Auckland Tourism, Events and Economic Development
An Auckland Council Organisation

AUCKLAND

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Grow North

Smart Innovation District

Initial Report May 2016

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Foreword

The Grow North initiative that Massey University and ATEED are leading aims to create a smart innovation district in Auckland North.

The potential to do something special is already here. A very diverse population is growing rapidly. The schools are excellent. New businesses are appearing daily and many existing firms are already looking to scale up. North Auckland, with its beaches and rolling landscape, is a great place to live. The community values achievement, excellence and hard work.

The question is, how do we build on this potential? The first step is for the community to develop a shared understanding of their future. Work on this was begun in 2015 through two major community meetings and a research exercise that explored what is needed to build a smart innovation district. This report captures what that research showed us and sets out the next steps for Auckland North to thrive as an innovation hub.

Business is at the heart of the initiative. But for business to succeed it needs to be aligned and engaged with the wider community.

This means people responsible for transport, lifestyle, healthcare, culture, local government, environment and, above all, education need to know what they should do. Education and research are what Massey University can contribute. Planning is under way for a Science Innovation Complex at Massey's Albany campus. This will add to the Wonder Room space and ecentre that respectively serve as a hatchery and business incubator, engaging the wider community. We know that the cities that are flourishing around the world have highly-educated populations that are involved in high-value businesses driven by new knowledge.

In partnership with ATEED we are looking forward to the next steps in the Grow North Initiative.

Steve Maharey
Vice-Chancellor
Massey University

In 2014, Auckland Tourism, Events & Economic Development (ATEED), the region's economic growth agency, launched the Auckland Innovation Plan which reiterates Auckland's goal to be an innovation hub of the Asia-Pacific region.

If we're going to achieve this goal, it is vital that innovation is being encouraged across the Auckland region.

Auckland's long term success is dependent on our being a magnet for smart thinkers who want to start innovation-driven businesses here; businesses which are 'born global', seeking out international trade opportunities from day one.

ATEED's involvement in Grow North is consistent with the work we are doing to encourage innovation in Auckland through initiatives such as GridAKL in the innovation precinct at Wynyard Quarter and encouraging local innovation hubs.

This is part of our focus on encouraging 'advanced industries' – industries that invest heavily in R&D and have a high proportion of workers in STEM-oriented roles – which traditionally deliver high-paying jobs and high growth rates for cities.

We welcome the contribution that the Grow North project is making to this regional effort to help grow a culture of innovation, and create an environment which makes it easy for entrepreneurs to start and grow thriving, exporting businesses which will create benefits for our region.

Brett O'Riley
Chief Executive
Auckland Tourism, Events & Economic Development

1 Executive Summary

The purpose of the 'Grow North' initiative is to foster an interconnected and collaborative ecosystem that is inclusive of diverse businesses, communities, educational institutions, and government in Auckland North. Effective innovation ecosystems around the world create greater wealth, allow for shared prosperity, and contribute in multiple ways to quality of life in their regions. Thus, more and better employment opportunities, outstanding educational experiences at all levels, better health and social services and a rich cultural and social life are benefits that can be achieved through this initiative.

Clusters of innovation are already beginning to emerge organically from particular localised efforts in Auckland North, and the research that forms the basis of this report has identified advantages and challenges for supporting and helping to shape this growth.

Key advantages and assets include: already emerging sites of innovation, tertiary institutions and well-performing secondary schools, an overall well-educated and economically stable population, and a desirable lifestyle. Challenges include: a perceived lack of resources such as funding and time, a skills gap between education and industry, and a national culture that promotes individualism to the point of developing a 'silo' mentality.

Considering these advantages and challenges against the backdrop of scholarship on innovation ecosystems, as well as against other successful ecosystem models, this report advocates for several initiatives: the formation of a steering committee that is not directed by one entity but is a collaboration amongst industry, education, and government; the establishment of an inclusive 'Grow North' brand and identity; the development of a centrally-located innovation centre or site; and the creation of a single communication and marketing platform for Auckland North, among other initiatives.

Ultimately, the overarching goal of Grow North is to contribute to an emerging 'living innovation platform' that connects and becomes a foundation for numerous Auckland-based innovation initiatives. Six strategic objectives, all supported by a series of action steps, foster this:

1. Create a cohesive and coordinated network
2. Raise the profile of Auckland North
3. Create a brand identity for the region
4. Recruit and attract thought and business leaders to the region
5. Develop and promote relevant skills at the secondary and tertiary education levels
6. Enhance collaborative networks with other regions in Auckland and New Zealand.

The first two objectives form the basis of work to be done in 2016, and are supported by action steps such as: identifying secure, sustainable funding; creating a regional map and accessible database of innovative initiatives and activities; and identifying clear KPIs for the project and related research to establish a baseline for measuring success.

2 The Grow North Purpose and Vision

The purpose of the 'Grow North' initiative is to foster a successful innovation ecosystem in Auckland North. By this, we mean an interconnected and collaborative district that is inclusive of diverse businesses, communities, educational institutions, and government. The ultimate goal is a combination of increased economic growth and shared prosperity for Auckland North, as part of the wider Auckland city region. Auckland North will become a place where:

- Talented people want to live and work and business owners want to locate
- Development is anchored in a shared vision and strategic road map, aligning people, pathways, and local platforms to produce a living innovation platform from which 'never seen before' innovation is launched
- New ideas are continuously generated for innovative products and services, and for social enterprises to creatively tackle big problems
- A series of interconnected innovation hubs, comprising incubators, accelerators, and mixed-use facilities attract and support entrepreneurs and venture capital and business support services enable businesses to scale up globally
- Programmes abound to share ideas, with well-attended events and mentorship schemes where those who have made it help those on the way up
- Established businesses collaborate with new ventures to both 'give back' and stay close to the flow of new ideas and products being generated
- Secondary and tertiary education institutions work closely with local government and industry
- Investment in smart infrastructure means that the problems of growth are addressed through effective transportation and housing solutions
- A strong sense of pride of place can be seen in the rich array of cultural events and showcases for the region's successes
- The region is prosperous, but also has developed creative solutions to being inclusive, with opportunities extended to all sectors of New Zealand society.

In short, Auckland North becomes a model of a smart innovation ecosystem that people from around the world visit to learn the secret of its success.

2.1 What Will Be The Benefits?

Effective innovation ecosystems around the world create greater wealth, allow for shared prosperity, and contribute in multiple ways to quality of life in their regions. More and better employment opportunities, outstanding educational experiences at all levels, better health and social services, and a rich cultural and social life are benefits that can be achieved through this initiative.

2.2 Why Auckland North?

Considerable innovation is already taking place in Auckland North, with a number of local companies growing rapidly, including Unleashed, Rex Bionics, Invenco, and eRoad, to name a few. Clusters of innovation are already beginning to emerge organically from particular localised efforts.

We are seeking to capitalise and build on these by developing a strategic and focused initiative in which businesses, government, and education sectors collaborate with the intention of shaping the Auckland North area in a particular way. Specifically, to develop a 'smart innovation district' in the mould of other successful smart innovation districts like those in Waterloo, Canada and Boston, Massachusetts.

A significant interest of this initiative is therefore also to connect the efforts of Grow North with other Auckland city region initiatives, so that the regional districts work together to contribute to the broader goal of solidifying Auckland's potential to become a hub for innovation in the Asia-Pacific region. An initial component of this initiative included undertaking research to understand the place-based opportunities and advantages of this region, culminating in this report.

2.3 How Will We Know We Have Been Successful?

There is not one simple way to measure success in establishing an innovation district, but the following are among the indicators we will monitor:

- The number of patents generated in the region
- The value of exports from the region
- The number of start-up companies registered annually, as well as the number of businesses actively participating with incubators and accelerators in the region
- The number of companies (re)locating to Auckland North
- The number of R&D projects that result in new products and services which then convert into a global scale-up business
- The number of businesses located in Auckland North on the TIN (Technology Innovation Network) top 10 and top 100 lists, and on the Deloitte Fast 50 list
- The number of secondary schools with innovation-related programmes
- The number of tertiary students engaged in internships and cooperative learning experiences with Auckland North organisations, and the quality of these experiences
- Demographics of diverse participation along ethnic, class, and gender lines
- Perceptions of quality of life in Auckland North
- GDP and job growth in the region.

Smales Farm

3 The Context of this Report

3.1 The Grow North Catalyst

We have the opportunity to create our own version of Silicon Valley right here on the North Shore, but rapid growth needs to sit alongside visionary planning. That's what Grow North is all about.

Steve Maharey,
Vice-Chancellor, Massey University

Recognising that Albany and the North Shore area are in the midst of constant residential and commercial property development and growth, Massey University held a symposium on its Albany campus in February 2015 to consider the future of Auckland North. This symposium demonstrated a clear interest in and excitement for bolstering an innovation district, and engendered the support of city leaders, university leaders and researchers, various business owners and entrepreneurs, and others.[1] The symposium featured four break-out discussions designed to surface key opportunities and points of concern around the topics of: trade and future workforce, transport and infrastructure, health and wellness, and innovation and technology.

Post-symposium, Massey University, supported by Auckland Tourism, Events and Economic Development (ATEED), undertook an in-depth research project to ascertain the obstacles and advantages to enhancing innovation in Auckland North, with attention to the implications for other Auckland regions.

The outcomes from this research have identified clear conditions necessary for a successful smart innovation district and established the assets and challenges within Auckland North that will enable such a district to thrive.

This research has formed the foundations for the emerging Grow North strategy, its vision, and its objectives.

3.2 Previous Auckland North Development Studies

The research builds on previous studies carried out by Massey University and pre-Auckland Council amalgamation, which had in the past identified a number of issues and challenges affecting economic growth. Previous research includes reports from Massey University scholars working in conjunction with Enterprise North Shore;[2] Work and Income Auckland and the Rodney Economic Development Trust[3] and Enterprise North Shore Trust;[4] and North Shore City Council;[5] among others. Overall, these reports represent economic development studies, and are focused on surfacing the obstacles, opportunities, and advantages of attracting big business North of Auckland; employment trends and workforce issues; immigration and migration; and assessment of particular sectors and industry. Taken together, these reports identify common and in some cases, enduring, issues facing the particular cities North of Auckland, pre-amalgamation.

3.2.1 Findings from previous Auckland North development studies

– Frustration with traffic and identification of 'the bridge' as a problem
– Skills shortage, and lack of connection between education and industry
– Need for enhanced infrastructure (particularly broadband internet)
– Lack of a local vision for the specific, pre-amalgamation cities
– Lack of corporate (and other) jobs to keep local youth in the area
– High cost of housing and other financial barriers to entry
– Tension between whether to grow locally or grow globally (micro-macro tension)

+ Lifestyle, in the sense of a highly-educated and affluent population
+ Lifestyle, in the sense of access to the natural environment
+ Greenfield space available for development
+ Good schools and tertiary institutions

3.2.2 Suggestions for intervention from previous Auckland North development studies

- Develop a shared vision, particularly on the part of local and central councils
- Establish stakeholder and innovation networks to generate social capital
- Develop a recognisable brand, including an accessible 'clearinghouse' website
- Better integrate Māori and immigrant perspectives and participation
- Offer incentives for business to locate to Auckland North
- Generate industry clusters around health, education, and sport performance
- Attract high-tech and smart business to the region
- Increase the speed and ease of travel and commuting, including enhancing ferry services
- Teach and train students around technology and knowledge work (in 2002)
- Teach and train students to learn trades and take up apprenticeships (in 2004)
- Develop tourism efforts

As many will be aware, and as the Grow North research has suggested, some of these issues have been positively addressed, including access to broadband internet; increase of public transportation such as ferry and bus services; developed attention to the high-tech, ICT, and sport performance industries; the creation of business and innovation networks (though participants in the research questioned the lasting success of these networks); and the formation of the Auckland Innovation Plan by ATEED to guide development throughout the Auckland regions.

