

Auckland's Competitive Sectors & ATEED's Sector Framework

Report to Auckland Tourism, Events and Economic Development Chairman and Board

Proposal

The purpose of the report is to inform the board on

1. The outcomes of the Auckland sectors research

And to seek approval from the board on:

2. An internal sectors framework which identifies sectors of priority by intervention
3. Key sectors of priority around which to shape an Auckland economic narrative

Strategic Alignment

This paper presents a framework which will allow ATEED to allocate its resources on priority sectors within the Auckland economy. This framework cuts across all five strategic pillars within the SOI, but supports the *Building a Culture of Innovation and Entrepreneurship* and *Auckland Brand and Identity* pillars in particular.

Comment

This section is a summary overview of the research paper attached at appendix 1.

Need for this paper

Internationally, Auckland is known as a 'new world' city which has a high quality of life and a growing reputation as a tourism destination. Auckland's reputation as a business location isn't as well recognised however, in part because the city lacks a strong business and sector based narrative.

Identifying Auckland's competitive sectors – which are groupings of industries and firms with strong networks and linkages between suppliers, producers, distributors, customers and advisers in a value chain – will allow ATEED to determine where agglomerated growth has occurred and where the opportunities lie.

Surveying the economy in this way will allow ATEED to identify what the systemic opportunities or barriers to growth are, and Auckland’s authentic industries of competitiveness. Focusing on competitive sectors allows prioritisation of effort and resource, targeting areas of greatest opportunity and, as such, where there is the greatest probability of success.

In order to support the development of a compelling and consistent narrative which can increase Auckland’s international standing and support the attraction of investment and talent, ATEED has undertaken a series of research exercises that aim to identify the industries which have been driving growth over the last five years, and in which Auckland has a competitive advantage.

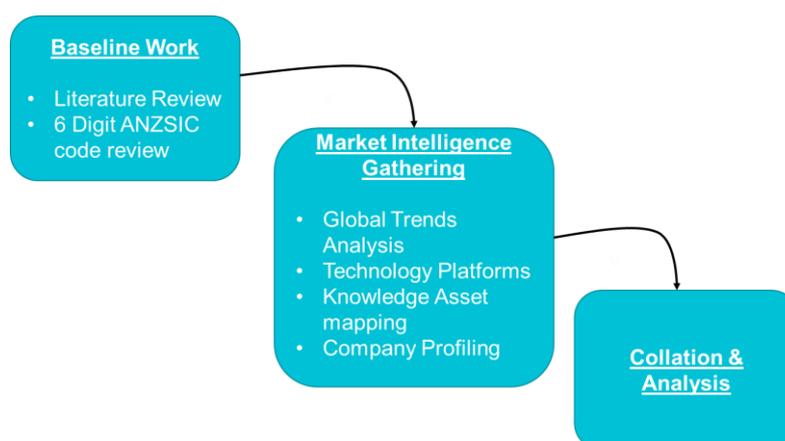
This research will also support the development of a framework which will allow ATEED to focus its limited resources on priority sectors and to identify which interventions ATEED can put in place to support the growth of these sectors – for example, business attraction, talent attraction, and/or export development. This research does not aim to quantify the potential growth opportunity of these sectors or place targets on their growth.

As such, the key objectives of this project are to:

- Identify the competitive and growth segments and industries within the Auckland economy
- Develop an internal ATEED sector framework which prioritises areas for intervention in key sectors and align resources to these
- Use these findings as the foundation content for a strong sector based Auckland economic narrative to support its global positioning and to attract investment and talent
- Provide the foundation content for future sector based digital and physical collateral

Overview of methodology & approach

In order to achieve the project objectives, ATEED has utilised the following approach, which includes a combination of economic statistics, market intelligence and qualitative inputs from industry groups and prominent Auckland businesses.



ATEED has used a range of national and international sources and commissioned specific research where data gaps exist. ATEED collated the outputs of these individual research strands and drawn conclusions on their findings.

Summary of Findings

The research identifies the following horizontal cross-cutting sectors in Auckland as those which have been growing and/or have a significant level of competitiveness based on key indicators:

- Tech
- Commercial services
- Food and beverage
- Advanced materials
- Screen and creative
- Tourism
- Construction and engineering
- Education

Informed by the Brookings Institute work on Advanced Industries and when applying an Auckland version of the Advanced Industries framework to these sectors, the following is identified (each of these segments is defined overleaf):

- Auckland's **advanced industries** comprise significant components of the tech and commercial services sector. These industries are growing faster, recruiting higher skilled staff than non-advanced industries and are highly productive;
- Those key Auckland sectors which are non-advanced, but are identified as **tradeable**, are providing the majority of Auckland's exports and include key F&B processing and medium tech manufacturing industries e.g. chemical manufacturing;
- Those key sectors which sit outside of these two segments are strong domestic focused **enabling** sectors, which support basic economic infrastructure and significant employment.

