



the iF project.

Connecting Innovation to Opportunity





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The Delivery Team

This report and the background work was completed over the period 25 September to 4 December 2017, by the following team:

- **Project Lead** - Dr Sarah Pearson, on secondment from the University of Newcastle (UON). Recognition is given for the in-kind contribution and support provided by UON, especially the support of Professor Caroline McMillen, Vice-Chancellor and President at the University
- **Project Support** – Desiree Sheehan, providing in-kind support through Newcastle City Council (NCC). Recognition is also given to NCC for its significant contribution
- **Admin Support** – Daniel Pilipczyk and Azra Naseem
- **Leximancer analysis** – Angus Veitch (University of Queensland), Will Rifkin (UON)
- **Project Management** – Working Group 1 (the following list includes some members no longer on the WG1): Nathaniel Bavinton, Tom Boyle, Tim Cotter, Natalie Gillam, Gunilla Burrowes, Dave Fleming, Wes Hain, Evelyn King, Pierre Malou, Rob Olver, Micky Pinkerton, Adrian Price and Grant Sefton. Working Group 1 was set up in 2017 to steer the search for an Expert-In-Residence and to drive the process of developing a case for a funding application to the Federal Government's Incubator Support Initiative
- **Project Engagement** – a big thank you must go to the more than 300 people from the Hunter region who engaged with this process and provided input. This report is yours, based on your ideas and needs, and now needs you to collaboratively deliver it to make this region a thriving, globally renowned hub of innovation

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Executive Summary

The innovation ecosystem¹ in the Hunter region is well placed to be a ‘10-years in the making overnight success’. Many committed people and organisations have been working tirelessly to grow programs, capability and funding for innovation and entrepreneurship over the years, and recent collaborative activity by major players (such as NCC’s Smart City Program) is aligning to accelerate this, propelling the region into the next level of maturity. Now is the time to seize the opportunity to leverage and connect for critical mass, and to draw the innovation community together to drive a common vision and action.

Taking the region’s innovation activity to the next level will take considerable effort, but the opportunity it brings will see the Hunter’s economic future safeguarded and transformed. It will help to diversify and strengthen industry in the region, growing new businesses, strengthening current businesses, attracting new business and investment, growing new industry and providing jobs for our people. Cities across Australia and around the globe are already doing exactly this, to build strong and sustainable knowledge economy bases in their regions. The Hunter has many strengths and advantages to build on, but must do this now or risk being left behind.

This project, ‘the iF Project’, has supported this endeavour through extensive stakeholder engagement, a crucial approach that ensures innovation community ownership of the vision and delivery of action. Over 200 stakeholders have been involved in the project, spanning the triple helix of industry, government and research. We would like to recognise and thank them for their commitment and expertise.

In addition to working collaboratively with the regional innovation community, international best practice was also considered. This was ensured by drawing on the international experience and knowledge of the project’s leadership, asking participants what they had seen overseas that worked well, and speaking with experts currently in overseas innovation positions.

The outputs from this activity are presented in this document, and this executive summary presents the overarching Recommendations for action. It should be noted that no one entity would deliver all of these actions, but a coordinating body is required to support the roll out, funding and connectivity of the actions.

¹ An Innovation Ecosystem refers to the need for many stakeholders, infrastructure and programs to work together to support the growth of new companies, as well as help existing companies innovate and grow. It relates to startups, Small-and-Medium Sized Enterprises (SMEs), large companies, service providers, government programs and funding, investment, universities and research organisations. For more information see www.therainforestbook.com

Recommendations

Immediate Action

1. Vision

Adopt the Vision workshopped with stakeholders: By 2025 the Hunter Region is internationally acknowledged as a thriving centre of innovation that has successfully transitioned into a knowledge-based economy.

2. Mission

Adopt the Mission workshopped with stakeholders: Provide a comprehensive, cohesive and connected regional innovation ecosystem to accelerate innovative ideas to successful outcomes.

3. Coordinating entity

Establish a coordinating entity to drive this program of activity. This new entity would act as a connector and enabler throughout the innovation ecosystem, connecting innovators to what they need, and connecting the ecosystem. It would also act as a champion for innovation in the region, and grow scale of impact by working with the innovation community to drive strategy for new activity. It should also be responsible for measurement relating to the innovation ecosystem. The entity would likely start out as a company limited by guarantee; with transparent, inclusive, diverse, and broad-based leadership from across industry, education and research, and government. Next steps will require:

- a. assessing the best legal structure for this entity
- b. agreeing its Constitution and how to appoint Board members
- c. setting up an interim Board
- d. deciding on a brand, resourcing and partnerships
- e. Preparing and submitting a grant proposal to the Federal Government Incubator Support Initiative program to support setting up the new entity, and hire staff. This may also include an application to

the Expert-In-Residence program in order to hire a ‘connector’

- f. Starting the process of seeking a world class CEO for the new entity. This recruitment is crucial to success – it requires an experienced, well recognised innovator who is also known as a strong collaborator, a strong community leader, able to draw others into a common vision and get things done.

Further detail can be found in the section on *Governance and Delivery Model*.

4. Develop a program for connectivity

The central need within the innovation ecosystem is to provide connectivity. Connectivity to support, mentors, funding, opportunities; and connectivity of activity, programs, events and organisations across the Hunter. There are a number of activities that could meet this need all of which can be actioned immediately:

- a. Develop an online ‘intelligent’ connection tool and website (which can be developed as part of a current NCC funded project)
- b. Deliver a monthly connection event, with short pitching, rotated to different event spaces each month (which can be achieved by working with currently planned events)
- c. Find Champion Connectors from across the ecosystem who are willing to form a network of connectors (which will need coordinating, possibly by WG1).



Lean Startup Workshop at Three76 Hub

5. Comprehensive, collaborative marketing, communication and brand strategy for innovation in the Hunter

This can be as small or large as needed and should be developed collaboratively across the Hunter. It could be led by the new entity, or by a collaboration of regional leaders, such as Economic Development Officers, or by an Advisory Group. The new entity must be involved, and should conduct its own communication activity such as events, success stories for the website and sharing with national innovation media, supporting showcases in cities such as Sydney and Melbourne, and delivering a visiting entrepreneur program. This will help to attract entrepreneurs wanting to move for lifestyle without compromising support.

Additional resources needed for this group of immediate actions would comprise at least \$700K for the first year, and 3 Full Time Equivalent employees (FTE) (covered in the \$700K). This small team could also oversee and manage some of the medium-term actions given below.

Medium Term Action (within 12 months)

A further 11 recommended Actions have been developed collaboratively with the innovation community. A top-level description of these is given here, with further details in the Priority Actions section of this document. Decisions need to be made as to which ones should progress when, depending on funding, partnerships, and other entity activity.

6. Training for investors and investees

This would include educating innovators regarding how to negotiate investment deals, as well as educating potential investors in best practice. Workshops on investment for entrepreneurs already exist in Australia (the CBR Innovation Network in Canberra (CBRIN) for instance delivers these nationally for a fee) and could easily be delivered in the Hunter. It is likely that workshops for investors also exist, and could be delivered, perhaps through Hunter Angels. Funding could either be sought to pay for these workshops or participants could be asked to pay.

7. Education program designed to build capability of mentors and professional service providers for supporting startup growth

Similar to the investor training. Workshops may already exist and could be delivered in the Hunter; for instance UON has delivered IP workshops that were well received. If not, then a short project to develop the workshop material should be initiated. The funding could either come from a service provider who wishes to develop the workshop material, so that they can then deliver this nationally, or a service provider paid to develop the workshop, and the central entity then takes this nationally as a source of revenue.

8. An online ideas platform or “Idea Hunter” Forum

An ideas program and platform that includes connection to support, very early idea stage mentoring, pathway navigation and funding from the community via ‘InnoBucks’/‘HunterCoin’ (real currency/ redeemable share economy style). The first phase of this could be included in the NCC’s ‘intelligent’ online connection tool but additional resources would be needed to run the program. CBRIN contracted a company to develop a similar program and online tool (Cause a STIR, causeastir.com.au) for \$70K per year.

9. Connecting investment to opportunity

This action has a number of sub-actions, but medium-term opportunities include:

- a.** Develop a funding pathway diagram to place on the central connecting website. This is already underway and would be simple to add to the ‘connecting’ website that will be developed in 2018 (See Recommendation 4a)
- b.** Listing the region’s startups on a current startup portal, and begin discussions regarding possible white labelling options. The central team could make the community aware of the opportunity and help them access the portal
- c.** Arrange collaborative showcase events in Sydney and Melbourne for startups in the region to pitch their ideas. This could be achieved collaboratively with groups such as the Regional Incubator program
- d.** Decide on new models for funding, such as a crowd funding platform and/or Hunter Angels Sidecar fund, and/or regional Venture Capital (VC), form the plan and then deliver. This would require a number of groups to work together, connecting through the new entity.

Long Term Action (within 1-3 years)

10. An “Open Innovation Lab” or program of activity

Connecting large corporates, SMEs, startups and the research base through a range of projects designed to increase collaborative innovation activity and routes to market for these innovations. This will need a FTE to drive it and significant buy-in from UON. It may be possible to use the Williamtown precinct as a test bed for this, and it is recommended that the Advanced Manufacturing Growth Centre (AMGC) be approached for possible funding. It should also be linked to other



relevant activity such as NCC's Living Lab city test bed and large scale pilot projects for industry growth in the Upper Hunter. Engagement with UON's School of Creative Industries (SOCI) would also be highly valuable.

11. Incubator dedicated to globally scalable startups and upscaling high growth potential, successful SMEs

The growing pipeline of ideas generated in the Hunter will need sufficient incubation support to ensure success; and there are many successful SMEs in the Hunter that could be supported to grow rapidly. The current Regional Incubator program has the beginnings of a program for these companies but it is recommended that this be expanded to include more flexible delivery and connection to other support programs. This would benefit from a FTE employee to drive this, requiring about \$200K.

12. Strategy for access to 'Maker Spaces' and prototyping facilities

The Hunter has some 'maker' and prototyping facilities, but more are needed and access to those currently available needs developing. This project would need to partner with existing facilities (such as TAFE and UON), developing facilities (such as Eighteen04, Community Access Space at NCC's Library, Lake Macquarie's MELT facility and UON's SOCI), and identify connected models for access, as well as new facilities required. This should also connect with large scale pilot projects for industry growth in the Upper Hunter.

13. Develop a connected talent pathway for the Hunter

Industry is growing in the Hunter and access to sufficient talent will soon become a challenge and an opportunity. There are numerous programs in place

to grow talent, such as RDA Hunter's ME program, Big Picture School at Cooks Hill, and P-tech schools. However, the pathway could benefit from increased promotion. This project could map the pathways, identify the gaps, communicate the pathways, and help partners to deliver new programs where needed. Corporates seeking talent may be willing to provide funding for this, and the Ribit internship program (developed and delivered by Data61) could be used to help connect students with opportunities in industry (both established and new business).

14. Encouraging youth into innovation

This project encompasses making the innovation ecosystem available to programs at TAFE and UON so that entrepreneurship courses are delivered in partnership with practical expertise, real markets, and educational excellence; highlighting entrepreneurship opportunities for youth; and assessing the need for a new program.

15. Global connections

The Hunter enjoys good global connections, both in terms of businesses accessing global markets, and experts with international reputations and connections. This project would work with others to seek to identify potential cities to partner with through industry, research and government; build a network of globally connected individuals willing to help the region connect internationally; partner with other cities to attract internationally renowned innovation experts to speak at events; provide a landing pad for international companies to start their Australian/Asian market access from; and connect with Austrade's global Landing pads.