Several issues identified in these previous reports continue to persist, including frustration with traffic and identification of the Auckland Harbour Bridge as an obstacle; a skills shortage and lack of an industry-education connection, as well as lack of jobs to keep youth in the area; the high cost of housing; lack of a shared vision and brand for the region; the absence of Māori and immigrant voices in development decisions; and a tension in the choice to grow into local or global markets.

The positive dimensions of Auckland North are still present, including an appreciation of the lifestyle, recognition of greenspace as opportunities for development, and strong schools and tertiary institutions (made even more recognisable by the success of students such as Lydia Ko and Lorde).

3.2.3 The contribution of the Grow North initiative

This report, therefore, partially serves to validate what issues have been addressed and what barriers or obstacles remain. The strengths of the Grow North project, and this report, include that it:

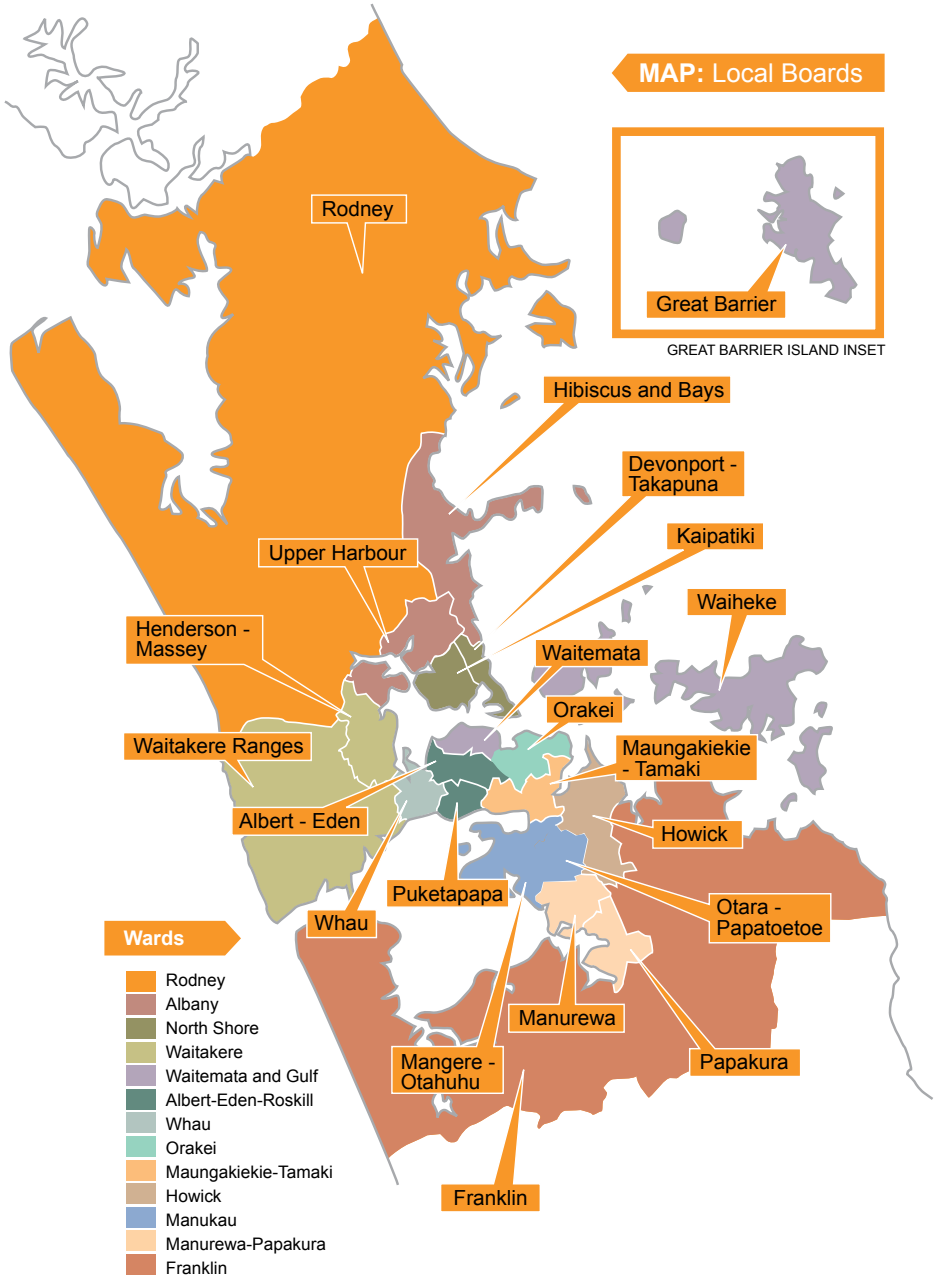
- Revisits and re-establishes the factors of 'growing North' in a region that is no longer fragmented by cities but has been amalgamated as part of the Auckland Super City
- Revisits Auckland North growth post-2008 (i.e., the global financial crisis) and with significant leaps in technology having occurred
- Focuses on *innovation* as a concept and practice that can bring diverse people, occupations, and processes together and which has social as well as economic benefits
- Forwards a view of change that begins with a partnership amongst industry, education, and government/civic life (the Triple Helix), rather than viewing these dimensions in isolation
- Provides an analysis of attitudes and perceptions (identified in the 2004 Enterprise North Shore Trust report as important to consider), and solutions geared toward culture change, as well as infrastructural and economic change
- Moves beyond description to provide research-informed recommendations for moving forward.

4 A Snapshot of Auckland North Today

As noted, previous reports have focused on particular cities in Auckland North before being brought under the umbrella of the Super City in 2010. Much has changed since then, and it is fair to say that Auckland North is still working out some of the effects, including side-effects, of amalgamation.

4.1 Defining Auckland North

Auckland North refers to the five regions comprising Kaipatiki, Devonport-Takapuna, Hibiscus and Bays, Upper Harbour, and Rodney, as seen on the map below.



Source: Auckland Council: Wards and Boards Map[5]

4.2 Demographics of Auckland North (2014)

Local Board Area	% of regional pop.	Median age	# of employees working here (2013)	Ethnic pop.	% born overseas	Median household income	% of residents employed	# of schools (and decile ratings)	# of businesses
Devonport-Takapuna	4%	39.7	26,750	76% Euro. 20% Asian 5% Maori 2% Pacific	38%	$85,800	64%	22 (Half decile 10)	8,195
Hibiscus and Bays	6%	42.4	16,480	89% Euro. 8% Asian 6% Maori 2% Pacific	35%	$78,200	63%	25 (Most decile 8-10)	9,619
Kaipatiki	6%	35.2	23,160	65% Euro. 26% Asian 8% Maori 6% Pacific	40%	$78,600=	65%	26 (Most decile 5+)	8,280
Rodney	4%	42.6	13,170	91% Euro. 10% Maori 3% Pacific 3% Asian	21%	$70,100	66%	30 (Most decile 5+)	8,619
Upper Harbour	4%	36.2	37,880	66% Euro. 29% Asian 5% Maori 2% Pacific	44%	$89,000	64%	19 (Most decile 9-10)	8,717

Standard statistics for Auckland North centre on employment, ethnic population, school ratings, and so forth.[6]

These statistics point to what is commonly noted about Auckland North, particularly that the schools are highly rated, there is a healthy median income, and the increasing percentage of immigrants and foreign-born citizens contributes to a growing ethnic diversity. 2014 reporting also suggests that residents in these areas experience a high quality of life in terms of safety, pride in their local board area, and high levels of community belonging.[7]

Auckland North has been forecast to increase in terms of ethnic diversity,[8] which, along with this feeling of community and local pride, poses exciting opportunities for innovation and inclusion in a diverse ecosystem.

These statistics also point to some of the specific nuances amongst the local board areas; namely that school decile ratings decrease the farther West and North one goes, along with income, while diversity increases in some ways. This means that a plan for increasing the ecosystem in the whole of Auckland North must take into account the need to work closely with local board chairs and their unique area needs. This also suggests that an ecosytem needs a particularly strong presence in the West and North, so as to encourage members of the population who may be otherwise missed or left out of the decision-making around the ecosystem.

Proximity to the city and State Highway 1 facilitate job choice, participation in innovation networks, and trade. Therefore an innovation ecosystem needs to ease some of the geographic and social distance created by this lack of proximity. As part of this, we must challenge assumptions that the areas closer to the bridge are inherently 'more innovative' or more suitable for inclusion in the ecosystem.

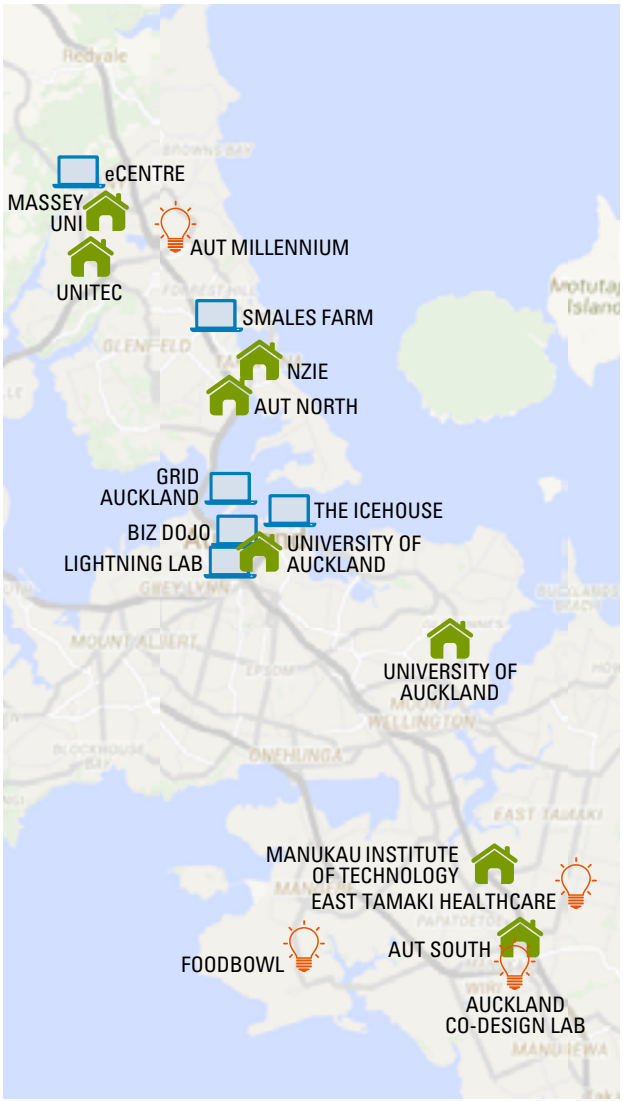
4.3 Tertiary, Business/Industry, and Government Developments In Auckland North

Auckland North has seen a fair share of growth in tertiary education and business in recent years, and it is forecast to continue to do so. For instance, Massey University established an Albany campus in 1993; AUT partnered with the Millenium Institute of Sport and Health to establish a sport performance campus in Rosedale in 2009, complementing its Glenfield campus; and Unitec opened an Albany campus in 2011. The New Zealand Institute for Education (NZIE) also houses a campus in Takapuna. In more recent developments, Massey University is currently engaged in the construction of a new Innovation Sciences Complex which will draw attention to this campus as the 'innovation campus' for New Zealand.

Several business developments in the recent past have also contributed to the changing terrain of Auckland North. In 2013, the Takapuna Beach Business Association (TBBA), in partnership with ATEED, created the 'Techapuna' identity so as to signal the prevalence of high-tech and software firms on the North Shore.[9] This branding has endured, with the TBBA looking to further develop the Techapuna reputation. Smales Farm has a long history as a Technology Park on the North Shore, bolstered by its location along an accessible bus line. In recent developments, Smales Farm has introduced itself as a burgeoning hub for co-working and innovation, developing flexible leases for startups and established businesses in its co-working space. Developments for Smales Farm will continue, particularly due to the announcement by Vodafone to relocate all of its offices to Smales Farm. Vodafone, in this way, has the potential to serve as an anchor firm in this innovation ecosystem.

