

CAISH entities offer growth-related services and educational programs to help entrepreneurs develop the skills, knowledge, and access to the resources they need to scale their ventures. The wide range of training and education offerings from these organisations provide the necessities for both early-stage and more experienced entrepreneurs.

'…[Y]ou can come into UNSW Founders and go from no idea to an idea to a startup and then to a startup that adds value… It's a full-stack support service for entrepreneurs.'

'We do programs, but they're not traditional programs. They are advisory programs. They're very intense consulting in nature, where we have global advisory teams that work with the businesses… [W]e get confused with standard accelerator programs, but we are more of a tailored advisory program. Post Accelerator, we continue to provide support and connection to corporate services and individual advisory services to help them continue to grow where they get stuck.'

'…[W]e also run sessions around marketing, finance, strategy, that kind of core business acumen that is required, particularly for founders whose background may be more technical or academic.'

Educational programs aim to help entrepreneurs to shrink the deficits they may have in the technical aspects of running a business that could affect the launching of their venture (Cohen et al., 2019). Consequently, entrepreneurs can select the CAISH entities offering the educational programs that best meet their needs at their different stages of development and growth.

'Catalysr helped us understand the market, where to do the research, and how to do the research, where to do your marketing, how to do your marketing, how to do your accounting, and also how to plan… They actually came up with the goal-setting, and that's how we planned when our first shipment should arrive.'

'And I've actually told other friends who have their own side projects and hassles going on to go through the process [of joining an accelerator], because it is really valuable. You do learn a lot, especially [for] someone who is non-technical and also doesn't have a business background… I've learned so much about business and running a company through the process.'

'The workshops are actually really good. I went to all the workshops and sat there, and I think investment New South Wales came in, and I was just sitting there… and that's where I started getting these ideas of: 'Hang on, this can be bigger than we initially thought, and what do I have to do to investigate that?' So those initial workshops started giving me ideas, and then I'd have to go and explore those ideas.'
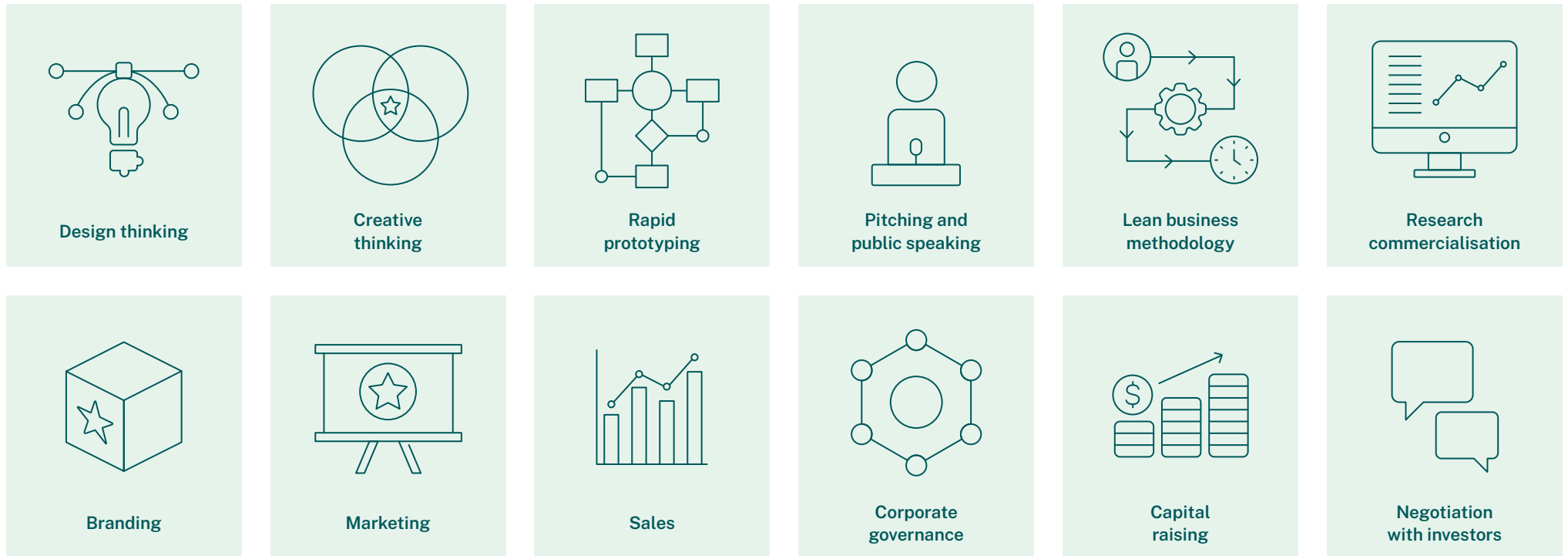
CAISH entities draw on guest speakers, entrepreneurs in residence and their own staff to develop formal and informal support.

'There are weekly or bi-weekly sessions where different speakers are invited to talk about different topics like marketing, costing, business financing, how to pitch to investors, also regulatory topics. And there's always this talk or presentation by someone combined with someone from the industry that has a practical example of what was presented beforehand. There are some sessions that were really great because the people who presented have experience in that field.'

'We got some digital marketing support because we identified that part of our scaling plan would be to enter the US market. So we worked with someone who had experience doing that. And then the other component was cash flow forecasting and growth modelling… [and] financial modelling into the future, which was really good for us.'

'For the fellowship, we're offering online modules… but it's a very light touch. With the accelerator program, it is a lot more intense. So we start with startup bootcamp where they spend a couple of days in workshops. They also got paired up with an entrepreneur residence who's a successful entrepreneur that we picked to work with them for a couple of weeks. And then we have office hours sessions where we go through a bunch of different materials… legal, accounting, different things, we do some workshops on pitching, storytelling, creating video content… this more practical stuff that they need.'

According to the literature, business learning lets entrepreneurs improve their ideas and management skills and develop new capabilities to grow their ventures.[39] The interviews show that CAISH entities offer a variety of topics which are appraised by entrepreneurs, including:

Design thinking	Creative thinking	Rapid prototyping	Pitching and public speaking	Lean business methodology	Research commercialisation
Branding	Marketing	Sales	Corporate governance	Capital raising	Negotiation with investors

'...[L]ast week, we were interviewed for a grant that we won, and they were like, "wow, like you are both really good at presenting and speaking, have you had practice?" And we're like, "going through Startmate, you're literally pitching to hundreds of people all the time". It's just such incredible practice you get.'

'iAccelerate has been really wonderful. For me, it was kind of eye-opening, understanding what a startup was and how rapidly it can move, and how you can pivot very easily. So, I have been running my business for 25 years, and it was a new concept of how to figure out and do the minimum viable product. And they have great classes there. So I took all the classes, and I ended up teaching some of the classes myself in branding, which is great. But I also took every class, and sometimes three times. Because the first time you take it, like, when you're in the incubator, everything's thrown at you at once. It's so much information, you can't take it all in. And then you launch, or you get your product in the market. And then you realise, like, "what else [do you] do with social media?" Or... "how do I market this properly?" Or "how do I hit the right target?" So then you take that again, and you start taking, like, you know, the marketing class again. So we were able to continuously take courses while we were in iAccelerate, which was really great.'

CAISH entities often target growth-related services with a particular industry focus (such as deep tech, medtech, biotech, media and fintech) or a focus on certain startup stages (early stage, or scaleups).

'Rather than spending all our time on [a cohort] of eight to 10 [startups] and teaching them a curriculum that we want to teach them, we'd prefer to work intensely with a smaller number of businesses and meet them where they're at.'

Entrepreneurs highlight the importance of bespoke and tailored growth-related services as opposed to a general overview of topics. They often prefer one-to-one support to a one-size-fits-all approach.

'I think, sometimes there's this, you know, basics of business: you need insurance, and you need this, and you need that, and you need your model. But where it got very useful is when you had a mentor, one on one, giving you actual advice for your particular business... So I suppose that the challenge for the accelerator program is finding that balance between giving enough one-on-one support that each business is able to take that information and actually use it for their benefit versus, you know, very broad business information.'

However, it should be noted that against a backdrop of proliferation of service providers, some CAISH entities assume an active role in moderating predatory behaviours and ensuring the services are fit for purpose and in the best interest of entrepreneurs.

'And what we're able to do through the New South Wales Government Business Connect program is say: "Okay, let us put aside your potentially fast-moving sexy investible, let's strip all that away a bit and look at your business fundamental — and how you get to market and get away from some of the hype, and the excitement and the pitch events, and someone's going to invest in you in a very predatory environment"... I think what we're doing on behalf of investors and on behalf of government is [that] we're de risking [the] organisation... That was difficult sometimes, to watch some of those startup programs and some of the resources that were put into very flashy, fast-moving [organisations]... and then sort of like, when the festival is over, someone's got to clean up all the bottles... Sometimes it just felt, how can you have one event or one activity or one place where everything's going to happen?'

4.4 Access to funding and investment readiness support

Accelerator and incubator programs emphasise ensuring startups are ready for investment and connecting them with potential funders and investors.

'[We offer] tailored capital and funding opportunities that align with the specific requirements of each resident's venture, as well as extensive support to help founders become investor ready and increase their chances of successfully raising capital.'

Most CAISH entities support accessing funding by offering guidance and advice on how to develop grant applications for government and philanthropic funding, and by creating opportunities to connect entrepreneurs with potential investors and customers.

'So we've technical and scientific engineering expertise, but also provide introductions through to, for example, New South Wales Government for, like, tech vouchers or MVP grants, physical science and fund grant flow, funding schemes... In terms of applying for grants and things like that, often I will be like a reviewer of their grant applications, provide them with other people they should partner up with or connect with and have a conversation to... And then we'll just make introductions to the accelerating commercialisation facilitators, and people that can support them through the process, like the mechanics of going through the grant process.'

'What we do is help them define which markets are the best fit for what they're doing. So, we do a bit of strategy work with them. And then we will identify, through our own networks, relevant channels, and in some cases, specific customers.'

However, to some entities, such as Macquarie University's MQ Incubator, it can be detrimental for startups to take hasty decisions regarding potential investment partners. Instead, the organisation aims to provide a safe learning space that ensures they can make informed decisions.

'We give [entrepreneurs] the ability to learn and fail in a safe environment and to take on investment when they're really not... when they're sort of forced into a corner and have to take not a very good deal from investors. Because if it's a lot easier to get divorced once marrying someone, it's a lot harder to get someone out of your business once you've taken money from them. So I think that that's something we also teach our founders, we give them as much information as we can for them to make an informed decision.'

MQ Incubator

Some CAISH entities take equity in the company, providing them with the capital to cover early stage expenses, hire team members, or scale up operations. These entities often use SAFE notes (simple agreement for future equity) as the primary form of investment.

'We invest $50,000 in [the participants] in the form of a SAFE note. But we always say that this is probably the least important part of what we offer them. We say that because we're prepared, we provide a very structured 14-week program that helps them get better faster. We [also] get you to collide with the market... We have an industry advisor network; they get one-to-one meetings with, say, 40 to 50 security leaders to help them validate the product, make connections and move forward. So yeah, the program is, it's pretty intense.'

Accelerators and Incubators frame their approach as ensuring the investment readiness of the graduates. Through a combination of coaching, mentoring and workshops, CAISH entities help startups to refine their business models and pitch decks. Through pitch events and demo days, startups can showcase their businesses to a broader audience, including investors, obtain feedback, and leverage the opportunity to raise their profile and secure funding.

'Through either one-to-one coaching or the mechanisms of accelerator programs, which we run quite a number of, we aim to get [startups] investment ready. We help them refine their business model. Make sure they're on the right path. Get them to the point where at the end of the program, they're pitching through our demo day to our network of Angels and VC investors and ideally raising capital within six months of completing the program or the next year. So, post-demo day and over the course of the following years, we still provide that bespoke one-to-one support to help them continue growing…'

Overall, the strong connections with investors and venture capitalists allow the introduction of startups to potential funders. That can enable them to secure additional funding beyond what the CAISH entity provides. At the same time, investors benefit from the improvement of the investible pipeline. Consequently, CAISH entities play an intermediary role that is critical not only for the survival of startups but also for investors who need more investible opportunities.

'And then we have lots of introductions to investors. Our take is that the founder always chooses, but we will always help chase investors and do introductions and help people to find good investors if that's what they need.'

'We'll just make introductions to the accelerating commercialisation facilitators and people that can support through the process, like the mechanics of going for the gap grant process, so kind of make those connections to those grant facilitators as well.'

'….helping those businesses succeed here in Australia and globally, it's pretty much what we do. And also, from a fund perspective, obviously, we are looking for returns for investors as well.'

Furthermore, some CAISH entities are contributing to building the NSW angel investor community, which, as it was pointed out by some interviewees, is rather weak compared to Victoria. That is the case of UNSW Founders, which is running an angel investor program in partnership with the Australian Graduate School of Management at UNSW.

'We run an Angel Investor Program in partnership with the Australian Graduate School of Management at UNSW. It's a three-day intensive course. And it's designed for people who are either completely new to angel investing or have just started out… We run it twice a year. It is a paid course, and it's open to anybody, and covers the ins and outs of how to angel invest, including the technical side of it, all the processes, documentation, and what and where to look for in terms of deal flow. We have experienced angel investors come in to talk about their experiences or how they go about managing their portfolios. It's pretty much meant to set them up to be able to go ahead and begin angel investing.'

As illustrated in the quotes below from entrepreneurs who engaged with CAISH entities, access to funding was instrumental in supporting early hires and growth plans. Entrepreneurs also noted being accepted into an incubator or accelerator program acted as a signal to investors of the validity of their ideas.

'The funding for us was massive because we weren't in a position to hire a technical team when we were moving into Startmate. And being able to get the funding just allowed us to bring on the right people.'

'They invested some money in us, and they helped us with a lot of introductions to… potential customers and potential suppliers.'

'That trust and validation [from the accelerator program] at that early point really helps, particularly getting investors on board. In that initial phase, they trusted that. [The accelerator] provided that trust, that validation, that proof point for early stage investors to know what we're like. It's another step in showing that we have support and that we're engaged in this program.'

Access to capital is also challenging for First Nations business owners. NSW Treasury found First Nations business owners generally have less savings, superannuation, and much lower home ownership levels[40,41] which may result in potential First Nations entrepreneurs being less able to meet startup costs.[42] Similar challenges will likely have to be addressed in other underserved communities.

Cicada Innovations

4.5 Access to workspace and other physical resources

From less structured coworking spaces to more secure facilities for scaleups that are working on innovative technologies, CAISH entities offer various models for providing access to workspace for startups. Incubators and startup hubs provide shared office space and resources to startups at various stages of development, while certain accelerator programs provide access to workspace as part of their program. Coworking spaces and innovation hubs, on the other hand, offer shared office space not just to startups but also to other businesses, often with a focus on a specific industry or sector.

'We lease office space there [at Cicada Innovations]. They've got a whole range of different programs… The Cicada team and the network [are] essentially there to help, and they have all sorts of programs and things that you can join in on… My intent is to keep an office there. And we might even have the finance team, and things like that, based out of there, which then connects with the R&D centre down in Geelong and also with our manufacturing over in Taiwan.'

The physical space offered by incubators and coworking spaces is generally based on fee payments, generally at affordable prices compared to renting private offices. However, some incubators and accelerator programs offer free access to space as part of acceptance into their program.

'In 2016, I found this space that I thought could work for coworking affordable desk space, and really just sort of advertised that, for people that want to start a business to come into this space — because it would be too expensive for them to go straight into an office.'

'So, the reason I built this is because I didn't want to rent my own space. Because I would have still had to fill out my own kitchen. I still have a power bill. I still have the internet deal. So, like, my internet bills are not going to matter if there are 20 people connected to it… So, I think the financial benefit of sharing those things is enough to sort of help you down here, because the commercial leasing market is really high [in cost].'

The impact of shared working spaces or 'third space' — not work, not home, but dedicated for conversations not available elsewhere — stems from the community atmosphere created in the space.[43] Incubators, hubs and coworking spaces regularly run events for clients and the broader community to support new connections. The host of a space plays an important role in ensuring that the space is inclusive and that members feel valued. Furthermore, some CAISH entities have carefully designed their coworking spaces to make people feel welcomed, stimulate interaction and facilitate the process of community building.

'It is a very gender-neutral space. So, it's not a heavily masculine space. So, it is very welcoming to women. We only had one kitchen on one floor, but now we have retrofitted a beautiful kitchen on the bottom floor. And a lot of companies go down there. And then we've got the rooftop… it's like a beautiful outdoor space, and the companies are saying to us they want more barbecues, and they want more of that social connectedness. We want to get you out of your offices to communicate with each other. And that's the big push now that we're back from COVID — getting people out of their offices.'

'So, it's creating that affordable space because we know that the value of community is massive. If you're working from home, at your kitchen table, and not engaging with like-minded businesspeople, you're not going to either fail quickly or grow quickly or pivot when you need to. So we know that we all know the value of that. So, the idea is, you know, we've got a location that's easy to get to in Western Sydney, but both Tech Central and here and there is an affordable desk for you because the government subsidised [it]. That's number one. And then once you're in that community, the value of offerings… So it's not just a desk. It's the events. It's the sweet spot. It's listening to the harrowing stories of others, learning from others.'

5

Impact metrics

While outcome refers to specific and measurable short-term effects on the startup, like its survival or doubling in revenues, impact refers to broader and long-term results. These include impact on customers, investors, employees and other stakeholders. CAISH entities deliver many outcomes for entrepreneurs and startups, all while generating impact in their immediate local community or region, state or nation.

A recent literature review of 337 peer-reviewed academic articles suggests the impact of CAISH entities might be measured at four separate levels of analysis:[44]

Individual entrepreneurs

startups

the CAISH entity itself

the wider ecosystem or environment in contact with the CAISH

The tables in section 5.1 provides a holistic framework for impact metrics across each of these four levels of analysis.

Most academic studies have focused on the first three categories, as they are relatively easier to measure. The literature offers limited data on the fourth level, the ecosystem level. This is a critical category when seeking to understand the role of CAISH entities on overall economic growth at a community, state or national level.