16. Innovation and supply chain capability building for existing companies, and customer access for both existing and new companies

This project recognises the need to grow the region's

industrial capability in innovation and supply chain excellence. It suggests an education program that could be run with existing providers, such as UON's Business School. This is an opportunity to develop a course in collaboration with the University and industry. It also suggests trialling a program similar to the Small Business Innovation Partnership program run

by the Australian Capital Territory (ACT) Government to open government supply chain access to local innovative business. The education program could be run by UON, who may also seek federal funding to support it. The government procurement project could take several approaches, one being to partner with New South Wales (NSW) government to trial this in the region.



China Ready event at the Business Centre



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Background and Methodology

Background

The Hunter region has a heritage of innovation and ingenuity, of reinvention and resilience, of gritty creativity and industry. It has survived economic downturns and natural disasters, which has led to a cohesive, supportive community culture. Its people believe in their ‘place’, relating strongly to it and wanting to see it thrive. With major infrastructure developments either recently completed or underway, key stakeholders driving change and an accelerating innovation scene built on the back of at least a decade of activity, now is the Hunter’s time. The pieces of the puzzle are in place to build on this, to develop the region into a world class hub for innovation, leading to the transformation of the region economically, socially and environmentally.

To accelerate and make the most of this moment, we need to unite the pieces and players, champion the region’s success, and develop new innovation activity to take us to the next level of maturity. We need to build and celebrate a world class innovation ecosystem. That is what ‘the iF project’ has been set up to drive.

Recent activity has built on 18 months of earlier work by a group of leaders in the Hunter’s regional innovation ecosystem (Working Group 1 or WG1 as listed in the section titled ‘Delivery Team’). WG1 was set up to draw the region’s stakeholders together to develop a proposal for a regional incubator which would be submitted to the Commonwealth Government for financial support. This early work

developed a draft Vision and Mission statement, prioritised activity, a mind map of the region’s innovation stakeholders and a pathway diagram for innovation support. These can be found in Appendix A.

Alongside this, a Regional Incubator program was developed and ably delivered by The Business Centre², incubating both startup and existing company ideas over a 3-month period to accelerate their growth via mentoring, capability building and connecting to opportunity. Further details on this can be found at the following website: <http://www.hunterfoundersforum.com.au/regional-incubator-program>

Objective of the iF project

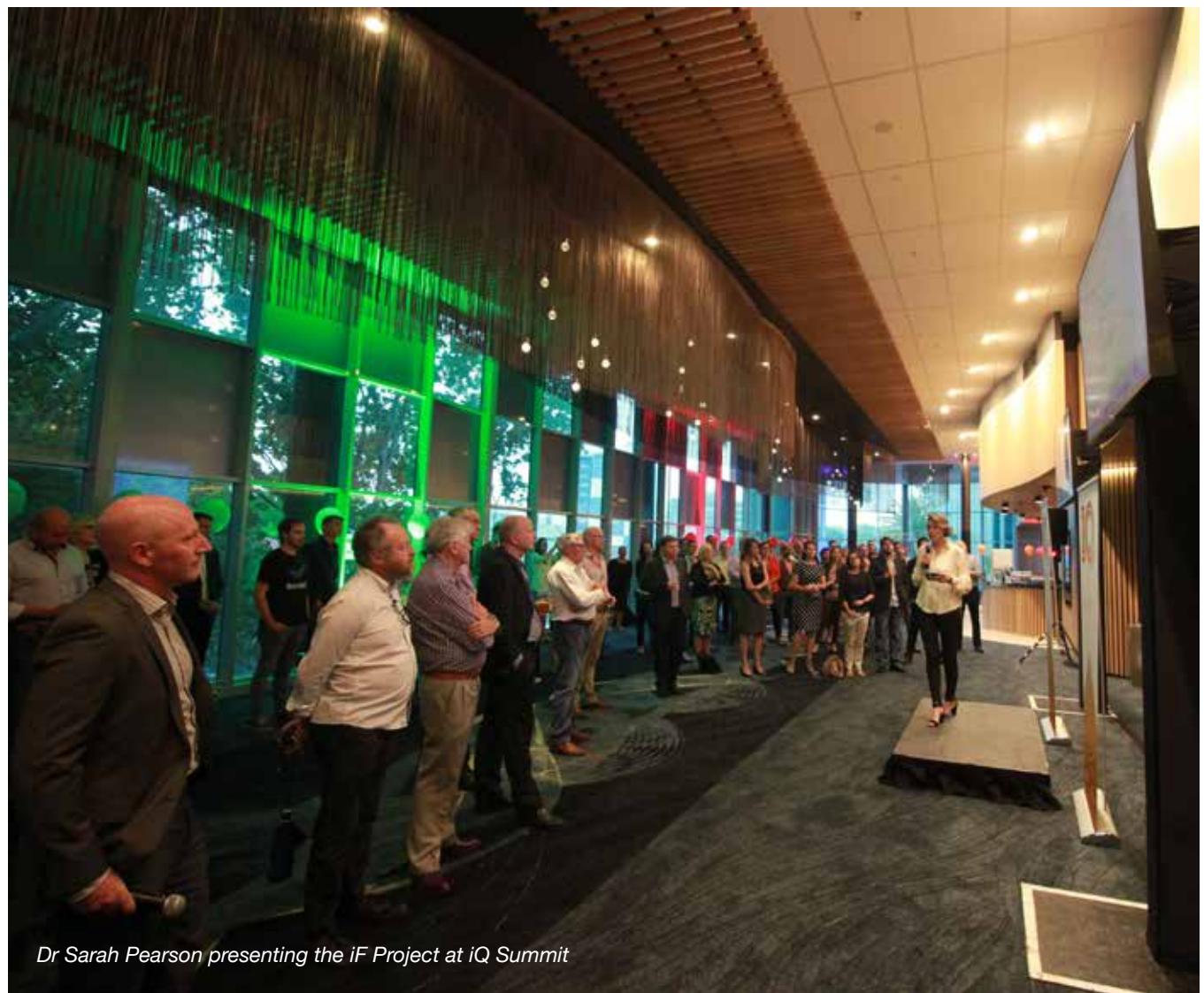
The objective of the iF project has been to develop a plan to unite, scale and champion the Hunter’s growing innovation ecosystem into a world-class, sustainable model attracting entrepreneurs, investors and industry to the region and diversifying its economy, including a suggested governance structure.

The second objective of the project, and in many ways the most important objective, was to engage as many people as possible in the development of the plan. Examples of success elsewhere have shown that key to impact and sustainability is buy-in of the innovation community to a common vision. By engaging as many and as diverse a group as possible in the project we hope to have built buy-in and commitment to its delivery. This will require significant on-going effort, but a good start has been made, with over 230 people having been actively involved to date.

² <https://www.businesscentre.com.au/>



'Newcastle to the World' pitch night at EY Sydney



Dr Sarah Pearson presenting the iF Project at iQ Summit

Methodology

The project plan was designed to: gather information from a range of people through workshops and interviews; look at successful ecosystems and frameworks from abroad; publicise the project through public events and talks; construct early stage marketing tools such as a logo, PowerPoint templates and twitter account; write up a final report with recommendations; and follow a governance model

that ensured regular updates with WG1. A detailed plan and budget were developed and agreed with WG1. In essence, the plan constituted:

- The development of a framework for a world class innovation ecosystem appropriate for the Hunter region, based on earlier work by Dr Sarah Pearson and international best practice
- The development and delivery of workshops

to seek input from key stakeholders on what is working well, what's missing, and what key programs they would suggest

- One in Newcastle City (>30 participants)
- One in Muswellbrook (15 participants)
- A dedicated iQ event (approximately 130 participants)
- The development of a very short questionnaire for interviews
- Individual interviews (over 30 interviews conducted – list given in Appendix 2)
- Group presentations (list given in Appendix 2)
- Interview and workshop output analysis using various techniques, including Leximancer (Advanced Text Analytics Visualization, <https://info.leximancer.com/>)
- Public talks (list given in Appendix 2)
- Draft plan developed; final plan after WG1 input
- End of project event
- Ongoing governance
 - Fortnightly meetings with WG1 for updates and input
 - Fortnightly debriefs with Rob Olver as project mentor

Central to the methodology was the development of a framework for assessing a world class innovation ecosystem. This is discussed in the following section. This framework was used as the basis for discussions, interviews and workshops.

The basic questions asked in interviews and workshops were:

- What are we good at?
- What are the challenges?
- What are our advantages?
- What is missing in our innovation ecosystem?
- What opportunities are there?

- What big activities/programs do you think would be needed to make a step change in the Hunter's innovation ecosystem (max of 3)?
- What do you like that you have seen in innovation ecosystems overseas?
- What sort of business models, governance and sustainability options do you think we should consider for the 'regional incubator system'
- What does success look like?
- What do you want to get from this?

Each interview was typed up, as was output from workshops and group presentations, and all data amalgamated into one total document under the question headings. Analysis took two forms: reading overall answers to each question and identifying common themes; and utilising advanced text analysis tools to find words that co-existed in many sentences, thereby indicating an important meaning to a number of participants/interviewees (Leximancer output). Results from both analyses are given in the Results section of this document.



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Innovation Ecosystem Frameworks

An innovation ecosystem framework is crucial to help assess what we are good at in the Hunter region, and where there may be gaps. Many frameworks can be found globally through published work.

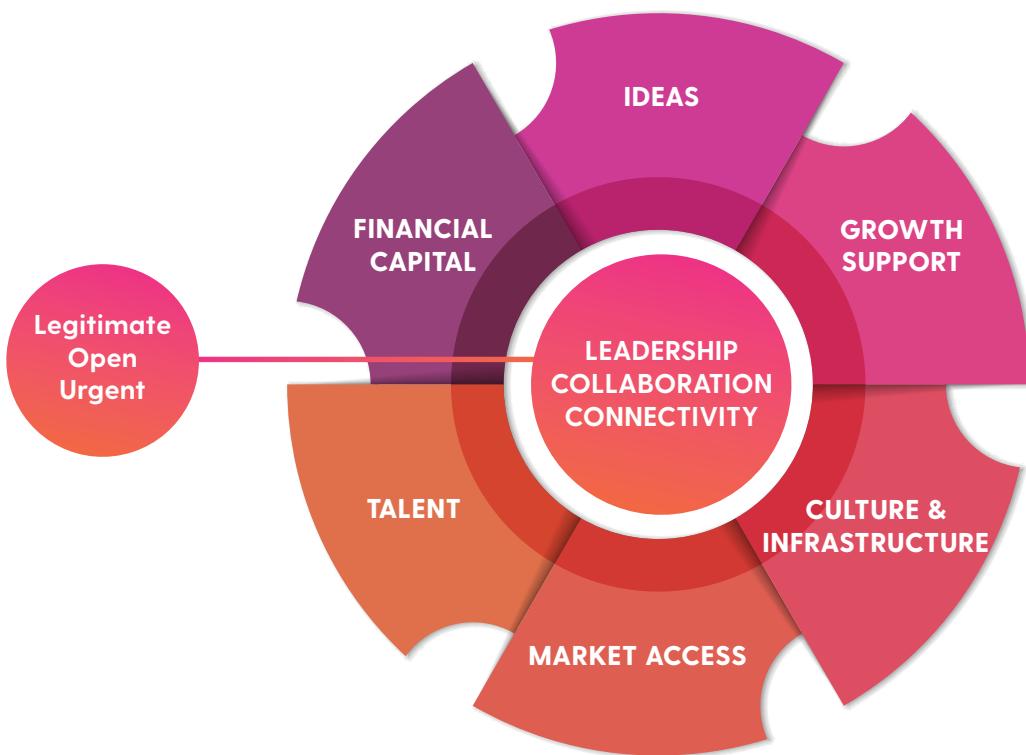
The one used for this project was developed by Dr Sarah Pearson based on her experience building an innovation ecosystem in Canberra (CBRIN), her visits to international innovation ecosystems, and literature searches. The framework with a description of its parts is given on the next page. It should be noted that the framework covers innovation activity in existing small and large companies, government and startups.