Developments in the greater Auckland area support and foster many of the changes in Auckland North. The amalgamation of the Super City and the establishment of the city regional Auckland Council and local board structure has engendered a cohesive vision and framework for the wider region. For instance, the Auckland Plan presents the vision to establish Auckland as the 'world's most liveable city' with objectives to improve the economic and social propersity of all Aucklanders, and the city's Economic Development Strategy provides a framework for achieving economic growth and, importantly, identifies innovation as a key priority. Moreover, the Auckland Innovation Plan offers a city-wide approach to fostering the development of an innovation ecosystem in Auckland. This plan seeks to establish Auckland as a major innovation player and key hub in the Asia-Pacific region. Under this umbrella, GridAKL opened in 2014 to serve as an innovation hub, and along with reclamation throughout the 2000s of the waterfront in the Wynyard Quarter as a mixed-development space, has contributed to the creation of the 'innovation quarter' in Auckland. To the South of Auckland, the New Zealand Food Innovation Network has established the FOODBOWL, an open-access facility that offers expertise and fosters R&D around food, commercialisation, and related innovations. To the East of Auckland, East Tamaki has been gaining a reputation for health innovation, with East Tamaki Healthcare winning consecutive innovation awards in the 2000s.

Grow North serves to consider how, in the context of these initiatives, it can add value to this agenda by forming a local response to the needs of Auckland North.



TERTIARY EDUCATION	• Massey University • Unitec • Institute for Education (NZIE) • AUT • University of Auckland • Manukau Institute of Technology
BUSINESS DEVELOPMENT	• eCentre, Massey University • Smales Farm, Technology Park • GridAKL • The ICEHOUSE • Biz Dojo • Lightning Lab
INNOVATION R & D	• AUT Millenium Centre • East Tamaki Healthcare • FOODBOWL • Auckland Co-Design Lab

5 Literature on Developing an Innovation Ecosystem

Defined by the Brookings Institution as 'geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators', innovation ecosystems (similarly referred to as regional innovation systems or innovation districts, corridors, or clusters) are generally characterised in two ways: 1) As geographic areas that seek to develop economic advantage, entrepreneurship, and creativity; and 2) as sites of wired, digitally linked infrastructures. Innovation ecosystems tend to be open rather than closed systems, and develop over time and through spontaneous, organic processes. The importance of human capital in such ecosystems continues to be underscored, as innovation ecosystems require diverse ideas and knowledges as well as rich coordination and collaboration. See Appendix A for an executive summary of relevant literature.

5.1 Advantages of Innovation Ecosystems

The advantages of innovation ecosystems is that they offer valuable economic and lifestyle benefits associated with regional districts. Through collaboration and cross-pollination of ideas, space and equipment sharing, and open innovation, innovation districts support the growth of innovative firms and the development of dynamic networks, thereby helping to revitalise urban spaces.

In particular, the cross-clustering that is often characteristic of innovation districts has been found to give rise to new patents, business-start ups, and industry involvement in the particular region, thus also effecting an increase in employment and wages.[10] Benefits to social life beyond economic effects are more difficult to predict, and much of the research on innovation ecosystems has thus far focused on economic benefits.

That said, it is often the case that more dynamic innovation ecosystems incorporate arts and cultural events, as well as community workshops and training, along with mixed-development spaces into the ecosystem. Such efforts may foster satisfaction with community, increased employment training and opportunities, and higher quality of life overall.

However, innovation ecosystems need to keep a careful eye on the social benefits and/or detriments that may be engendered. Innovation ecosystems have been critiqued, for instance, regarding gentrification and the possibility of increasing, rather than decreasing, social exclusion. Indeed, criticism of Silicon Valley often centres on the increasing wage and gender gaps, mainstreaming of immigrant and non-white ethnic groups, pressure to perform amongst high-school students as well as adults, and the invisibility of local homeless populations.[11] (see p. 31).

5.2 Common Elements in Innovation Ecosystems

Numerous elements play a role in developing innovation ecosystems. Key elements include the following:

- Interest in the concept and trust for those involved in steering it
- Support for entrepreneurial resources such as incubators, accelerators, and investment in R&D
- The active contribution of venture capitalists and other investors
- A rich mix of capital: financial, human, and social
- Dynamic connections, including willingness amongst firms to engage in co-opetition (or 'collaborative competition')
- Geographic proximity and/or access to a central location or 'hub' that provides shared resources and a gathering space
- Specialisation in the industry strengths of the region
- Accessible services and infrastructure
- A strategic global perspective and networking
- Larger corporates that serve as 'anchor firms' by facilitating local economic development and launching innovative initiatives.

5.3 The Triple Helix

Common to many successful innovation ecosystems is a rich collaboration of industry, education, and government/civic life – a partnership referred to as the Triple Helix. Within this partnership, the following roles are typically played. Overall, what is particularly important is that the various domains share a vision for regional, place-based development.

DOMAIN	CONTRIBUTION
Education	Provides relevant knowledge, research and training, lends institutional and social legitimacy, and engenders coordination (particularly by universities)
Government / civic life	Supports entry into the ecosystem through financial opportunities, coordination, and policy incentives 'Innovative citizens' participate through engagement, asking questions, and supporting outcomes
Industry	Provides mentorship, sharing processes and resources with the goal of achieving 'co-opetition' (collaborative competition)

5.4 The Innovation Lifecycle Model

The model of innovation development that represents some notable ecosystems is the Ecosystem Lifecycle model, developed based on research gathered on the Waterloo, Canada ecosystem and presented in the 2015 Waterloo Startup Ecosystem Report.

This model moves through the four phases of Emergence, Activation, Integration, and Maturity to suggest that ecosystems first begin organically, and that during this time, stakeholders develop 'know how' and learn best practices ('Emergence'). Ecosystems are then 'activated' through purposeful attention and the infusion of external resources such as talent, funding, physical location, and so forth ('Activation'). When external resources begin to flow steadily into the ecosystem, the ecosystem is said to be developing inorganically. Here, the ecosystem attracts significant startup resources and grows internationally recognisable players ('Integration'). When the ecosystem has reached its limits of growth, it begins to plateau ('Maturity').

At this point, the Auckland North ecosystem can reasonably be said to be in the Emergence phase, in that several areas of innovation have organically emerged and are beginning to be fostered, or 'Activated'. Accordingly, the objectives of Grow North are focused on identifying these organic areas of innovation and drawing attention to them, with the goal of connecting these efforts and attracting external resources into the ecosystem.

Ecosystem Lifecycle model, Waterloo Startup Ecosystem Report 2015

5.5 Successful Innovation Ecosystem Examples

Key examples of innovation ecosystems inform what is possible for Auckland North, and the action steps for Grow North. Three dynamic and relevant examples are:

WATERLOO INNOVATION SYSTEM

In September 2015, several members of the Grow North project team attended the Waterloo Innovation Summit in Waterloo, Canada. Lessons learned from this successful overseas effort include:

- Multiple facilities support enterprise development, from a community incubator space, to student hatcheries and incubators on the campus of the University of Waterloo, to the University's technology park. These facilities are differentiated to help enterprises at multiple stages of their life cycle
- There are strong relationships between local and provincial government and established businesses. The innovation system typically asks for government financial support only after they have industry backing and their own contribution sorted
- Businesses want to be involved to keep their finger on the pulse of innovation, scout talent, and have their problems worked on by bright young minds

- At the intersection of university and industry is a robust cooperative education programme. Of the 36,000 students at the University of Waterloo, 53% are in this programme, alternating semesters in study and paid work. The university has extensive professional staff to help facilitate students finding co-op placements. Over their university career, students may spend half their time – up to six trimesters – in work placements. Students are attracted to it because they earn while they learn and, resultingly, do not graduate with student debt. Students are also very work ready and employable
- The University of Waterloo does not take IP from staff or student innovations. It's thinking was that this would encourage more staff and students to innovate (by reducing their risk) and that successful innovators would give back, and the policy has been touted as highly successful on all fronts
- Every faculty at the University of Waterloo is organised to support innovation and entrepreneurship, for instance, with business and innovation/entrepreneurship courses embedded in the curricula of arts, engineering, etc.

MaRS, TORONTO, ONTARIO, CANADA

MaRS Discovery District in Toronto is one of the world's largest innovation hubs. Its large, 1.5 million square foot complex is located centrally in the city's medical and research cluster in downtown Toronto. Since its launch in 2005, MaRS has established itself as an exemplar with impressive results. It has helped create more than 5,000 jobs, and between 2012 and 2014, assisted businesses to raise over $1.3bn in capital and earn $640m in revenue. Central to the success is:

- MaRS is located at the heart of the university district, only a few blocks away from Toronto's financial services sector, providing direct connection to professional services and venture capital. The district is well-serviced by local transport
- The complex offers diverse accommodation options and has a rich mix of businesses supporting start-ups through co-working, large corporate anchor tenants, and extensive research and lab space
- The University of Toronto is a major contributor to the district, both as a tenant and as a board member. The University helps guide strategy but is also actively commercialising research and innovations
- MaRS provides events, programmes, and facilities, through which strong connections and collaborations have emerged. This has lead to increased knowledge sharing and expertise
- MaRS actively targets high growth potential businesses providing a range of support services and programmes, working with these businesses to develop their capability and capacity. This mentoring and support has ensured that focus remains on delivering results and underlies their economic impact
- Partnership is vital to MaRS success and the Triple Helix model is present. Supported by provincial and city governments, as well as the University of Toronto, MaRS also boasts significant private sector support with some global heavyweights such as AstraZeneca, GE, and Air BnB represented both as tenants but also as board members
- MaRS is also developing a 'corporate innovation zone', providing opportunities for partnership between large corporate businesses seeking to innovate and collaborate with agile SMEs and start-ups
- MaRS has successfully integrated into the wider Ontario and Canadian ecosystem, acting as a service hub providing shared services, assets, and programmes to other local ecosystems.

BOSTON INNOVATION DISTRICT, BOSTON, MASSACHUSETTS, USA

- District Hall, a 'free-standing public innovation center' serves as a recognisable centre for information, participation, and activity
- Events offered by a series of local sites and campuses entwine to create a larger regional focus on innovation (e.g., in the span of one week in February 2016, MIT hosted a Tech Conference; the Boston Business & Tech Meetup held an 'Internet of Things' event; Boston University's BUzz Lab hosted Phil Libin, Evernote founder; and a series of other events occurred at innovation lab spaces, coffee shops, and corporate spaces such as Microsoft's NERD center)
- Events include social change initiatives (e.g., the 'Social Change Hackathon series' hosted at District Hall)
- Factory 63, a new housing development in the innovation district features artist apartments and a design innovation gallery, and seeks to foster a '24-hour neighbourhood'
- Arts and culture are incorporated by the Hall's proximity to the Harpoon brewery, the innovative Boston Children's Museum, and the Bank of America concern pavillion
- Since launching in 2010, it is estimated that 5,000 new jobs have been added and over 200 new companies established in the area.

6 Findings from the Grow North Research Study

This study of Auckland North, conducted in 2015, surfaced some of the opportunities as well as the barriers to developing an innovation district in this location. This research was overseen by a multi-stakeholder project team (Appendix B) and undertaken with industry leaders, entrepreneurs and startup founders, as well as representatives from local government. The goal of the research was to gauge stakeholders' interest in and support for an ecosystem, and to begin to identify some of the key issues that Grow North would need to address. The findings and implications identified below are based on 61 interviews conducted with key and supporting stakeholders, as well as a survey of firms across the Auckland North area that resulted in approximately 200 responses. Appendix C provides the background to the research and the research design and methodology.

