

AUCKLAND ECONOMIC INSIGHTS SERIES

AUCKLAND: AN EMERGING KNOWLEDGE CAPITAL OF THE ASIA- PACIFIC

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AUCKLAND ECONOMIC INSIGHTS SERIES

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Presented by

**Auckland
Tourism, Events and
Economic Development**
An Auckland Council Organisation



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Foreword

Knowledge capitals are the world's leading knowledge creation centres. They compete in the highest value-added segments of the economy, relying on their human capital, innovative universities and entrepreneurs, and solid infrastructure connectivity¹. Knowledge capitals have well educated populations, productive industries and are international transit hubs. They have high proportions of employment in the knowledge intensive services sectors and whilst having a strong financial and business services sector, often aren't considered a global financial centre.

As New Zealand's commercial capital, Auckland displays many of the traits identified above. It has small but significant advanced industries segment, fuelled by a vibrant knowledge intensive services sector; a growing knowledge enabled and well qualified labour force; a strong tertiary education sector; and a growing, diverse and internationally orientated population. It is also a regional financial and business services centre, has a blossoming entrepreneurial ecosystem and is emerging as a key international connectivity hub for the Asia-Pacific.

Since 2000 Auckland's economy has become knowledge focused. Buoyed by strong population growth and infrastructure investment, the knowledge intensive services sector has seen increased domestic demand and since 2003 this sector represents the largest proportion of overseas businesses setting up in Auckland. With an ever evolving innovation ecosystem, and growing start up community it is clear that Auckland is emerging as a knowledge capital and is on a journey to achieve its goal of becoming an 'innovation hub of the Asia-Pacific'.

This Auckland Tourism Event's and Economic Development (ATEED) paper leads on from the first paper in our Economic Insights Series, providing a short overview of how Auckland has begun to emerge as a knowledge capital, how its economy and labour force have become more knowledge intensive and Foreign Direct Investment into Auckland has been dominated by knowledge intensive firms. It also looks to examine the opportunities presented by these shifts, including how technology and global business behaviours may be beneficial to Auckland in an eastward shifting global economy and at a time of international geopolitical change.

Patrick McVeigh

General Manager

Business, Innovation and Skills

ATEED

¹ Brookings Institution "Redefining Global: Cities: The Seven Types of Global Metro Economies"

Auckland's expanding knowledge base

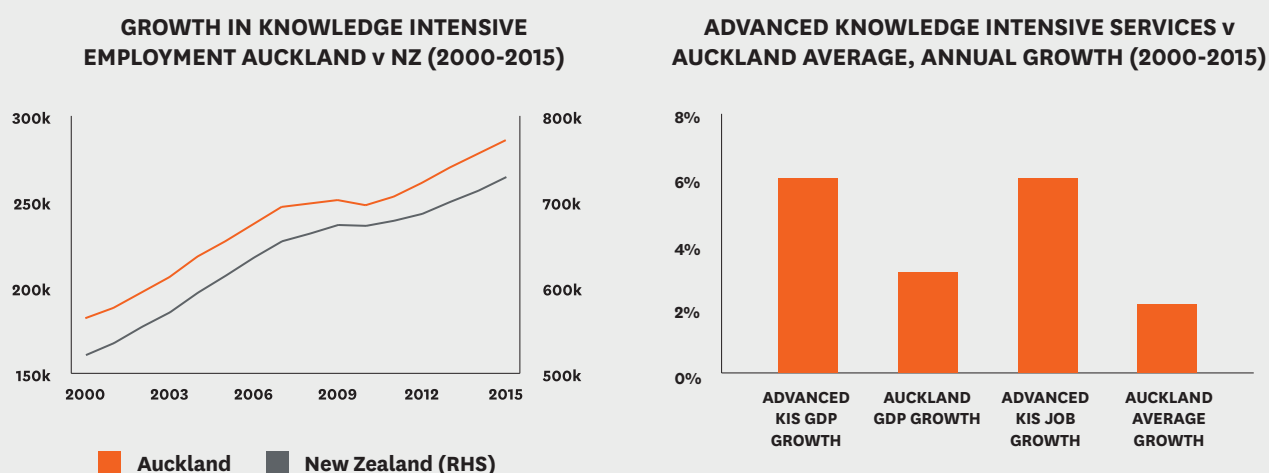
A supply side shift - increasing knowledge intensity

Between 2000 and 2015, Auckland has seen a significant shift in its economic demography, with a reducing manufacturing base and a growing services sector. This growth in services has been fuelled by knowledge intensive services², which has grown at an average annual rate of 3.9 percent since 2000 and its proportion of the Auckland economy from 13 percent to 15 percent.