When asking participants what we are good at in the Hunter region or what is missing, particular reference was made to this framework. A full description is given on the following page, essentially relating to:

- Where do innovation ideas come from? Do we have all the parts of the ecosystem working together on this? Are big companies here and innovating? Are people leaving big companies to start up their own startups? Is there research going on in the region? Do we have access to open data?
- Is there support for growing ideas? Are there specific programs such as accelerators and incubators, plus mentors, professional service providers and events for startups and existing businesses?

- Is the culture and infrastructure set up for success? Do we value entrepreneurship, design and making? Do we promote success and what is our reputation like? What is our internet like? Is it a liveable city? Do we have co-working and prototyping facilities?
- Can we access markets? Do local companies and government purchase local goods and services? Are companies here helping to take products and services to global markets? Do we have any programs to help with exporting?
- Do we have plenty of talent? Are there experienced business people and entrepreneurs here? Are we connecting Science, Technology, Engineering and Maths (STEM) with Creatives? Are people highly educated? Are there people with the right skills here?
- Do we have good access to funding? Is there plenty of early stage and late stage funding?
- Do we have the right leadership, collaboration and connectivity? Are the right stakeholders stepping up to lead? Are we working collaboratively in our innovation ecosystem? Is the system well connected, locally and globally?

Framework defining a world class innovation ecosystem³



Financial Capital

- Early stage
- Challenge & competition prizes
- MVP & early protection
- Angel
- Venture Capital (EVSLCP, Corporate VC)
- Government incentives & programs
- Micro-loans
- Private equity
- Social bonds
- Crowd funding
- Banks

Ideas

- Educated entrepreneurial community
- Research & education entities
- Corporate & National labs
- Innovating companies
- Hackathons, Challenges, Open data etc
- Diversity of engagement

Talent

- Experienced mentors, entrepreneurs, business people, makers & investors
- STEM + Creatives
- High level & VET education
- Entrepreneurship training (schools, HE & other)
- Wannabe entrepreneurs
- Internships

Growth Support

- Accelerators, Incubators
- Mentor networks Training (Entrepreneurship, Lean Startup, Company Set-up, Attracting capital, Sales & Marketing etc)
- Professional service providers
- Skills & service provision (basic company support, tech support, legal, R&D support, internships)
- Events (networking, fireside etc)

Market Access

- Innovating, absorbing companies & government, with routes to market
- Market connected networks
- Export programs
- Global 'landing/launching pads'

Culture & Infrastructure

- Entrepreneurship, design & making
- Promotion & celebrating success
- National & International reputation
- Creativity & livability
- High Speed internet
- Access to co-working, makers spaces, testing & prototyping, pilot scale facilities
- Appropriate policy & regulation
- Diversity of engagement & culture

³ Definitions: HE is Higher Education; VET is Vocational Education and Training; ESVCLP is Early Stage Venture Capital Limited Partnership; MVP is Minimum Viable Product



5

Results

This section outlines the results of this extensive community engagement. An overarching assessment of the current state of performance in each part of the framework is outlined, followed by a more detailed analysis of responses to questions in interviews and workshops.

Overarching current state of performance

Overall the Hunter's innovation ecosystem is good and maturing. The following diagram gives a Red, Amber or Green assessment of each of the items on the framework. It is a critical appraisal and the colouring may be misleading – there is a lot to celebrate about the innovation activity in the Hunter, but to be world class there is more to do.



Ideas

The Hunter has a well-educated community which encompasses:

- A world-class, research-driven university that is increasing its engagement with, and commitment to, industry and entrepreneurship
- A TAFE dedicated to advanced manufacturing and future industries
- National labs represented by CSIRO
- Ideation programs such as Hackathons (though more people to facilitate these are needed)
- Significant planned open data activity.

Networked activity such as Ai Group's Lean Manufacturing and Innovation Clusters that connect SMEs with technical expertise and new ideas are good examples of connecting ideas with commercial opportunities. It would be good to see large corporates in the Hunter engaging more comprehensively in innovation. There are some examples of employees leaving large companies and setting up businesses in the Hunter, but this could be improved. UON is also refocusing its approach to industry engagement, with a view to addressing some of the valid feedback of industry partners and improve collaborative research experiences. A focus will also need to be made on the quality of ideas – it is good to see the quantity increasing, but quality will become more important as the ecosystem matures, and if investment is to be attracted.

Growth Support

The Hunter has several Accelerator and Incubator programs (e.g. CSIRO ON; Slingshot and the partnership between Slingshot and UON through the ICON Accelerator; Start House); several training programs are available (such as Lean Startup workshops); many events (though possibly too many and conflicting). The Integrated Innovation Network (I2N) is also setting out to connect and leverage investment in growth support across several innovation Hubs in the region, for startups and SMEs. Priority activity includes:

- A more comprehensive program of capability building workshops
- Development of a strong mentor network, as well as access to mentors from outside the region
- Education for professional service providers regarding how to support startups, including new models for remunerating them (such as equity)
- Methods for connecting people to what they need when they need it is required

More also needs to be done to help commercialise ideas from the research base, which is admittedly a complex challenge. Whilst good research-focused accelerator programs exist, there is a growing need to supplement these with alternative academic pathways and recognition, and more flexible Intellectual Property (IP) policies and accessibility.



Culture & Infrastructure

The Hunter has a great culture of entrepreneurship, design and making through its legacy of manufacturing. Liveability is also very good with great flexibility for work and play, access to entertainment and cultural/sporting activities and an easy lifestyle. Creativity is flourishing and access to co-working spaces is good, although some worry that this market is becoming saturated. However, it was universally recognised that there are a number of areas which need attention:

- more needs to be done to celebrate and promote success, acknowledge the failure and 'what next' stories, and to build reputation and brand
- whilst it is easy to drive around, public transport needs addressing and active transport networks promoted
- internet access could be improved
- 'Makers Spaces' and prototyping facilities are not available
- parents need to really value the entrepreneurship career path for their kids, as they do in Israel.

Diversity of culture is also an area that could be further addressed in the Hunter.

Market Access

Some market access/export programs exist locally, such as Ai Group and HunterNet overseas tours, HunterNet Free Trade Agreement (FTA) programs and connections, Hunter Business Chamber global relationships with Business Chambers, and nationally Austrade and TradeStart. Hunter companies also have access to Commonwealth Government global Landing Pads. However, it was stated by many participants that local companies, the University and government could improve in terms of their local procurement processes. This has been acknowledged elsewhere as a nationwide issue. Local large companies could

also become more absorptive and open in terms of innovation, and more could be made of leveraging the global connections people in the Hunter have.

Talent

The Hunter has a lot of experienced business people, entrepreneurs and 'Makers' either living here or connected emotionally here and there is a willingness to connect creatives with STEM (but programs need to be put in place to make that systemic). The level of university education in Newcastle (16%) is slightly higher than the national average (15%). The region performs less well on this measure but has a great engineering and manufacturing skills base and a strong TAFE tradition. While there is some entrepreneurship training (for example, Star4000 at UON) more needs to be done for youth in and out of higher education. Internship programs are improving and there is a pipeline of people keen to try the startup pathway. Focus will need to be given to growing a high-quality pipeline of talent and ideas, as well as quantity. Diversity of talent will also need to be addressed – especially ensuring that all, including those not traditionally included (indigenous, female etc) have the opportunity to take up innovation.

Financial Capital

This area had mixed responses. Some believe that there is a dire lack of funding available, others thought if the ideas are good then they will attract funding. The reality lies somewhere in between. There is a large range of government grants available for many stages of innovation, for startups and existing companies and the Federal Government's local representatives do a good job of connecting innovators with grant funding. Hunter Angels has been in existence for several years, and is keen to undergo a rejuvenation. The region has numerous high net worth individuals and businesses



The region boasts world-class research facilities including the Hunter Medical Research Institute



who currently invest in property development, as well as successful entrepreneurs keen to support startups in the region.

However, there are very few local government grant programs for early stage ideas (cf Innovation Connections grants in Canberra); very little funding for youth programs (cf InnovationACT program developed by the Australian National University (ANU) and the University of Canberra (UC), and CBRIN's Cause a STIR); little crowd funding; and no Venture Capital based in the region. Efforts have begun to connect with investors in Sydney, through Hunter Angels' connection to Sydney Angels and early discussions with Sydney VC firms for instance, but more will need to be done to cement connectivity and broaden it internationally.

Leadership, collaboration and connectivity

A number of Hunter Councils are showing strong innovation leadership, as is the University and members of the innovation community. We should be proud of the interest, passion and commitment of many to drive the innovation agenda in our region. Overseas tours such as Ai Group's visit to Pittsburgh,

and visits to US smart cities and innovation districts coordinated by the Cities Leadership Institute (Seattle, Boston, Los Angeles, Austin, San Jose and San Diego) to help leadership across the ecosystem understand best practice should be commended. WG1 has demonstrated that collaborative leadership of the innovation ecosystem is possible, though going forwards leadership needs to have greater transparency, community buy-in, and broader diversity in order to address its legitimacy and openness. All those interviewed were clear that there needs to be a way for the community to agree on leadership structure and composition, and that personal and individual organisation agendas need to be put to one side. Whilst collaboration has come a long way in the Hunter, there is still work to be done. It is unlikely that everyone will come together to collaborate on everything, and this project must allow stakeholders to drive their own agendas, but, it is urgent that a common vision which the majority of groups can align to and actively drive together be reached. Strong, charismatic, experienced, connected and genuine leadership will be needed to drive this project to impact.

Lastly, urgency does not seem to be apparent yet

– there is an excitement present that something is changing, that a tipping point is being reached, but urgency and passion to act and to act together still needs to be driven. Leadership, collaboration, transparency, openness, big vision, passion and humility will be key.

Responses to specific interview & workshop questions

This section outlines high level common themes associated with each of the interview questions. Results are given from the perspectives of both the Leximancer output and the written outputs assessment. Leximancer outputs give a picture of

common themes, associated words and word clusters associated with repeated importance, from which agreement across stakeholders can be inferred. Highlights relating to interview and workshop input are given in this section.

It should be noted that this represents the raw input by participants – in some cases the gaps they identify either have been filled or are in the process of being filled, and their views of strengths may be subjective. Still, the responses indicate support for activity that meets these needs, and demonstrates that connectivity and awareness raising is required.

Current Situation – What are we good at, what are our Challenges, what are our advantages?

What are we good at?





People are at the heart of what the Hunter is good at. People with talent; people innovating in manufacturing, engineering, design and the creative industries; people with a deep skill base and experience; people with ideas; people networking through entities such as HunterNet, Ai Group and Hunter Business Chamber (HBC). The networking culture, a happening culture and a supportive can-do culture is key. Education through schools, the University and TAFE is a strength, as is the Research and Development (R&D) talent and engagement in entities such as Newcastle Institute for Energy & Resources (NIER) and Hunter Medical

Research Institute (HMRI). Our resilience, our engaged city, and our changing city are evidenced by an increasing number of co-working spaces, and innovation support programs show strength too. Our industries have had to reinvent themselves several times, building adaptability; our supply chain experience is highly valuable; we have one of the strongest Mining Equipment, Technology and Services (METS) sector in Australia; and we are beginning to benefit from cross fertilisation of industry such as mining and agriculture.

What are our challenges?