6.1 Support For An Innovation Ecosystem

The research indicated that there was wide support for developing a smart innovation district in Auckland North. The overwhelming majority of participants supported the concept, though some encouraged careful development of the district to ensure maximum benefit (e.g., '[this] does not mean that a cluster is not a good idea, it just needs to be carefully managed'). Many of the industry participants, in fact, noted that a district has the potential to alleviate struggles with developing local talent and keeping school graduates in the area. Others expressed hope that the enhanced transportation that may accompany a district would attract businesses, investors, and employees to Auckland North, providing a way to avoid Auckland traffic and the Harbour Bridge and benefitting their employees' commutes. One participant noted that he purposefully located his business near a bus stop for this reason.

Industry leaders also believed that the networking and idea-sharing opportunities would be beneficial. One participant remarked:

> *I think that would be a very cool place to work; that you have experts in a whole lot of fields and everyone works collaboratively. I think that would be awesome and a great community to be in if that can actually happen.*

Another participant envisioned multiple intimate networks that could provide avenues for specific mentoring, as well as opportunities to co-sponsor and collaborate on hosting speakers and events. This participant remarked:

> *If you had multiple clusters they could all come together.... So I can see these small clusters where it's intimate enough that you can share ideas effectively; and that there could be multiple of those if it's something that grows. And then have something that cohesively can pull them together for bigger presentations, or things where it's more appropriate to have more people together.*

Another participant agreed, saying, *'to me the idea of a cluster is good in that it is a good networking opportunity. So you have complementary businesses working together, that is where a cluster really shines'* [*but also expressing concern about competition from businesses in similar industries. This person suggested,*] *'if you have businesses that are in similar fields working together, that is going to be disastrous'.*

Of note is that not all participants saw the potential for economic benefits to their business in a local innovation ecosystem. A handful of established entrepreneurs who participate mostly, or solely, in global markets believed that an innovation district would be beneficial for culture and lifestyle, but not for their ventures. And, a few other industry leaders and entrepreneurs who travel throughout the country argued for a wider focus on enhancing the innovation of New Zealand overall.

6.1.1 Support For A Physical, Identifiable Location

Along with broader support for an innovation district, multiple participants voiced support for a physical, identifiable location for a hub or resource centre. Participants believed that this would be useful for branding and centralisation of services, of which even businesses not physically located could also take advantage. A representative quotation is:

> *Nowadays you don't have to be necessarily* [*physically close*]*, but I think people generally like to cluster around like-minded people and so you get that entrepreneurial, innovative thinking happening when people are grouped together.*

It was also clear, though, that simply having a space was not enough; participants in the research emphasised that they would want to see quality (over quantity) in terms of speakers, programmes, funding options, and other services: *'It would need to be something that would attract* [*people*] *to get involved'.*

There was a generally shared belief that a physical location for an innovation site would require *'a lot more communication, a lot more just managing in with each other, a lot more transfer of information'* [*and*] *'would* [*therefore*] *cause a huge increase in networking and sharing of ideas'.*

Above all, the importance of accessibility was emphasised – that, regardless of location, it would need to be both physically accessible (e.g., bus routes, parking) and digitally accessible (e.g., website, conferencing capabilities).

Thus, one important issue to consider is where a hub should be located, at least in the beginning. Most participants identified Albany, Smales Farm, and/or Takapuna as 'obvious' innovation sites, and suggested that innovation be built up in these areas first. It was suggested that Albany is ideal because of the presence of Massey University (*'Massey University's perfect because you've got land to grow so you'd need to have a bit of land where you start off small but you can then start to build the park or whatever'*), or Takapuna because the 'Techapuna' branding has begun to gain traction. Yet, others suggested that it was important to take 'Growing North' seriously, and so wanted to see innovation sites in Silverdale or Orewa (to where Zeald has now notably established a location).

6.2 Advantages And Barriers

As part of the support for enhancing an innovation ecosystem, the research surfaced several advantages and barriers to the work ahead.

6.2.1 Advantages

+ Highly-educated population
+ Infrastructure
+ Lifestyle

HIGHLY-EDUCATED POPULATION. The most-cited advantage for innovation in Auckland North was the highly-educated population. The prevalence of educated parents, immigrants, and students was continually suggested as one of the main reasons for why an opportunity exists for enhancing innovation (at least on the North Shore). Participants commented that '*you get the impression there's a lot of…smart, innovative, hardworking people working on the Shore already*' and '*there seems to be quite a few entrepreneurial types of people living and working on the Shore*'. As part of this, participants made frequent mention of the high-decile schools, particularly on the North Shore, in Auckland North.

INFRASTRUCTURE. Others cited the infrastructure of Auckland North as being particularly strong. One participant noted that there is good office space available, and another argued that '*you need to have simple stuff nowadays like ultrafast broadband, access to good, safe buildings. All of that exists. That's not a problem*'. The quality of infrastructure meant that '*you can have a small number of people on the Shore but you might have some of your teams in Australia and Sydney and some of the teams in San Francisco and so on*'.

LIFESTYLE. Another perceived advantage for innovation in Auckland North is the lifestyle. Many participants pointed out the location as the ideal place to have a balanced work and life, with one referencing Sir Paul Callaghan as having said that '*New Zealand will be a place where talent wants to live*'. Others argued that they located their businesses in Auckland North simply because it was closer to where they lived, and they saw this as an advantage for their employees as well.

6.2.2 Barriers

- Funding
- Culture
- Talent
- Time
- Amalgamation

FUNDING. Participants noted limited funding and difficulty in accessing capital, with specific points made about government support and Crown funding. Almost all participants were aware of the funding available through Callaghan and NZTE, but also recognised that not all organisations are seen as suitable candidates for this funding – with these organisations, '*you've really got to show that you're doing something different*'. Recognising that '*development is not cheap*', one participant hoped that there could be a way '*to make innovation more affordable for organisations*'. Participants who thought that Callaghan Innovation and other government funding bodies were doing a good job with providing financing nonetheless made critiques. One observed that '*the innovation IP programme run by Callaghan has been quite useful but that's on a nationwide basis*'.

CULTURE. The research surfaced the New Zealand culture as a potential barrier to innovation, specifically the Kiwi 'no. 8 wire' mentality. This is the notion that Kiwis are innovative, but only to a point, or that New Zealand does not lack for ideas but struggles with commercialisation. This mentality was also cited as a reason for the fragmentation of innovation in the country thus far. Here, the 'do-it-yourself' mentality was suggested to contribute to independence in business ventures, where instead of seeking opportunities to collaborate, Kiwis will instead develop an idea from the ground up, possibly replicating the work that someone has already done. This means that innovation clusters may be hindered by a series of one-off, replicative businesses, instead of collaborating to develop a venture with innovation and growth potential.

The issue of culture was further identified as having to do with 'tall poppy syndrome'. Participants in the research suggested that ideas are encouraged, but that implementation was discouraged:

> *In New Zealand I think there tends to be a bit of an attitude that they are a little bit jealous of somebody being highly successful. They are constantly trying to drag them down rather than make them successful.*

The research suggested that stakeholders believe that tall poppy syndrome is at least part of the reason why people remain protective of their ideas, particularly when economic wealth may be on the line. In the words of one participant, *'New Zealand businesses are relatively collaborative until such point as they see someone is going to make an awful lot of money out of it and then they're less collaborative'.*

Some participants explicitly suggested that what needs to happen is more emphasis on 'co-opetition' in place of competition, and demonstrating how the ideas of one person or set of persons can ultimately help others.

ADVANTAGES	**Highly-educated population** **Infrastructure** **Lifestyle**
BARRIERS	**Funding** **Culture** **Talent** **Time** **Amalgamation**

TALENT. Even though one of the opportunities identified in the research was a highly-educated workforce, participants also noted problems with finding talented people with strong secondary or tertiary educational skills, or additional training (e.g., in coding or project management), which was an observation also emphasised in an industry focus group conducted for Grow North in May 2015. One participant underscored the importance of talent by remarking:

> *Very important number one for me* [*is that*] *I can access the talent pool easily. End of day what is number one? People; nothing else, people. If I have the best people work for me then I will be success guaranteed. I can beat my competitors easily.*

This participant continued on to explain the importance of an innovation system. She/he argued that when *'people have a similar mind or similar thinking or hobby they work together easy. So you can't just have the talented people, one or two form a society or community, you have to have a group or bunch'.*

TIME. The research surfaced lack of time as an issue for stakeholders in developing innovation and partaking in events and activities associated with an innovation ecosystem. In this, time was more of an issue for participants in the early- and middle-stages of growth, with entrepreneurs at the late stages of growth beginning to think more about how to contribute to others' success. And, although we can assume that time would be said to be a scarce resource for entrepreneurs and business owners across the globe, the stakeholders interviewed in this research noted it as a particular problem, and this is perhaps because they are focused on solo ventures rather than partnering with others. One scenario offered by a participant illustrates this quite well:

> *So you're a lady who runs a great business, you go off and do this* [*business development*] *course, you think that was absolutely excellent and the next day you're back in your business doing your day to day business issues. You are struggling to keep your team focused, you're struggling to get that new customer in the door, so you're running fast just to actually stay where you are; yet you've just gone and learnt all this new stuff. … Quite often that's where it ends; nothing comes out of it because you don't have the time to actually implement the ideas.*

AMALGAMATION/CENTRALISATION.

The amalgamation of the Super City in 2010 is relatively recent in public policy terms and although there exists a framework for decision making between the Auckland Council governing body and the local boards, responses suggested that there is still work to be done in understanding the division of decision-making and the speed at which resources can be released locally. Criticism along these lines seemed to stem largely from a feeling that there is a lack of communication or transparency in regulatory, infrastructure, and decision-making processes. For instance, a handful of participants argued that decisions needed to be made in close communication with local boards and industry so that those providing input were not only kept in the loop but were also given the resources to assist with and implement projects.

6.3 Problems and Paradoxes

The research also surfaced some key paradoxes – identified as such because of the fact that these constitute enduring and difficult problems that, rather than be 'solved', may need to be accepted as part of the unique context of growing North.

+/- Defining innovation

+/- Collaboration and meaningful conversation

+/- The No. 8 wire culture

+/- Lack of a clear mentorship path, or incentives

ANXIETY OVER HOW INNOVATION IS DEFINED

Several participants expressed concern about how innovation would be defined, or what kinds of innovation would be promoted, in an Auckland North district. This largely stemmed from concern that, if they did not meet the definition, they would lose access to resources, particularly financial. Other participants cautioned that resources would be diverted away from small and established businesses if the ecosystem promoted a particular kind of innovation (e.g., ICT, health). Here, roughly a quarter of participants were specifically concerned that it was a foregone conclusion that ICT would draw the focus of the ecosystem, and/or that the ecosystem would be centred in Takapuna for this reason. The 'scarce resources' mentality may connect to larger New Zealand cultural issues around ownership of ideas and independence of effort.

LACK OF MEANINGFUL CONVERSATION ACROSS THE SECTORS IN THE TRIPLE HELIX

Participants in each sector held perceptions about what others were or were not doing or thinking, contributing to suspicion about other's motives and a mentality of scarce resources.