This growth has been supported by a highly skilled and knowledge enabled labour force. While, since 2000, the knowledge intensive services sector itself has added 25,000 employees, the entire labour force has added over 100,000 workers identified as knowledge intensive.

Those knowledge intensive services which are part of Auckland's advanced industries³ have been increasing output and creating jobs at a faster rate than the broader knowledge intensive services sector, with both output and employment averaging six percent growth since 2000. With 40 percent of total New Zealand knowledge intensive services employment (against 34 percent of total employment), Auckland is without doubt the knowledge intensive services capital of New Zealand.

Figure 1: The move towards a knowledge orientated services economy



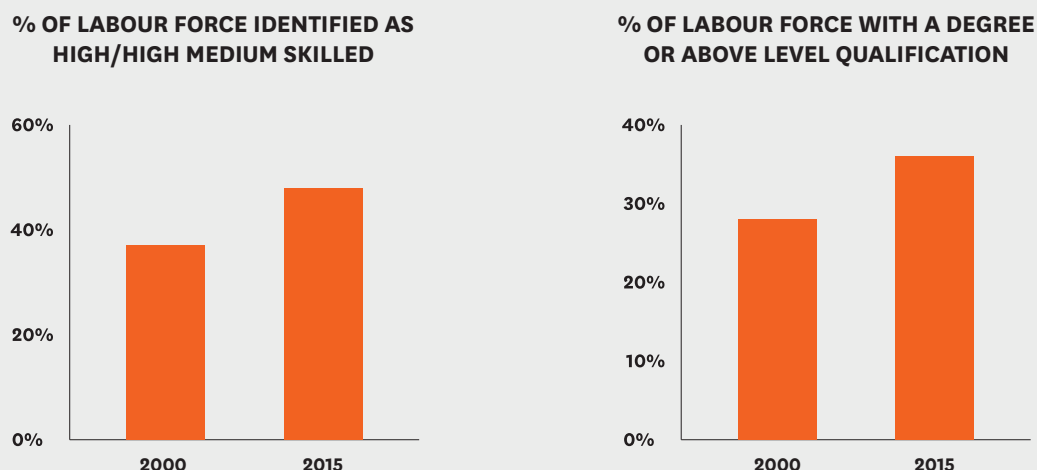
Source: ATEED/Infometrics/NZIER

Auckland's Knowledge Assets

Since 2000 there has been a dramatic shift in the skill and qualification levels of the Auckland labour force. In that period over an additional 212,000 people have joined the Auckland labour force with over 160,000 (75 percent) of these being categorised as having a high or high/medium skill level. In the same period, the proportion of the Auckland labour force who hold a degree level or above qualification increased from 28 percent to 36 percent, with an additional 126,000 people with a degree or above level qualification joining the Auckland labour force.

² Sector which covers a broad and diverse range of services with varying degrees of knowledge intensity. It includes firms providing post, finance, insurance, professional, scientific and technical services – OECD (2006)

³ Research and Development (R&D) and Science, Technology, Engineering and Math (STEM) Intensive Industries

Figure 2: A knowledge enabled labour force

Source: Infometrics

In addition to a growing knowledge enabled labour force, Auckland is home to three universities – The University of Auckland, Auckland University of Technology (AUT) and Massey University – and five institutes of technologies and polytechnic's – which provide a pipeline of talent to into the Auckland economy.

The University of Auckland, ranks 81st globally⁴, and its Law Accounting and Finance, Civil and Structural Engineering, Architecture and Business and Management Studies undergraduate courses are ranked within the top 50 worldwide. Both Massey University and AUT also rank within the top 500 world universities.

Auckland is also home to some world leading knowledge intensive services companies, including Beca, an Auckland headquartered international consulting engineering firm, Datacom, a leading payroll and back office services provider, and a range of international consulting and advisory firms, including the Big four⁵, Mott McDonald and Aecom.

A demand side shift – an attractive FDI location for knowledge intensive firms

New Zealand has a long history of attracting Foreign Direct Investment (FDI)⁶ projects⁷.

Knowledge intensive services is the second largest sector for FDI at a global, Asia-Pacific and New Zealand level. Between 2003 and 2015, there were a total of 84 knowledge intensive services project investments into New Zealand, making it the 13th most popular destination for FDI in the Asia-Pacific region. Of these 84 projects, 74 were into Auckland, 88 percent of all projects.