Key challenges include:

- The relationship between SMEs and the research base in general has room for improvement – there is universally a gap between the two in terms of culture, timescales, commercial understanding, agreement regarding IP ownership, and porosity, in that it is hard to find the right expertise. A legacy of past university-industry collaboration experiences needs to be overcome for the research base to become an engine room for innovation in the region
- Knowledge about and access to financial support
- A fear of losing ideas through a lack of understanding of IP and fear of losing regular income
- Government, industry and university procurement processes
- A parochial and siloed approach in some parts of the ecosystem, versus joining on a bigger vision, which can be exacerbated by competition and duplication of services amongst industry support providers
- No one voice speaking cohesively and loudly enough to attract recognition
- Misalignment between career and education pathways at UON and the drive to adapt to future industry and entrepreneurship
- At a broader level, the Hunter population could be generalised as resistant to change and new ways of thinking – it is not many people that are working on this change (the ice cap)
- Connectivity across the corridors from the Central Coast to Newcastle to the Upper Hunter and up to Port Stevens is a challenge.

What are our advantages?

The word cloud diagram illustrates several key advantages and opportunities for the region, including:

- support pathway providers** (top left)
- lower ecosystem cost** (top center)
- affordable** (top right)
- trust innovation ecosystem** (center)
- people door value ability city** (center)
- lots easily land globalhub capability** (center)
- research connect** (center)
- pressure space market university** (center)
- test opportunity collaboration size degree** (center)
- region step energy industry reasonable** (center)
- change government logical separation** (center)
- airport deep world positive tech grow** (bottom left)
- Asia port tipping scientist help** (bottom left)
- plan UON location resource manufacturing** (bottom center)
- Columbo close thinking advanced science** (bottom center)



The Hunter region enjoys many significant advantages over other Australian regions:

- a maturing innovation ecosystem at a tipping point, with many support programs
 - lifestyle opportunities and affordability that could be the envy of Australia
 - great people and positive energy
 - the opportunity to work with the region as a test market
 - a single world class university that is the logical place to go for collaborative R&D and talent (just the one university in the region and so it is easy for industry to go to one place for talent and collaboration)
 - strong research capability
 - good local government

- a strong manufacturing base
 - natural resources (land, water, mining)
 - transport hubs that connect us to global markets (rail, road, air and sea).

Our 'Goldilocks' size population is small enough for two degrees of separation (which is great for connectivity and trust), yet large enough to contain significant skills, talent, resources and access to a range of entertainment. The breadth of the industrial base, presence of large companies with accessible supply chains and the resources available to set up scalable manufacturing companies make it a great place to grow industry. Finally, the Hunter's innovation ecosystem has legitimacy – lots of big organisations are coming on board and pivoting to innovation at the same time. Now is the time to act on this and take the region to the next level of maturity and excellence.

Future Situation

What is missing, or what opportunities are there?





A large number of opportunities and 'What's missing?' responses were provided by participants.

Connection support is a critical piece of infrastructure that participants suggest is missing – connection to mentors, to money, to support and to opportunities. This should be the centre of any new activity set up as a result of this project. This connectivity extends to connecting current entities in order to develop critical mass and pathways through the ecosystem, as well as connecting overseas by leveraging global networks of our region's people.

In addition, there is a need for building a quality pipeline of ideas; 'Makers Spaces' and prototyping facilities; help for existing large and small companies to innovate and grow (including a scale up incubator for SMEs) and support for professional service providers wishing to help startups. Building a common brand and compelling message as well as delivering a collaborative South by South West (SXSW) type large scale innovation event to attract investment and businesses was also seen as an important action.

There were varying views relating to the magnitude of funding available, but all agreed that accessible information on available funding is important, attraction of national and international funds, and new funds such as a local crowd sourced fund or VC fund would be worth exploring.

Developing a strategy for sector focus in the Hunter (eg building on current strengths and future industries such as Advanced Manufacturing, METS, Energy, Advanced Agriculture etc) and greater collaboration between regional councils, and between companies for bids were also seen as strong opportunities.

What activities would be game changing?

There were overlaps between the answers to this

question and the Opportunities section and not all could be classified as truly programmatic or game changing. The highlights include:

- Single voice in guiding the innovation ecosystem, and an overarching governing body that says 'This is our agenda and this is where you fit in'
- Mapping the ecosystem and connecting people to what they need. Some connection will be through self service via an online tool, pathway maps and case studies of user types/personas, some through events, some through connectors
- Need to coordinate programs, business advisory services and events across the Hunter to get critical mass, scale and alignment, as well as learning how to deliver excellence together
- The Hunter Ideas Forum - An Ideas program and platform that includes connection to support, very early idea stage mentoring, pathway navigation, and funding from the community via 'InnoBucks'/'HunterCoin' (real currency/redeemable share economy style)
- Open Innovation programs to encourage R&D in companies, connecting industry with the research base through a range of activity, and connecting ideas to supply chains and living labs
 - Marketing and branding strategy
 - Intelligent, connecting and informative website
 - Promoting the real stories so people see it is possible
 - Promotion Program to get the community (Mums and Dads) to engage so that everyone talks about it and supports it
 - Major innovation summit event (similar to Austin SXSW)
- Programs within UON to help researchers and students engage in innovation and entrepreneurship on a much larger scale than presently

-
- Access to ‘Makers Spaces’ and prototyping facilities across the Hunter
 - Funding for scaling current companies, including considering development of programs such as the Small Business Innovation Research (SBIR) program in the USA (<https://www.sbir.gov/about/about-sbir>). The ACT government introduced the Small Business Innovation Partnership Program (SBIP, <http://www.cmd.act.gov.au/sbip>)
 - Join up the many pathways for encouraging young people to engage in STEM and innovation, to develop a mature pipeline of talent (Engage, Inspire, Recruit), including corporate sponsorship of undergraduates and lucrative graduate programs
 - Grow a regional early stage fund (e.g. Sydney Angels' Sidecar fund, or crowd funding platform), and market it well, making the most of a partnership with the university.
- It is encouraging and worth noting that there is strong overlap between the outputs from both the ‘What’s missing? What opportunities?’ section, this section on Activities and the ideas developed in earlier workshops.

How would we measure this?

What does success look like?





Participant responses to this question were very similar. Success looks like:

- the Hunter region providing quality jobs and innovation opportunities for our children
- being internationally recognised as a thriving collaborative and open innovation hub where the triple helix of university, government and industry collaborates well
- a successful city with successful growth companies
- attraction or growth of a ‘lighthouse’ company such as Atlassian

- attraction of people, funding, companies and investment
- a connected ecosystem where we know who does what, with alignment between enablers
- positive brand recognition for the region.

In addition, the Hunter will have become the hotspot that the rest of the country taps into, and we will have undergone the next market transition successfully.

What would you like to get from this?

hotspot job
idea innovation
people
business
info successful
company support
pipeline
opportunity
skill leave
dream

When individuals were asked what they or their organisation wanted to achieve from this, again their responses were succinct and similar. The Leximancer output opposite tells us that individuals want to see: a pipeline of companies becoming successful; their children not needing to leave to chase their dreams and opportunity; for the region to be a hotspot for ideas in business; and plenty of jobs in innovation.

In the interviews, the major addition was the strong desire of many to help others achieve their dreams, and opportunities for generations to come. One respondent put it very personally - they would like to

see all families in the Hunter buying ice cream for their kids, in the security of knowing that their jobs and businesses are safe and sustainable.

Families will feel safe and secure, so much so that they have no fear of the future and their children can grasp opportunities and make them thrive in the Hunter

What business model would work?





It is clear from the output that participants are supportive of setting up an entity; more specifically a company limited by guarantee with a Board comprising broad and diverse stakeholder representation where no one person or group would have control and which following corporate laws and accounting standards with audited accounts. Some mentioned that the Hunter Founders Forum (HFF) structure could work, others suggested a B

Corporation (B Corp)⁴ structure. It was also stated that it should be action oriented and output focused, have strong connectivity with other groups, and be an intermediary that people trust and which brings stakeholders together and gains buy-in to the vision.

The Upper Hunter workshop participants agreed that they would like their own entity, connected to the Newcastle node.

What have you seen overseas that you like?

industry ownership
university government
change
startup community
culture people job
connection
factory manufacturing business
company program
R&D
embrace
maker space
entrepreneurship
support lots
student
Germany

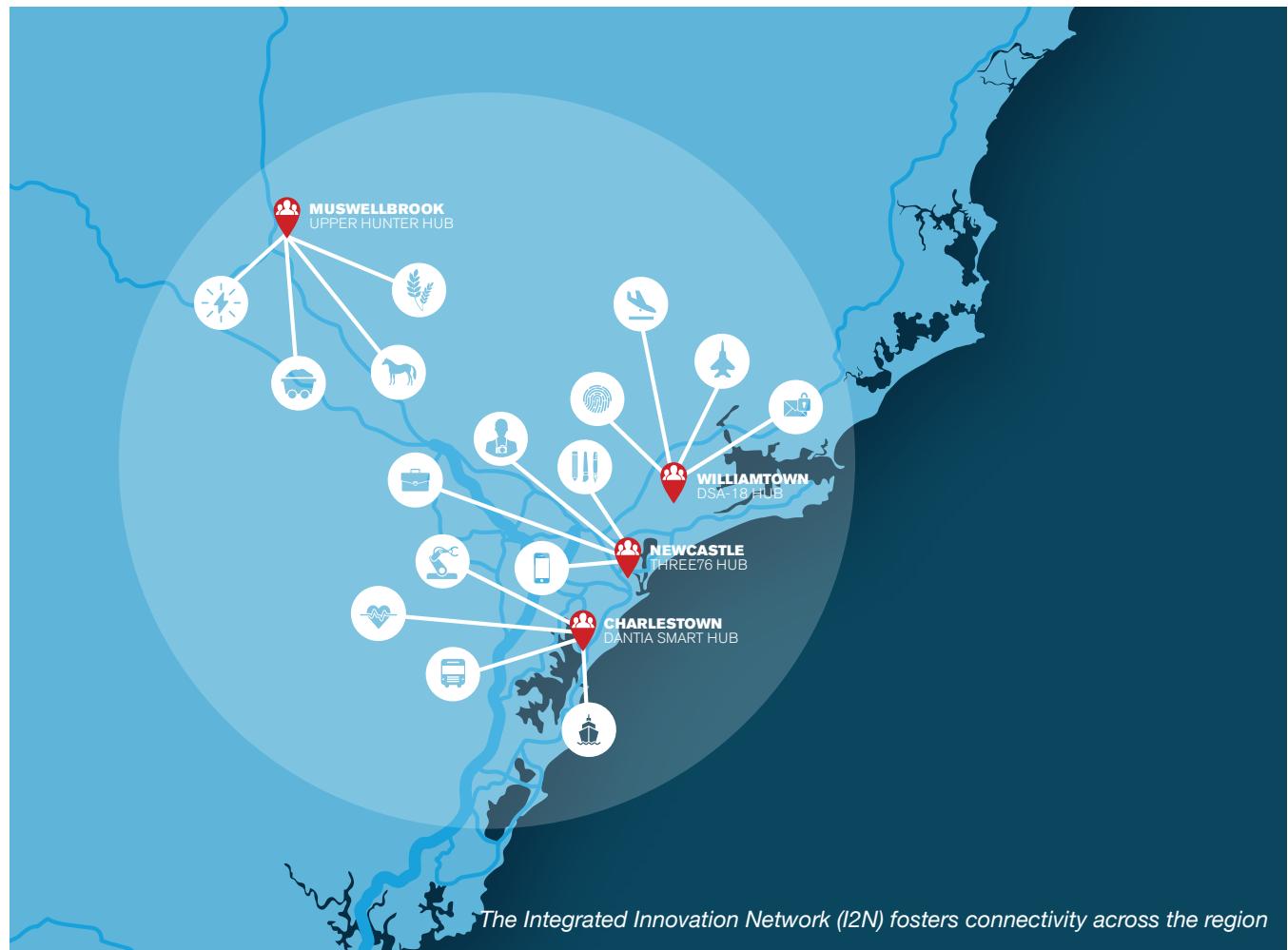
⁴ B Corporations represent an emerging group of companies that are using the power of business to create a positive impact on the world and generate a shared and durable prosperity for all <http://bcorporation.com.au/>

It is clear from the leximancer opposite that the community likes what they have seen in Pittsburgh and Germany, with some of this bias being explained by Ai Group's successful overseas missions. Others also mentioned Boulder, Colorado and Austin, Texas. Whilst there were many insights from overseas, the major ones included:

- Co-ordination and leadership are key. Part of this is to build a common vision that is bought into and owned collectively by universities, government, industry, philanthropic, community. Because they

own it they commit to the vision and keep it going

- Focusing on research, industry and natural resource advantages as well as what the region has been good at for many years – don't try to re-invent the wheel
- Leveraging funding from federal, state and local programs and focusing to get scale – all bought into one vision of where we want to head so that grant applications all build critical mass.