THE 'NO 8 WIRE' AS BOTH ENABLING AND CONSTRAINING

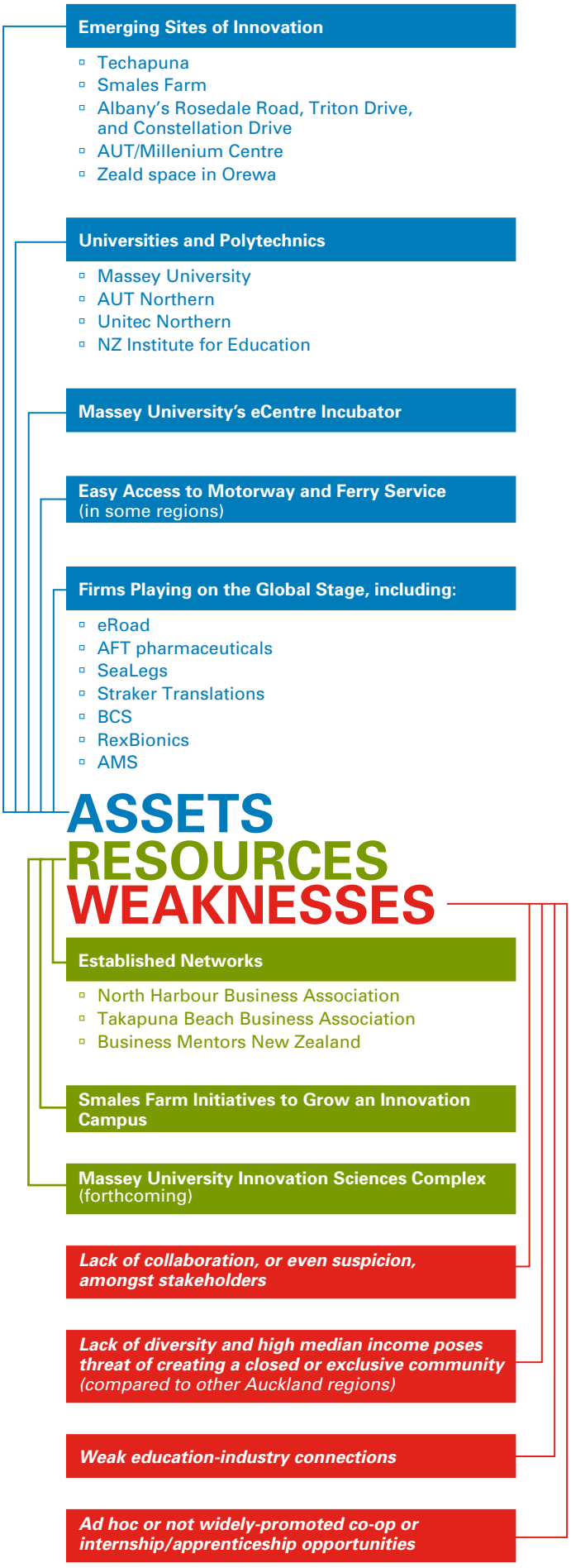
As noted previously, this metaphor underscores idea generation, improvisation, and inventiveness as unique advantages. However, it only goes so far; when it comes to scaling ideas and taking them global, the perception is that innovators lack a robust understanding of the global contexts and markets with which they want to engage, or the mentorship needed to navigate these.

LACK OF CRITICAL EXPERIENTIAL KNOWLEDGE – OR WILLINGNESS – TO TEACH OTHERS 'COMING UP'

The ecosystem lacks a framework for those with experience to mentor back down the pipeline – and startups and those with emerging ideas are themselves unsure how to link up with successful innovators and discern the helpful, actionable advice that they need.

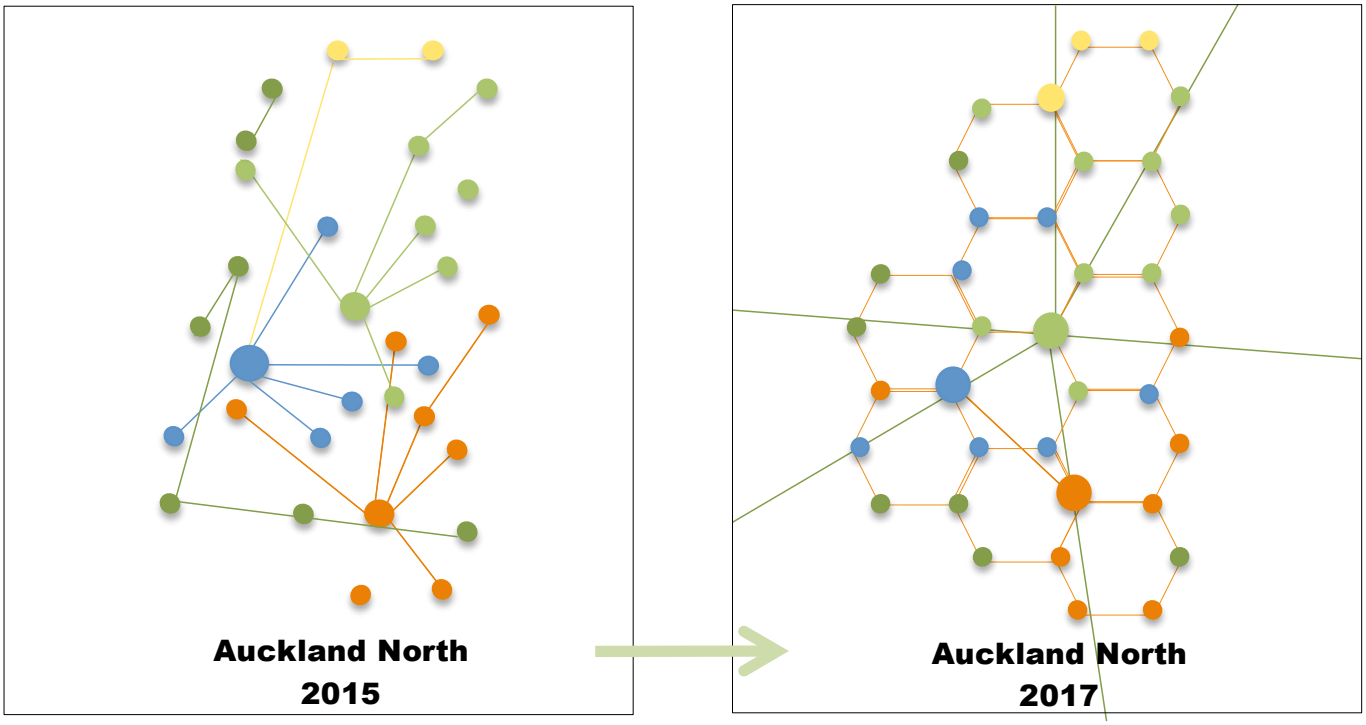
6.4 Assets, Resources, and Weaknesses

The research further offered an opportunity to begin to collect an 'inventory' of the assets, resources, and weaknesses of the Auckland North ecosystem. It is important to keep in mind that this inventory is only a partial 'snapshot' in time, and will be added to as Grow North continues to develop.



6.5 Summary Implications for Enhancing the Auckland North Innovation Ecosystem

In summary, there are some key advantages and assets, as well as challenges, to developing a smart innovation district in Auckland North. In practical terms, this research suggests a strong need to develop a centrally-located innovation centre, or hub, with pop-up satellite facilities that draw from and also feed into a central hub. This data also suggests a need to establish a 'Grow North' community brand identity that helps connect the distinct and overlapping efforts of the education, industry, and government sectors. The goal here would be to transition from a region that has a number of innovation initiatives that are disconnected and/or invisible, to one that has a connected and collaborative sense of what people in Auckland North are undertaking (see below diagram). Supporting this would be a single communication and marketing platform for Auckland North that is not 'owned' by any one entity but is a robust collaboration amongst industry, education, and government. This would furthermore help identify Auckland North as an attractive place for business, investment, and lifestyle.



7 Grow North Goals, Objectives, and Actions

7.1 Goals and Objectives

As stated throughout this report, the purpose of the Grow North initiative is to foster a smart innovation district in Auckland North – a living, interconnected, and collaborative district that is inclusive of diverse businesses, communities, educational institutions, and government. Our specific vision sees Grow North as an initiative that works alongside other initiatives in the Auckland region to contribute to a 'living innovation platform' that connects various initiatives and eventually becomes a foundation for innovation efforts.

7.1.1 The Grow North Vision

Our vision is to develop Auckland North into one of the most dynamic and smart innovation districts in the world.

7.1.2 The Grow North Purpose

The purpose of the Grow North initiative is to foster a successful smart innovation district in Auckland - a living, interconnected and collaborative corridor that is inclusive of diverse businesses, communities, and educational institutions, in other words, a 'Living Platform' from which to continuously launch valuable products and venture.

As illustrated in these figures, an innovation platform serves as a strong foundation on which to undertake various projects, particularly that bring together systems, technology, knowledge, and people to create exciting initiatives:

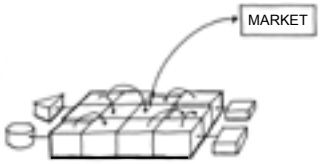
What's a Platform?

The purpose of a platform is to launch a device that undertakes a mission or does an important job

Without the platform, launching a successful mission would be difficult

A Business Platform

A business platform is a collection of systems, technology, knowledge & people that connect together to launch valuable products and ventures



Without a connected platform, launching globally-competitive ventures successfully is difficult

To help develop a living innovation platform, Grow North is committed to fostering collaboration, knowledge, and opportunities that comprise a diversity of resources and experiences across platforms:

A Living Innovation Platform

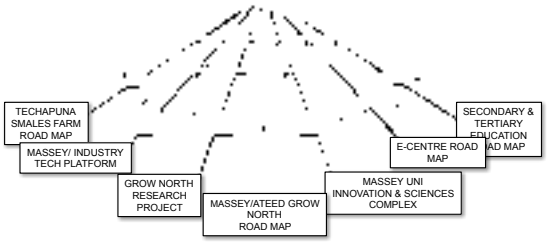
A 'Living' Platform is a closely connected system of bright minds, knowledge & local platforms that collaborate to rapidly & continuously launch 'never seen before' innovation to the world

Without the alignment & connection of visionaries, innovators, entrepreneurs, engineers & scientists, launching a *flow* of ventures that are competitive & successful is difficult

HOW? Multiple converging & collaborating road

The Vision

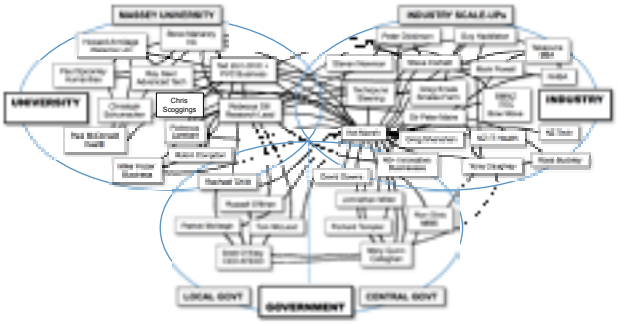
Auckland North. One of the most dynamic, smartest, innovation corridors in the world



Existing pathways connect, collaborate & converge to form a Living Innovation Platform

Moreover, a living platform is built when the existing (and emerging) pathways are pulling in the same direction, as supported by the Triple Helix:

HOW? A connected triple-helix Dream Team



Smart, effective innovation links as at January 2016

SMART INNOVATION CORRIDOR PROJECT – AUCKLAND NORTH
Massey University + Auckland North Industry + ATEED

Thus, the goal of Grow North is to play a key role in shifting the Auckland North ecosystem from the 'Emergence' to the 'Activation' phase. Accordingly, we have developed a series of objectives and action steps that serve as a 'road map' for these purposes, as outlined in Appendix E. Overall, the higher-order objectives are to:

A. Create a cohesive and coordinated network
B. Raise the profile of Auckland North
C. Create a brand identity for the region
D. Recruit and attract thought and business leaders to the region
E. Develop and promote relevant skills at the secondary and tertiary education levels
F. Enhance collaborative networks with other regions in Auckland and New Zealand.

These objectives and actions will be guided by a steering group of Grow North champions and undertaken by a collective and collaborative regional effort.

7.2 Objectives and Action Steps for 2016

We consider 2016 to be a year of building momentum. To this end, the activities of Grow North will be largely oriented to the A and B objectives:

A. Create a cohesive and coordinated network that supports the long term sustainable development of the Auckland North smart innovation district

Action step A1: Hold regular events, conferences, or innovation showcases to spotlight Auckland North locally and globally

Action step A2: Foster a diverse community of supporters and regional champions to support these efforts

Action step A3: Establish a regional steering committee of champions who represent the Triple Helix and will engender trust amongst stakeholders

Action step A4: Strategically identify and secure sustainable funding.