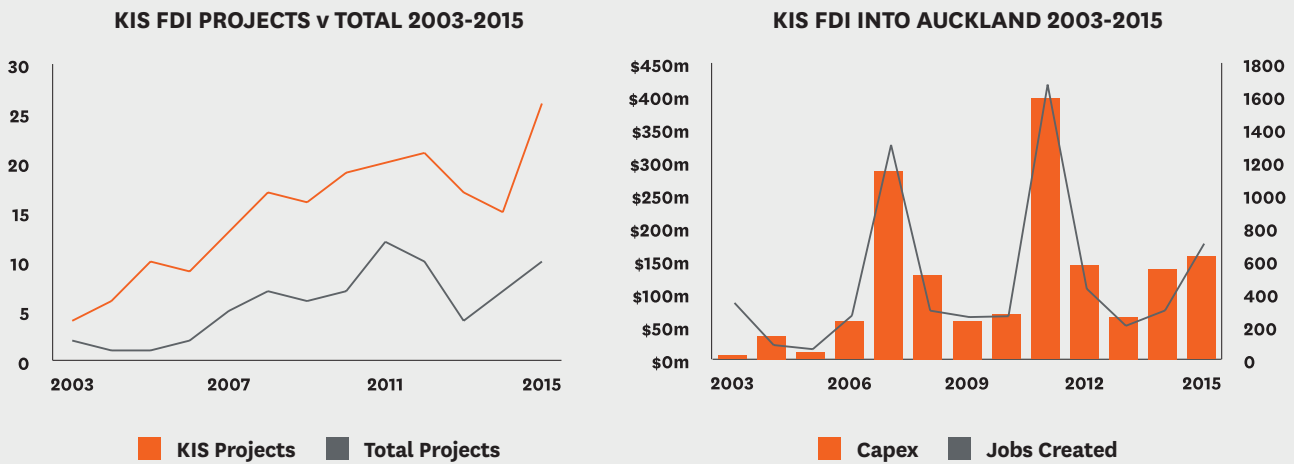
Auckland has witnessed a dramatic increase in the number of knowledge intensive services FDI projects, particularly between 2005 and 2011 increasing from one to twelve per annum. Knowledge intensive services makes up almost 40 percent of all FDI Projects into Auckland since 2003, the largest single sector.

⁴ QS World University rankings

⁵ PwC, KPMG, EY and Deloitte

⁶ Foreign direct investment (FDI) is an investment made by a company or individual in one country in business interests in another country, in the form of either establishing business operations or acquiring business assets in the other country, such as ownership or controlling interest in a foreign company

⁷ FDI project is classified as a foreign company setting up or expanding in a particular market

Figure 3: Auckland's FDI in Knowledge Intensive Services

Source: fDi Markets

These investments have brought significant financial investment and employment into Auckland. A total of \$1.5bn of investment, creating over 5,800 jobs since 2003. This peaked in 2011, with \$400m of investment and 1,500 jobs created and has slowed as the global economy has recovered, but there are signs of resurgence with increasing activity in 2014 and 2015.

International perceptions shifts

Increasing visibility worldwide and in Asia-Pacific

Whilst Auckland's economy has grown and become more globally engaged, internationally Auckland is still largely perceived as a high quality of life location and a visitor destination. However over the last number of years the international perception of Auckland has shifted. Auckland is now described by Jones Lange LaSalle in their 'Globalisation and Competition: The New World of Cities' publication as a 'new world city'⁸ and they rank Auckland 20th overall in their City Momentum Index. Auckland is also ranked 89 out of 500 by the 2thinknow Innovation Cities Index 2017, increasing on a 2014 ranking of 106 and in 2016 New Zealand was also recognised by The World Bank as the number 1 country globally for 'ease of doing business.' When benchmarked against Asia-Pacific peer cities it is clear Auckland now has enhanced visibility as a knowledge capital, evident by improving rankings in relevant criteria against the 9 peer cities presented below.