6

Proposed Model and Action to Support the Growth of the Region's Innovation Ecosystem

This section outlines the ‘So, What?’ based on the results of interviews, workshops and presentations. What could the Hunter do to take its innovation ecosystem to the next level of maturity? What Vision and Mission? What key activities, what governance, and how would it become sustainable? The suggestions are based on community input and experience. It is not intended that a new entity should deliver all the activity – this would need to be achieved in collaboration and partnership with others.

Vision and Mission

The proposed Vision and Mission are based on the workshop output conducted early in 2017:

VISION:
By 2025 the Hunter Region is internationally acknowledged as a thriving centre of innovation that has successfully transitioned into a knowledge-based economy

MISSION:
Provide a comprehensive, cohesive and connected regional innovation ecosystem to accelerate innovative ideas to successful outcomes

Priority Activity

Based on analysis of the ideas given through the interviews and workshops, and activity that has proven to work elsewhere, this section suggests key activities for the region to focus on in the next phase, including up to two for each part of the innovation ecosystem framework. This is not meant to be an exhaustive list, but suggests areas of focus as a way to get started. Even this list is ambitious and only a few may be taken up in the first instance as high priority activities. Many will require collaboration, partnership and funding. The rich list of ideas listed in the sections above are all valid and can be drawn upon either by those who wish to go ahead and implement them or kept for later. Some are already underway.

Ideas

An online ideas platform, “Hunter Idea Forum”

- This idea was developed at the November iQ event. It is a useful tool to help build the pipeline of good ideas that can then be fed into growth support programs, such as the ICON Accelerator
- An Ideas program and platform that includes connection to support, very early idea stage mentoring, pathway navigation, and funding from the community via ‘InnoBucks’/‘HunterCoin’ (real currency/ redeemable share economy style). It would include the ability for the crowd to comment on ideas
- This could also be used to build awareness and pride, as well as educate. CBRIN developed an interesting version of this for creative youth, called Cause a STIR (<https://causeastir.com.au/>)



The beta version could be run by NCC in the currently funded project to build an online connecting platform. After development, it would require part time management.

An “Open Innovation Lab” or program of activity

Connecting large corporates, SMEs, startups and the research base through a range of projects. Projects would include:

- Strategy development regarding sector focus – what industry sectors will the Hunter excel at?
- Strategy development regarding how to attract the right companies, for what purpose (eg to visit and invest, to relocate/expand, or to connect to their global supply chains), and which SMEs in the region to accelerate growth significantly in order to gain recognition for innovation excellence
- Collaboration program to include
 - large companies sharing market and business challenge insights
 - SMEs to share latest product and service ideas (so that large companies can help take these to market, possibly into new markets or simply provide advice)
 - cross sectoral collaborations supported (e.g. Health with Digital with Design with Creative industry)
 - startups to pitch regularly to industry for advice, funding and mentoring
 - researchers supported to engage in

collaborative R&D based on industry problems, making the boundaries more porous

- Open Data and Internet of Things (IoT) program as part of NCC’s Smart City program. It should also be linked to other relevant activity such as NCC’s Living Lab city test bed
- LMCC’s Smart Cities plan
- Visible R&D facility – visibility could be through a physical space where it is obvious to those passing by that collaborative R&D occurs there, or virtually through case studies, videos etc
- Company tours to learn from one another and suggest improvements based on ‘fresh eyes’ – Ai Group are ably providing this through their Cluster model, but expansion could be considered
- Larger companies, the University and government programs to act as living labs/test beds for new ideas
- Establish large scale pilot projects for industry growth in the Upper Hunter – especially agriculture, equine, manufacturing
- Engagement with UON’s School of Creative Industries (SOCI) would also be highly valuable.

This activity is a crucial and large project. Some of this is already in progress (such as the IoT program and Ai Group programs), but most is new. This would require a FTE employee to drive it, and partnerships with companies and UON to make it work. It could possibly be initiated through an emerging innovation precinct, such as the Defence precinct at Williamtown.



Startup Express visit by Hunter startups to Parliament House, Sydney

Growth Support

Incubator dedicated to globally scalable startups and upscaling high growth potential, successful SMEs

The growing pipeline of ideas generated in the Hunter will need sufficient incubation support to ensure success and the Hunter has many unsung, unknown, successful SMEs that could be supported to grow rapidly. The current Regional Incubator program has the beginnings of a program for these companies but it is recommended that this be expanded to include more flexible delivery and connection to other support

programs. A dedicated program to identify and grow the scale of these would enable the region to leverage what it already has to ‘attract’/‘create’ large innovative employers. This program could be designed to be world leading if it included more than a traditional incubation model, possibly including:

- Flexible delivery of standard modules of support at the right time for each startup and SME rather than a fixed timeline program (eg attracting finance at a stage when ready for investment; adapting to staff increase beyond 30 staff when reach this stage etc)

-
- Flexible models for payment for services (either equity or cash)
 - Introduction to key markets, new market sector player, global best practice
 - Mentoring from large company leaders
 - Support network amongst the SMEs
 - Accelerated connection to research base
 - Access to funding for scaling.

Before setting this up, there should be a search across the Hunter to see what exists that could be brought together, and what is in planning. For instance, the current Regional Incubator model program developed by the Business Centre could be extended. A PKF Joint Venture is also developing a program to dramatically increase the conversion rate from good idea to a sustainable business through a combination of funding and business services augmentation – filling out the team with the expertise required. There will undoubtedly be other examples of possible parts of the overall program in existence.

Education program designed to build capability of mentors and professional service providers for supporting startup growth

As the pipeline of good ideas increases, the Hunter will need to scale its growth support, mentoring, access to financial advice etc. In order to achieve this, more mentors and professional service providers will need to become skilled in support for startups.

The focus of this activity would be to design a program of workshops to build capability within the Hunter region to support startups. It would also develop new models of engagement. There are many stakeholders keen to engage in and support the innovation scene, but many are seeking greater experience and skills to do this effectively. They are also looking for remuneration models that work for them and their customers. Delivery could include:

- Workshops for professional service providers regarding how to support startups
- Workshops on IP and how to ensure a win-win outcome
- Models for provision of technology and coding support, basic corporate function support (HR, Finance etc for startups), marketing support that includes the opportunity for equity as a fee for service
- Education regarding how to be an effective mentor.

This activity would need a short-term piece of work done to access currently available workshops in the Hunter and across Australia to develop a program for the Hunter. Once this has been achieved the workshops could be delivered by current providers (such as Eighteen04, Business Centre etc.) as a fee for service product.

Culture & Infrastructure

Comprehensive, collaborative marketing, communication and brand strategy for innovation in the Hunter

In order to gain international recognition for the excellence developing in the Hunter, there is the need for ‘One Voice’ to bring together the stories and strategically attract attention, recognition and attraction (for funding, innovative companies and entrepreneurs). This strategy would include:

- Consider a branding strategy
 - how do we grow a brand for innovation in the Hunter whilst showcasing existing brands?
- Telling real stories about successful innovators in the Hunter
- A major innovation summit
 - this is already in planning phase for 2018
- Build a compelling story to attract entrepreneurs and their families to live in the Hunter, supporting this with connectivity to our world-class ecosystem and a welcoming landing pad
- Deliver showcases in other cities such as Sydney and Melbourne
- Strategic thinking about where to place stories – on buses, in planes, at bus stops, on YouTube etc
- Tell real stories about failure and what next in order to remove some of the fear
- Timing re telling what stories when (e.g. case studies on female founders on International Women’s Day) and keeping a steady flow
- Developing a catchy tagline and placing on T-shirts etc
- Promotion strategy to attract ‘Mums and Dads’ support
- A visiting entrepreneur program
 - bringing well connected and respected innovators from outside the Hunter and overseas to encourage and educate entrepreneurs in the Hunter, see the excellence here, and who will then become Ambassadors.

This activity will need significant resources and should be achieved collaboratively. NCC and other Hunter Councils should consider funding this as part of their economic development approach. Ongoing delivery would need at least one FTE to drive it, an advisory board, and partnership with stakeholders across the region responsible for economic development and innovation who can share the load regarding developing marketing material and stories/case studies.



CSIRO's Energy Centre at Mayfield West - solar field and national energy research hub

Strategy for access to 'Maker Spaces' and prototyping facilities

The Hunter has some 'maker' and prototyping facilities, but more are needed and access to those currently available needs developing. This program would need to map out current and emerging capability (for instance what facilities could UON and TAFE make available, under what model as well as new activity such as Eighteen04, Community Access Space at NCC's Library and UON's SOCI), anticipated needs, and from this develop a strategy for the region in terms of what needs to be set up where and accessed (and funded) how. This should also connect with large-scale pilot projects for industry growth in the Upper Hunter.

This first part could be conducted through a workshop of key stakeholders to map the currently available infrastructure, the projected needs, and a plan for how to build a connected and easily accessible range of facilities. This would require minimal cost. The next phase, building the infrastructure, would be up to current providers regarding currently available infrastructure, but new equipment (such as access to a TechShop type facility) will need to attract significant funding.

Market Access

Innovation and supply chain capability building for existing companies, and customer access for both existing and new companies: in order for innovation to make it into markets, it needs to be absorbed by

companies. Companies need to be connected through supply chains. Procurement needs to be open. And companies need to be world class to compete in global supply chains. This suggested activity could include:

- Innovation capability building program – how to help companies develop excellent innovation programs, skills and connections
- Supply chain capability building program – supporting SMEs as they develop world class capability that prepares them for opportunities in global supply chains
- Connectivity to opportunities (which would be achieved through the Open Innovation Lab)
- An Open Innovation government procurement program, similar to Small Business Innovation Partnership (SBIP) program in place in Canberra (<http://www.cmd.act.gov.au/sbip>)

This activity could be conducted in partnership with large companies, government and UON. Companies and government may be willing to financially support the program, as may the Advanced Manufacturing Growth Centre. Individual companies may be prepared to pay for the development of their own innovation capability. Government could consider a SBIP-like program that it could fund. UON could provide supply chain capability building education. The Federal Government's Business Research & Innovation procurement Initiative could also be leveraged (<https://www.innovation.gov.au/page/business-research-and-innovation-initiative>).



Global connections

People and companies in the Hunter are well connected globally. The University is a good attractor for global talent. We have access to good transport connectivity. But more needs to be done. This activity would build on existing connections and grow new ones:

- Strategically identify international cities to build collaborations with at a city, research and business level. Develop these into Sister City arrangements and ensure impactful and sustainable engagement (such as landing pad agreements, knowledge sharing, and trade missions)
- Develop a group for globally connected people willing to help build pathways to overseas networks
- Share the cost of attracting global experts with other Australian cities
- Partner with the university on international strategy, including leveraging and supporting alumni networks
- Expose startups to global mindset from the start
- Work with Newcastle Airport and Hunter Port Corporation to grow international connectivity
- Set up a method for providing landing/launch pads for overseas startups to set up in the Hunter, and connect with Austrade's global Landing pads.