B. Raise the profile of Auckland North by refining and promoting key regional assets

Action step B1: Facilitate the creation of working groups in various innovation areas that have already begun to emerge as clusters in Auckland North

Action step B2: Create a regional map to visually locate key players in the district

Action step B3: Create an online, accessible database of relevant companies and associations, research clusters, venture capitalists and other funders, schools and educators, nonprofits, and so forth

Action step B4: Identify KPIs (e.g., number of startups, patents, export dollars) and conduct research to establish a baseline.

8 Implications for Developing Innovation in the Greater Auckland Area

Recognising that a key long-term goal is to seek out and explore interconnections to other Auckland innovation initiatives (e.g., GridAKL in Auckland Central, Health Innovation in East Auckland; FOODBOWL in South Auckland), we want to make a few observations about how Grow North aligns with the Auckland Innovation Plan, and how, therefore, the findings of this study may be extrapolated to other regions. We would recommend, however, that separate studies be conducted with stakeholders in these regions of Auckland to gauge interest in and awareness of innovation, first and foremost, as well as what these stakeholders consider to be obstacles and advantages.

8.1 Alignment With The Auckland Innovation Plan

The objectives and actions that comprise the Grow North roadmap, and our initial recommendations for other areas of Auckland, contribute to the goal for Auckland to become a significant centre of innovation in the Asia-Pacific region, as laid out by the Auckland Council and ATEED, in the following ways:

Grow North Objectives		Link to the Auckland Innovation Plan's Innovation Priorities and Actions	1 Connectedness and collaboration	2 Culture and catalysts	3 Capability building	4 Talent	5 Market insights	6 Access to capital
A	Create a cohesive and coordinated network		✓	✓				✓
B	Raise the profile of Auckland North		✓	✓	✓		✓	✓
C	Create a brand identity for the region		✓	✓		✓	✓	
D	Recruit and attract thought leaders and industry to the region			✓	✓	✓	✓	✓
E	Develop and promote relevant skills at the secondary and tertiary education levels		✓	✓	✓	✓		
F	Enhance collaborative networks with other regions in Auckland and New Zealand		✓	✓		✓		

8.2 Overarching Recommendations for Other Regions of Auckland

First, we make the assumption that other regions of Auckland will also need to address some of the overarching issues surfaced in this research, including anxiety over how innovation is defined in their respective regions and New Zealand's cultural issues regarding collaboration and implementation of ideas. This will likely also mean that these areas will need to address a lack of mentorship, and/or foster avenues for industry and education leaders to work with others to give back. As such, we recommend that other regions consider:

- Identifying and supporting university champions to contribute to the Triple Helix. University champions are particularly needed in regions that do not have a strong tertiary presence
- (Continue to) capitalise on the unique strengths of specfic areas (e.g., tech, health, food technology)
- Identify and map the local innovative businesses and entrepreneurs in this area as a way to create pathways for mentorship between global and startup businesses as well as industry and education.

8.2.1 Recommendations for Central and East Auckland

Central and East Auckland are considered by Auckland Council to be regions that share similar needs and concerns. Taken together, this area boasts a number of co-working spaces, incubators, and accelerators (e.g., the Icehouse, BizDojo, Lightning Lab). As noted previously, ATEED has been focused on helping to develop the Wynyard Quarter in Auckland Central as a hub for innovation. The GridAKL co-working space has helped to raise the profile of innovation in Auckland and serves as a catalyst for building a shared identity. Additionally, GridAKL has become a space that houses shared resources and events. The success of these efforts demonstrates the interest in and need for innovation co-working, suggesting that Auckland Central may want to establish Grid sites in other regions of Auckland to further develop a cohesive and collaborative network.

Moreover, the University of Auckland features prominent entrepreneurship programmes in both Auckland Central and East Auckland, and the Manakau Institute of Technology has a campus in East Auckland.

Nonetheless, these regions may still need to grapple with how to bring together these various initiatives to raise awareness and avoid initiatives and efforts being carried out in isolation. As we suggest for Auckland North, an accessible map or database of the innovation efforts ongoing in the city may be a powerful starting point.

The demographics of these regions further raise interesting implications. Ethnic diversity in Central and East Auckland is generally higher than in the Auckland North (see Appendix F), with a greater blend of Asian, Pacific, and Maori residents. Median household income, however, is approximately the same (averaging $80,340 in Auckland North and $80,657 in Central-East Auckland) and school decile rankings are generally high, with a few outliers. The median age of residents is five years younger for Central and East Auckland (35) than North Auckland (39), and more residents were born overseas in Central and East Auckland (41%) than North Auckland (35.6%). These demographics suggest a clear opportunity for Central and East Auckland to capitalise on the combination of diversity, economic stablity, and quality education in these regions. The increased diversity and level of immigration, in fact, suggest an advantage over Auckland North in new, cross-cultural idea generation. Specific recommendations, therefore, are:

- Stocktake and strengthen education-industry ties. The lower decile rankings of some schools suggest that there is opportunity here to introduce innovative thinking and technology, mentorship, and experential education into schools
- Capitalise on the ongoing health innovations by organising a health innovation hub or establishing a health innovation-focused GridAKL
- Identify 'made it' champions to catalyse innovation. The high median income, particularly of Orakei, suggests the presence of entrepreneurial or corporate leaders who should be shoulder-tapped to help lead innovation initiatives.

8.2.2 Recommendations for South Auckland

South Auckland is home to a new AUT campus, as well as the Co-Design Lab, which applies design thinking to complex community and policy issues. Sponsored in part by Auckland Council's Southern Initiative, the Co-Design Lab serves as a powerful first step in establishing a Triple Helix partnership in South Auckland. Moreover, the FOODBOWL, sponsored by the New Zealand Food Innovation Network, provides accessible R&D for food technology projects across industry and education. In addition to a location in Manakau, the Food Innovation Network is located at Massey University in Palmerston North (FOODPILOT), Lincoln University in Christchurch (FOODSOUTH), and Waikato University in Hamilton (FOODWAIKATO), which suggests the presence of a network that may be tapped as a way to develop stronger tertiary presence in South Auckland. Given the strength of government and industry initiatives in South Auckland, tertiary providers should consider identifying and supporting regional tertiary champions who will work with industry and local/central government to develop the innovation ecosystem.

Important to note is that these initiatives are underpinned by a much different demographic landscape than for Auckland North (see Appendix F). South Auckland boasts significantly greater diversity (e.g., Pacific peoples make up the highest percentage of residents in Otara-Papatoetoe and Mangere-Otahuhu) and significantly fewer immigrant residents. This suggests an opportunity to support innovation in a diverse community that is also deeply connected to New Zealand, thereby helping to (re) define the meaning of 'New Zealand innovation' on the world stage. That said, a lower median household income ($13,000 less than for households in Auckland North) and more schools in lower decile ranks poses particular challenges. Implications of the Grow North research for South Auckland may suggest a need to:

- Significantly strengthen education—industry ties. The lower decile rankings of the schools suggest that there is opportunity here to introduce new forms of thinking and technology, mentorship, and experiential education into schools
- Re-define innovation. Avoid assuming that innovation must 'look' a particular way, and instead consider how innovation might be defined in the locale of South Auckland. Value local knowledge and practice as a starting point for New Zealand innovation
- Practice innovation across multiple languages by establishing hubs with multi-lingual leaders and which utilise translation technology
- Locate an innovation hub around, or in conjunction with, the FOODBOWL or Co-Design Lab and other place-specific advantages (e.g., airport access).

We see Grow North as one dimension of the broader Auckland Innovation Plan, and so offer these implications as a way to consider what this local research can offer to the broader region, and generate conversation around how Grow North can continue to support and foster connections to other regional initiatives.

End Notes

1 Peren Arin, K., Hawkins, J., Molchanov, S., Reich, O. F., & Pickering, P. (2007). Big business and North Shore City: Key issues and attraction strategies. Enterprise North Shore [commissioned report].

2 McLaren, E., Westbrooke, B., & Spoonley, P. (2004). Employment and skills in the Rodney district. Work and Income Auckland and the Rodney Economic Development Trust [commissioned report].

3 McLaren, E., Maidment, J., & Spoonley, P. (2004). Employment and skills in North Shore City: A background report. Enterprise North Shore Trust [commissioned report].

4 Spoonley, P., McLaren, E., & Lysnar, P. (2002). Developing the North Shore: Strategic considerations for economic development. North Shore City Council [commissioned report].

5 Auckland Council. (n.d.). Wards and boards map. Retrieved: http://www.aucklandcouncil.govt.nz/sitecollectiondocuments/wards%20and%20boards%20map.pdf

6 Auckland Council. Local board demographic report cards. (2014). Retrieved: http://stateofauckland.aucklandcouncil.govt.nz/report-type/demographic-report-card/

7 Auckland Council. Local board quality of life report cards. (2014). Retrieved: http://stateofauckland.aucklandcouncil.govt.nz/report-type/quality-of-life-report-card/

8 Tan, L. (2015, 9 Nov). How your neighborhood will change by 2038. *The New Zealand Herald*. Retrieved: http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11542027

9 *Channel Magazine*. (n.d.). New Zealand's Silicon Valley? Retrieved: http://archive.channelmag.co.nz//channel-features-mainmenu-8/webpage-3297/new-zealand-s-silicon-valley

10 Delgado, M., Porter, M.E., & Stern, S. (2010). Clusters and entrepreneurship. *Journal of Economic Geography* 10: 495-518.

11 White, G.B. (2016, 24 Mar). Is a different kind of silicon valley possible? *The Atlantic*. Retrieved: www.theatlantic.co,/business/archive/2016/03/duham-startup-entrepreneurship/475269.

Appendices

APPENDIX A Review of Literature: Regional Innovation Systems (Executive Summary)

Rebecca Gill, Massey University
Jordan Ziemer, Texas A&M University
August, 2015

The literature on regional innovation systems is varied and vast. The majority of research on RIS is located in the fields of geography and economics, as well as management and organisation studies and sociology, and the literature review conducted for Grow North sought to capture a multi-disciplinary understanding of regional innovation. Regional innovation systems are studied using any number of methods, including qualitative interviews with stakeholders; surveys of business leaders; textual/literature analysis; and network mapping. Much of the research on RIS leans toward being practical (i.e., with the goal to describe 'best practices') while also emphasising the complexity of RIS.

Defining Regional Innovation Systems

There is not one preferred term for a regional innovation system, and terms such as smart corridor, innovation district, smart city, innovation ecosystem, innovation science park, innovation cluster, and knowledge-based economy often (though not always) refer to the same phenomenon. Within this, RIS are generally defined in two ways:

- As geographic areas that seek to develop economic advantage, entrepreneurship, and creativity
- As sites of wired, digitally linked infrastructures.

Characteristics typically shared across RIS include that they develop over time and through spontaneous processes; possess qualities of open (rather than closed) systems; require a diversity of ideas and knowledges; and require coordination and collaboration. Based on these characteristics, scholars agree that a rich combination of human, social, and financial capital are necessary to dynamic systems.

Proximity

One key question addressed in the academic literature is to what degree do RIS need to be physically co-located. It is typically accepted that geographic proximity can enhance performance and create local investments and jobs, such that geographically well-positioned RIS act as 'gravity wells' that draw talent in and spin innovations out.

That said, social or relational proximity is also considered important, and perhaps more so than geographic proximity. Simply being co-located will not guarantee the kind of high-quality interaction that generates innovation. As part of this, RIS members should be encouraged to also work outside of their system to capitalise on inter-regional and global networks and connections.