Mixed evidence on impact

The most consistent empirical finding in academic studies on CAISH impact is the ability of their supported startups to obtain future financial backing — ideally faster and at better rates than if they had not received the CAISH's support. Research remains mixed and inconclusive for other metrics, such as revenue generation, employment growth, and survival.[45]

For example, a study by Canovas-Saiz et al. used a Crunchbase data set of 10,116 accelerated startups participating in 131 global acceleration programs.[46] It found that accelerators do help entrepreneurs find financial support. The portfolio size of accelerators, their startups' survival rates, and the number of employees in the accelerated firms positively affect the median value of the funding received by the accelerated startups.

Another extensive study on accelerators was carried out by the Global Accelerator Learning Initiative (GALI).[47] It examined 300 accelerator programs run by more than 100 unique organisations. From 2013 to 2020 researchers collected standardised performance data from roughly 23,000 ventures worldwide that applied to these accelerator programs.

The findings highlight that, on average, ventures that participate in accelerators both increase their revenue and employment and attract outside investment by greater margins than those that applied but were rejected.

These benefits come from the accelerators' abilities to do three things: select high-potential ventures, provide a market signal of the quality of these ventures, and provide programming that helps the ventures grow.

The GALI study suggests no single specific solution for acceleration services makes a successful program. But evidence points to the combined importance of:

- Entrepreneurs receiving support that is tailored to their needs
- Peer learning between entrepreneurs
- The importance of the CAISH entities contextualising their support within the local or regional environment.

Accelerators are attractive to startups because they are a one-stop shop for mentorship, community, services, events, growth-support, funding, and space. That means the founders save precious time by not cobbling together their own configuration of support from scratch.

5.1 Multi-level framework for measuring CAISH impact

The following table captures the four levels of CAISH impact metrics, highlighting categories and examples of metrics to better understand impact at each level. The framework is already being applied in the revitalised Startup Muster survey of the Australian startup ecosystem.

Table 10.1   Individual entrepreneur

Categories	Impact metrics (with examples)
Human capital	Entrepreneurial intentions and action (scale — intentions, actions)
	Self-efficacy and persistence (scale — confidence in entrepreneurial abilities, scale — motivation and commitment to entrepreneurial action)
	Learning (scale — skill and knowledge development)
Social capital	Expansion of networks, connections and network density (number)
	Access and use of program (number, percentage)

Table 10.2   Startup

Categories	Impact metrics (with examples)
Enterprise growth	Jobs created/employment (number, percentage staff growth, jobs created/sustained)
	Investment raised/financed (number, value of funds/grants/loans raised by resident firms)
	Revenue generation (value of sales revenue, profit)
	Business/product/service growth (number of new products/services, improved products/services, customer traction measured by web traffic)
	Innovation outputs (value of R&D budget, number of patents/copyrights)
	High-growth enterprises (percentage of program participants on above measures)
	Comparative growth measures (percentage growth compared to non-CAISH supported enterprises, and compared to startups in the same or similar regions)
Enterprise survival	Graduation (number of resident firms that successfully left the CAISH entity)
	Survival (number of resident firms that are still operating after one and five years)

Table 10.3 CAISH entity

Categories	Impact metrics (with examples)
Program attractiveness	In-region applications (number, number/spot)
	Out-of-region applications (number, number/spot)
	Sponsorship/funding attraction (value)
Engagement metrics	Startups supported (number, number/year)
	Service/resource usage at the entity (such as usage of physical space)
	Net promoter score (percentage)
Diversity metrics	Female founders (percentage)
	Diversity in founders supported (percentage)
	Gender distribution (percentage)
Network metrics	Coaching & mentoring hours (number)
	Partners (number)
	Events (number)
	Alumni engagement (number, percentage)
	Research collaborations (number)

Table 10.4 System

Categories	Impact metrics (with examples)
Diversity metrics	Gender distribution in employment by supported startups (number, percentage)
	Coverage of CAISH programs based on population (value/population)
Market development	Industries/technologies in which CAISH-supported startups are operating (number, percentage)
Network engagement	Partners involved with supported startups (number, percentage)
	Supporters of CAISH entities as mentors and consultants (number, percentage)
Growth of local entrepreneurial ecosystem	Sense belonging/ownership (scale)
	Attendance at collaborative events/programs (number, percentage)
	Attraction of actors into ecosystem such as venture capitalists (number, percentage)
Spillover effects	Technology transfer from research institutes (number)
	Repeat startup following failures (number, percentage)
Quality and depth of collaboration	Resource recycling effects (number, percentage — founders become mentors for the next generation of startups, invest as angels or VCs, or share resources like underutilised office space)
	Cultural change (scale, number — lower rates of fear of failure and greater acceptance of entrepreneurship as a career path)

5.2 Impact on individual entrepreneurs

Academic studies on CAISH entities and other startup support organisations have explored the impact on individual entrepreneurs. Bergman & McMullen identified 47 studies that have explored experiences of individual entrepreneurs before, during and after engaging with CAISH entities.[48]

The studies focus on the role of CAISH entities in building human capital and social capital for entrepreneurs. As shown in section 5.1, we have split individual-level impact measures into these two categories. Human capital includes elements such as entrepreneurial intention and action, confidence in entrepreneurial abilities, motivation and commitment to entrepreneurial action, and skill and knowledge development. Social capital includes elements such as expansion of network and connections and the use of collective resources.

Academic studies focused on the individual have made use of extensive surveys, with well-established measures. They have conducted surveys before, during and after programs to reveal the shifts in human and social capital and learning that people achieved in their time with the CAISH entity.

As captured by Bergman and McMullen's review, decades of research on entrepreneurship education and support consistently find that these programs enhance entrepreneur's confidence, intentions, knowledge, capabilities and connections to develop their startup. Only a small number of studies report counter-intuitive findings. These indicate that confidence levels are contingent upon which peers you benchmark yourself against, and upon whether the program helps some participants discover that entrepreneurship is not currently the right career choice for them.

Anecdotal evidence of increased confidence and entrepreneurship self-efficacy

As highlighted in the following quotes with stakeholders in the NSW ecosystem, entrepreneurs and CAISH entity representatives in this study consistently flagged increased confidence and entrepreneurial self-efficacy as among the major impacts of engaging in CAISH programs.

'To be in a position to even get recognised as a female founder, when we're working in an industry that a lot of people don't resonate with, especially when it's only for women… to be recognised, and to be given that opportunity just gave us so much confidence about what we were doing.'

'We're trying to develop strong, confident entrepreneurs — people that can mentor the next generation, support the creation of the jobs of the future, try to get things commercialised in Australia, and not get them commercialised overseas.'

'The idea is for women to build that confidence and knowledge to say: "Okay, actually, this idea does have some legs." And hopefully then they go on into our pre-accelerator or the accelerator programs.'

'The impact is that we'll educate people. We will help them build their confidence, build their networks, build connections and inspire people.'

By connecting entrepreneurs with mentors, specialised service providers, investors, customers and others, CAISH entities are by definition expanding the social networks of the entrepreneurs, and thus the scale and diversity of resources they can access through those connections.

None of the CAISH entities we interviewed as part of this study were undertaking rigorous measurement of any of the individual-level outcomes. The insights shared about the impact of CAISH entities on individual entrepreneurs was anecdotal.

5.3 Impact on startups

The majority of studies on the impact of CAISH entities have focused on aggregate performance at the level of the startup.[49] These studies concentrate on quantitative organisation-level metrics.

This focus on startup-level data is also seen in leading practitioner reports. These include the UBI Global Report (2019/2020)[50] on international benchmarks of incubators and accelerators, and the US Impact Index on the economic impact of incubators, accelerators, coworking spaces, and other types of entrepreneurship centres in communities across the United States.[51]

These data are perceived as being more objective, and thus comparatively easy to collect for many ventures. They can often be gleaned from Annual Reports by companies supported by CAISH entities.

As shown in Section 5.1, we have grouped these startup-level metrics into two main categories — enterprise growth and enterprise survival. Enterprise growth includes measures such as jobs created, investment raised, revenue generation, product/service growth, innovation outputs, high-growth enterprises and comparative growth measures. Enterprise survival includes measures such as graduation rates and survival rates.

Interviews with CAISH entities suggest that many align their measurement practices with these metrics. The following quote reveals how enterprise growth metrics are the main indicators of impact for CAISH entities engaged with impact measurement:

'So of our startups… 30% of those are in the pre-revenue stage… At the other end of our spectrum, 30% are very much growing and scaling and working their business full time. They're employing staff… So every financial year, we've collected data to demonstrate how businesses have grown over time. We collect how many jobs they've created, how much investment they've taken from external sources, how many grants they've received in terms of accelerating commercialisation, then how much money they've invested back into their business.'

Job creation as the dominant measure of enterprise growth by NSW CAISH entities

Of the above startup-level metrics, job creation is the most common indicator measured by CAISH entities in NSW.

The majority of incubators and accelerators interviewed measure the number of new jobs created through the startups they support. Employment data is often seen as less controversial and less confidential than equity distributions, valuations or revenues. Each job is supported by funding from a mix of sources, including investment capital, revenues, grants or debt. These are figures that most startups like to keep private, and that can vary significantly.

The following quotes highlight how many CAISH entities view job creation as the most powerful metric for capturing impact.

'The best mid metric for me is jobs… We measure these success stories with jobs. Because jobs can give us a better indicator of success than any other metric, in my view, because it means we are creating prosperity. And it means we are creating success here and a bigger ecosystem with skilled people. But even if that one startup is not successful, or they're moved from one to another, we have another skilled person who can participate in our industry. And so much like a politician, for me, it's jobs, jobs and jobs.'

'Really, jobs created is the main metric. If you're growing, and you're able to employ people, then you're doing something valuable to the economy.'

Job creation aligns with the overall mission of many CAISH entities, especially those funded by government. So the measure of 'jobs created' is viewed as an obvious metric to understand and report on impact.

'That's the impact that we're trying to make. It's jobs, job creation… We have to report on the number of jobs. So for example, if you have a company with two people join, hopefully they go to three people, four people, five people. Then we can report in the year that the two-person company went to five. So the net growth is three. So we report on those.'

'What we're trying to do is create those new-economy jobs. They are more tech-enabled. They are the new industries that are coming through. That's why we are measuring how many jobs that people are creating in the region.'

Job creation metrics also allow for a more longitudinal understanding of impact, letting CAISH entities see the longer-term impact they create in the economy.

'We have considered how we measure the success of our investment in incubators and accelerators. What we think is important [is]: How many jobs did the startup have when they came in? How many did they have when they came out? How many do they have four or five years down the track? To be able to track that we think is very helpful.'

Young Change Agents

Investment raised, revenue generated, products launched as growth metrics

While job creation was easily the most common impact metric used by CAISH entities, a range of other growth metrics are used across the sector.

Investment raised by startups during time within programs or post-program is viewed as a relevant indicator of impact.

'As far as we can track, we've helped our residents to go on to raise $1.7 billion in capital... I think it's $1.5 billion in exits. They're the sorts of metrics that we're looking for.'

'So we measure the number of startups that go on to raise funding post-accelerator. And we measure that quite closely. And that is 55%, which is at world-class levels.'

Measures of **revenue generated** from customers and **new customer acquisition** by startups help CAISH entities to understand their clients' shift from an idea to an actual venture.

'I think the biggest measurement is the customers. We are trying to get metrics around customer use and adoption. The actual use case is often one of the hardest. We also have the reach through our government teams that are able to help gather that data in a meaningful way without being intrusive.'

'Also looking at where there is impact of deploying the technology, to doing a test on a real client site, for example, or having... that first customer kind of experience, I think, you start to track those impacts as well. That's probably the main thing.'

Enterprise survival data viewed as challenging to verify

Some CAISH entities are tracking the survival rates of supported startups by actively following alumni from their programs. Publicly available records are viewed as an easier source of data than sourcing information from busy startups.

'...[W]e're measuring a lot of things around how many businesses survive and how many die and why.'

'...[W]e do keep a list of all of our alumni, and when we see news reports we update our stats as best we can. But as you know, it is massively problematic in terms of getting people to tell you once they no longer have a relationship with you.'

The following quote highlights the challenge of verifying what survival actually looks like, as enterprise failure is not necessarily a simple question.

'[I]t's really hard to figure out when a company stops. So people will have a little side hustle that continues and continues and they're very reluctant to say: "No, I'm not doing that anymore". So that makes it tricky in any kind of measurement to say how many of these startups are still operating.'

5.4 Outputs/outcomes of the CAISH entity

Attempts to understand performance and impact at the level of the CAISH entity itself tend to focus more on the activities and outputs of CAISH programs. These measures concentrate on the quantity and quality of different services offered by CAISH entities as indicators of potential impact.

Drawing on the academic literature and the practitioner literature, in particular the UBI Global Report (2019/2020),[52] we have grouped these CAISH-level metrics into four main categories: program attractiveness, engagement, diversity, and network.[53]

CAISH-level output metrics as the most accessible form of data

CAISH entities in NSW have a good understanding of their activities and outputs, with the vast majority tracking all four categories of CAISH entity metrics.

Program attractiveness metrics

Out-of-region applications are viewed by many CAISH entities located out of the CBD as an indicator of ecosystem growth.

'We draw startups from all across Western Sydney… We are starting to get more and more people applying from Sydney… Currently we limit the amount that we are taking from outside of Western Sydney. But going forward, we'll probably open right up completely. Because we're just getting more and more people coming from eastern Sydney, out to the West, because there's really good market potential out here with all the growth in airports and roads and metros, and rail, and the infrastructure growth and all the construction work and the manufacturing base out in Western Sydney… I think it's a mix of factors around what's driving [those] external people coming into the West.'

CAISH entities highlighted that understanding how other CAISH entities across NSW are funded would be a useful form of comparative data.

'Funding data is interesting to figure out where the gaps are… People are trying to do this; they're succeeding at this.'

'But what I would like to know is probably how other CAISH entities are funded. What's the return on investment (ROI) if the funding does come from government, how many people [are you] actually helping and what's the ROI on that help?'

Engagement metrics

All CAISH entities have clear data on the number of startups supported in the current year. And coworking spaces and place-based incubators have a clear understanding of occupancy rates.

Net promoter score was also frequently cited by CAISH entities as a simple measure for understanding the response of current and potential clients to their services.

'We do satisfaction surveys to understand if it met the startup's need — a Net Promoter Score. Would they recommend doing it? Similarly, we do surveys with our residents to see how they're tracking and what they're valuing and what we could improve. I guess that's one of the really critical things for us… because we're a business; if we're not meeting our customer need, we will go out of business.'

'So, we just built the system to monitor the inputs, At the curiosity stage, how many interactions we're getting? How many people is that? How many event check-ins? How many people are pitching for ideas? How many teams are forming? How many then get incorporated?'

Diversity metrics

Many CAISH entities are tracking diversity data, in particular the number of female and First Nations founders they are supporting.

'The number of women getting funding; what stage the business grows; is it just women-led or is it diverse founders? We're measuring like the split and the growth and where diversity becomes more important than single-gender founders. So, we're measuring a lot of things around gender impact.'

'We've added some more qualitative metrics. What types of events do we run? How do we activate? What's the population? Are you activating female founders? Are we activating Indigenous people? Are we targeting diversity? So, we are actually reporting on that.'

Network metrics

Tracking the number of mentors, coaches, events, engaged alumni and collaborators was viewed as simple statistics-counting to gain an insight of the size of the network CAISH entities are building. CAISH entities also noted that they would be interested to better understand the networks and collaborations of other CAISH entities across NSW.

'We'd like to see how many other entities have. What is the size of their ecosystem? Who would be best to collaborate with?'

Sydney Startup Hub

5.5 Impact at the ecosystem level

There are relatively few studies on the long-term impact of CAISH entities at the ecosystem level. We lack longitudinal studies that follow CAISH entities and their clients for long periods of time, and researchers face difficulties in collecting and comparing useful qualitative data.

A limited number of studies have highlighted the broader ecosystem-level impact that CAISH entities produce.[54] These impacts include:

- Enriching market development
- Increasing market competitiveness
- Improving ecosystem coherence and interconnectedness, regarding
  - The provision and diversity of resources to which the ecosystem has access
  - Recycling of resources within the ecosystem (as when exiting founders invest their capital, time and connections into the next generation of founders)
- Supporting culture and beliefs concerning entrepreneurship
- Developing open innovation practices.

System-level studies have relied on data under the following categories, some of which are more qualitative in nature: diversity metrics, market development, network engagement, growth of local entrepreneurial ecosystem, spillover effects and quality and depth of collaboration.[55]

Absence of ecosystem-level impact data in NSW and Australia

The interviews with CAISH entities revealed that there is a complete absence of ecosystem-level data on the impact of CAISH entities in NSW and Australia. The CAISH entities highlighted that they would be enthusiastic to see ecosystem-level insights under each of the following main categories.

Sydney Startup Hub

Diversity metrics

There is a desire to have deeper insights on diversity metrics at the ecosystem level, and to have a better understanding of gender distribution in founders supported by CAISH entities and employment by supported startups.

'Where are funds being channelled? Into which sectors? What proportion of investment is going into women-led startups?'

Network engagement metrics

Given the essential role of mentoring and networking as drivers of CAISH impact, many participants in the study noted a desire to understand the number of partners and supporters engaged as mentors and consultants with CAISH entities.

'The core of their work is about companies that they're working with. I would love to see which company is connected to who and how people move through the system.'

'Knowing the mentors and people who are interested in supporting would be interesting.'

Spillover effects

Just as some CAISH entities wanted to understand collaborations within the CAISH ecosystem, some entities also suggested a desire to understand the relationship which universities and other research organisations had with CAISH entities and startups.

'I would love to know which research organisations some of these deep tech companies or these R&D-based companies are associated with, and if there's any collaborations happening.'

Market development metrics

CAISH entities also highlighted their desire to understand the type of industries in which CAISH-supported startups are operating, in order to better understand the overall scale of CAISH activity.

'I guess it'd be really interesting for us to know how many people are going through programs? What are the kinds of startups going through? What's the success rate of different startups? We would want to know that for ourselves.'

Growth of the entrepreneurial ecosystem

CAISH entities highlighted that gaining a better understanding of events and attendees would be useful if we are to understand who is engaging in the broader entrepreneurial ecosystem.

'Is it better for us to just hold an event there, because they have such a big ecosystem right now? And I think that would be helpful, knowing how to collaborate with the ecosystem. Events are hard, right? Everyone's struggling to get people to events. And they're also incredibly valuable when you do get people there. So knowing who to collaborate with events and who is their target audience [would be useful].'

Cultural change

University-based CAISH entities expressed a desire to understand the entrepreneurial intent of university students across NSW, to better see the shifting perception of entrepreneurship as a career path.