This activity could be collaboratively delivered: local Hunter Councils collaborating to develop sister city arrangements; local startup support providers developing shared global landing pad arrangements and internationally connected mentors; UON partnering to leverage their global networks; and the central new entity to bring this all together and connect with other Australian innovation ecosystems.

Talent

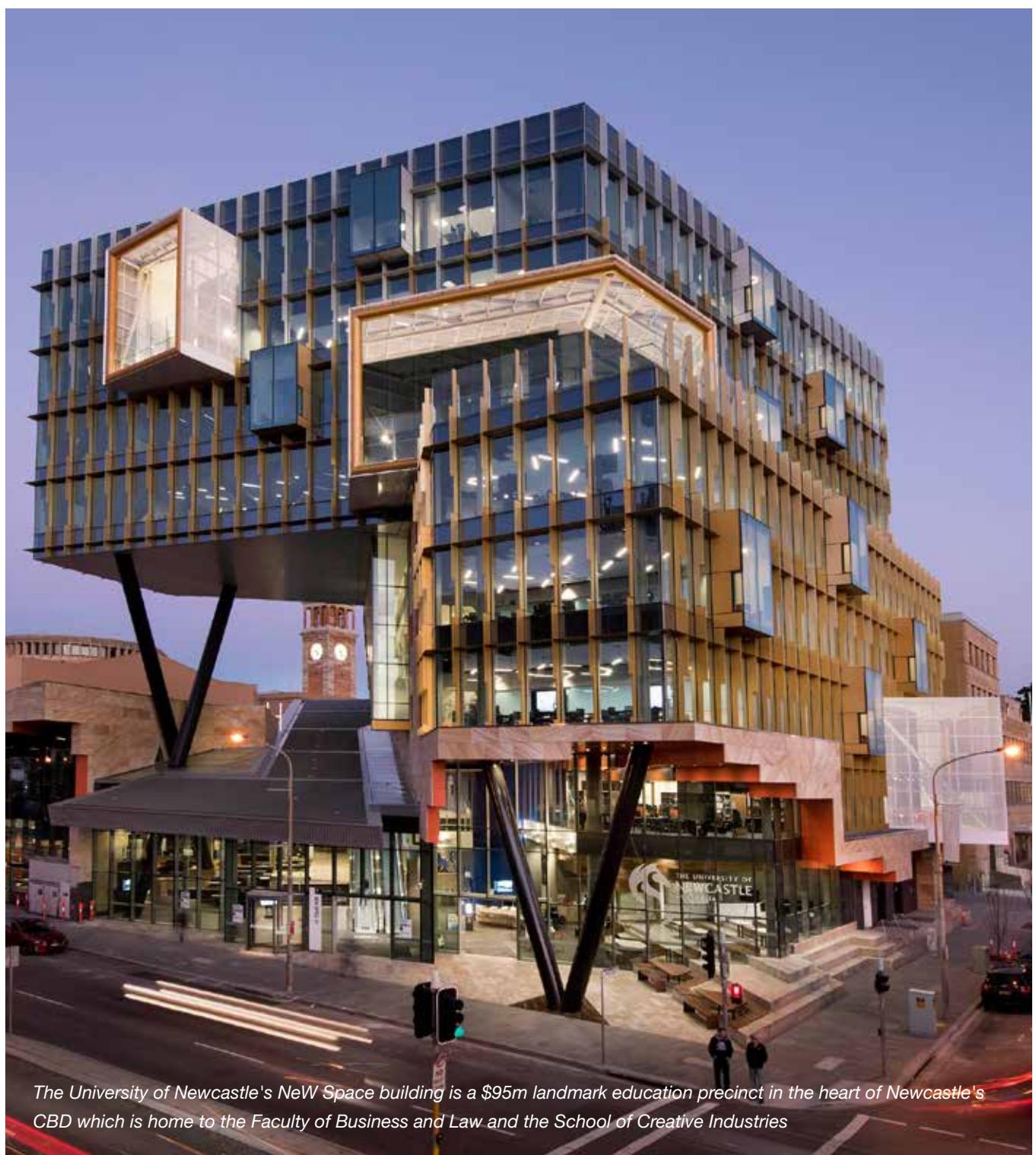
Develop a connected talent pathway for the Hunter

If industry in the Hunter is to grow it will need to grow more talent here. Some companies are already supporting this, through programs such as RDA Hunter's well-respected ME program, Big Picture School at Cooks Hill, and 'She Flies' for girls in STEM. There are, however, some gaps and the pathway through school to TAFE, University and industry could be more fluid. This activity would map and communicate the pathways, as well as make recommendations regarding gaps.

Industry may be interested in supporting this financially and/or through in-kind.

Internships represents one known gap – it is recommended that the innovation community engage with the RIBIT internship program (<https://www.ribit.net/>). This program was developed by Data61, piloted at CBRIN where it was highly successful, and is now running across Australia. Student interns from TAFE and UON will be connected to innovative companies for internship opportunities.

TAFE and UON could be looked to for support for this, and enterprises such as Hunter Business Chamber (HBC), HunterNet, Ai Group, Eighteen04 and Business Centre could consider providing access to companies.



The University of Newcastle's NeW Space building is a \$95m landmark education precinct in the heart of Newcastle's CBD which is home to the Faculty of Business and Law and the School of Creative Industries



Encouraging youth into innovation

Given that 65% of future high growth jobs do not yet exist, our youth will need to have some experience in entrepreneurship. There are a number of programs available locally, but also many further opportunities. Much of this suggested activity would be to encourage others to deliver programs:

- Collaborate with the University to connect a Stanford Technology Ventures type program to the resources in the Hunter innovation ecosystem
- Collaborate with TAFE and the university to connect their innovation courses with the Hunter innovation ecosystem
- Ensure youth know where and how to access money and support, how to talk about their ideas, and that they know that there is life beyond failure
- Assess the need for and consider developing/ supporting an entrepreneurship program for youth if there is a gap in current program availability. The online Ideas Forum may provide a good route for this.

UON and TAFE activity would be funded by them; access by UON and TAFE to the innovation ecosystem could be delivered by the new entity; access to information could be made available on the online connecting platform; and the youth program may need to access other funding or partnership with entities such as Questacon.

Financial Capital

Connecting investment to opportunity

Many, though not all, in the Hunter believe that there is a lack of funding support for startups and SMEs. It should be noted that this relates for the most part to commercial funding rather than government funding – the main gap there is a lack of understanding of the various government funding opportunities. These gaps

could be addressed by:

- Listing startups ready for investment onto a portal – there are a number of portals in Australia – consider which ones to join or source an available white label product and support this for startups in the Hunter
- Strategically growing access to investors and banks outside of Newcastle. For instance, by delivering showcase events for startups and successful SMEs to pitch to investors in other cities such as Sydney and Melbourne
- Make a decision whether to grow a regional early stage fund, and if so, what vehicle to use (such as a Sidecar fund). Before going ahead with this, the group should check to see what plans others have for regional funds and make sure that there is a united approach
- Developing pathway maps showing what funding is available from where and at what stage of growth
- Engaging with the Faculty of Business & Law at UON who are developing a Student Investment Fund program
- Assessing the possibility of setting up a local crowd sourcing platform
- Holding events to engage local wealthy investors not currently working with the local innovation community
- Attracting a big brand company (eg Goldman Sachs) here that can create a conduit between the Hunter and USA – this would raise international profile and credibility
- Begin to develop a plan for sourcing funding to help existing businesses scale
- Expanding exposure of the community to government funding programs – through a regional innovation website/portal, pitches at regular whole of community events, workshops and individual connectors.

Some of this activity is already underway (such as developing pathway maps and consideration of an early stage regional fund). Other activity could be delivered by a range of interested stakeholders (such as Hunter Angels exploring a Sidecar fund, the Regional Incubator program and ICON accelerator taking selected startups to Sydney and Melbourne). The remainder, and an overall strategy, could be delivered by the new entity.

Training for investors and investees

It is hoped that new stakeholders will be encouraged to become investors once they begin to see the value in startups and SMEs in the Hunter. In order to make sure that they do well in their ventures, training

will be very valuable. In addition, investees require education on how to attract and negotiate good investment proposals. This activity would seek to do both of these. This could be done in collaboration with other cities, such as Canberra, who have developed workshops that have been well received. It would also be advantageous to have potential investors visit other angel networks, and to deliver presentations, panels and case studies.

This activity could be led and coordinated by the new venture, but delivered by service providers with expertise in related areas, and in collaboration with groups such as Hunter Angels.



STEM and Defence Innovation Pitch Night - an initiative for entrepreneurial high school students



Eighteen04 - a clean tech and smart city incubator and co-working space

Leadership, Collaboration & Connectivity

Develop a program for connectivity: The central need within the innovation ecosystem is to provide connectivity. Connectivity to support, mentors, funding, opportunities; and connectivity of activity across the Hunter. There are a number of activities that could meet this need:

- Develop a website that:
 - links to other groups and events; gives a pathway description explaining what support is available at each stage of growth and encourages new entrants; provides general resources information
 - ‘intelligently’ connects to what you need
- Deliver a monthly connection event, with short pitching, rotated to different event spaces each month (cf CBRIN’s First Wednesday Connect)
- Orchestrate events across the year to keep regular tempo.

This would be central to the activity of the new entity, which should employ a ‘concierge/triage/connector’ to help guide people into the ecosystem; and/or employ well-connected, well-respected Experts-In-Residence

to connect across the ecosystem and beyond. The entity would also organise the monthly connection events as well as attempt to orchestrate events across the year. NCC’s project to deliver an online connecting platform would develop the ‘intelligent’ website. Funding from the national Incubator Support Initiative and its Expert-In-Residence program could be used to source financial support for this activity.

Set up entity to drive this program of activity

Now is the time to act – the innovation community has been engaged in developing ideas for what could be done, and now there needs to be a leadership team and an entity to do this. See the Governance section for suggestions on corporate structure and governance. This will require agreement regarding leadership, membership, structure, branding, resourcing and partnerships.

Next steps will require assessing the best legal structure for this entity, deciding whether to use the HFF corporate shell or to set up a new entity, and agreeing how to appoint Board members.