Social Capital

Social capital is therefore important, and relationships amongst members of a RIS should be built on trust and collaboration, the communication should be high-quality, and the economic and technological space of the RIS should be recognised as social space. RIS should keep in mind that there are often people in a network or community who are afforded higher status and can serve as gatekeepers or power players—ideally to ensure that an RIS remains inclusive, though these gatekeepers may also contribute to the RIS becoming a closed, and ultimately unsustainable, system.

The Triple Helix

Several models exist that map the key players in RIS. The most well-known model is that of the Triple Helix. Players in the Triple Helix are universities, (private) industry, and government, and the roles they typically play involve:

- The role of the university is not yet clear, but it typically involves providing educational processes, lending institutional legitimacy, and engendering coordination
- Governments (both local and national) are most effective when they actively support entrants to the RIS, moving beyond simply providing a space. This may involve active financing of innovative inquiry, including research and development

- Members of industry best support innovation ecosystems when they take responsibility for their role in the RIS. Innovative firms must invest in communication within and across the RIS and cooperate aggressively to learn jointly.

Additional arenas that may be involved in the Triple Helix (or expanded model) include civic life and civil society. Here, the 'innovative citizen' supports the RIS by participating in the activities of the system and contributing to the shared governance of the RIS. The concept of the innovation citizen is an important dimension of RIS, particularly because RIS are multi-stakeholder sites. What seems clear overall, however, is that the various domains must share a vision for regional, place-based development.

What is involved in RIS? Factors, structures, processes and resources

Defining all of the elements that go into a RIS is a nearly impossible task. Several common elements have been identified, however, though these are more or less important depending on the particular innovation ecosystem. These elements can be categorised as factors, structures, and processes, all of which include both material (concrete, tangible) and discursive (abstract, cultural) resources:

FACTORS: Discrete 'ingredients' or components	• Members are committed • Members trust others in the system • Members are output-oriented • Members engage in 'co-opetition' (collaborative competition) • Leaders and managers are oriented to innovation • Venture capitalists are willing and supportive • Mature companies act as 'anchor firms' • The system has a robust level of entrepreneurship • R&D opportunities exist and are accessible • Innovative and entrepreneurial education and training • Service providers are accessible and supportive • Social, human, and financial capital bolster each other • An identifiable place or co-location serves as a beacon • The system specialises in one or a few industries
STRUCTURES: Reasonably reliable patterns or arrangements	• Links between members are dynamic • Policies and laws are easy to interpret and navigate • Infrastructural factors are reliable and accessible • Resources are easy to access and mobilise • Incentives to collaborate • Business can scale quickly • System takes a global perspective and reach for granted • Consistent quality of life • A social culture of learning and interest in diverse ideas • Society in which the system is couched is stable
PROCESSES: Ongoing commitments and relationships	• Multi-stakeholder participation in the vision and execution • Local resources are made available • Members committed to creating synergy • External input coming into the system • Innovation is continuous • Entrepreneurs continuously pivoting, growing, and starting • Involved universities • Supportive government

Tactics for Supporting and Developing RIS

These characteristics inform what scholarship suggests in terms of how to best support and develop RIS. Because each system is necessarily (and sometimes significantly) different, these tactics must be couched within a comprehensive overall regional strategy for innovation. These tactics can be loosely categorised into the activities of planning, establishing, and nurturing:

Plan:

- Ensure the exchange of information through marketing initiatives, grant programmes, and entrepreneur training clusters
- 'Upgrade' firms in the RIS with better human and scientific/technological resources
- Invest in education and R&D / knowledge generation and dissemination
- Define strategic goals and actions and then monitor them
- Be reflective: Disclose and discuss weaknesses amongst those in the system

Establish:

- Collaboration incentives and incentives for knowledge sharing for the sake of knowledge sharing (e.g., cost savings)
- Entrepreneurship centres to stimulate and train entrepreneurial thinking and practice
- Clear pathways to venture capital investment

Nurture:

- A sense of belonging and gain trust and commitment amongst RIS members and the surrounding community
- The diversity of knowledge in and among firms, especially in regions at the fringe of cities and highly populated areas
- Reasonable information and talent/management exchange within the RIS
- A 'loose creativity' that also allows for capitalisation and 'co-opetition'

APPENDIX B Grow North Project Team Biographies

Dr. Rebecca Gill,
Senior Lecturer in the School of Management and School of Communication, Journalism and Marketing, Massey University

Rebecca is a senior lecturer in the School of Management and School of Communication, Journalism and Marketing at Massey University in New Zealand. She studies occupational and work identity with particular attention to how place, space and location shape the work that we do and the way we think about it. She has previously studied innovation regions and ecosystems in the United States, specifically looking at how regions try to recreate versions of 'Silicon Valley' that draw from this popular model but also add their own unique, local twist. Rebecca's research has been published in several A* and A journals, including *Human Relations*, *Management Communication Quarterly*, *Organisation*, and the *Journal of Applied Communication Research*. Her PhD is in organizational communication, from the University of Utah, Salt Lake City.

Professor Ted Zorn,
Pro-Vice Chancellor of the Massey Business School

Ted is the Pro Vice-Chancellor and Dean of the Massey Business School. His research focuses on organisational communication, particularly communication practices that enhance dialogue, leadership, workplace wellbeing, and effective, ethical organisational change. He has served as editor of the journal *Management Communication Quarterly*, and has co-authored the textbook *Organizational Communication in an Age of Globalization*. Ted has led a number of major externally funded research projects, including projects focused on organisational changes related to new technologies and an ageing population and public communication processes in the context of controversial science. Before coming to Massey University, Ted was head of the Department of Management Communication at Waikato University. His PhD is in organisational communication, from the University of Kentucky, Lexington.

Kel Marsh,
Corporate River Consulting

Kel Marsh is a strategic business advisor and the founder and principal of Corporate River Consulting. He has built two successful companies from scratch, each assisting New Zealand business owners to market goods and services nationally and internationally. International clients have included BASF, Mono Pumps and Stella Artois, and within New Zealand BP Oil, Air New Zealand, Dominion Breweries, Fisher & Paykel and Fletcher Challenge. Kel has led SME owner training and coaching for NZTE and helped create and implement business strategies in London, Munich, Hamburg, Sydney and Melbourne. Kel serves on several technology company advisory boards and he facilitates iTEC, an export software business owners group in Auckland North.

Associate Professor Faruk Balli,
School of Economics and Finance, Massey University

Faruk is an associate professor at the School of Economics and Finance at Massey University. Prior to joining Massey University, he worked as a research economist at the Central Bank of Qatar and as a research assistant at Dubai University. His research interests lie at the edge of international macroeconomics, tourism economics, and international and Islamic finance.

Currently, Faruk has a number of publications in mostly A/A* journals including the *Journal of Banking and Finance*, *Journal of International Money and Finance*, *Tourism Management*, *Journal of Travel Research*, *World Economy and Economic Letters*.

Tony Caughey,
Northern Leading Ltd

Tony's interest in economic development and the competitiveness of regions stems from his involvement with a team that produced the report 'Upgrading New Zealand's Competitive

Advantage' under the direction of Professor Michael Porter from the Harvard Business School. He chaired the 2011 global conference of the European-based TCI Network and was a speaker at their 2012 conference in Europe. An ambassador and past chairman of the Young Enterprise Trust, Tony is chairman of Smith and Caughey Ltd, has been a director and CEO of a New Zealand public listed company, and CEO of a major law firm. He is an external adviser on monetary policy to the Governor of the Reserve Bank. Tony has an MBA from the Harvard Business School and last year was appointed an Officer of the New Zealand Order of Merit (ONZM) for services to education and business.

Rachael Child,
ATEED

Rachael is the lead at ATEED for the development of Auckland's Innovation Precinct at Wynyard Quarter – GridAKL. This initiative aims is developing a physical hub for the co-location of innovative businesses to encourage cross-pollination and knowledge transfer. Rachael has over 17 years' experience in strategic development and implementation of transformational projects and programmes in a diverse range of sectors. Her background includes economic and community development, education and infrastructure in the UK and New Zealand. With a masters in economic development Rachael is well versed in the importance of economic structures, clustering and factors that support the development of successful innovation districts.

Fiona Mogridge,
Massey University AKE Hub

Project manager for the Massey University Auckland Knowledge Exchange (AKE) Hub, Fiona works with the AKE Director to develop opportunities for research projects across a range of sectors for large corporates, global organisations, SMEs, local government and industry organisations. This role incorporates a large project management component that involves successfully coordinating sizeable projects across multi stakeholders. With a corporate training and acting background, Fiona takes an active interest in new business growth within New Zealand. She is a joint member of the Flying Kiwis Investment group, co-facilitator of the Callaghan Innovation Peer to Peer Advisory programme, and is involved on an ongoing basis championing for philanthropy of the arts in New Zealand.

Russell O'Brien,
ATEED

Russell O'Brien is the Head of Innovation and Entrepreneurship at ATEED, where he leads the delivery of Auckland's Innovation plan including the activation and expansion of GridakI, the innovation precinct on Auckland's waterfront. Prior to joining ATEED, he was Commercial Manager at Callaghan Innovation where he led the design and implementation of "Israeli style" technology incubators in New Zealand. Russell started, owned and operated two New Zealand technology businesses and has held a number of corporate leadership positions in the Digital and ICT sectors. He is a versatile and entrepreneurial leader with a passion for people, growth and innovation and has extensive commercial, strategy and business development experience. Russell is a physics graduate of the Dublin Institute of Technology and an optoelectronics post graduate of Herriot Watt University Edinburgh. Russell completed the US Department of State International Visitor Leadership Program in 2015 and is an IVLP Alumni.

Zane Taylor,
Massey University and ATEED

A qualified economic development practitioner, Zane was Area Manager for ATEED in West and North Auckland before being seconded to the role of Innovation and Development Advisor at Massey University. He has considerable experience in the tourism and construction sectors and has been an elected representative in local government. He was Chair of Strategy & Planning for the Rodney District and spent time serving as a decision maker and commissioner on matters pursuant to the Resource Management Act (R.M.A.). He has governance roles on various boards of not for profit and community organisations.

APPENDIX C Grow North Research Design and Methods

After the February 2015 Grow North symposium, a project team was formed of representatives from university, industry, and government, including: Professor Ted Zorn, Pro-Vice Chancellor of the Massey Business School; Dr. Rebecca Gill, Senior Lecturer in the School of Management and School of Communication, Journalism and Marketing; Associate Professor Faruk Balli of the School of Economics and Finance; and Fiona Mogridge of Massey University's Auckland Knowledge Exchange Hub. Industry representatives included Kel Marsh of Corporate River Consulting and Tony Caughey of Northern Leading Ltd. Government representatives included Rachael Child and Russell O'Brien of ATEED, as well as Zane Taylor of both Massey University and ATEED (see Appendix B for project team biographies).

Between May and November of 2015, this project team met several times to develop the Grow North initiative and roadmap, based on research led by Dr. Rebecca Gill and Associate Professor Faruk Balli, with assistance from Kel Marsh, Fiona Mogridge, and research assistants Jordan Ziemer, Lili Mi, Hoang Nam Vu, Adel Prayugo, and Lisa Todd. The research included a review of relevant literature, interviews with key and supporting stakeholders, and a survey of firms in Auckland North.

C.1 Research Questions

The research questions informing this project were developed around our desire to understand the key elements that comprise an innovation district and the obstacles and advantages to enhancing innovation in Auckland North:

1. What informal and formal elements are needed for the development of an innovation district?
2. What attributes does Auckland North possess and / or lack in terms of these elements?
3. What are the greatest points of leverage for, and barriers to, achieving a sustainable Auckland North innovation district, and how can these best intersect with other Auckland districts? What are the barriers? How could the 'micro-factors' present in Auckland North contribute to the overall development of Auckland as an innovation region?