'I'd love to see the entrepreneurial intent of students at different universities, to see the proportion [pursuing] entrepreneurship within different universities.'

5.6 Challenges measuring impact/data

Measuring the impact of CAISH entities is complicated by the multifaceted nature of impact and lack of easily accessible data.[56]

As highlighted in the previous section, there are a multitude of potential metrics to understand success of CAISH entities and their activities. There is confusion within the sector however about which specific impacts CAISH entities are aiming to achieve. As noted by Bone et al: 'Many programs are themselves unclear whether their primary motivation is to improve firm survival, create wealth or create jobs'.[57]

This lack of easily accessible data on the impact of CAISH entities poses challenges for policymakers as there is a limited evidence base to inform decision-making. Collective efforts are needed across the ecosystem to create system level impact data. Despite the desire for CAISH entities to engage with and have access to system-level data, there are limited attempts to currently collect this data. (The reactivated Startup Muster survey will likely contribute to overcoming this gap).

Another challenge of impact measurement relates to the highly selective nature of many CAISH initiatives. Given the selective nature of participants in CAISH programs, it should be expected that the graduate will achieve strong outcomes, thus it is hard to establish causality.[58]

CAISH entities involved in this research highlighted multiple other challenges for impact measurement.

I2N Hub Honeysuckle

Accuracy of self-reported data

Many representatives of the CAISH entities interviewed distrusted the accuracy of impact data available. In many cases, self-reported data was perceived as being purposefully presented in a positive light, one that might hide shortcomings and challenges faced by founders. And they said the reliability and validity of self-reported data was difficult to verify.

'A lot of startup incubators, accelerators or mostly like the coworking spaces, their business model is selling a good story to government. And that means the taxpayer is paying someone to spin up a good story about how important they are to the ecosystem.'

Benchmarking

Typically, respondents were finding benchmarking against other similar entities difficult. This was often attributed to the lack of accessible, reliable data on CAISH organisations.

'The availability of data is the main [challenge] because there is no mandate or reason anybody has to report on any of this in the private sector. There is no mandate, so why would they do it? And so, if there's no mandate for people to have to report… or even tell us the businesses, much like the government. I mean, the government trying to capture job metrics is like pulling teeth.'

Many CAISH entities warned against the downside of benchmarking and the risks of establishing leader boards and league tables of CAISH entities.

'That's probably a point to make in this: that organisations don't want directly comparable metrics. They want a metric that matters, that allows them to optimise what they're doing and do something that matters to the people they get funding from. But they don't want something that establishes any kind of leader board — unless they're a leader in that area, and then no one wants to take part in [it].'

Nevertheless, many saw value in being able to use accurate benchmarking. Some respondents recommended that government could help overcome these challenges by collecting and sharing data on entities funded by government agencies, or through embedding and enforcing mandatory reporting on impact measures for those startups and scaleups supported through government initiatives such as grants.

'So what other data can the government make available? We can certainly benchmark government agencies and share that data. [Government]'s always going to have a problem with accessing private corporate data, etc, of course. But I think it is important for government to make visible locally initiatives internationally that could inform local industry as well, you know, and then to find the channels to get it out to them, whether it's through the startup and scaleup ecosystem or industry associations etc.'

Impact measurement is resource-intensive

One of the challenges often quoted in relation to gathering data and measuring impact was related to the limited availability of resources. Collecting data was seen as time-consuming, expensive and requiring a level of commitment that many founders were unable to provide. Some respondents suggested incentivising entrepreneurs and CAISH entities to share insights and impact data.

'[Founders and CAISH entities] have to be incentivised [to share impact data]. There needs to be something in it for them. They're not going to do it from the kindness of their heart.'

'Just getting the data out of the startup sometimes is the hardest… We are an investor, so they trust us, but… they don't often want to give revenue data.'

'Challenges in terms of collecting the data? It's just hard, right? Startups are time-poor. And people are continually wanting to collect data on them. So that's why, you know, things like payroll tax where you can actually, where they provided data already — can we better link up some of this data? Because I'm assuming that even doing their payroll tax… will tell you how many people they've employed and all that sort of data, right. And so how do you how do you get compliance with a time-poor audience? You link into their text, and you don't ask them to do it twice.'

Our research suggests that the limited evidence based is partly due to the 'tragedy of the commons'. While the majority of CAISH entities are interested in having access to metrics for the sector, there are limited incentives to contribute their own metrics to the pool unless they are required to by funders.

Lack of standardised approaches

Participants also highlight a lack of systematic approaches or any standard framework and metrics to measure incubator/accelerator programs. They also mentioned that they have limited understanding of what and how others in the ecosystem measure impact.

'[I wish] there was more of a systemic way to do this. The university does have a research tracking platform; I wish I could just go into that and kind of… assess who's doing what… But I think it's really complicated.'

'The metrics are different. So while someone says we've had 20,000 startups, are they real startups? You know, are students running startups? Or are they learning about entrepreneurship? A startup has to have an ABN; it actually has to be operating like a business. It can't be just someone going: "Oh, I've got this idea to talk about." That's an idea. It's not a startup.'

Attribution challenges

Another issue to note is identifying causal contribution. There is a risk of creating a situation where the CAISH entity that touches the firm last gets the credit.

'There are attribution questions. It's always the hard thing. When you think about the measurement piece… we should actually be asking things [such as]: "How likely are you to attribute your success to your participation in the program?… Scale of one to 10?"'

Table of abbreviations

ABN	Australian Business Number	GSP	Gross state product	SIH	Sourdough Innovation Hub
AI	Artificial intelligence	IP	Intellectual property	SME	Small and medium enterprise
BBIP	Boosting Business Innovation Program	IPC	NSW Innovation and Productivity Council	SRI	SMART Region Incubator (University of New England)
BLADE	Business Longitudinal Analysis Data Environment	MTP	Medical technology, biotechnology and pharmaceutical	TGI	The George Institute for Global Health
BVIP	Bega Valley Innovation Hub	NCD	Non-communicable diseases	TRW	Tech Ready Women
CAISH	Coworking spaces, accelerators, incubators, and startup hubs	NPS	Net Promoter Score	UNE	University of New England
CBD	Central business district	PRF	Paul Ramsay Foundation	UNSW	University of New South Wales
CNC	Computer numerical control	REDI	Researcher Exchange and Development within Industry Initiative	UTS	University of Technology Sydney
CSIRO	Commonwealth Scientific and Industrial Research Organisation	ROI	Return on investment	UOW	University of Wollongong
CSU	Charles Sturt University	SAAS	Software as a service	VC	Venture capital
DPE	Department of Planning and Environmental	SAFE	Simple Agreement for Future Equity	YCA	Young Change Agents
EDI	Equity, diversity and inclusion	SAP	Special Activation Precincts		
		SEFA	Social Enterprise Finance Australia		

Acknowledgements

Expert Advisory Group

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Appendix 1
Full case studies

The following case studies of CAISH entities were developed by the UTS research team based on interviews and desktop research.

To identify potential case studies and interview participants we conducted a comprehensive mapping of all CAISH entities currently operating in NSW. We classified each entity according to our CAISH entity definition. To develop the map, we synthesised insights from previous mapping approaches at the regional, state and national levels. Our starting point for the mapping was the work of Dr Chad Renando from Startup Status & The University of Southern Queensland: **your.startupstatus.co/map**

The mapping approach revealed 276 active CAISH entities in NSW. Our research team attempted to find contact details for representatives from each of these entities and contact details for entrepreneurs who had been supported by these entities. We then approached these CAISH representatives and entrepreneurs to invite them to participate an in-depth interview. In total, we conducted 64 in-depth interviews with CAISH entity representatives and entrepreneurs who had been supported by CAISH entities. The interviewees included 46 CAISH representatives and 18 entrepreneurs. The interviewees included a diverse range of participants from different types of CAISH entities, from different regions in NSW and with a diverse focus (general programs, specialised programs for particular industries/ sectors, diversity/inclusion-focused programs).

Based on the in-depth interviews, we selected 27 case studies to showcase the diversity of CAISH entities in NSW and their impact on entrepreneurs, startups and the economy. The case studies highlight the following:

i. Sydney-based Startup Hubs as comprehensive multi-entity ecosystems

ii. Regional CAISH entities as ecosystem builders

iii. Sector and Industry focused CAISH entities

iv. Equity, Diversity and Inclusion (EDI) focused CAISH entities

We developed the case studies using a mix of desktop research and insights from the interviews. To ensure the case studies provided an accurate overview of the CAISH entity, and also to fill in gaps in our knowledge, we shared a draft of each case study with representatives from the CAISH entities. The CAISH entity representatives made edits and additions to the case studies to ensure an accurate overview at the time of publication.

Sydney case studies

Table 4 Sydney-based hubs case studies

Sub-focus	CAISH entity
East Sydney	UNSW Founders
North-West Sydney	MQ Incubator
South Sydney	ANSTO — *nandin*
Sydney City	Sydney Startup Hub
West Sydney	WSU Launch Pad

UNSW Founders

Overview

Location	Establishment date
Sydney	2018
FTE	**Mentors/volunteers**
21	500+
Website	
unswfounders.com	
Funders	
University of New South Wales (UNSW), philanthropic donors, grants	

UNSW Founders Program is one of Australia's most comprehensive university entrepreneurship programs, spanning the entire entrepreneurial journey from curiosity to startup. The program aims to cultivate a community of entrepreneurs that values social progress and giving back as a crucial element of success. UNSW Founders' multiple programs and bespoke services provide students, researchers, alumni and staff with foundational classes in entrepreneurial thinking, through to launching a startup in the global marketplace.

Case study East Sydney — continued
UNSW Founders

UNSW SYDNEY | FOUNDERS
FOUNDERS.UNSW.EDU.AU

Under the UNSW Founders umbrella, offerings are grouped into three categories: curiosity, idea, and startup.

- The curiosity category includes workshops, makerspaces and courses to learn and apply entrepreneurial thinking, build confidence and networks.

- The idea category comprises a series of programs, hackathons and pitching competitions to generate ideas, create prototypes and pitch new business.

- The startup category includes pre-accelerator and five accelerator streams to help companies grow, receive seed funding, and become investment ready.

'I think our point of differentiation is how integrated and comprehensive we are. We can take people from, "I don't even know what a startup is" through to "I've raised $10 million", and we'll be with them for the three to four years that it takes to do that. When it comes to the private sector alternatives, I think we differentiate our accelerators based on our founder-friendly terms, as well as domain expertise.'

David Burt
Director of Entrepreneurship, UNSW Founders

UNSW Founders is founder-focused, aiming to help participants at any stage of their journey with their extensive offerings. The depth and quality of UNSW Founders programs, as well as the ability to tap into UNSW's vast networks of experts, partners and mentors, make this program unique in the entrepreneurial ecosystem.

'I'm a female founder, and I also have a product-led business. I'm not a SAAS [software as a service] platform, there's not a lot of technology other than the Shopify store involved in my business. And so, traditionally, these kinds of tech accelerators aren't a great fit for someone like me. But the Founders team have really gone above and beyond to make sure that the programming works for me. The team here not only provide you with money, connections to mentors and other people in the ecosystem, but the main thing that's really given me is, to be honest, to keep up the burn. They're not joking when they say ten times; I've gone ten times faster, and I've made ten times more traction. Things just have happened so much more smoothly than if I was on my own and if I was trying to do this alone.'

Holly Richards
Founder and director, Ample Folk

'The one other thing we do is raise the volume of storytelling around entrepreneurship in Australia, and kind of lionise and sort of hero the founders — set the narrative of acknowledging and celebrating the people that are doing the work and taking the risks.'

David Burt
Director of Entrepreneurship, UNSW Founders

'The broader impact [we are trying to achieve] is getting as many people considering startups and entrepreneurship as a career or a pathway as possible. So, whether they go into our early stage program and go work for a startup, or a researcher who never thought about that their work might have a commercial pathway, getting them to think that actually, that's possible. So, the more people we can get into entrepreneurship as possible, that's the key metric for us.'

Gabriella Nunes
Senior Manager Startups, UNSW Founders

Activity/impact metrics

Individuals supported	Startups supported
5,000+ each year	200+ each year
New ventures created	**Investment raised by supported startups**
110	more than $129 million

Other impact metrics

Jobs created
347+

Macquarie University MQ Incubator

Overview

Location	Establishment date
Macquarie Park	2017

FTE	Mentors/volunteers
6	60 mentors

Website

mq.edu.au/partner/access-business-opportunities/
innovation-entrepreneurship-and-it/incubator

Funders

Macquarie University, NSW Government,
philanthropic donors

Startups supported per year

50 + / 30 new companiesper year plus
approximately 20 organisations from previous
years being incubated

Located in Macquarie Park Innovation District, the MQ Incubator welcomes industry, startups and scaleups into the Macquarie University ecosystem. The incubator blends students, researchers, staff, and the broader startup and intrapreneur community in its educational programming and cohorts. It provides a safe atmosphere where growth arises from sharing wins, lessons, and challenges. The MQ Incubator offers its resident members a variety of entrepreneurial education programs, office space, laboratory assets, access to technical equipment, mentoring and networking to explore, develop and scale their ideas with potential for real-world impact. MQ Incubator members have an open learner mindset and are willing to cooperate with others, take feedback, and give back to the community.

'Our triple helix model is open to all. We actively engage with industry and entrepreneurs, we're leveraging our universities hard and soft infrastructure, and we're engaged with government –utilising their funding to create an ecosystem of high value. One, that we believe, will pay back to the community via the development of new industries, investment that they attract, and ultimately the jobs that they create. We also provide critical upskilling and training for researchers, students, and entrepreneurs through our various programs. Our approach is very altruistic, it's about giving back to the community, building economic diversity, and strengthening our national economy. The way in which we are building this ecosystem aims to demonstrate how to effectively leverage the high-value University infrastructure for the betterment of all. And to support entrepreneurs in a very authentic way - giving them the ability to learn and fail in a safe environment.'

Melissa Ryan
Director of Incubation and Entrepreneurship,
Macquarie University

The Macquarie University Incubator's deliberate approach to innovation employs the powerful triple helix model to develop an innovation ecosystem that engages with researchers, entrepreneurs, students, industry, and government to deliver strong economic and social impact.

Case study North-West Sydney — continued
Macquarie University MQ Incubator

'We love the community and the incredible amount of knowledge that we tap into by being part of the incubator. Whenever we had a question, we just knew there was someone within the incubator who had the answers and could help us out. And we get to learn some really practical skills, and we get to practice them as well. In the life of a founder, there isn't lots of time. Through the incubator, we get a really structured program.'

Maja Paleka
Co-founder Melo — MQ Incubator YouTube promotional video

'Ultimately the impact we are trying to achieve is economic diversity. Trying to develop strong, confident entrepreneurs and innovators, people that can mentor the next generation, support the creation of the jobs of the future, and increase commercialisation rates in Australia — stop our IP being commercialised overseas because of lack of funding and support locally.'

Melissa Ryan
Director of Incubation and Entrepreneurship,
Macquarie University

Photo: Chris Stacey

Activity/impact metrics

Entrepreneurs/ startups supported	Investment raised by supported startups
119+ (since 2017)	$55 million (since 2020)
Revenue generated	**Size of alumni network**
$16.5 million (since 2020)	70+ (since 2017)

Other impact metrics

New jobs created	IP applications granted
115 (since 2020)	44 (since 2020)

Gender diversity

35% of MQ Incubator startups have at least one female founder in 2022

Jobs and wages

Incubator companies spent $3.6 million on non-founder wages and employed 265 people in 2022

Research collaboration

6 MQ Incubator startups collaborated with Macquarie University researchers in 2022

Overview

Location	Establishment date
Lucas Heights, Sydney	2018
FTE	**Mentors/volunteers**
5	12
Website	**Funders**
nandin.com.au	ANSTO, Sydney
Startups supported per year	
~45	

Opened in 2018, *nandin* was established to centralise ANSTO's (Australian Nuclear Science and Technology Organisation) innovation and commercialisation capability and to foster close engagement between scientists, the community and industry. Today *nandin* is ANSTO's comprehensive Innovation Centre and platform for ANSTO staff, science and technology entrepreneurs, startups, and graduate scholars to develop, challenge, design, innovate, and commercialise ideas. Situated in the ANSTO Innovation Precinct in Southern Sydney, amid Australia's most prominent research infrastructure, *nandin* is a bustling hub for startup and industry engagement; it facilitates connections between their community and cutting-edge science and technology. *nandin* has a number of offerings including:

- An incubator and startup support program for community ventures

- An SME support program for local innovative manufacturers

- A venture studio (ANSTO Ventures) for the valorisation and commercialisation of ANSTO intellectual property

- Design and Challenge based innovation

- Community hub for local industry clusters, graduate students collaborating with ANSTO and early career staff.

nandin supports these offerings through an "innovation as a service model" including entrepreneurial learning, design innovation, mentoring and support for entrepreneurs, and supporting corporate and industry partnerships. It also offers a range of offices, maker spaces and labs to support growing ventures. In 2022, *nandin* was awarded a $430,000 NSW Government Boosting Business Innovation Program (BBIP) grant to support its work.
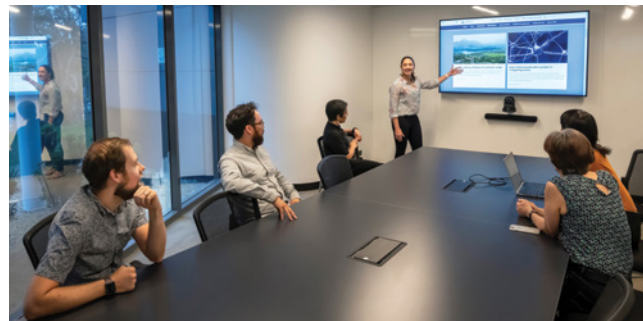
'We support our members at every stage of development, from providing the opportunity to connect with ANSTO's phenomenal research capabilities and knowledge, right through to getting their product to market.'

Dr Tim Boyle
ANSTO Director of Innovation and Commercialisation - Interview on *nandin* blog

nandin focusses on science and engineering-based innovation and is the only dedicated startup and innovation community in Southern Sydney. *nandin* focusses on transdisciplinary approaches, centred on the intersection of design innovation and science. They are also part of the Design Factory Global Network — an international group of universities and research centres supporting cross-industry collaboration and co-creation.

'The business development and marketing support is a massive value-add.'