Based on these findings, ATEED has developed a framework which divides Auckland's economy into these three segments:

Segment	Criteria	Key Sub Industries by Sector			
Advanced Industries	<p>Characterised by high-levels of R&D and a heavy reliance on STEM workers, advanced industries have been powering U.S. economic growth and development since the GFC. In order to define the advanced industries ATEED worked with NZIER to identify suitable criteria for the NZ economy, based on the Brookings Institution’s criteria. The agreed criteria is:</p> <ul style="list-style-type: none"> • RnD spending per worker must fall in the 75th percentile or higher • The share of workers who have a university degree in STEM must be 1.5 as high as the national average or higher • The industry must have over 50 employees 	<p><u>Tech</u></p> <ul style="list-style-type: none"> • Med-Tech • Agri-Tech (Precision Agriculture and Agricultural Machinery) • Big Data • Financial Payments • Pharmaceutical Manufacturing 		<p><u>Commercial Services</u></p> <ul style="list-style-type: none"> • Architectural Services • Scientific Research Services • Surveying and Mapping Services • Engineering Consulting • Corporate Head Office Management Services • Management Consulting 	
Tradeable Industries (Non Advanced)	<p>These are industries in which the goods or services produced are considered Tradeable i.e. where the majority of the industries output faces international competition. For the purposes of this research industries were segmented into highly tradeable and trade potential.</p> <ul style="list-style-type: none"> • A highly tradeable industry has been successfully exporting i.e. More than 10% of its output is exported. • A trade potential industry has export potential, but is only exporting between 5 and 10% of its output. 	<p><u>Tech</u></p> <ul style="list-style-type: none"> • Robotics • Medium Tech Manufacturing • Telecommunications 	<p><u>Commercial Services</u></p> <ul style="list-style-type: none"> • Insurance • Banking • Accounting • Legal • Business Outsourcing 	<p><u>Advanced Materials</u></p> <p>Composite & Polymer Manufacturing</p>	
		<p><u>F&B</u></p> <ul style="list-style-type: none"> • High Value foods • Beverage • Meat and Dairy 	<p><u>Screen and Creative</u></p> <ul style="list-style-type: none"> • Film production and Post Production • Design • Digital Media • Publishing 	<p><u>Tourism</u></p> <p>International Visitor</p> <p><u>International Education</u></p>	

Enabling & Foundation Industries	Employment intensive industries which are key to providing basic economic infrastructure and supporting the brand, image and global positioning of a city.	<u>Screen and Creative</u> <ul style="list-style-type: none"> • Performing Arts <u>Education</u> <ul style="list-style-type: none"> • Domestic Education 	<u>Tourism</u> <ul style="list-style-type: none"> • Domestic Visitors <u>Construction and Engineering</u>
---	--	--	--

The above framework highlights the key competitive segments in the Auckland economy and using multiple lens identifies where growth has occurred and competitiveness exists. This is the recommended framework and shortlist of priority industries around which ATEED should focus its interventions over the next 3 years.

Summary Intervention Logic

Building on the above framework, which segments the economy, the following intervention logic summarises how ATEED should intervene in each segment and provides a sense of the type of outcomes ATEED should be looking to achieve through its interventions.

The research has identified a range of trends and in turn a number of potential interventions to support or challenge these trends. Based on the levers available to ATEED (below) the following summary intervention framework has been identified:

- | | |
|-----------------------------------|----------------------------------|
| 1. Promotion (Auckland narrative) | 5. Business events |
| 2. Visitor attraction | 6. Industry & export development |
| 3. Business attraction | 7. Talent attraction |
| 4. Investment attraction | 8. Workforce development |
| | 9. Infrastructure support |

A full intervention logic by segment and sector presented at appendix 1.

Segment	2009-2014 Performance	Range of Interventions	Desirable Outcomes
Advanced Industries	Above average growth and productivity Strong export growth, but below export potential Individual industries performing below in certain areas.	All industries 1, 3-9 focused on growing number of advanced industry firms and their contribution and output. Specific subsector interventions.	Advanced industry output growth Advanced industry proportion growth Advanced Industry Export growth
Tradeable Industries (Non Advanced)	Average growth Average productivity Strong Export performance	Tailored intervention industry by industry primarily focused on increasing trade and productivity.	Export growth Productivity growth
Enabling & Foundation Industries	Average growth Primarily driven by local economic conditions	Tailored intervention industry by industry primarily focused on demand creation and at removing barriers to increased productivity & employment growth	Employment Productivity growth Increased labour supply

This intervention logic framework will allow ATEED to prioritise its resources to focus on those segments and sectors which can generate the greatest return for Auckland.

High Level Sector Intervention Framework

Flowing from the above high level framework, at an individual sector level, interventions will be aligned to the segments identified and/or only where the need or opportunity exists. This is summarised below with a more detailed framework for each sector included in the supporting documentation. Each detailed framework has been developed being cognisant of resource and budget limitations and as such identifies where ATEED should intervene rather than could intervene.