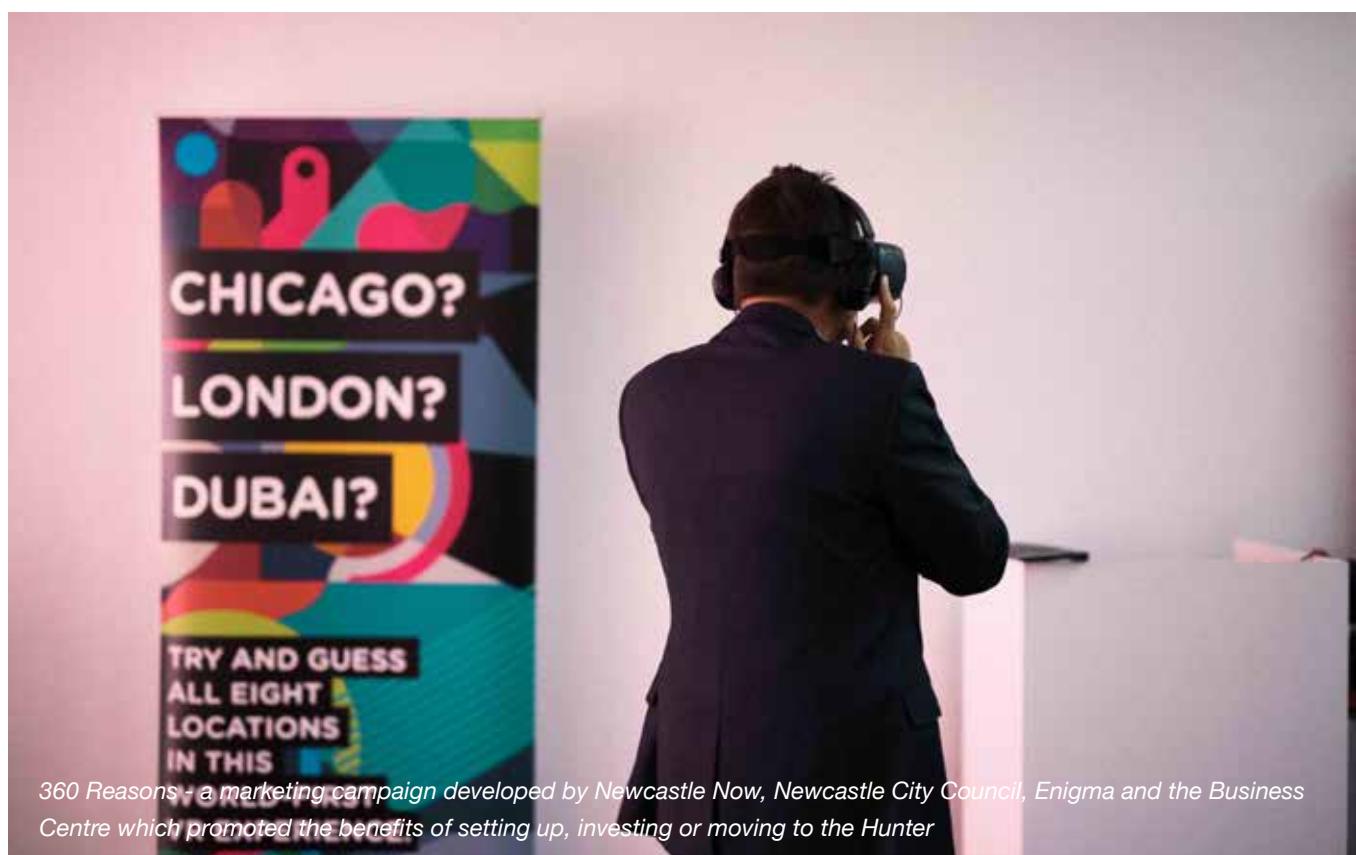
Governance and Delivery Model

Company Structure

It is clear from all of the outputs of workshops and interviews that there is general support for setting up a new entity to drive this next growth phase in the Hunter's innovation ecosystem. There was also agreement that it should have its own identity, clearly differing it from existing entities. Almost all agreed with a company limited by guarantee structure. There was one respondent, however, who suggested that building it as a B Corp from the start would send a distinct message that this was an innovative organisation. With this in mind, it is recommended that a company be set up, one where it will need to follow usual corporate governance including audited accounts, and that a legal firm should be asked to provide a

comparison between various structures. For instance, CBRIN undertook such an exercise and decided to follow a company limited by guarantee model, one that allowed it to apply for charity status so that it maximised its income to deliver impact.

If a B Corp structure becomes the favourite structure but is difficult to manage in the early stages of setting up the company (there are some fairly imposing requirements that need to be met), this can be applied for once the company has been in operation for a while. When setting up the company, careful consideration should also be given to ensure that the Constitution is set up favourably for any application for charity status.





Governance

Regarding the governance of the company, the community are strongly in favour of transparent, inclusive, diverse, and broad-based leadership. They also would like leadership positions to be given to those who are well respected, trusted, active members of and changemakers in the innovation community. Consideration should be given to whether these positions should be voted onto the board or that they would be based on membership. At CBRIN the Foundation Members, who paid a small membership fee, were given Board positions, and the community voted for two additional Board members. The major funder, the ACT Government, had no direct membership on the board, but the Chief Minister had the right to appoint a prominent and trusted member of the innovation community onto the Board. The Board had a sub-committee called the Innovation Community Forum, that comprised up to 10 members voted on by the broad community. The two CBRIN board positions were chosen from this committee.

Final construction of the Board will depend on the financial model for the new entity – if significant funding is received from corporates for instance, thought will need to be given to whether they have a board position or join as sponsors with naming rights. CBRIN partnered with corporates as sponsors, but over time it became clear that they preferred to have had greater involvement in governance and the entity considered having a sub-committee of the board comprising sponsors, who would then vote one of them to represent the committee on the Board as a Director.

There are a variety of models that could be used, but it is suggested that this be decided once partners, funders, members and sponsors are agreed. The important aspects are that:

- The entity is set up in a way that supports it being an intermediary that people trust, that brings

stakeholders together and gains buy-in to the vision

- That it is set up in such a way that it can maximise on any investment (eg charity status)
- Appointment to leadership is transparent, diverse and representative of the whole ecosystem
- Board sub committees be considered as a way of engaging a broader range of stakeholders
- That consideration be given to having board members from outside the region
- All planning is done in collaboration with the innovation community, to ensure buy-in.

The initial recommendation would be to set up an interim Board to guide the company through the next few months as it sets up and applies for funding. Then a permanent Board should be set up with no more than 10 Directors, chosen for their outstanding commitment to the Hunter's innovation ecosystem, the trust they have from the community, their ability to collaborate for the good of the Hunter, ensuring diversity is achieved. These Directors would be appointed for a period of 2 years, and the first transition designed so that only half the board changes. An advisory Board committee could be formed whose members are voted on by the community, and another Board committee for sponsors set up to help them feel they have a voice.

Delivery team

With regards to the team to deliver the programs, this should be a small, nimble team comprising 3 employees with experience in innovation, known for excellence. Ideally the CEO would have international networks and a strong national reputation for innovation. They would also be highly collaborative: someone who can draw people towards a common vision; someone who has experience helping innovative entities; and someone who can represent the region at a high level. The second employee would be able to provide the triage/connection service as



Newcastle was recently designated as TAFE NSW's Innovative Manufacturing, Robotics and Science SkillsPoint

well as administration for the company and CEO. They would ideally be well connected in the region. The third employee would be a strong marketing and communication expert. Communication is absolutely key to the success of the ecosystem and so this role is particularly important. There would also need to be sufficient resources for marketing spend, including on outsourced service to help with marketing. Consideration should also be given to growing the team through secondees from other companies wishing to contribute and learn, as well as interns from university and TAFE.

Network of support nodes

Whilst this entity will become a central node for the region, connecting and championing its innovation activity, it will rely on partnerships with others for delivery of programs. Programs that already exist, and programs to fill gaps it has identified with the

community's engagement. It is important to get right how this connects to create critical mass whilst also allowing for individual brands to thrive. A network of nodes is one model to consider, each with its own brand but connected through the umbrella brand of the new entity. Expert marketing advice would need to be sought regarding how to maximise exposure of individual brands whilst also giving brand awareness of the Hunter's innovation ecosystem in its entirety. One way to do this would be to 'franchise' the entity's brand to others entities, allowing them to use the central brand as a way to raise their own brand profile. This could be charged for once the central brand was well known and respected nationally and internationally.



Sustainability

Given the nature of these sorts of entities, sustainability is invariably a challenge. If funding is sought from government it can be prone to change over time – and these entities need to have longevity – at least 10 years. If it is sought from industry, the same challenge is experienced, and industry tends to have specific expectations that need to be met that may divert from the core vision. Membership models tend to lead to needing a membership manager in order to keep members engaged. One of the usual models used for these entities is to set up a co-working space that theoretically then pays for the staff and programs. This rarely works, and the Hunter does not need more of these. So, there is no easy answer to sustainability.

At CBRIN the sustainability came from a significant financial commitment from the ACT Government over a 5-year period (approximately 800K per year), coupled with a similar, but smaller, commitment from the local universities and research institutes who comprised the Foundation Members. Revenue was grown through applying for grants to run specific programs for which CBRIN had a unique value proposition (local and federal grants); providing training as a fee for service where there was an obvious gap and where its Foundation Members would benefit (Lean Startup workshops, giving a discount to startups); delivering innovation programs to corporates and government where CBRIN had a unique value proposition; and through corporate sponsorship.

Corporate sponsors wanted to have their brand associated with innovation success, as well as access to startups and the research base, and access to CBRIN's network. The network of the leadership team in particular was an attractor. Corporate sponsors also sought opportunities for their staff and clients to engage in innovation activity, and some felt a desire to give back to their region. The model at CBRIN was

very supportive of growth of impact as we could run the basic connectivity and promotion activity without worrying about finding revenue, and any additional revenue meant that we could deliver more. The additional benefit of maintaining an impact focus rather than a revenue focus is that the entity remains neutral in the ecosystem and is not seen as threatening.

It is highly recommended that a model be used that allows the small team to focus on Connecting, Championing and Scaling – connect people to what they need, tell the world about the great things happening here and strategically seek to fill the gaps in the ecosystem through a range of partnering opportunities. Funding support should be sought from national and local government with a long-term focus: from corporate sponsors wishing to drive innovation in the region; from research and education institutions to help them achieve their innovation goals; and from carefully selected service delivery.

The new entity could also help fund others through seed funding for new programs, effectively incubating them in their early days before they scale to grow into national and international delivery. It could also partner with others wishing to apply for funding for new programs, either with funds and/or simply using its brand to lend credence to the application.

Measuring Success

The section discussing “What does success look like?” provides good input to deciding how to measure the success of the project. Final measures need to be developed in collaboration with partners and sponsors of the ongoing project – they will know why they wish to be part of and support the entity. These measures will need to be achievable in the short (1 year) and medium to long (3-5 years) term. Short term measures would be based on the annual work plan developed by the new entity with the community. Each year the

entity should develop its Key Objectives, Actions and Key Performance Indicators (KPIs) that will be measured and reported on a quarterly basis, relating to the priorities for each year.

As mentioned, the medium-long term KPIs will need to be worked on with partners, and would benefit from input from the Hunter Research Foundation Centre (HRFC) for both items and magnitude. Based on interview and workshop input, the medium-long term KPIs could include:

- Growth of quality jobs in high growth industries year on year by x%. This may need to be measured in collaboration with HRFC, and the x needs to be researched to decide its magnitude
- Recognition for the excellence of the Hunter's innovation ecosystem by others. This could be measured by being invited to present at a well-known international conference on innovation ecosystems within 3 years, and an entity within the ecosystem receiving an international award within 5 years
- Increased collaboration between research and industry, or industry and industry. This would be coupled with recognition from industry that collaboration is easy and has led to increased revenue. This may have to be measured by HRFC
- At the 5-year mark, growth of "10" new businesses per year with a revenue of "\$250,000" p.a. after 3 years of operation
- At the 5-year mark, revenue growth of "10% p.a. for 5 engaged SMEs per year" which can be linked to support program outcomes
- Attraction of 1 multinational to place an innovation lab in the region, and/or a Dragon developed (startup with potential valuation of \$trillions)
- Growth of successful SME that has \$10M in sales

with 30–40 employees, to the next level of success (such as employing of the order of 100 employees with a revenue of \$50M)

- Attraction of at least \$10M p.a. in startup investment
- Positive brand recognition and a new sense of identity by and for the region. This could be measured through a survey and should be linked to other brand activity (such as "360 reasons")
- A bank of >100 participant testimonials and promotional material that is used by many to promote the region
- Majority of stakeholders engaged, involved, silos and duplication greatly reduced, and stakeholders report that it is easy to find the support they need
- In 5 years' time, 100 recognised innovation leaders in the Hunter
- Hunter kids seeing clean line of sight of opportunity for them to be part of the great industry opportunities (e.g. in Defence)
- The Hunter will have become the hotspot that the rest of the country taps into (creative agencies here, incubators here etc.). This could be measured by numbers of startups and SMEs moving to the Hunter.

It is strongly recommended that the new entity partner with UON's Hunter Research Foundation Centre to refine and regularly measure the medium term KPIs. They would be able to then present these results at their regular breakfast updates.