Dr Iwan Cornelius
Co-Founder Scientific — ANSTO *nandin* Website

'We are part of an incredibly capable and professional innovation/science community with *nandin* and ANSTO — *nandin* is really helping ideas come to life.'

Jamie Waldon
Bioair

Case study South Sydney — continued

nandin Innovation Centre (ANSTO)

'*nandin* is supporting 45 startups and SMEs, like Roam Technologies, to create and commercialise their cutting-edge designs and technologies, which could have life-changing implications for people around the world. It's been exciting to see this innovative idea come to fruition here at *nandin* and working with Roam Technologies at every stage of the product development, from connecting to the in-house knowledge and capabilities of ANSTO's researchers and engineers, right through to getting JUNO ready for market.'

Shaun Jenkinson
CEO ANSTO on Roam Technologies.

'The *nandin* Innovation Centre provides the opportunity for our state's finest deep tech entrepreneurs to connect with the awesome research capabilities and knowledge we have here at ANSTO to really push the envelope and see what's possible.'

Shaun Jenkinson
CEO ANSTO

'Being embedded with the *nandin* community and supported by ANSTO has helped us find traction with customers and provided fresh ideas that have allowed the business to thrive and expand. With help from the team at *nandin*, we're ready to expand into overseas markets and take on new global customers and contracts.'

Dr Iwan Cormelius
CEO Amentum Science

'Our success is a result of an ecosystem coming together, exchanging ideas, experiences and expertise. Excellence and business growth are obtained through shared knowledge and that's the advantage that *nandin* brings.'

Simon Turner
SensaWeb CEO

'We came to ANSTO with an idea. Thanks to the resources, support and expertise offered at *nandin* — we've been able to see our idea flourish into a company supporting an exciting emerging industry within Australia.'

Dr Robert Mardus-Hall
Founder Ouranos Systems

Activity/impact metrics

Entrepreneurs/ startups supported	Investment raised by supported startups
45	~$65 million
New ventures created	**Size of alumni network**
6	6 startups

Other impact metrics

3 exits from *nandin* members realising over $150 million

Jobs supported in Australia

400+ jobs supported by *nandin* members

Sydney Startup Hub

Sydney Startup Hub

Overview

Location	Establishment date
Sydney	2018

Website

investment.nsw.gov.au/living-working-and-business/sydney-startup-hub

Funders

NSW Government

The Sydney Startup Hub is the highest-density startup space in the southern hemisphere, offering 17,000sqm in a CBD location. It brings together a diverse group of organisations and talent that sparks innovation, ignites collaboration, and provides easier access to networks, skills, funding and leadership. The overarching aim of the hub is to facilitate the jobs of the future by supporting the NSW innovation ecosystem and making the state the most effective place to grow a startup. As part of its mission, the Sydney Startup Hub seeks to optimise and connect communities and hubs across NSW, Australia and globally to accelerate state-wide startup growth and to maximise innovation job creation.

Case study Sydney City — continued
Sydney Startup Hub

Sydney Startup Hub

'At the Sydney Startup Hub, we are providing affordable space for startups so they can focus their energies and resources on growing their business to become the scaleups and unicorns of the future. The secret sauce of our hub? Community. It's what sets us apart. The networks, introductions, peer-learning, proximity to endless upskilling workshops and programs… you're just not going to get those same opportunities from a desk at home or serviced office. The best bit? You are surrounded by hundreds of other startups with "been there, done that" experience. A harmless chat by the coffee machine could save you thousands by learning from the mistakes of others. Our location is second to none–it lands startups in the heart of Sydney's bustling CBD with excellent transport links to our other hubs in Western Sydney and Tech Central.'

Carol Friel
A/Director, Entrepreneurship, Investment NSW

The Sydney Startup Hub is a globally significant innovation hub that strengthens the role of Sydney as Australia's startup capital. It connects people, supports collaboration, attracts investors, and ultimately builds up the startup community — essential for creating a pipeline of future job-creating businesses and sustainable, high-value jobs in NSW.

'We needed a home base for ourselves and a few people that we knew recommended the Sydney Startup Hub. Have a look at the different spaces and decide what's right for you and then suddenly you'll realise you're accelerating your ideation, your build, the connectivity, your partnerships, and that's before you even start raising capital.'

Fiona Vale and Paul Rush
Co-founders, Humanico

'In terms of startup for tech in Australia, it's Sydney. Genuinely the attitude, the mindset here is really supportive. This really is a place for tech startups.'

Brendan Murphy
Founder, WILLHQ

'In recent years, we, as Government have been exploring how we can support those who are growing future-focused technology startups, via our hubs. We have identified gaps in the market and used our funding to reach those who need the most support. With a focus on Diversity and Inclusion, we are enabling more women to explore entrepreneurship through our female founder pre-accelerator programs. We are also committed to providing those early-stage startups who are pre-revenue with their first injection of funding through grant programs. Utilising our communities at the Sydney Startup Hub to promote and share the support that Government is providing the innovation sector, has been pivotal to our success.'

Sally Walkom
Head of Innovation and Entrepreneurship, Investment NSW

'The greatest source of pride in my role, is witnessing the growth and success of the amazing startups who make up our community at the hub. Hearing their stories, and providing founders with an encouraging word or sharing information to support them on their journey is incredibly rewarding. Despite the challenges they face, I am constantly wowed by their resilience and willingness to give back to others on the same journey. This is a community that is here to support each other. The hub would be nothing without the resident startups who bring it alive. It's a privilege to work alongside them.'

Carol Friel
A/Director, Entrepreneurship

Activity/impact metrics

Jobs created	Entrepreneurs/ startups supported
6,000+	1,800+

Investment raised by supported startups
$928 million

Other impact metrics

Number of Regional Founders Supported at the Regional Landing Pad
4,557

Number of Innovation-Led Events
1,100

WSU Launch Pad

WESTERN SYDNEY UNIVERSITY

LAUNCH PAD
Technology Business Incubator

Overview

Location	Establishment date
Sydney	2015

Website	
westernsydney.edu.au/launch-pad	

Funders	
Western Sydney University, NSW Government, corporate	

Western Sydney University's Launch Pad, established in 2015, is a high-quality technology business incubator. It is designed to support the growth of a startup community in Western Sydney, and to drive the development of a sophisticated innovation ecosystem for the region. Launch Pad's methodology is oriented to helping startups and scaleups working in areas such as artificial intelligence (AI), machine learning, VR/AR, data analytics, additive manufacturing and Industry 4.0 in a tailored manner. Launch Pad incubation services include access to physical space and research facilities, business services, mentoring, finding co-founders, assistance developing government grants and funding applications, and access to events and networks. The incubator also offers three acceleration programs: Pre-flight (2 days pre-accelerator), Ignition (10 weeks accelerator) and Booster (regular masterclasses for scaleups).

Case study West Sydney — continued
WSU Launch Pad

WESTERN SYDNEY UNIVERSITY | **LAUNCH PAD** Technology Business Incubator

'The Launch Pad program helped me go from an idea on a page... to MVP. The one-on-one mentoring and structured 6-month framework are personal and tailored to each founder. Unlike other programs that are short-term, in six months you can achieve significant progress. There were plenty of opportunities to connect with the cohort and mentors, and I have made great friends through this program.'

Megna Murali
Founder, Convert Dial

Launch Pad is a catalyst to drive innovation across Western Sydney and establish the region as a globally competitive tech and innovation hub. This program aims to: support an innovation ecosystem that will increase knowledge industries and smart jobs; develop a startup sector; increase research, innovation and university-industry collaborations; develop a high-performing small and medium enterprise (SME) sector with a strengthened innovation focus; and increase supply chain clustering and collaboration.

'I think we, as Western Sydney, we've got quite a flavour of our region, if that makes any sense. So Western Sydney is historically socially disadvantaged, a little bit underprivileged region. We have this mantra: "we deal in real". We position ourselves as: when you come to us, you do stuff that's very real, we're very focused on getting you to market... We're very customer capital-driven, as opposed to necessarily being very investment-driven. Our overall stance is to be very focused on validation and getting people to market as quickly as they can.'

Don Wright
Executive Director, Enterprise, WSU

'As part of its Act, our university has a commitment to the region. So we have a very strong focus onsupporting the region from an economic development or social development and environmental development point of view. So, the impact we're trying to create is across those three areas. We see that innovation and entrepreneurship are key to creating opportunity in our region: more knowledge jobs, more investment, and better improvements in lifestyle.'

Don Wright
Executive Director, Enterprise, WSU

Activity/impact metrics

Entrepreneurs/ startups supported	Program participants supported
500+	6,000+

Investment raised by supported startups
$100+ million

Other impact metrics

New jobs created	Start-up revenue
600+	$30m+

Accelerator participants
47% of accelerator participants first generation, migrant and refugee founders

Gender diversity
50% of startups had at least one female founder

Research collaboration
6 MQ Incubator startups collaborated with Macquarie University researchers in 2022

Student placements
500+

Regional case studies

Table 5 Regional ecosystem builders case studies

Sub-focus	CAISH entity
Central West	Charles Sturt University Innovation Hub
New England	UNE SMART Region Incubator
Newcastle	I2N Hub Honeysuckle
North Coast	The Innovation Hub Coffs Coast
Northern Rivers	Sourdough Innovation Hub
South Coast	Bega Valley Innovation Hub
Wollongong	iAccelerate

Case study Central West
Charles Sturt University Innovation Hub

Overview

Location	Establishment date
Wagga Wagga	2017

Website

research.csu.edu.au/engage-with-us/incubators/innovation-hub

Funders

NSW Government via Charles Sturt University

The mission of the Innovation Hub is to support the ongoing development of an innovation ecosystem in regional NSW by:

1. Supporting innovation capacity building within the university and the wider community through skills development opportunities and experiences

2. Supporting and partnering with other regional development, government and business agencies working towards similar goals

3. Collaborating with local businesses actively supporting startups and SMEs

4. Fostering a culture of innovation both within the university and wider community.

'The organisation was previously called the AgriTech Incubator. So there was a natural focus on agri-tech. But we found that people were still coming to that organisation saying, 'Look, I'm not agri-tech, but I still need this service'. And so we made the decision in 2022 to rename as Innovation Hub, because agri-tech was misleading, because we had a wider focus. So our current programs that are running are for the most part industry-agnostic; we don't discriminate based on the industry that you're in.'

Ged Bourke
Manager, CSU Innovation Hub

CSU Innovation Hub has a strong emphasis on supporting the entrepreneurial ecosystem in rural and regional NSW by encouraging and growing startup activity. The Innovation Hub aims to spark innovation and economic development in the Riverina by offering incubator programs, providing coworking spaces, fostering greater participation of women in entrepreneurial activities, and supporting SMEs to overcome R&D challenges through access to university facilities and expertise. The Innovation Hub has two flagship programs: Ready to Launch, which is industry agnostic, pre-incubator skill-building for entrepreneurs/change makers/startup founders with a specific focus on problem/solution product market fit, and the Indigenous Entrepreneur Program offered primarily to indigenous entrepreneurs in the Ag/Food/Fibre and related industries.

'The Ready to Launch Program lit that fire in me to reconnect with my 'why' and build that into the business model. Also, discovering how to share Visual Dreaming as a story rather than a business, and learning to pitch that in a way that people could understand, was incredibly confidence-building.'

Leanne Sanders
Founder of Visual Dreaming — CSU website

'The Innovation Hub aims to achieve its goals through providing early stage incubator programs, offering specialised innovation training and development and organising events that foster innovation, celebrating the innovative thinkers and "doers" of regional NSW.'

CSU website

'[T]he feedback and conversation we've had with IP providers has been that there's been a market failure in terms of entrepreneurial support from private providers regionally, and rural. And so CSU sees itself as being one of the organisations regionally that can provide broad scale, early stage entrepreneurial support.'

Ged Bourke
Manager, CSU Innovation Hub

Activity/impact metrics

Entrepreneurs supported	Size of alumni network
more than 600 since 2017	more than 100

University of New England SMART Region Incubator

Overview

Location	
Armidale, Tamworth, Moree, Narrabri	
Establishment date	**Mentors/volunteers**
2017	13
Website	**Startups supported per year**
unesri.com.au	60
Funders	
Australian Government, New South Wales Government, and Corporate	

The UNE SRI is a university-led business incubator that supports innovation across the New England North West by connecting founders, researchers, school and university students, mentors, experts, investors, government and business partners. UNE SRI has physical locations in Armidale and Tamworth, and in Moree (in collaboration with Social Co-House), and Narrabri (in collaboration with The Exchange), featuring high-speed internet, meeting rooms with the latest AV technology, podcasting and video facilities, and private and collaborative spaces.

Case study New England — continued
University of New England SMART Region Incubator

The UNE SRI provides a wide range of programs, services and events to help founders grow skills, knowledge and networks whilst being supported within an ecosystem of opportunities. The community of founders at UNE SRI are innovating agriculture, health, environment, creative and cultural industries, bringing research-rich and technology-driven solutions to reach customers in the region, nationally and globally.

UNE SRI is a regional connector that focuses on growing startups in the region that are solving a problem that has application to a larger market. The UNE SRI provides a friendly environment that supports aspiring regional businesses to grow through its facilities, programs, events and networks of mentors, researchers, and corporate and community partners.

'While our key strength in Tamworth has been health startups, in Armidale and across the North West our key strength has been in agtech and environmental innovation. A number of startups leverage their research relationships with UNE and other universities to bring to market significant innovations for agricultural production systems. When we work together across the University sector and make sure we are focused on founders being at the centre of the ecosystem, then we can build good collaborations that grow enterprise wherever it makes sense for business expansion in NSW. So, making sure we create a welcoming, collaborative, open arms approach to regional innovation is really important.'

Lou Conway
Director UNE SRI

'We were looking for a location to base our office, and the incubator had an excellent opportunity for me to secure an office space with everything that I needed in terms of connectivity and at a very reasonable rate. The SRI provided connections to other agri-technology companies and to other researchers within the university [...] There's been a very impressive openness, whether it's from the regional council or the university or the SRI, to welcome businesses like ours and to create linkages whether it's with the researchers at the university, whether it's with potential clients. There's a real openness and cohesiveness from basically anyone in the community to see Armidale and the region prosper.'

Hamish Webb
Executive Director and Interim CEO Precision Pastures — YouTube, Armidale Regional Council, Business Profile: UNE SRI + Terra Equity Protein

'Ultimately these new enterprises are creating new economy jobs in the region. To do this, founders need a like-minded community with expertise to share and investors. Our job is to facilitate this and share the opportunities with the regional community especially for migrants and First Nations people. Having a physical space that is a safe place to grow is critical.'

Lou Conway
Director UNE SRI

Activity/impact metrics

Entrepreneurs/ startups supported	Investment raised by supported startups
64	$6.2 million (2021-2022)
New ventures created	**Size of alumni network**
52	140

Other impact metrics

Jobs created	Female founders
146 (2021-2022)	52% (2022)

THE UNIVERSITY OF NEWCASTLE AUSTRALIA | I2N Integrated Innovation Network

Overview

Location	Establishment date
Newcastle	2016
FTE	**Mentors/volunteers**
3	41 mentors
Website	**Funders**
newcastle.edu.au/i2n	University of Newcastle, NSW Government
Startups supported per year	
20 (average)	

I2N Hub Honeysuckle, run by the University of Newcastle, has been purpose-built to support enterprise skill development, new venture creation, and scaleups.

The Hub has been designed as a space where innovators and entrepreneurs can connect with the university's researchers and students as well as mentors, the community, customers, and industry. The Hub provides incubation services, including coworking space and private offices for startups and scaleups, coaching through cohort-based accelerator programs and mentoring, Zoom-enabled meeting rooms and a board room, breakout spaces, and a communal kitchen.

Case study Newcastle — continued

I2N Hub Honeysuckle

THE UNIVERSITY OF NEWCASTLE AUSTRALIA | **I2N** Integrated Innovation Network

It also offers innovation concierge service, free coworking and meeting rooms for pre-startups, a flexible event space, a maker space, and seminar spaces for the delivery of I2N and affiliate programs and events. I2N Hub Honeysuckle is open to students, researchers, alumni and the broader community to help them develop their enterprise skills and impact potential, validate ideas and accelerate to market.

'What the dedicated team at I2N are doing to support local innovation is amazing! It's incredible and there is no vested interest for them. That's what I took away from it: here are some really genuinely interested people offering valuable help.

Kylie Burrett
Co-founder, Design Nuts — I2N Hub Honeysuckle website

I2N Hub Honeysuckle aims to bolster innovation and entrepreneurship in the Hunter region, offering various programs and services to individuals regardless of their affiliation to the university. The overarching goal of the Hub is to attract and retain talent in the Hunter region, create new jobs and diversify the local economy by supporting the development of tech-enabled products and services.

'Our point of differentiation has always been a focus on supporting tech-enabled entrepreneurs and their teams who have an ambition to drive global impact no matter their connection to the university or the industry sector they are focused on.

Supporting entrepreneurs to grow their businesses here makes us very proud. Newcastle and the wider Hunter region offers a beautiful lifestyle base from which founders can start a business. People living here know that it's never been easier to do just that. For startup founders who emigrate here, oftentimes they don't know what to expect, and they're often surprised by the networks and support that are here.'

Siobhan Curran
Assistant Director, I2N Operations and Innovation

'It's very much within our DNA that we're a university of our region and for our region… Our vision is to see the Hunter region leverage its industrial economy and the knowledge economy to grow new businesses and industries. Advancing the success of innovators and entrepreneurs to build significant and sustainable ventures here is critical to our region's prospects. Doing so provides new opportunities not only for our graduates, but for everyone in the community to be able to have a rewarding and interesting career here. Our very first event series, Startup Stories, kicked off in 2016. We invite tech-enabled entrepreneurs who have a connection to the Hunter region to talk about their founder journey. There have been 94 Startup Stories to date. That's 94 diverse examples that demonstrate to the local community that if you have an idea, you could do it here.'

Siobhan Curran
Assistant Director, I2N Operations and Innovation

Activity/impact metrics

Teams/Startups supported	Investment raised by supported startups
109	$26m+

Other impact metrics

Jobs created	Revenue generated by startups
125+	$18.1m+
Gender equality	**Employee salaries paid**
32% of teams/startups have at least one female founder	$5.2m+ (FY22)

The Innovation Hub Coffs Coast

Overview

Location	Establishment date
Coffs Harbour	2002

Website

coffsinnovation.com.au

The Innovation Hub Coffs Coast aims to provide a facility for business development and growth in the Mid North Coast region of New South Wales. Its mission is to foster entrepreneurship, innovation, and the creation of knowledge and smart technology-based enterprises. It offers a dynamic and supportive environment acting as a conduit for students, local business and people who want to share space.