	Promote	Visitor Attraction	Business events	Investment Attraction	Business Attraction	Industry and Export Development	Talent Attraction	Workforce Support	Infrastructure support	Level of Support
Tech	✓		✓*	✓**	✓**	✓*	✓*	✓**	✓**	\$\$\$
F&B	✓		✓*	✓	✓	✓*	✓**		✓	\$\$
Commercial Services	✓		✓*		✓**	✓**				\$
Advanced Materials	✓		✓*	✓		✓*	✓*		✓	\$
Screen and Creative	✓		✓*		✓	✓*				\$\$
Tourism	✓	✓	✓*					✓***	✓***	\$\$\$
Education	✓	✓	✓*			✓***				\$
Construction and Engineering			✓*				✓	✓		\$

* targeted at advanced industries only ** targeted at advanced and tradeable industries *** Targeted at Tradeable Industries only

As an example, this framework recommends that ATEED should focus its business attraction efforts around Tech, F&B, Screen and Creative and Commercial Services. Within the more detailed frameworks interventions are identified at subsector level i.e. Talent Attraction should prioritise Health IT, Medical Devices and Financial payments in the Tech space.

Auckland Economic Narrative

Building a strong, consistent and authentic economic narrative is key to supporting Auckland's global positioning as an innovation hub and to attract investment and talent.

The research has identified that the Auckland of 2015 had a diverse industrial structure, with a spread of output and employment across a range of industries. With a growing and increasingly diverse population, the economy is shifting towards a more services based economy (over 80% of employment in the tertiary and quaternary industries), with a growth in higher end manufacturing industries such as food and beverage and high tech manufacturing in the secondary sector.

Based on these findings the Auckland economic narrative should be anchored around our strong and growing industries. The research recommends five broad sectors to promote globally, augmenting already well developed narratives around Tourism and International Education, namely:

Sector	Anchor Subsector (Advanced and Tradeable)	Emerging & Niche
Tech	Health IT Big data Robotics Financial payments General software	Medical devices Cyber security Agricultural machinery Precision agriculture
F&B	Functional and high value foods Wine Dairy Meat	Natural products including bio actives Beer Soft drinks Artisan foods
Commercial Services	Big data Financial payments Financial asset management Management consulting Engineering consulting Business outsourcing Banking	-
Advanced Materials	Composite manufacturing Robotics	Nanofibre
Screen and Creative*	Film production and post production Design Digital media Publishing	Augmented reality/virtual reality*

*Further research being undertaken currently

It is recommended to the board that they approve the above list of sectors and subsectors to progress the development of an outward Auckland economic narrative.

Implementation and next steps

In order to progress this framework to implementation, the following need to occur:

- Board approval of the proposed framework and key sectors for narrative
- Dissemination with the broader organisation
- Sector narrative development with communications team including development of an external facing 'Auckland's competitive sectors' report
- Collateral development
- Inputs to digital project and Global Auckland
- Further research where required on specific sub sectors. At this stage this is expected to be limited.

Consultation

This project has included widespread consultation, both directly by ATEED and through our partners – those consulted include

- Industry groups
 - NZTech
 - MTANZ
 - NZHIT
 - We Create
 - NZ Bio
 - NZ Natural Products
 - Composite Association of NZ
 - Brewers Association
- Direct with companies (full list available on request):
- MBIE, NZTE and Callaghan Innovation
- Auckland Council – Strategy team and Auckland Plan team

Māori Impact Statement

Whilst this research did not specifically focus on Māori capability in key sectors, primarily due to data limitations, the research has identified sectors and segments within which Māori have a prominent or emerging presence. These include the food and beverage and construction sectors. As a next step ATEED will look to cross reference this work with work previously undertaken including "The Auckland Māori economy – NZIER 2015" and the ATEED Māori Business database and seek inputs from its Māori Economic development team on potential Māori initiatives emerging from this work.

Decision Making

Board has authority to approve the recommendation sought.

Financial Implications

No additional financial costs associated with this, but the recommendations made may potentially result in reprioritisation of resources.

Recommendations

1. The Board note the findings of the research; and
2. approve ATEED's Sector Framework and next steps to internally disseminate the Framework and progress to adaption and progress to an outward facing published paper.

Attachments

- Appendix 1 – Summary Research Paper
- Individual support research – Available if required:
 - Coriolis – Food and Beverage Sector Research (2015)
 - OCO Global – Global Trends in Financial and Business Services (2016)
 - Frost & Sullivan Technology Platform Assessments (2016)
 - Health IT
 - Medical Devices
 - Financial Payments
 - Cybersecurity
 - Precision Agriculture
 - Agricultural Machinery
 - Robotics
 - Augmented Reality/Virtual Reality (currently being undertaken)
 - Big Data (F&S data ATEED review)
 - NZ Tech - New Zealand Tech Sector Economic Impact Assessment (2016)
 - We Create - New Zealand Creative Sector Economic Impact Assessment (currently underway)
 - NZ Film - New Zealand Screen Sector Economic Impact Assessment (currently underway)
 - MTANZ – NZ Med Tech Sector Economic Value (2016)
 - NZIER - Advanced Industries and Auckland International Linkages research (2016)
 - Infometrics Auckland Economic Profile (2016)
 - Martin Jenkins – Composite Manufacturing Industry Profile (2016)
 - ATEED Analysis of Stats NZ/RIMU Business Demography and Business Operations Data

Signatories

Unit Manager: John Lavery, BIS Planning Manager

General Manager: Patrick McVeigh