7

Next Steps

The innovation community has been very generous with its time and ideas. Enthusiasm, engagement and commitment has been generated. It is crucial that this momentum continues and that action is taken as quickly as possible. The top three suggested actions are ones that can be taken immediately:

- Set up a company to drive the Connecting, Championing and Scaling as soon as practical, but after legal advice regarding its structure. There has been the suggestion that the HFF company shell could be used, which would make setup simple and rapid, but would need to be balanced against the need for a brand-new entity. This could be achieved but would have to be handled and explained carefully
- Set up an interim Board while agreeing Board membership. Decide transparent method for choosing Board members and apply. Set up process assigning membership of Board committee representing regional innovation community
- Begin to set up the program of connectivity. The pathway work being conducted by Tim Cotter and Natalie Gillam (AusIndustry) will be a great start and can be used as a tool to continue to engage with the community to agree and update. NCC can also initiate the project to develop an online connection tool as soon as possible.
- Start engaging with a marketing partner to develop a branding strategy; reach out to the community to access stories of success and develop a plan of communicating these stories; continue to develop plans for a major innovation summit, including the attraction of a globally known entrepreneur; further develop the 360 reasons program to include a compelling story to attract entrepreneurs and their families to live in the Hunter; start to collaboratively plan a showcase in Sydney (e.g. showing great startups from the Start House program, CSIRO ON, ICON and a few select SMEs)

- Plan how to fund the initiatives
 - Agree which activities to roll out over what time period, cost each activity and agree how each one could be supported (through securing financial and in-kind support, partnering to deliver jointly, or supporting others to deliver)
 - Develop and deliver an application for the Federal Government's Incubator Support Program grant
 - Develop a sponsorship and partnership model, a list of potential sponsors and partners, a strategy for reaching them, and action this.

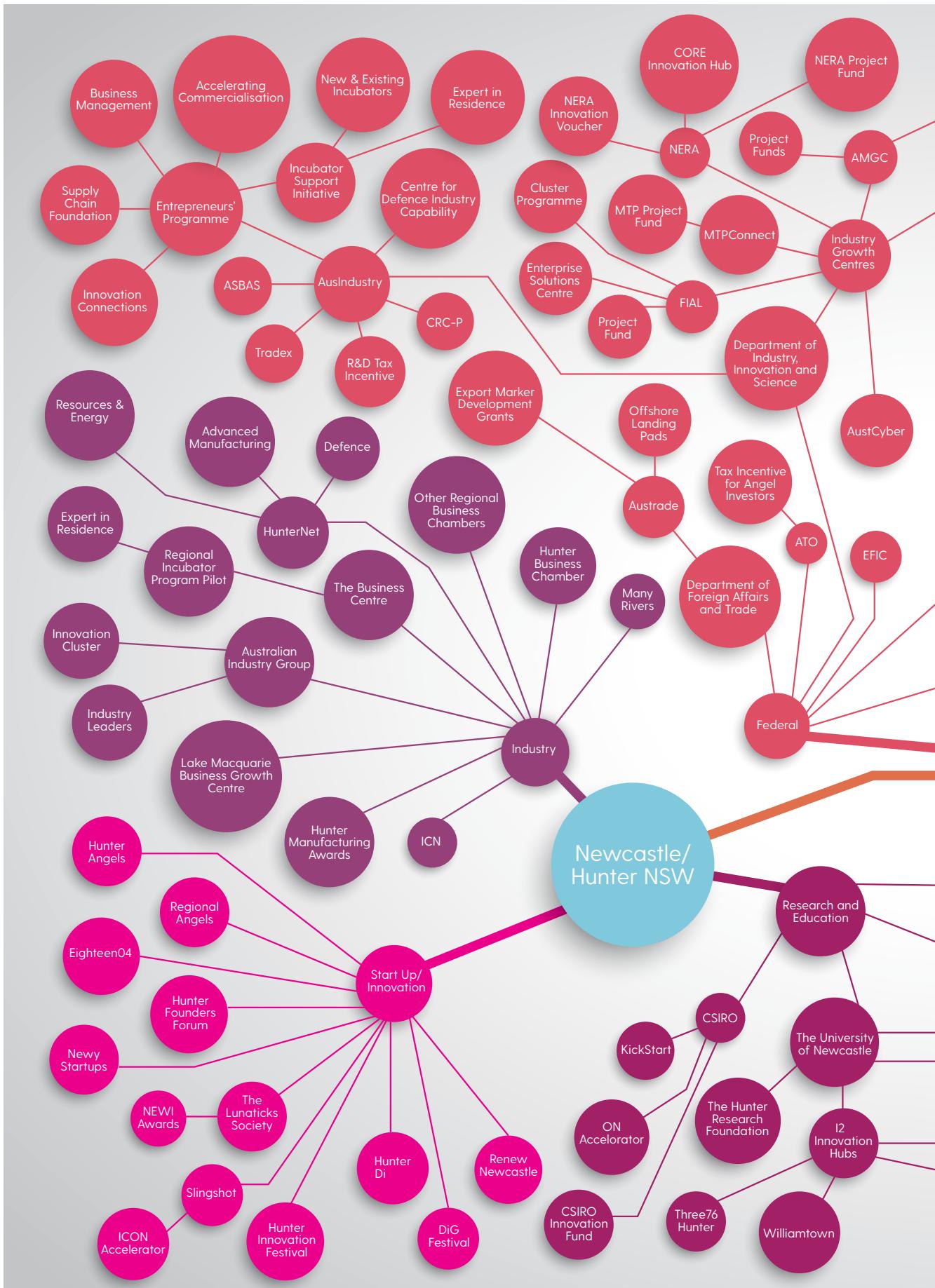
Finally, it would be valuable to begin the search for a possible leader for this activity, as this may take some time to find the right person for this crucial role. The time is right to do this and the community is ready. The Hunter region has a number of recently launched activities and is planning others, that combined will bring about a step change in the ecosystem. Setting up the new entity will be the glue that creates critical mass and puts the Hunter on the map.

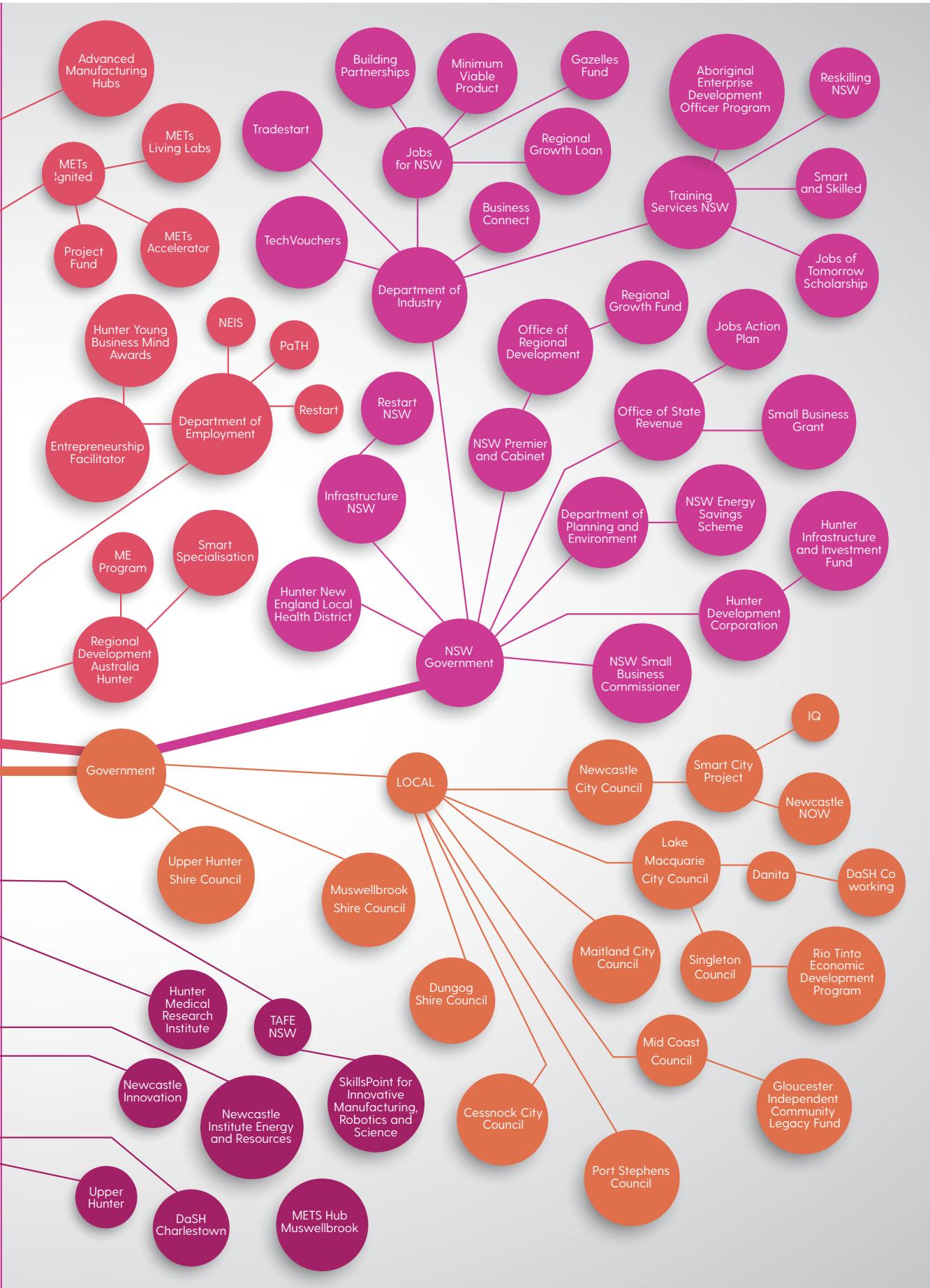


The Lunaticks Society promotes digital innovation and new ideas in Newcastle and Regional Australia through a program of live tech shows

Appendix 1

Innovation Ecosystem Map







Appendix 2

Interviews and Presentations

The following lists those interviewed individually or in a pair:

Brad Woollett, Definiti
Adrian Price, AIG
Tim Cotter, AusIndustry
Steven Pritchard, Rees Pritchard
Nathaniel Bavinton, Newcastle City Council
Graeme Cotton, Business Growth Centre
Grant Sefton, Hunter Angels
Colin Seeger, Galvanising Ideas
Pete Chapman, Enigma
Andrew Chapman, BAE
Christina Gerakiteys, Ideation At Work
Peter Francis, Dantia
Yolanda Surjan, UON
Luke Kellett, Headjam Studio
Olivia Olley, Production Hub
Gunilla Burrowes, Eighteen04
Pierre Malou & Gordon Whitehead, Business Centre
Bob Hawes & Anita Hugo, HBC
Wayne Deimar, HunterNet
Antony Martin, Rapid Phenotyping
Trent Bagnall, Slingshot
Siobhan Curran, UON
Anthony Murfett, Commonwealth Department of Industry
James Callender, Hunter Young Professionals
Alan Broadfoot, NIER
Brian Hill, Laughing Mind
Caitlin Botha & Laura Kendall, LMCC
Jeff Phillips, Varley Group
Andrew Beattie, PKF
Mark McClean & Malcolm St Hill, NSW Dep PM&C

Susan Wilson, RDA Hunter
Kris Leck, Catalyst Project Consulting
Philip McIntyre & Susan Kerrigan, UON School of Creative Industries
Christopher Saunders, Renew Newcastle
Darren Burrows, Blue Zone Group

The following lists group presentations and discussions:

Newcastle NOW Board
HunterNet Sustainability and Social Impact Forum

The following lists public presentations given to raise the profile of the iF project:

Enigma's Brand Summit
Port Stevens Council Business Leaders