'Partnering with local businesses since 2002. Through collaboration with the Southern Cross University, TAFE NSW and the Coffs Harbour City Council we provide opportunities for the students and businesses to come together. Jointly, we create meaningful jobs and a sustainable community.'

The Innovation Hub Coffs Coast website

The Innovation Hub Coffs Coast aims to boost innovative and globally focused Australian startups based on the Mid North Coast. Collaboration and networking opportunities are at the core of all of its actions. It offers mentoring, coworking, affordable office spaces, networking events, funding and on-site support and management.

'I really, really encourage literally anyone that's looking for a change... Definitely big, big thumbs up Coffs Coast Innovation Hub... great place to be.'

Amanda Siqueira
Co-founder and CEO, VAPAR

'Outstanding facility. The hub is [a] dynamic, supportive and collaborative environment to grow your startup or existing business. Achieve your full potential whilst living your best life at the Innovation Hub Coffs Coast.'

Innovation Hub Coffs Coast website

Activity/impact metrics

Entrepreneurs supported
Currently 21

Case study Northern Rivers
Sourdough Innovation Hub

SOURDOUGH
BUSINESS PATHWAYS

Overview

Location	Website
Mullumbimby	sbp.org.au/innovation-hub

Establishment date

2008 (Sourdough Business Pathways),
2019 (Innovation Hub)

Funders

Sourdough Group, Byron Region Community College. Sourdough Group is funded by a number of organisations, businesses and individuals

Sourdough Business Pathways is a not-for-profit initiative of the Sourdough Group and the Byron Region Community College. Their purpose is to provide a strong future for the next generation in the Northern Rivers region of New South Wales by building strong businesses that generate prosperity and jobs. The Sourdough Innovation Hub (SIH) offers office spaces with the focus on community and supporting each other in business growth.

'Our mission is to create a culture that inspires, mentors and delivers successful business growth regionally. We are focusing on business[es] already in a growth stage that demonstrate high potential growth and the ability to upscale.'

'ASK Waste Management is an independent consultancy helping their clients achieve better environmental and commercial outcomes within the waste management industry, is a perfect example of this.'

Stuart Picken
Sourdough Business Pathways — Sourdough blog

The Sourdough Innovation Hub is a dynamic and unique hub in Mullumbimby providing tenants with a range of small office spaces with the focus on helping members to achieve what's really important — expanding business. The thriving community of resident businesses receive mentoring support and access to workshops, events and networking opportunities.

'In addition to the invaluable business support provided through the Innovation Hub, it's fantastic to be out of a home office and working in a vibrant space again with direct access to business workshops and resources to support our business growth.'

Giles Perryman
Director of ASK Waste Management — Sourdough blog

'The SIH continues to flourish, with our resident startup businesses being supported and mentored by the Sourdough team and our mentoring community. We also held a number of SIH meetups where residents can come together to share ideas, learning and new opportunities.'

Stuart Picken
Sourdough Business Pathways — Sourdough blog

Activity/impact metrics

Entrepreneurs supported

7 currently (9 spots for the coworking space)

The Bega Valley Innovation Hub

Overview

Location	Establishment date
Bega Valley	2018
FTE	**Mentors/volunteers**
0.5	5
Website	
begavalleyinnovationhub.com.au	
Funders	
The Australian Government's Incubator Support Initiative, the Bega Valley Shire Council, the University of Wollongong's iAccele4rate and Bega Cheese.	
Startups supported per year	
5–10	

The Bega Valley Innovation Hub (BVIP) is part of the iAccelerate Innovation Network, a University of Wollongong initiative aimed at helping build and grow startups. This program involves formalised business acceleration and one-to-one mentoring. The Bega Valley Innovation Hub seeks entrepreneurs who harness technology as an enabler for services and products that can be scaled and applied globally.

'The gap of disadvantage between building a startup, scaleup or SME in a city compared to in the regions is well known. BVIP is a place for regional entrepreneurs to increase economic growth and create new jobs through evidence-based training, connection to industry experts, and inter-regional networks...'

Bega Valley Innovation Hub

The Bega Valley Innovation Hub provides a unique business acceleration program. It offers a comprehensive, structured and multifaceted approach to empowering startups, scaleups and entrepreneurs to undergo rapid and sustainable growth. They do this through the iAccelerate Innovation Network, its mentors and the Educate Program.

'A large percentage of startups fail because they have a dream but no real idea of how to bring it to market. This course and the ongoing support have given me the confidence to see that my dream is going to come true, and I'm taken seriously when talking with investors because I've been a part of the program.'

Sarah Campbell Lambert
Ginger the Frog — The Bega Valley Innovation Hub website

The Bega Valley Innovation Hub utilises a regionally focused approach to accelerating sustainable business growth to deliver the greatest economic impact regionally. It does this by offering the iAccelerate Educate stream, which is unique in the Australian startup landscape, with the hopes of delivering the greatest economic impact with its approach to teaching entrepreneurs to achieve rapid and sustainable growth.

In 2023 the Bega Valley hosted a regional innovation summit for entrepreneurs which was attended by more than 100 entrepreneurs, industry, government and entrepreneurship supporters.

'We learnt how to legally build our business up step by step, how to employ staff, employ contractors, put SOPs [standard operating procedures] into place, pinpoint our minimum viable product, how to advertise it and how to scale into machinery. From humble beginnings, we now find ourselves with confidence and connections to succeed.'

Kay & Gregg Saarinen
Saarinen Organics

'We have connected local knowledge and expertise with our 120 business owners to deliver training and support for the economic recovery of our region. The Bega Valley Innovation Hub has now created a community of innovators, changemakers and business owners who actively collaborate and support each other. They are a part of leading a successful innovative economy and will create jobs for the future of the Bega Valley.'

BVIH regional manager
About Regional Newspaper

Activity/impact metrics

Entrepreneurs supported

34 entrepreneurs listed in the business index

Case study Wollongong

iAccelerate

Overview

Location	Establishment date
Wollongong	2011
FTE	**Mentors/volunteers**
5	30
Website	**Funders**
iaccelerate.com.au	iA seed fund and iA philanthropic fund
Startups supported per year	
approx 50	

iAccelerate is a unique business pre-accelerator, accelerator and incubator program run by the University of Wollongong, committed to helping build sustainable businesses that positively impact the region, the nation and the world. It aims to support the development of startups to solve real-world problems. iAccelerate offers education programs, physical space, mentoring, seed funding, and access to the UOW's facilities and research expertise to help entrepreneurs, startups, scaleups, social enterprises, and intrapreneurs thrive.

iAccelerate

iAccelerate | UNIVERSITY OF WOLLONGONG AUSTRALIA

'iAccelerate is committed to the long-term success of our residents. We want each company to continue to grow and contribute to the local economy and community beyond their time at iAccelerate so that together we can build the Illawarra's reputation as a thriving ecosystem of businesses having a positive impact on the world.'

Tamantha Stutchbury
Director, iAccelerate

iAccelerate is suited to individuals or early stage businesses seeking support to validate their business idea and scale up to the next stage. iAccelerate not only attracts entrepreneurs from the wider community but as the home of entrepreneurship at UOW, fosters entrepreneurial skills in students and researchers for research translation.

'The most valuable support I received was the classes. The mentors were also very valuable. One of my mentors, was really valuable because he had so much feedback, and he could see how hard I worked at what I was doing. That was really beneficial. And being around the other businesses and being able to bounce ideas off everyone. [...] I don't think I could have realised it without the help of iAccelerate. Because you could go into the office and say, hey, I need help, or who do I talk to, to help me. And that's something that you don't get when you're running a normal business.'

Suzanne Haddon
Founder, RooCreate — iAccelerate website

iAccelerate's mission is to foster a vibrant entrepreneurial ecosystem in the Illawarra region that enables innovation and engagement for real and lasting impact. iAccelerate supports driving change with global impact, teaching startups and companies to focus on sustainability, collaboration and building a social conscience into their business models. It aims to strengthen the ecosystem through inclusion and is committed to supporting underrepresented groups in entrepreneurship into its ecosystem, including women, regional and Indigenous entrepreneurs.

'Community is at the heart of iAccelerate. It is part of our history and our success. Our mission is to serve our community through job creation, skill development and creating real and lasting impact through entrepreneurship. We attract people who share our commitment to developing their community — in the Illawarra where we are located, or in the regional communities where we partner.

'Our links to UOW mean we can offer companies access to our world-class facilities as well as the exceptional talent of graduates for their workforce. That way we can retain talent in our region and create a world-class hub of innovation locally.'

Tamantha Stutchbury
Director, iAccelerate

Activity/impact metrics

New ventures created	Size of alumni network
316	more than 1000

Investment raised by supported startups	
$31.4 million (2022)	

Other impact metrics

Jobs created	Revenue
1,013 (since 2011), 109 (2022)	$61.1 million (2022)

Gender equality	
52% of iAccelerate companies have at least one active female founder	

Developed and implemented programs to support First Nations and regional entrepreneurs.

Industry-specific case studies

The following pages showcase a **series of case studies** that illustrate the increasing specialisation of CAISH entities in terms of sectors, industries, and diversity and inclusion focus. Each case provides an overview of the initiatives and rationale for specialisation. The case studies feature quotes from the CAISH entities to support entrepreneurs about their experiences with the program. The cases also include impact metrics such as the number of entrepreneurs supported, and investment raised by startups.

Overall, the cases show the maturity of the ecosystem in NSW and the role of CAISH entities in building a more innovative and inclusive startup community.

Table 6 Sector/industry Focus case studies

Sub-focus	CAISH Entity
Biotech	UTS Green Light accelerator
Climate Tech	EnergyLab
Creative industries	The Roost
Defence	UNSW Founders — Defence 10x
Fintech	Stone & Chalk
Health Tech	UNSW Founders — Health 10x
Med Tech	Cicada Innovations — NSW Health Commercialisation Training Program
Social enterprise	SEFA/Paul Ramsay Foundation Growth Incubator
Space Tech	Cicada National Space Industry Hub
Sustainability	Boomerang Labs
Synthetic Biology	UNSW Founders — SynBio 10x

UTS Green Light accelerator

Overview

Location	Establishment date
Sydney	2018

Website

uts.edu.au/climate-change-cluster/our-research/deep-green-biotech-hub/innovation/green-light-accelerator-program

Startups supported per year

7 (2019), 3 (2020), 5 (2023)

Funders

UTS and NSW Government

The UTS Green Light accelerator program supports the development of algae biotech solutions across a broad range of industries in NSW to pioneer an algae-based bioeconomy for a more sustainable future. The program is open to early stage startups and entrepreneurs right through to established small to medium enterprises in NSW. Selected teams for the 12-week program have the opportunity to work with a research mentor from Deep Green Biotech Hub's host research institute, the UTS Climate Change Cluster, and a dedicated entrepreneurial facilitator to grow their business.

The program also includes access to masterclasses, networking and industry events offered through UTS and associated organisations. The program also provides up to $15,000 in seed funding and curated support to help startups and SMEs develop or implement an algae-based product or service.

UTS Green Light is the first global accelerator specialised in algae-based innovation. It aims to bring NSW to the forefront of algae-based solutions to modern problems. Projects include innovations to optimise algae growth and deliver biomass to the wholesale market, and products and services using micro-or macroalgae for aqua-and agriculture, bioproducts, food and materials. Since its creation, the program has contributed to an increase of more than 30% in the algae biotech sector in Australia.

'We have gained a lot from being involved. The mentorship meetings and a site visit were invaluable and allowed us to understand the process and all the stages involved. The staff have been so supportive, generous with their knowledge and information and genuinely interested in our success. It has been a great collaboration. The seed funding we received through the Green Light program has also helped bring our ideas to life and allowed us to purchase equipment such as chillers, pumps and filters for the aquarium setup phase.

Having the right equipment makes it easier to get the right results. I was really attracted to the program because it is totally focused on algae and helping algae business, which we are.'

Jo Lane
Founder, Sea Health Products — UTS Green Light accelerator website

'Through Green Light we're excited to facilitate the potential for SMEs and startups and support NSW's burgeoning bioeconomy.'

Peter Ralph
Founder of the NSW Deep Green Biotech Hub — Inspiring Australia NSW blog

Activity/impact metrics

Entrepreneurs/startups supported	New ventures created
15	10

Case study Climate tech
EnergyLab

(Energy)^Lab

Overview

Location	Establishment date
Sydney/Melbourne/Remote	2017

FTE	Mentors/volunteers
7	319

Website

energylab.org.au

Startups supported per year

160+ since founded - number supported yearly to increase due to new programs

EnergyLab is Australia's leading clean energy and climate tech hub, coworking space and accelerator. It offers diverse programs and initiatives for each stage of the startup journey providing clean energy and climate tech founders with the support, expertise and networks they require to reach their next growth milestone. EnergyLab has four core programs: Climate Solutions Accelerator, Energy Scaleup Program, Women in Clean Energy Fellowship and Supercharge Australia and three more to be announced later in 2023. Other EnergyLab services and offerings include EnergyLab Angels, a network of over 300 mentors, coworking memberships, events and introduction to investors. Its network of mentors, advisors, peers and investors helps founders overcome the challenges of developing technologies and solutions to decarbonise the economy.

'Our mission is to support entrepreneurs and founders to succeed so that their technology and offerings when scaled out can decarbonise the economy. Our theory of change is that by helping low emissions focused startups to go global we can reduce global emissions.'

Megan Fisher
CEO & Director, EnergyLab

EnergyLab is Australia's largest climate tech startup accelerator and network dedicated to decarbonising the economy. It's focused on supporting founders with breakthrough low emissions technologies and business models. They are a non-for-profit, with a mission closely aligned to supporting founders and decarbonisation, allowing them to focus on technology and founders over potential profitability.

EnergyLab

(Energy)^{Lab}

'We are strategically focused in the vertical of clean energy and climate tech in the startup ecosystem because innovating in this area requires specialist targeted support. The time to market is longer, with hardware involved in many instances the upfront costs are higher; the regulation is more complex than in other startup ecosystems. Generally it's more difficult and the expertise required in this area is significant and multifaceted. So, our focus on clean energy and climate tech is our point of difference. And we've been doing it since 2016, we've had 160+ startups go through our programs, we've had 90+ women go through our fellowships, and we've helped countless more startups through our angel network, mentor network, events and coworking [...].'

Megan Fisher
CEO & Director, EnergyLab

'We found the agenda to be extremely well designed, structured & executed. The entire EnergyLab team has a keen appreciation for what is required to bridge the commercial engagement gap between start-ups and energy utilities. This ensured the program was pragmatic & focused on enabling the greatest likelihood of tangible opportunities to result. It was also fantastic getting to know other global companies navigating similar trajectories and customer engagement.'

Daniel Danilatos
Founder and CEO, Neara

'In 2022, Jess joined EnergyLab's Women in Climate and Energy Fellowship to learn more about climate tech and build a community of women in the climate space. 'I was craving community,' she says, 'I wanted to surround myself with other women solving complex problems. I wanted to feel a part of something.' When reflecting on her time in the program, Jess commented, 'being part of a collective of change makers was thought provoking and supportive.'

'Showing up is paying off. In 2023, Jess's company, Equoia, will introduce their first product with a Demo Day to the industry and are focused on building out their team, working on their third product iteration and expanding their operations.'

Jessica Gower
From the EnergyLab Blog

Activity/impact metrics

Entrepreneurs supported	Size of alumni network
40/25	160

Other impact metrics

Female founders helped
90+

Case study Creative industries

The Roost

THE **ROOST**

Overview

Location	Establishment date
Newcastle	2010

Website
theroostcreative.com.au

Funders
Independent (not-for-profit organisation)

The Roost, founded in 2010, is the first coworking space in Newcastle supporting creatives, the arts and small businesses. It aims to create an environment and culture where members can develop their skills, explore new ground and grow their businesses in the company of other creative minds and experienced professionals. The Roost offers affordable coworking space and a range of membership options, from full time and student memberships with a dedicated workspace to a virtual membership that's online-only. The Roost is best suited to sole traders, freelancers, remote workers and small teams. All memberships include business hours access, CBD location, printing facilities, communal kitchen and casual areas, business mentoring, an online forum to share ideas and keep in touch, member-led workshops and an art market stall.

'We aim to try and help people right at the start of their careers. So we make it as affordable as possible to get a desk, and then we try and help them out with career advice and that sort of thing. So we aim at the early freelancers rather than the established businesses that would probably need more space than we have to give; if you need a private room, we can't really offer that.'

Michael Hearne
Founder Blackfish Graphic Design, The Roost community member

'The Roost supports the professional development of early creative freelancers, offering a base to start and run their businesses and fostering collaboration among its members and the wider creative community. It promotes a warm, welcoming environment in its coworking space and on all its online and social media platforms. Everyone here's really nice. Just being able to be social if you want to be social and also be studious if you want to be studious. The social aspect of doing stuff sometimes, like we go to life drawing, and sometimes go to the pub on a Friday and the Roosty Christmas Party is always fun… When you're in a full time job, you have other colleagues to say "Hey, can you show me how to do this?" and I can learn on the job. There's not that opportunity when you work for yourself alone in your spare bedroom unless you teach yourself.

But when you're surrounded by people who are doing that, you can go: "Hey, how do I do this?" Being in The Roost it's comforting to know that, if I am learning it on the go, I can ask other people questions and they'll help.'

Lisa Halliwell
The Roost community member — The Roost website

'We generally say it's an affordable, friendly coworking space that primarily caters to the creative industries. We always emphasise the community… We get to know everyone, and we're all friends. We emphasise that over having the slickest furnishings and the fastest wi-fi and that sort of thing. It's more about joining the community and getting involved.'

Michael Hearne
Founder Blackfish Graphic Design, The Roost community member

'We're the proud home of graphic designers, photographers, writers, artists, architects and more. We're not about being in competition; rather we're committed to supporting the energy and inspiration of our local creative industry, providing avenues for professional development and supporting each other's endeavours.'