The research design for this study is guided by interpretive-qualitative research tenets and methods. An interpretive approach seeks to understand an experience or phenomenon from the point of view of the research participants. A qualitative approach facilitates this, as it provides space for dialogue, narrative, and follow-ups through methods such as interviewing. An interpretive-qualitative approach was appropriate to adopt for this study because the Grow North project was concerned with whether or not stakeholders felt there was an opportunity to develop an innovation ecosystem. This approach allowed researchers to pose hypothetical questions and ask follow-up questions, record stories and recollections, and begin to map out connections amongst participants and other parties.

C.2 Phases Of Data Collection

Data collection unfolded in three phases, beginning with an orienting phase to gain a global understanding of innovation ecosystems, and then narrowing to a local perspective.

C.2.1 Phase one: Synthesis of literature and existing development reports

In this phase, researchers focused on reviewing and synthesizing the existing literature on global efforts to develop innovation districts, corridors, and clusters, including the research on regional innovation initiatives such as smart cities and creative cities, as well as regarding other efforts to develop local versions of 'Silicon Valley' across the globe. As part of this sensitising phase, the team also drew from and reflected on past economic development proposals constructed in relation to the Auckland North. Appendix A is an executive summary of this review of literature.

C.2.2 Phase two: Stakeholder interviews

The main method of data collection involved semi-structured interviews with stakeholders in the region. The semi-structured interview schedule allowed each interview to follow a fairly similar pattern of questions, while also allowing for unique paths of conversation to occur naturally. Questions were designed as open- rather than closed-ended to facilitate participants sharing their opinions, and perspectives. The questions were written to establish the participants' experiences in their industry or business and their perspective or definition of innovation, before delving into place-specific questions about innovation in Auckland North and New Zealand. Appendix D is the interview schedule. Interviews were conducted face-to-face, when possible, to assist in establishing rapport with interviewees, though a few were conducted over Skype or over the phone. Interviews lasted between 20-90 minutes, with an average lasting just under an hour. All interviews but one were audio recorded with permission, and transcribed. Transcriptions consisted of approximately 850 single-spaced pages.

For this initial phase of data collection, researchers focused mainly on collecting interviews with industry leaders and entrepreneurs, which means that much of the findings in this report represent the opinions of members of the business community. Participants were recruited for inclusion by members of the Grow North project team who represented their sector. Sixty-one interviews were conducted; five with two participants and one with three, so that 68 participants were involved in the interviews overall. Nineteen participants were women, and 49 were men. Nine interviews were conducted with members of local or central government, nine were conducted with people who oversaw or coordinated local networks, and three were conducted with individuals from the tertiary education sector.

C.2.3 Supporting Data Collection

FOCUS GROUP

We conducted a focus group discussion in the early stages of this project to gain an orienting understanding of the baseline concerns and perceptions amongst members of industry. Focus groups guide discussion along focused lines, assist in co-generating ideas, and surface key themes and points of agreement and disagreement. To recruit participants, the industry members of the project team tapped into their own experiences and networks to identify and recruit 'key' industry representatives. Three members of the project team conducted the focus group, with one member facilitating and two taking notes. All of the participants invited to the focus group accepted the invitation and attended, meaning that nine participants were present, in addition to the three members of the project team. The participants represented cloud-based software, real estate and property innovation, information technology and high-tech solutions, business and technology networking, and financial services. The focus group lasted approximately 2.5 hours and took place on the campus of Massey University. Questions asked during the focus group conversation were designed to elicit opinions on innovation in the Auckland North region, definitions of innovation, what has been successful about fostering innovation in Auckland North, and what the region needed to see over the coming years. The researchers debriefed after the focus group to identify key themes and points to emerge from the conversation, and then separately typed up their notes. The facilitator of the focus group then combined and summarised the notes, distributing a copy amongst the participants.

SURVEY

We supplemented qualitative data collection with a survey distributed to firms across Auckland North. The surveys were designed to explore the main factors that boost innovation and the types of innovation, particularly in terms of collaborations and proximity to collaborators. The survey also queried participants' opinions on what was most central to the success of an innovation ecosystem and the roles that particular parties (e.g., university, industry, government) should play in such a system. The survey was distributed to approximately 1,000 firms through Massey University, project team, and ATEED networks, as well as through a database compiled by a research assistant. The response rate for the survey was 13%. The survey measured innovation and collaboration amongst industry members, including incentives for, and interest in, innovation workshops.

APPENDIX D Grow North Interview Schedule

1. Please tell me about what you do (or what your role is here)?
2. Because our project is interested in innovation in the Auckland North, how would you define innovation?
3. Using your definition, what examples of innovation do you see in the Auckland region? What about specifically north of the bridge?
4. The Government has said that NZ needs more innovative businesses. What do you think this means, specifically?
5. What are the barriers that would make enhancing innovation more difficult, do you think?
6. Where does the responsibility for being more innovative sit? (In other words, who should be doing the work of innovation or supporting innovation?)
7. Are you involved in particular networks and collaborations that assist you with your own efforts to be innovative? How do you engage? What value is provided that keeps you engaged?
8. What is missing from these networks for you? Are there firms or people or sectors you wish you could collaborate with, but find you're unable to?
9. Do you think that to enhance innovation here it would need to be physically close and specifically located? In other words, does innovation need to be formed around a particular place?
    a. Why or why not?
    b. (If yes) Where should the centre of innovation in the Auckland North be and why?
10. Keeping that in mind, then, what would success look like? Or, in 5-10 years, what would you want to see in or for this area?
11. Now that you have a sense of the kinds of questions we are interested in asking, are there others you think we should be talking to? Is there someone you would suggest we contact for an interview?

APPENDIX E Grow North Objectives and Action Steps[1]

OBJECTIVE A:
Create a cohesive and coordinated network that supports the long-term sustainable development of the Auckland North smart innovation district

Action step A1: Hold regular events, conferences, or innovation showcases to spotlight Auckland North locally and globally

Action step A2: Foster a diverse community of supporters and regional champions to support these efforts

Action step A3: Establish a regional steering committee of champions who represent the Triple Helix and will engender trust amongst stakeholders

Action step A4: Strategically identify and secure sustainable funding

OBJECTIVE B:
Raise the profile of Auckland North by refining and promoting key regional assets

Action step B1: Facilitate the creation of working groups in various innovation areas that have already begun to emerge as clusters in Auckland North

Action step B2: Create a regional map to visually locate key players in the ecosysem

Action step B3: Create an online, accessible database of relevant companies and associations, research clusters, venture capitalists and other funders, schools and educators, nonprofits, and so forth

Action step B4: Identify KPIs (e.g., number of startups, patents, export dollars) and conduct research to establish a baseline

OBJECTIVE C:
Create a brand identity for the district and generate a global identity

Action step C1: Generate shared value proposition

Action step C2: Locally source a brand identity and logo

Action step C3: Generate key messages to support the value proposition

OBJECTIVE D:
Recruit and attract thought leaders, businesses, and investors to the district

Action step D1: Develop a guiding marketing plan

Action step D2: Market the district by enhancing the website and database

Action step D3: Develop press releases and other marketing collateral

OBJECTIVE E:
Develop and promote relevant skills and capacities amongst secondary and tertiary students

Action step E1: Develop collaborative opportunities between industry and education

Action step E2: Support teaching of new and relevant ideas and skills in secondary and tertiary schools through mentoring and financial incentives

Action step E3: Encourage local workforce development by establishing a robust cooperative work programme at the secondary and tertiary levels

OBJECTIVE F:
Enhance collaborative networks with other Auckland districts as well as other innovation regions in New Zealand

Action step F1: Create and foster synergy with innovating businesses and other innovation districts in Auckland regions (e.g., Health innovation in East Tamaki, the Food Bowl in South Auckland)

Action step F2: Create productive links to other innovation districts in New Zealand (e.g., Wellington, Christchurch, Dunedin) to support their efforts and co-sponsor funding, research, and events

Action step F3: Learn about and incorporate best practices

[1] The Diablo Innovation Alliance Regional Innovation Cluster Goals, Objectives, and Action document served as a template for this (http://www.diabloinnovationalliance.org/test/images/plan/2011_strategic_plan.pdf)

APPENDIX F Demographics for Auckland Regions

G.1 North Auckland

Local Board Area	% of regional pop.	Median age	# of employees working here (2013)	Ethnic pop.	% born overseas	Median household income	% of residents employed	# of schools (and decile ratings)	# of businesses
Devonport-Takapuna	4%	39.7	26,750	76% Euro. 20% Asian 5% Maori 2% Pacific	38%	$85,800	64%	22 (Half decile 10)	8,195
Hibiscus and Bays	6%	42.4	16,480	89% Euro. 8% Asian 6% Maori 2% Pacific	35%	$78,2000	63%	25 (Most decile 8-10)	9,619
Kaipatiki	6%	35.2	23,160	65% Euro. 26% Asian 8% Maori 6% Pacific	40%	$78,600	65%	26 (Most decile 5+)	8,280
Rodney	4%	42.6	13,170	91% Euro. 10% Maori 3% Pacific 3% Asian	21%	$70,100	66%	30 (Most decile 5+)	8,619
Upper Harbour	4%	36.2	37,880	66% Euro. 29% Asian 5% Maori 2% Pacific	44%	$89,000	64%	19 (Most decile 9-10)	8,717

G.2 South Auckland

Local Board Area	% of regional pop.	Median age	# of employees working here (2013)	Ethnic pop.	% born overseas	Median household income	% of residents employed	# of schools (and decile ratings)	# of businesses
Papakura	3%	33.1	14,220	61% Euro. 28% Maori 15% Pacific 13% Asian	20%	$65,900	58%	21 (Ranging from decile 1-10)	3,611
Otara-Papatoetoe	5%	29.3	37,500	46% Pacific 31% Asian 21% Euro. 16% Maori	42%	$60,800	52%	31 (Most decile 1-3)	4,877
Manurewa	6%	29.8	19,120	37% Euro. 33% Pacific 25% Maori 20% Asian	32%	$67,800	55%	34 (Most decile 3 or below)	3,960
Mangere-Otahuhu	5%	28.3	38,510	60% Pacific 20% Euro. 17% Asian 16% Maori	39%	$59,900	51%	34 (Most decile 5 or below)	3,866
Franklin	5%	40.2	19,160	85% Euro. 13% Maori 6% Asian 4% Pacific	19%	$80,900	67%	39 (Ranging from decile 1-10)	8,828

G.3 Central and East Auckland

Local Board Area	% of regional pop.	Median age	# of employees working here (2013)	Ethnic pop.	% born overseas	Median household income	% of residents employed	# of schools (and decile ratings)	# of businesses
Albert-Eden	7%	34	38,510 (2012)	63% Euro. 28% Asian 8% Pacific 7% Maori	36%	$87,500	65%	31 (17 decile 8-10)	12,149
Howick	9%	37.8	43,690	55% Euro. 39% Asian 5% Maori 5% Pacific	49%	$84,500	62%	41 (most decile 8-10)	13,555
Maungakiekie-Tamaki	5%	33.4	78,700	48% Euro. 26% Pacific 24% Asian 13% Maori	36%	$68,200	61%	27 (Most decile 4 and below)	9,657
Orakei	6%	40.2	17,000	77% Euro. 18% Asian 5% Maori 3% Pacific	33%	$107,800	65%	25 (Half decile 10)	11,504
Puketappa	4%	34.3	9,350	44% Asian 38% Euro. 16% Pacific 6% Maori	49%	$72,700	58%	22 (Ranging decile 1-9)	4,142
Waitemata	5%	30.4	159,510	63% Euro. 29% Asian 6% Maori 5% Pacific	43%	$80,000	67%	23 (2 rated 1 or 3; 12 rated 8-10)	25,225 (2013)
Whau	5%	34.9	22,220	45% Euro. 35% Asian 18% Pacific 9% Maori	42%	$63,900	57%	26 (ranging decile 1-8)	5,831 (2013)

Auckland Tourism, Events and Economic Development
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TE KUNENGA KI PŪREHUROA
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