The Roost website

Activity/impact metrics

Entrepreneurs supported
22

UNSW Founders — Defence 10x

UNSW | FOUNDERS
SYDNEY | FOUNDERS.UNSW.EDU.AU

Overview

Location	Establishment date
Sydney	2023

Website
unswfounders.com/defence-10x-accelerator

Funders
UNSW, University of Adelaide, Australian Government Department of Education

Startups supported per year
6

UNSW Defence 10x accelerator is a national program that supports startups focused on building solutions to enhance Australia's sovereign capacity and defend its critical infrastructure. The accelerator program is backed by the Defence Trailblazer initiative led by the University of Adelaide and UNSW, and supported by the Australian Government Department of Education and 50+ industry partners. Defence 10x provides startups with seed investment, access to R&D capabilities, tailored coaching and mentoring, and the industry and government networks to scale their innovations.

'There are fantastic startup ideas and powerful innovations being developed all around the country, but tricky market dynamics have meant innovations often struggle to reach commercialisation. Defence-specific expertise, funding, and networks are needed to accelerate our ability to develop and translate great ideas into deployable products, to the benefit of our national security. That's why we've developed Defence 10x. UNSW is uniquely positioned to support founders with extensive expertise and specialist equipment, and together with the networks of the Defence Trailblazer we bring a unique support package for founders in this space.'

David Burt
Director of Entrepreneurship, UNSW Founders — Australian Defence Magazine

Defence 10x is Australia's only defence-focused accelerator program. It aims to increase the speed of commercial development of innovations addressing the defence needs of Australia and its allies. It focuses on the commercialisation of R&D, capitalising on the infrastructure of the universities, and matching this with seed funding and adding the relevant defence, government, industry and investor networks. These are the technologies with the most potential to reach the market and strengthen Australia's sovereign capability.

'There's an urgent need for change within the defence innovation system, and it's programs like Defence 10x which are tackling this head-on. Accelerating the development of sovereign capabilities in areas such as quantum [technology], AI, cyber, hypersonics, autonomous systems and space technology will produce the cutting-edge technology our nation needs to be self-reliant. UNSW's Founder 10x programs are a proven method for accelerating commercial development and combining this with the deep networks of the Defence Trailblazer will enable us to uncover Australia's next big defence solutions.'

Sanjay Mazumdar
Executive director of the Defence Trailblazer — EX2 for Defence Innovators blog

Activity/impact metrics

Entrepreneurs/ startups supported	New ventures created
24	6

Other impact metrics

Seed funding direct to startups
$2.1 million

Case study Fintech
Stone & Chalk Group

stone&
CHALK

Overview

Location
Sydney (Sydney Startup Hub, Tech Central), Melbourne, Adelaide

Website	Establishment date
stoneandchalk.com.au	2015

Stone & Chalk Tech Central Scaleup Hub. Photo: Bake Agency.

Established in 2015 as a non-profit organisation, Stone & Chalk has emerged as one of the largest innovative communities in Australia, operating in three major cities — Adelaide, Melbourne, and Sydney. Stone & Chalk's mission is to transform Australia into a sustainable, technology-driven economy. In pursuit of this goal, Stone & Chalk has curated an ecosystem not seen anywhere else in the country, providing startups and scaleups in the emerging tech sectors with flexible workspaces and invaluable connections.

Stone & Chalk was first established as a fintech incubator but has since expanded its services to ventures in other emerging tech sectors, including climate tech, property tech, space tech, and many more.

'The truth is a lot of good and potentially successful ideas have never materialised because there hasn't been a support system surrounding them. This is exactly what we provide at Stone & Chalk. We need to fundamentally change how the current and future innovators of Australia are supported because right now, they're left isolated in their garages.'

Michael Bromley
CEO, Stone & Chalk Group

With four hubs currently in operation, Stone & Chalk extends the opportunity to be part of its vibrant community to local and international startups and scaleups.

During this residency, founders and their peers gain access to a curated network of entrepreneurs, mentors, investors, partners, and collaborators — an ecosystem Stone & Chalk has built and nurtured since its inception. Also on offer are support programs that encompass mentoring, assistance in building a thriving company culture, and guidance in reaching target customers and markets, as well as access to capital and funding opportunities.

'Australia has an opportunity to be world-class innovators; we have the intellectual capital, resources and knowledge, but we need to better connect them all as a single innovation ecosystem.'

Michael Bromley
CEO, Stone & Chalk Group

Stone & Chalk's residents have gained significant benefits from its growth programs. These offer a range of valuable resources and opportunities, including:

- **Mentorship and support:** Stone & Chalk provides access to a vast network of subject matter experts who provide guidance and support for both personal and professional development. These mentors assist founders in overcoming challenges, nurturing leadership skills, and equipping them with the necessary tools to build a successful venture.

Stone & Chalk Group

- **Capital and funding:** Stone & Chalk offers tailored capital and funding opportunities that align with the specific requirements of each resident's venture, as well as extensive support to help founders become investor-ready and increase their chances of successfully raising capital.

- **Customers and markets:** A wealth of resources and connections is available in various sectors, including trade, government, and customer opportunities. Semi-annual confidential one-on-one sessions give residents valuable guidance and connections to help them with validating ideas, branding and marketing strategies, launching products or services, perfecting pitches, and much more.

- **People and culture:** Stone & Chalk fosters a vibrant community of talented entrepreneurs with whom residents can connect and collaborate in pursuit of a shared goal of building successful ventures. They also receive expert guidance on how to build a healthy workplace and a culture that promotes success and productivity.

Through these multifaceted support initiatives, Stone & Chalk has empowered entrepreneurs to ideate, build, and successfully bring their innovative ideas into the hands of consumers and businesses in Australia and around the globe.

'Stone & Chalk has been an excellent fit for Education Perfect, providing a welcoming, well-designed workspace with flexibility for their dispersed and remote workforce. The space within the Sydney Scaleup Hub at Tech Central has allowed us to host customer events and bring together our leadership team from around the world. They value the importance of having all team members in one place and building relationships that extend outside of work.'

Heather Rizzo
Head of Operations, Education Perfect

'We chose the Stone & Chalk Scaleup Hub because we thought it would be a great place for us to launch Yotpo into the Australian market. We knew they had an amazing community of startups and we wanted to be a part of that. The way they got their communities together was very appealing to us. It was clear they had some core values that were very similar to ours.'

Carmel Zein
Senior Marketing Manager, Yotpo

'Our long and deep experience in supporting emerging tech founders and businesses throughout their journey, all the way from early startup to mature scaleup, clearly demonstrates the vast benefits to our economy and society of investing to drive innovation in tech, from economic contributions to new skill development, to more jobs in future-facing industries.'
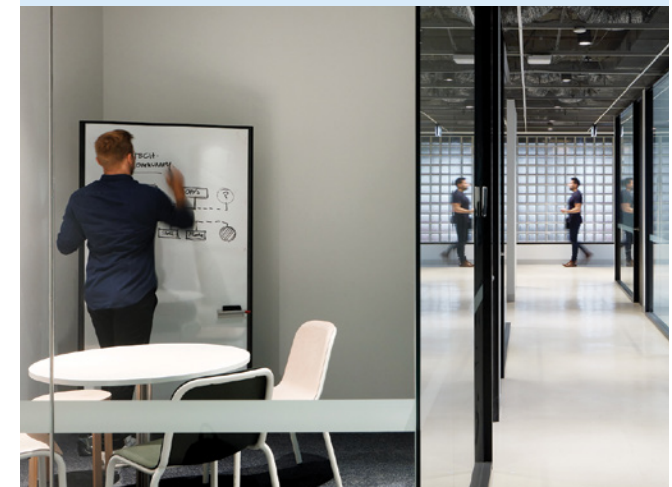
Michael Bromley
CEO, Stone & Chalk Group

Activity/impact metrics

Entrepreneurs supported	Investment raised by supported startups
more than 515 startups and scaleups	more than $1 billion

Other impact metrics

Jobs created	Residents
100,000+	6,000+

Startups and scaleups exporting to Asia, Europe and North America

150+

Case study Health tech
UNSW Founders — Health 10x Accelerator

UNSW SYDNEY | FOUNDERS
FOUNDERS.UNSW.EDU.AU

Overview

Location	Establishment date
Sydney	2022
Website	
unswfounders.com/synbio10x-accelerator	
Startups supported per year	
6	
Funders	
UNSW, The George Institute for Global Health, Virtus Health and Australian Medical Angels	

UNSW Founders' Health 10x Accelerator is delivered in partnership with The George Institute for Global Health (TGI) with the support of various healthcare and research organisations and industry partners. The program fosters the development of affordable and scalable solutions to some of the most pressing unmet medical needs, particularly the growing burden of non-communicable diseases and injury in underserved populations. The program is run in two phases: pre-accelerator (4 weeks) and accelerator (10 weeks). Although the pre-accelerator is not a prerequisite to applying to the accelerator, participating is recommended. Health 10x offers seed funding, pitching sessions to investors, workshops, educational events, mentoring, coworking space and prototyping support.

The program provides support up to six months after exit, including coaching, networking, education and events. It also gives ongoing support with capital raising, grant and funding applications, going global, media and public relations support.

'The need for new strategies and ideas to combat the global health issues, whether it be the global pandemic, or the silent pandemic of non-communicable diseases has never been more apparent than today. As governments around the world work to immunise their population against COVID-19, we must continue to reduce the burden of non-communicable diseases, especially in vulnerable populations who might not be able to afford or access necessary care. And this is exactly the goal of Health 10x to support the type of innovations that are required for management of global pandemics and many other diseases such as heart disease, cancer, and kidney disease that kill millions of people prematurely every year.'

Dr Parissa Glass
Director of Innovation and Enterprise, The George Institute for Global Health — Health 10x 2021 Showcase on YouTube

Startups specialised in the health tech sector face numerous challenges. They range from navigating the healthcare system to addressing complex medical problems and understanding highly regulated markets. The Health 10x Accelerator is a national program that equips startups with the business expertise and resources needed to understand the health technology ecosystem, build their company and drive impact through commercialisation.

'As a founder one of the most important things you can build up is your network, and [that] is something that Health 10x does really well. They know how to connect you to different people and how to connect you to the people that can actually accelerate your startup.'

Alinta Furnell
Co-Founder Synbiote, Health 10x 2021 Showcase on YouTube

'I joined the Health 10x Accelerator program to have the opportunity to work with the experts and entrepreneur-in-residence, to learn more about the industry. And to have a chance to network with other same-minded people, which will help us to go to the next level.'

Arash Atashnama
Founder and CEO, Deep Minds –UNSW Founders — Health 10x Accelerator 2023 on YouTube

UNSW Founders — Health 10x Accelerator

'Empowered with the right knowledge and skills, Health 10x startups are well positioned to drive impact, establish partnerships, raise capital and pursue global expansion to tackle the biggest problems in health.'

Joseph Po
Health 10x Program Manager, UNSW Founders — UNSW Health 10x Accelerator 2023 on YouTube

Activity/impact metrics
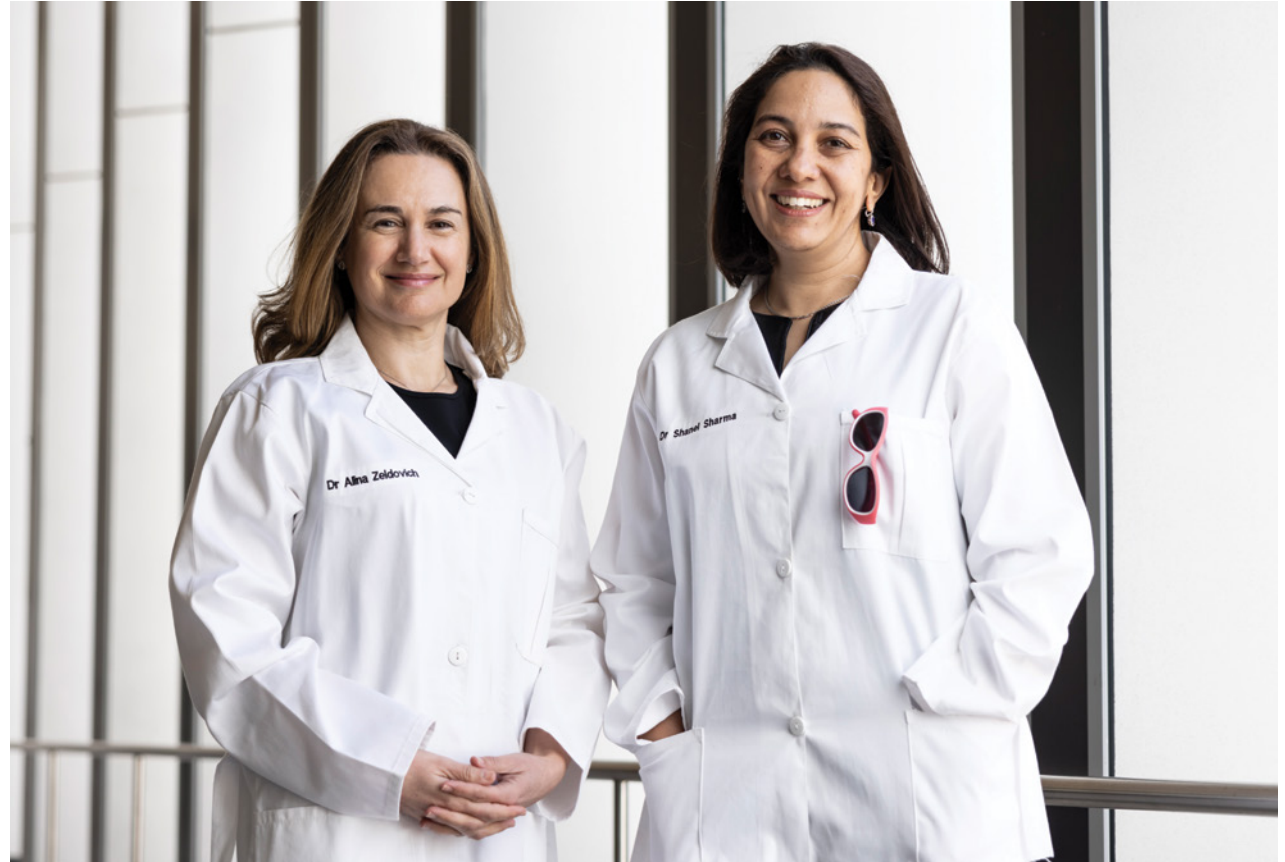
Entrepreneurs/ startups supported	Investment raised by supported startups
100+	$5.3 million

New ventures created
21

Other impact metrics

Jobs created
21

Case study Med tech
Cicada Innovations — NSW Health Commercialisation Training Program

CICADA INNOVATIONS

Overview

Location	Establishment date
Sydney	2021

Website

cicadainnovations.com/programs/nsw-health

Powered by Cicada Innovations and fully funded by the Office for Health and Medical Research, the NSW Health Commercialisation Training Program is building the capabilities and capacity of NSW innovators in the areas of medical devices, therapeutics, diagnostics and software as a medical device. The commercialisation training offered in the Program enables those innovators to translate their research, grow economic opportunities in the NSW med and biotech sector, and ultimately improve patient outcomes. Over the course of 11 modules, participants progressively build a comprehensive set of skills, knowledge and tools to help them on their commercialisation and business-building journey.

'I've now completed most of the courses, all of which were excellent, but I have to say that this last was the most powerful in terms of insight re the practicalities of bringing a concept to maturity and the market.'

Business Fundamentals Participant 2022

The NSW Health Commercialisation Training Program takes innovators from early ideation to market entry. As each Program element builds on the last, participants are able to build a comprehensive understanding of topics critical to successful commercialisation like intellectual property, market validation and access, stakeholder identification and management, clinical trials, regulatory pathways, pitching and science communication, business model and revenue stream development, and legal and financial basics for starting and running a company.

In addition, participants are connected directly with mentors and experts who give them personalised, actionable feedback, and they are able to network with a curated cohort of peers.

'This was one of the best courses I have been to, it ticked all of my boxes. It helped me to fill in some missing pieces, especially around medicare, while also validating my own path to commercialisation.'

Specialisation Course Participant 2023

'Overall, we [Cicada Innovation] have helped our residents to raise $1.7 billion in capital and create thousands of jobs, achieving about $1.5 billion in exits. Currently, we have about 45 businesses that employ about 450 people and hold hundreds of patents.'

Ingrid Marsh
Director of Partnerships and Business Development at Cicada Innovations

Activity/impact metrics

Entrepreneurs supported
700+

SEFA/PRF Growth Incubator

Overview

Location

Sydney — with participating enterprises from around Australia

FTE

16

Establishment date

2023

Website

sefa.com.au

Funders

Philanthropic donors (Paul Ramsay Foundation)

Mentors/volunteers

16 coaches for eight enterprises
(2 coaches per enterprise)

Case study Social enterprise — continued

SEFA/PRF Growth Incubator

SEFA was established in 2011 with funds from the Australian Government to support the development of social enterprises working with disadvantaged communities across Australia. SEFA and Sefa Partnerships (SEFA's sister organisation) are delivering the Paul Ramsay Foundation (PRF) Social Enterprise Growth Incubator for the first time in 2023.

Sefa Partnerships is a not-for-profit organisation that builds the capability and capacity of social impact businesses through learning programs, personal and professional development, and unique collaborations. Sefa Partnerships aims to enhance the capability and capacity of social enterprises with a shared commitment to addressing the underlying social and economic causes of disadvantage and to pursuing collaborative, community-led solutions.

The 10-month incubator program is not just focused on an individual but the entire social purpose organisation. The Incubator seeks to support purpose-driven organisations by helping them strengthen their operations and impact with access to customised learning sprints, expert coaches, a dedicated incubator manager and opportunities to connect with fellow participants and the wider for-purpose sector. The Incubator accepts up to four people per enterprise to ensure maximum success in transferring knowledge. Through this intensive program, eight social enterprises helping break cycles of disadvantage in Australia will accelerate their growth and impact.

'These eight social enterprises, all beyond the startup stage, are working across Australia to break cycles of disadvantage in different ways, from creating employment opportunities for people facing barriers to work, to providing a unique education program that strengthens children's emotional and social skills and resilience.'

Sefa Partnerships website

Each enterprise is matched very intentionally with two coaches who will walk alongside them for the year. The enterprises come together in the Yirranma Place Social Impact Precinct on four occasions each year: an orientation week, a sprint week in May, a sprint week in August and an end-of-program demonstration event. They benefit from socialising together and intentional collaboration together to share learnings and insights. Coaches conduct an on-site visit to the enterprise to understand their day-to-day operations. SEFA also brings in subject matter experts to assist even further depending on what enterprises would best benefit from.

'Our coaches provided us with really valuable information, and being away as a senior management team for four days allowed us... a really good amount of time to talk through things and find some clarity about the work we are doing.'

'[We were given] the absolute privilege of time to deeply consider the questions we had — purpose, cohort, goals, strategy.'

'The impact measurement session was really powerful. The module on culture created some light bulb moments. Outcomes-based contracting was authentic and eye-opening.'

'Having access to such knowledgeable coaches, who really understand what we do, has been great. They have felt like excellent guides and facilitators this week. Really supportive and gave space for great discussion.'

'The ability to be challenged by experts who view our world through a different lens. Equally the network of subject matter experts made available is really powerful.'

Sefa Partnerships website

'Supporting these organisations to take the next step in scaling their businesses sustainably means they will have a much greater impact footprint in their communities.'

Lucinda Bourke
Head of Collaboration at Sefa Partnerships — Sefa Partnerships website

Activity/impact metrics

Entrepreneurs supported
8

Cicada National Space Industry Hub

CICADA INNOVATIONS

Overview

Location	Establishment date
Sydney	2021
FTE	**Mentors/volunteers**
1.5	12
Website	
cicadainnovations.com/programs/national-space-industry-hub	
Startups supported per year	**Funders**
25	NSW Government

The National Space Industry Hub is delivered by Cicada Innovations with the support of the NSW Government. It provides physical space, purpose-built labs, prototyping facilities, mentoring, and connections for emerging space ventures and researchers in Australia.

The Hub offers a wide range of programs to support and empower innovators and entrepreneurs through every stage of their startup journey as they create the space technologies of the future.

- **Space Hub Residency** is for startups who wish to be based in and grow their business at Cicada with the support of Cicada's incubation facilities and team.

- **Space Foundations** is an online learning resource for early stage entrepreneurs, technologists, and researchers wanting to build their knowledge and capabilities on space and deep tech commercialisation.

- **Space Elevate** is a two-day workshop for researchers, engineers, and entrepreneurs to test if their solutions have the potential to become impactful space businesses.

- **Space Fast Start** is a 6-month accelerator program tailored for each space venture. It aims to coach and mentor teams through the next stage of their business journey.

'Our vision is that the National Space Industry Hub is a meeting place for all space innovators. With a physical location for researchers, entrepreneurs, and industry to collaborate, we hope to fertilise growth for Australia's space economy.'

Tim Parsons
Expert-in-residence, National Space Industry Hub — Cicada Innovations blog

The National Space Industry Hub's mission is to create a vibrant and globally competitive space industry delivering benefits for all Australians. The Hub aims to grow NSW's space ecosystem and ensure its national leadership in space research, development and commercialisation.

Differentiation:

- Space expert-in-residence

- Equity-free programs and services

- Free-of-charge programs

- Space-specific events and networking opportunities (with approximately 700 people attending per year).

'By connecting entrepreneurs, policymakers and researchers, we can help make Australia a leader in space innovation, while developing the advanced science that will create a more sustainable and prosperous future.'

Sally-Ann Williams
Chief Executive, Cicada Innovations — Australian Financial Review

Activity/impact metrics

Entrepreneurs/ startups supported	Investment raised by supported startups
40/25	$3 million
New ventures created	**Size of alumni network**
4	approximately 130

Case study Sustainability

Boomerang Labs

BOOMERANG LABS

Overview

Location	Establishment date
Chippendale (programs Australia-wide)	2019
FTE	**Mentors/volunteers**
1	50+ mentors
Website	**Startups supported per year**
boomeranglabs.org.au	23 startups in 2022
Funders	
New South Wales Government, corporate partnerships, Bingo industries, EY	

Boomerang Labs is Australia's first circular economy accelerator. Its purpose is to help startups with a focus on 'circular economy' issues to commercialise their solutions and deliver the goals of the circular economy movement at a larger scale. Boomerang Labs' target startups can be at any point in startup development, but all have a focus on 'circular economy' issues.

'We are Australia's first circular economy accelerator, so our mission is to support circular economy entrepreneurs and solution seekers to grow their business from small business idea or ambition into a scalable and commercialised venture.'

Caitlyn Touzell
Communications and Partnerships Manager at Boomerang Labs Australia

Boomerang operates as a hub connecting companies, government, and founders. It supports all circular economy stakeholders in addressing the challenges of circular design and resource use and recovery in their organisations and supply chains.

'To realise the ambition of a circular economy, there is a need for a whole lot of innovation, ingenuity and imagination to take place. Boomerang Labs wants to help businesses with the focus on circular economy to make a lasting impact, by coupling entrepreneurship with partnerships and investments, to build organisations that can be commercialised and deliver this change at scale.'

Boomerang Labs website

Boomerang Labs' accelerator is sector-agnostic, and we encourage participation across various industries and supply chains. Collaboration is a core requirement of a successful transition to a circular economy, and we recognise the opportunity for unique knowledge sharing through a cohort with mixed skills and experience.

'Brilliant course, really glad we could get involved (even with our comings and goings — thank you for your flexibility!). Caity was an excellent facilitator and went out of her way to help us explore ideas and connect us with relevant and interesting people who can support our circular journey. I was surprised how far we got in six weeks; the course structure was very relevant and helped build out our business idea. I really enjoyed the pitch opportunity at the end; [it was] so valuable and the best way to get out of your comfort zone. I'm stoked we could land on a concept that has legs and [am] looking forward to getting stuck into the implementation phase and catching up with the cohort to see how everyone is progressing. The group was so supportive, and I loved the small group experience. Really great to see how far everyone came by the end. Thanks for having us as part of the basecamp and we look forward to staying in touch!'

Samantha Munro
Co-founder, Intact

Boomerang Labs

'This collaboration will help us amplify our impact by building key partnerships with other innovative organisations, working collectively to lead the way in reimagining resources for a circular economy.'

Nick Comito
Former Head of Sustainability, Bingo Industries (corporate partner of Boomerang Labs)

'It was truly inspiring to be in a small Zoom room full of passionate circular economy change-makers, many of whom are bootstrapping their own businesses to make the world better for all of us. Thanks Boomerang Labs for the chance to learn so much in two days about research, branding, investing, data, pitching, funding and more.'

Chelsea McLean
Founder, Circular Economy Pioneers

'Boomerang Labs wants to help these businesses to make a lasting impact by coupling entrepreneurship with partnerships and investments, to build organisations that can be commercialised and deliver this change at scale.'

Boomerang Labs website

Activity/impact metrics

Entrepreneurs supported	Size of alumni network
58	52

Other impact metrics

Business growth metrics — revenue, investment raised, customer data

Relationship building — new connections, whether client, stakeholder, partner, etc.

Business idea development — how startups have progressed their businesses to prioritise higher order circular economy processes and outcomes and evolved their business ideas to new potentials of scalability. This measure can be both quantitative and qualitative.

Circular economy metrics — for example, landfill diversion, energy savings, emissions reduction (as relevant to the individual startup)

Case study Synthetic biology

UNSW Founders — SynBio 10x Accelerator

Overview

Location	Establishment date
Sydney	2022

Website	
unswfounders.com/synbio10x-accelerator	

Startups supported per year	Funders
6	UNSW and Main Sequence Ventures

UNSW Founders' SynBio 10x accelerator helps entrepreneurs and startups using synthetic biology and biotechnology to validate their ideas and deliver commercial outcomes. It provides tailored support to "deep tech" startups — startups which base their business models on high-tech innovation in engineering and the hard sciences.

SynBio 10x offerings include access to infrastructure not readily available outside universities and large institutes (such as lab space and R&D facilities and expertise), as well as business coaching, funding opportunities and access to local and global networks of experts and investors. The program is delivered in partnership with UNSW's RNA Institute and its School of Biotechnology and Biomolecular Sciences, Macquarie University's Australian Genome Foundry, Bioplatforms Australia and Main Sequence Ventures.

'Synthetic biology is an opportunity for Australia to take the smallest molecules to the largest scales, building new industries and creating sustainable solutions to our society's problems, and UNSW Founders and Main Sequence Ventures are leading the way.'

Dr Jason Whitfield
SynBio 10x program manager — UNSW Founders' SynBio 10x Accelerator 2023 presentation on YouTube

SynBio 10x is Australia's first and only accelerator focused on synthetic biology. Synthetic biology is a fast-growing industry with the potential to address pressing global challenges in the food, agriculture, health and medicine sectors. This program aims to help Australia to be a part of this market by growing synthetic biology startups, providing them with expert support and specialised infrastructure to translate their deep tech solutions into products.

'What I hoped to get out of SynBio 10x when I joined the program is a real understanding and confidence in how I've built my business, making sure that I had the right framework. And the way that they've brought in their entrepreneurs-in-residence, and the subject matter experts, has given me the confidence to understand that I am on the right track to investment into a successful business. The program is focused on the industry's needs, and that's really important [in helping] us to work together to develop this industry — because, without radical collaboration, none of us will succeed.'

Michele Stansfield
CEO and co-founder, Cauldron

'It is tough for deep tech, biotech and science-driven companies to showcase their wares. A lot of the more mainstream accelerator programs lack some of the sophisticated deep technical expertise and also the networks to provide guidance to companies that are at that early stage. Having the academic ties and those networks really helped to provide a sort of launchpad for the business through that critical first year or two of existence.'

Joshua Ismin
CEO and co-founder, Psylo

'[Synthetic biology] has the potential to reimagine the way we create food, address climate change, find better health outcomes and beyond. We just need to build an ecosystem that helps accelerate startups in this space. UNSW has the labs, Australia has the scientific talent, and with capital to support, we can help reap the full potential synthetic biology affords.'

Gabrielle Munzer
Principal at Main Sequence — Ausbiz Media

Activity/impact metrics

Entrepreneurs/ startups supported	Investment raised by supported startups
12	$16 million within 12 months of program
Size of alumni network	**New ventures created**
6	6

Other impact metrics

Potential available funding for startups
$3 million; provision of six months' free access to PC2 Lab space

Diversity- and inclusion-specific case studies

Table 7 EDI focus case studies

Sub-focus	CAISH entity
Migrants and refugees	Catalysr
Women	Tech Ready Women
Women researchers in STEM	CSIRO — Lindfield Collaboration Hub
Youth	Young Change Agents

Catalysr

catalysr

Overview

Location	FTE	Establishment date
Sydney	2	2016
Website		**Mentors/volunteers**
catalysr.com.au		100+

'We focus on migrants and refugees who are highly skilled and looking for better opportunities to start their own businesses. And that doesn't mean they have to be unemployed, but as long as they're really keen to start something and genuinely have the skills and the passion, we can help them build something up. Because material change for us is that they will create employment for other people from migrant refugee backgrounds. But they're also going to create a broader impact because of the way we run our programs. Many of these people are starting social enterprises or social ventures, focusing on climate issues or mental health, and often times focusing on their communities as well.'

Usman Iftikhar
CEO, Catalysr

Case study Migrants and refugees — continued
Catalysr

catalysr

'Catalysr aims to help migrants overcome barriers to meaningful employment, whether with an existing company or self-created. Catalysr offers intensive entrepreneurship programs for high-performing migrant and refugee entrepreneurs ('migrapreneurs') who want to succeed in Australia by building their own startup or social enterprise. Its offerings include a 10-week migrapreneur fellowship program focused on foundational entrepreneurial education and idea validation, and the accelerate program for startups that want to grow. Catalysr provides intensive mentorship, hands-on workshops, weekly events, seed grants, and access to its alumni and industry partner network. 'In this community, people support each other and build each other up. Whether it's an entrepreneur in residence, a successful migrant entrepreneur, or Catalysr alumni, they can share their own experiences in their journey. And it's not a flashy, you know, "everything's rosy" kind of thing; they also talk about the challenges and can really empathise. So, I think that's like getting that kind of mentoring where people can really empathise with you. And so that's, I think, the biggest differentiator and a key reason why people join.'

Usman Iftikhar
CEO Catalysr

'Catalysr is a supportive and empathetic community that helps migrants and refugees enter the startup ecosystem as employees or founders. Through Catalysr they can get the skills, knowledge, mentoring and networks to start their businesses, find co-founders or be employed by other startups. 'It has been an incredible journey of learning and experience with Catalysr. They have a team of expert mentors. And the pre-accelerator program is highly organised, which not only benefits startups but also the individuals. As full time workers, we got the much-needed support and push from Catalysr, which helped our startup Natural Panaa with product portfolio development, customer validation and networking. We are proud to have been part of Catalysr's 2018 cohort, and we highly recommend this program to all new startups who are looking for some direction and encourage them to apply.'

Premjith Herman and Misha Ahmed
Natural Panaa, Catalysr website

Activity/impact metrics

Entrepreneurs supported	New ventures created
800	200+

techready *women*

Overview

Location	**Establishment date**
Sydney, Online	2017
FTE	**Mentors/volunteers**
2	20
Startups supported per year	**Funders**
330	NSW Government, Sydney Startup Hub
Website	
techreadywomen.academy	

Tech Ready Women first delivered the Female Founders Program in 2021/2022, which mentored 150 women on their startup concepts. Under a new partnership with Investment NSW, the program will double the amount of training places available and reach a wider network of women, including those from regional NSW. The Female Founders Program will be funded for an additional two years and has 300 training places available to guide participants through the various stages of the startup journey, from idea validation through to investor pitching, ensuring they have the skills and knowledge to develop and grow their ideas.

'That's why programs like Tech Ready Women are so helpful, because we support you to identify who your ideal customers are and how to find them, to prepare financial projections, and how to make the right decisions to turn your solution into a digital product.'

Crystal McGregor
Program Lead, Tech Ready Women Female Founder Startup Program website

The program has a strong emphasis on building the confidence of female tech entrepreneurs in their own skills and abilities. The program has a broader focus on creating a community of female tech entrepreneurs. TRW has recently launched the Female Founder Connect community online to connect female tech entrepreneurs at various stages of their startup journey.

'Without the course, I would never have had the courage to apply for an MVP grant and so much more.'

Kate Neubauer
Co-founder, Shootang — TRW website

'After the Tech Ready Women program, I was accepted into the number one health tech startup accelerator program. This was incredible, and Tech Ready really set me up for success to be able to do that. The Tech Ready program was really practical and taught things like pitch coaching, looking at the business model, customer validation and financial modelling. Things like that were really important to be able to take forward in a competitive environment...'

Charlotte Bradshaw
Founder, Evrima — TRW website

Case study Women researchers in STEM
CSIRO — Lindfield Collaboration Hub

Overview

Location	Establishment date
Lindfield, Sydney	2016
Mentors/volunteers	**Lead organisation**
more than 40	CSIRO
Website	
research.csiro.au/lindfieldhub	
Startups and SMEs supported per year	
more than 50	

The CSIRO Lindfield Collaboration Hub is an innovation incubator supporting a community of deep tech startups and scaleups. These organisations are developing technologies in sectors including robotics and automation, sensors and data analytics, advanced manufacturing, and quantum technologies. The dedicated incubator space at CSIRO's Lindfield campus provides a supportive environment enabling access to state-of-the-art facilities, scientific expertise, extensive business networks, and deep commercialisation knowledge. Through its well-established networks, the Lindfield Collaboration Hub fosters collaboration between industry, universities, governments, and research organisations.

CSIRO — Lindfield Collaboration Hub

The Lindfield Collaboration Hub is committed to nurturing a vibrant ecosystem, fostering an environment conducive to innovation, and propelling Australian businesses into a position of strength to enter an increasingly competitive global marketplace.

'After an initial period where we had more than 90% male founders and staff within our startups on site, we have had a real focus on looking for opportunities to achieve a better gender balance amongst our cohort companies. We have seen a big shift and we now have a significant increase in female founders and pleasingly, a lot of our companies have deliberately built diverse teams from the outset. Most of our companies also have teams with gender, cultural and age diversity amongst them, all of which result in positive outcomes for our Hub and the wider innovation community.'

Katie Green
Group Leader, CSIRO Lindfield Collaboration Hub

The program has a strong emphasis on supporting early stage startups, particularly those with a strong R&D focus who are at the stage of developing their proof of concept or prototype devices.

'We have deep scientific and engineering expertise at Lindfield that offers huge technical benefits to the members of the Collaboration Hub. And we also provide introductions through to the wider innovation ecosystem — for example, New South Wales Government for grant opportunities like TechVouchers, MVP Ventures and Physical Sciences Fund.

We also facilitate opportunities to network and build relationships with people with a range of complementary commercialisation skills, like IP attorneys, HR experts, and legal [experts]. We see our role as helping startups round out their businesses because many of our founders are very experienced in their technical area, but do not necessarily have a lot of previous experience running a business.'

Katie Green
Group Leader, CSIRO Lindfield Collaboration Hub

'The motivation [for starting Lindfield Collaboration Hub] was twofold. Firstly it has been a way to provide entrepreneurs and innovators access CSIRO's expertise. Particularly for those who may not have an existing connection with us, we act as a front door. Secondly, it has been a mechanism to increase the energy and vibrancy of our own site. The Hub has been a way for the organisation to be more open and visible, and helping innovations reach commercial reality. The technologies being developed at Lindfield are innovations that we can see real value in. The products and solutions being developed here aren't necessarily based on CSIRO technology — so the Hub is truly about supporting the translation of ideas from the NSW innovation ecosystem.'

Katie Green
Group Leader, CSIRO Lindfield Collaboration Hub

Activity/impact metrics

Investment raised by supported startups	Size of alumni network
more than $50m	more than 500

Entrepreneurs supported	
more than 200; including resident companies, participants in innovation programs and companies supported through innovation events	

Other impact metrics

Jobs created	Grant funding received
150	$1m

Tenants and staff on site since inception	
more than 350	

Case study Youth

Young Change Agents

Overview

Location	Establishment date
Sydney	2015

Website
youngchangeagents.com

Young Change Agents (YCA) empowers young people to identify problems in their community, reframing these as opportunities, and developing solutions with an entrepreneurial lens. Since 2015, YCA has helped schools and teachers to introduce and embed entrepreneurial learning and design thinking. YCA offers different programs such as youth design challenges, multi-day workshops, and semester-based curriculum-aligned programs.

YCA has a number of partners from industry, university, and government. For example, Telstra Foundation has funded a range of initiatives developed by YCA, including a Bushfire Resilience Challenge for young people in bushfire-impacted areas in regional Victoria in 2021.

'I'm excited to see the education sector become increasingly enthusiastic about entrepreneurial learning, and I'm determined that Young Change Agents will have the capacity to offer leadership and support to embed entrepreneurial learning in schools across the country.'

Margaret O'Brien
CEO and Co-founder, Young Change Agents

YCA empowers teachers with the knowledge, confidence, experience and resources to facilitate entrepreneurial learning within the Australian school system. It provides educators with immersive experiences and professional development to sustainably integrate entrepreneurial learning into the school curriculum. YCA believes that industry, government, higher education, schools, teachers, parents, students, entrepreneurs, community members, local businesses and the startup ecosystem can all make a contribution that supports youth entrepreneurship.

'Young Change Agents has helped us realise our potential, and [realise] that the upcoming generations have great access to resources. And if we take advantage of this, we can achieve great things. We all appreciate the useful advice and encouragement we received, telling us that if we put our minds to it and work hard enough, we have the opportunity to change the world around us.'

Young Change Agents participant

'We will continue to work together to scale our impact and continue on our path to reaching 1.5 million young people by 2025.'

Margaret O'Brien
CEO and Co-founder, Young Change Agents

Activity/impact metrics

Entrepreneurs supported
385 (18-25 years old)

Other impact metrics

Students engaged	Funding raised
64,190	$82,000 funding pool (school students)

Teachers engaged in a YCA program per year
1,228

Teachers participated in professional development
232

A2

Appendix 2
List of interviewees

CAISH representatives

Trent Bagnall	The Melt		Michelle Long	Investment NSW, Sydney Startup Hub
Ged Bourke	CSU Innovation Hub		Ingrid Marsh	Cicada Innovations
Michael Bradfield	Rollers Coworking		Grant McDowell	Spark Club
David Burt	UNSW Founders		Kirstin McIntosh	CyRise
Lou Conway	UNE SRI		Krista Mentjox	DPI Gate
Nicole Cook	SBE		Patrick Mooney	Impact Tech Ventures
Siobhan Curran	I2N Hub Honeysuckle		Gabriella Nunes	UNSW Founders
Kate Dezarnaulds	Worklife		Felix Patten	Tiliqua Studio
Jodie Evans	Innovation Hub Coffs Coast		Ben Pecotich	Dynamic4
Megan Fisher	EnergyLab		Hayley Purdick	Deni Coworking Space
Corrie Germin	Investment NSW		Zac Rafidi	UNSW Founders
Katie Green	CSIRO Lindfield Collaboration Hub		Carmen Rudd	Zig Zag Hub
Warren Grimshaw	Innovation Hub Coffs Coast		Lindsay Russell	Innovation Hub Coffs Coast
Don Hancock	Desk Coworking		Melissa Ryan	MQ Incubator
Michael Hearne	The Roost		Daniel Smith	Eighteen04
Jono Hermann	North Sydney Innovation Network		Tamantha Stutchbury	iAccelerate
Stuart Horrex	Artshine		Caitlyn Touzell	Boomerang Labs
Murray Hurps	UTS Startups		Daniel Van Dyk	Investment NSW
Usman Iftikar	Catalysr		Steve Wait	The Business Centre
Rupal Ismin	Sydney Knowledge Hub		Ken Wheeldon	Workspace Goulburn
Joanne Jacobs	Disruptors Co		Gordon Whitehead	Hunter IF
Marie-Anne Lampotang	Stone & Chalk		Don Wright	Western Sydney University Launch Pad
Pete Lead	Young Change Agents			

Entrepreneurs

Anthony Broese van Groenou	The Good Car Co
Alinta Furnell	Synbiote
Chris Chun	Chris Chun
Suzanne Haddon	RooCreate
Premjith Herman and Misha Ahmed	Natural Panaa
Taofiq Huq	Spiral Blue
Tom Hussey	Xefco
Jo Lane	Sea Health Products
Scott Maggs	Skin Check Champions
Lydia O'Donnell	Femmi
Alex Pan	Storipress
Benjamin Pardowitz	RooWalk
Chris Polin	DLP Manager
Karina Seljak	Seljak Brand
Meena Tharmarajah	Huey Books
Sally Wash	Sillier Than Sally
Hector Williamson	ChemCloud

References

1   Centre for Entrepreneurs (2022), *Incubation Nation: The acceleration of UK startup support*. https://incubation-nation.co.uk

2   See Centre for Entrepreneurs (2022), *Incubation Nation: The acceleration of UK startup support,* at p10. https://incubation-nation.co.uk

3   Centre for Entrepreneurs (2022), *Incubation Nation: The acceleration of UK startup support*. https://centreforentrepreneurs.org/cfe-research/incubation-nation/

4   Developed by UTS team in consultation with Investment NSW and the Innovation and Productivity Council Expert Advisory Group

5   https://www.nsw.gov.au/regional-nsw/regional-business-and-economy-nsw/special-activation-precincts#:~:text=Special%20Activation%20Precincts%20are%20world,freight%20and%20logistics

6   NSW Treasury (2022), The NSW First Nations Business Sector, A Return to Prosperity, accessed online: https://www.treasury.nsw.gov.au/sites/default/files/2022-11/trp22-31-first-nations-business-sector-report_20221102.pdf

7   Minderoo Foundation (2021), The impacts of COVID-19 on the Indigenous Workforce, accessed online: https://cdn.minderoo.org/content/uploads/2021/03/19112119/The-impacts-of-COVID-19-on-the-Indigenous-Workforce.pdf

8   Muller, S (2022). 'The explosive growth of the New South Wales startup ecosystem'. Dealroom.co website. https://dealroom.co/blog/the-explosive-growth-of-the-new-south-wales-startup-ecosystem

9   Inside Small Business (2022). 'Almost half of new businesses failing within their first four years'. https://insidesmallbusiness.com.au/latest-news/almost-half-of-new-businesses-fail-within-their-first-four-years

10 Bandera, C and Thomas, E. (2019). 'The Role of Innovation Ecosystems and Social Capital in Startup Survival.' IEEE Transactions on Engineering Management, vol. 66, no. 4, 542-551. https://ieeexplore.ieee.org/document/8428534, https://www.tandfonline.com/doi/full/10.1080/21681376.2022.2144427,

11 Bergman, B. J., & McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations.' *Entrepreneurship Theory and Practice*, 46(3), 688–728. https://journals.sagepub.com/doi/pdf/10.1177/10422587211028736

12 Bliemel, M.J., Flores, R., de Klerk, S., Miles, M. P., Costas, B., Monteiro, P. (2016). *The role and performance of accelerators in the Australian start-up ecosystem*. UNSW Business School Research Paper No. 2016MGMT03. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2826317

13 Centre for Entrepreneurs (2022), *Incubation Nation: The acceleration of UK startup support*. https://incubation-nation.co.uk

14 Bergman, B. J. and Jeffery S. McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations', *Entrepreneurship: Theory & Practice*, 46(3) 688–728. https://journals.sagepub.com/doi/abs/10.1177/10422587211028736

15 Centre for Entrepreneurs (2022), *Incubation Nation: The acceleration of UK startup support*. https://incubation-nation.co.uk

16 Ibid.

17 For an overview of entrepreneurship education programs offered by higher education institutions in Australia, see the work of Professor Alex Maritz (La Trobe University) and his co-authors: Maritz, A., Jones, C., Foley, D., De Klerk, S., Eager, B., & Nguyen, Q. (2021). 'Entrepreneurship education in Australia'. *Annals of Entrepreneurship Education and Pedagogy*–2021 (pp. 208-226). Edward Elgar Publishing.

18 See the Startup Status Map of the Australian Innovation Ecosystem for a list of 45 hackerspaces, maker spaces, and art spaces that entrepreneurs can access across Australia, including 11 NSW-based spaces — https://your.startupstatus.co/map.

19 Centre for Entrepreneurs (2022), Incubation Nation: The acceleration of UK startup support. https://incubation-nation.co.uk

20 For more insights on innovation precincts and districts, see the NSW Government overview of Sydney-based innovation districts — https://greatercities.au/innovation-districts/districts. We also note the NSW Innovation and Productivity Council Report for an overview of NSW Innovation Precincts in a global context — https://www.investment.nsw.gov.au/living-working-and-business/nsw-innovation-and-productivity-council/our-publications/nsw-innovation-precincts-lessons-from-international-experience/

21 NSW Innovation and Productivity Council (2018). *NSW Innovation Precincts: Lessons from international experience*. https://www.investment.nsw.gov.au/assets/Uploads/files/IPC/Full-Report-IPC-NSW-Innovation-Precincts-2018.pdf

22 Using the work of Dr Chad Renando and Startup Status as a starting point, with UTS (2023) verification of NSW CAISH entities — https://your.startupstatus.co/map/

23 This figure is based early work from Dr Martin Bliemel and colleagues from UTS and UNSW at https://lx.uts.edu.au/blog/2019/01/30/students-get-taste-entrepreneurship on accelerators and incubators, as well as insights from Rubberdesk - An Insider's Guide to Australian Coworking - https://www.rubberdesk.com.au/coworking

24 Powell, D. (2017). ' Startup Muster's 2017 report highlights growth in an ecosystem that is focused on global talent'. *Smart Company*. https://www.smartcompany.com.au/startupsmart/news/startup-musters-2017-report-highlights-growth-ecosystem-focused-global-talent/

25 This figure is based on the work of Dr Chad Renando and Startup Status at https://your.startupstatus.co/map/ and UTS (2023) verification of NSW-based CAISH entities in compiling this report.

26 https://www.business.nsw.gov.au/innovation-and-research/programs/boosting-business-innovation-program, and advice from NSW Department of Enterprise, Investment and Trade.

27 https://your.startupstatus.co/map

28 https://www.elgaronline.com/display/edcoll/9781786434081/9781786434081.00005.xml

29 Drori, I., & Wright, M. (2018). *Accelerators: characteristics, trends and the new entrepreneurial,'. Accelerators: Successful Venture Creation and Growth. Edward Elgar Publishing: Cheltenham, UK,* 1-20.

30 https://onlinelibrary.wiley.com/doi/full/10.1002/sej.1266

31 https://www.investment.nsw.gov.au/living-working-and-business/nsw-industry-development-framework/

32 Crisan, E. L., Salanta, I. I., Beleiu, I. N., Bordean, O. N., & Bunduchi, R. (2021). 'A systematic literature review on accelerators'. The Journal of Technology Transfer, 46(1), 62-89.

33 N. Tripathi, M. Oivo. 'The Roles of Incubators, Accelerators, Co-working Spaces, Mentors, and Events in the Startup Development Process'. In A. Nguyen-Duc, J. Münch, R. Prikladnicki, X. Wang, P. Abrahamsson (eds.), *Fundamentals of Software Startups*, Springer International Publishing (2020), pp. 147-159

34 Cohen, S., Fehder, D. C., Hochberg, Y. V., & Murray, F. (2019). 'The design of startup accelerators'. *Research Policy*, 48(7), 1781–1797. https://doi.org/10.1016/j.respol.2019.04.003

35 Bergek, A., & Norrman, C. (2008). 'Incubator best practice: A framework'. Technovation, 28(1), 20–28. https://doi.org/10.1016/j.technovation.2007.07.008

36 NESTA (2014). *Mentoring in the creative sector: industry insights*. NESTA https://gestaoculturalesad.files.wordpress.com/2014/03/mentoring_in_the_creative_sector.pdf

37 Bergek, A., & Norrman, C. (2008). 'Incubator best practice: A framework'. *Technovation*, 28(1), 20–28. https://doi.org/10.1016/j.technovation.2007.07.008

Collinson, S., Gregson, G., 2003. 'Knowledge networks for new technology-based firms: an international comparison of local entrepreneurship promotion.' *R&D Management* 33 (2), 189–208

38 Bouncken, R. B., Gast, J., Kraus, S., & Bogers, M. (2015). 'Coopetition: a systematic review, synthesis, and future research directions'. *Review of Managerial Science*, 9(3), 577–601. https://doi.org/10.1007/s11846-015-0168-6

39 van Rijnsoever, F. J. (2020). Meeting, mating, and intermediating: How incubators can overcome weak network problems in entrepreneurial ecosystems. *Research Policy*, 49(1), 103884

40 NSW Treasury (2022), The NSW First Nations Business Sector, A Return to Prosperity, accessed online: https://www.treasury.nsw.gov.au/sites/default/files/2022-11/trp22-31-first-nations-business-sector-report_20221102.pdf

41 Maritz, A. & D. Foley. (2018), 'Expanding Australian Indigenous Entrepreneurship Education Ecosystems' *Administrative Sciences* 8, 20; doi:10.3390/admsci8020020

42 Minderoo Foundation (2021), Backing Black Business, accessed online: https://cdn.minderoo.org/content/uploads/2021/02/05095444/Backing-Black-Business_210205_FNL_P.pdf

43 Brown, J. 'Curating the "Third Place"? Coworking and the mediation of creativity.' *Geoforum* 82 (2017): 112-126

44 Bergman, B. J. and Jeffery S. McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations', Entrepreneurship: Theory & Practice, 46(3) 688–728.

45 Ibid.

46 Brown, L., March-Chordà, I. & Yagüe-Perales, R. M. (2021). 'A quantitative-based model to assess seed accelerators' performance', *Entrepreneurship & Regional Development*, 33:3-4, 332-352

47 GALI (2021). *Does Acceleration Work? Five years of evidence from the Global Accelerator Learning Initiative (GALI)*. https://www.galidata.org/publications/does-acceleration-work/

48 Bergman, B. J. and Jeffery S. McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations', *Entrepreneurship: Theory & Practice,* 46(3) 688–728.

49 See for example:

Bone, J., Gonzalez-Uribe, J., Haley, C. and Lahr, H. (2019). 'The Impact of Business Accelerators and Incubators in the UK'. *BEIS Research Paper Number 2019/009*

Bergman, B. J. and Jeffery S. McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations,' Entrepreneurship: Theory & Practice, 46(3) 688–728.

Bliemel, M.J, Flores, R., De Klerk, S., and Miles, M. P. (2019). 'Accelerators as start-up infrastructure for entrepreneurial clusters'. *Entrepreneurship and regional development*, 31 (1-2), p.133-149

Clayton, P., Feldman, M., and Lowe, N., (2018). 'Behind The Scenes: Intermediary Organizations That Facilitate Science Commercialization Through Entrepreneurship', *Academy of Management Perspectives*, 32 (1), 104–124

Crisan, E. L., Salanta, I. I., Beleiu, I. N., Bordean, O. N., & Bunduchi, R. (2021). 'A systematic literature review on accelerators'. *The Journal of Technology Transfer*, 46(1), 62-89.

50 UBI Global World Benchmark Report 2019-2020 - https://ubi-global.com/benchmark-study-2019-2020

51 IMPACT Index Goals - https://inbia.org/impact-index-overview/

52 UBI Global World Benchmark Report 2019-2020 - https://ubi-global.com/benchmark-study-2019-2020

53 See:

Bergman, B. J. and Jeffery S. McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations,' *Entrepreneurship: Theory & Practice*, 46(3) 688–728.

Bliemel, M.J, Flores, R., De Klerk, S., and Miles, M. P. (2019). 'Accelerators as start-up infrastructure for entrepreneurial clusters'. *Entrepreneurship and regional development*, 31 (1-2), p.133-149.

Crisan, E. L., Salanta, I. I., Beleiu, I. N., Bordean, O. N., & Bunduchi, R. (2021). 'A systematic literature review on accelerators'. *The Journal of Technology Transfer*, 46(1), 62-89.

Dutt, N., Hawn, O., Vidal, E., Chatterji, A., McGahan, A., & Mitchell, W. (2016). 'How open system intermediaries address institutional failures: The case of business incubators in emerging-market countries.' *Academy of Management Journal*, 59(3), 818–840

Leendertse, J. Schrijvers, M., and Stam, E. 2022. 'Measure Twice, Cut Once: Entrepreneurial Ecosystem Metrics', *Research Policy* 51 (2022) 104336

54 Bliemel, M.J, Flores, R., De Klerk, S., and Miles, M. P. (2019). Accelerators as start-up infrastructure for entrepreneurial clusters. *Entrepreneurship and regional development*, 31 (1-2), p.133-149

Del Sarto, N., Isabelle, D. A., & Di Minin, A. (2020). 'The role of accelerators in firm survival: An fsQCA analysis of Italian start-ups'. *Technovation*, 90-91(1), 102102. https://doi.org/10.1016/j.technovation.2019.102102

van Rijnsoever, F. J. (2020). Meeting, mating, and intermediating: How incubators can overcome weak network problems in entrepreneurial ecosystems. *Research Policy*, 49(1), 103884.

55 See:

Bergman, B. J. and Jeffery S. McMullen, J. S. (2022). 'Helping Entrepreneurs Help Themselves: A Review and Relational Research Agenda on Entrepreneurial Support Organizations,' *Entrepreneurship: Theory & Practice*, 46(3) 688–728.

Bliemel, M.J., Flores, R., de Klerk, S., Miles, M. P., Costas, B., Monteiro, P. (2016). The role and performance of accelerators in the Australian start-up ecosystem. UNSW Business School Research Paper No. 2016MGMT03.

Crisan, E. L., Salanta, I. I., Beleiu, I. N., Bordean, O. N., & Bunduchi, R. (2021). 'A systematic literature review on accelerators'. *The Journal of Technology Transfer*, 46(1), 62-89.

Dutt, N., Hawn, O., Vidal, E., Chatterji, A., McGahan, A., & Mitchell, W. (2016). 'How open system intermediaries address institutional failures: The case of business incubators in emerging-market countries.' *Academy of Management Journal*, 59(3), 818–840

Leendertse, J. Schrijvers, M., and Stam, E. 2022. Measure Twice, Cut Once: Entrepreneurial Ecosystem Metrics, *Research Policy* 51 (2022) 104336.

56 Bone, J., Gonzalez-Uribe, J., Haley, C. and Lahr, H. (2019). *The Impact of Business Accelerators and Incubators* in the UK. BEIS Research Paper Number 2019/009

Centre for Entrepreneurs (2022), Incubation Nation: *The acceleration of UK* startup support, at p10. https://incubation-nation.co.uk

57 Bone, J., Gonzalez-Uribe, J., Haley, C. and Lahr, H. (2019). *The Impact of Business Accelerators and Incubators in the UK*. BEIS Research Paper Number 2019/009

58 Ibid.

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