Figure 4: Rankings v Asia Pacific peers (Tokyo, Seoul, Sydney, Brisbane, Seattle, Portland, San Diego, Lima, Santiago)

Source: FDI Benchmark

⁸ An emerging city is characterized by a high quality of life, strong educational sector and safe and secure for living and doing business

Global Trends – Auckland’s Opportunity

Trade and Investment – Building on our strengths

Asia-Pacific’s increasing prominence

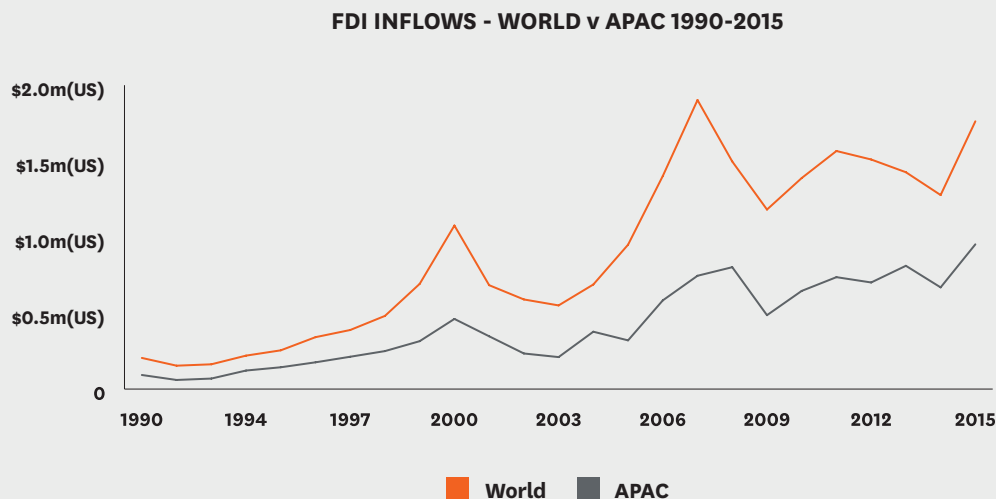
The Asia-Pacific is described by the International Monetary Fund (IMF) as the “*most dynamic region of the global economy*” and GDP growth in this region is forecast to continue at over five percent per annum versus a global average of three percent in 2017 and 2018⁹. This growth, and the increasingly western approach in a number of emerging Asian nations, present business opportunities for knowledge intensive firms.

As highlighted in the figure below, the level of annual FDI at a global and Asia-Pacific level grew consistently from 1990 until 2000, and then significantly increased to a global peak in 2007, and peaking in the Asia-Pacific region in 2008.

The Global Financial Crisis resulted in global FDI flows declining significantly between 2007 and 2009, and whilst deals have not recovered to the pre-crisis levels, the Asia-Pacific region has weathered the crisis better, seeing only a small decline in 2008 and 2009. Since then the Asia-Pacific region has witnessed a 95 percent increase growth in flows between 2009 and 2015 and Asia-Pacific accounting for 54 percent of the global FDI flows, increased from 41 percent in 2009.

While Auckland has been a beneficiary of this increasing focus on the Asia-Pacific region, it only attracted a small proportion of total FDI in Asia-Pacific recent years, which presents both a challenge and an opportunity.

Figure 5: Growth of FDI into the Asia-Pacific



Source: OCO Global/UNCTAD

⁹ imf.org/external/Pubs/FT/REO/2016/apd/eng/pdf/areo1016.pdf

Capitalising on niche opportunities

With a track record in attracting FDI including outsourced businesses and a strong business support and consulting sector, Auckland can capitalise on existing strengths in these areas to grow its share of FDI in the Asia-Pacific. Niche opportunities include:

- **Knowledge outsourcing** – Global outsourcing was a US\$100bn industry in 2014, with many global firms seeking to increase their presence in key customer markets and use outsourcing to improve performance and realise efficiencies. With increased air and digital connectivity firms now have more choice on where to locate and dependent on their needs, they can look at a range of options across vast regions. With global firms increasingly serving an Asian client base, cities like Auckland are now an attractive location for outsourcing. With a diverse and multilingual population, similar time zone(s), a knowledge intensive labour force and recent record of attracting knowledge intensive overseas companies there is a continuing and growing opportunity for Auckland to compete in this space.
- **Emerging Asia's consulting needs** – Consulting, one of the knowledge intensive services sub industries, can be thought of as one of the original outsourced industries. The industry has traditionally been viewed as a western practice with all of the major global player's today origination in Europe or North America and it is only recently that Asia has become sizeable markets for these firms. As many Asian nations emerge as powerful economies, consulting companies are taking an increasing interest in these new markets either through FDI, and/or increased new business development in market. With countries such as India, Indonesia, Thailand and Malaysia opening up to foreign markets and international competition, companies are understanding the costs of poor strategy and there is a now a demand for high-end strategy consulting. Increasing infrastructure investment and construction growth also present opportunities for consulting firms in this sector. Auckland firms have niche specialisms in consulting spaces such as engineering, architectural consulting services and advisory and with a growing Asian market for these services, there is scope for Auckland firms to move into and or expand their footprint in these markets.

Technology in knowledge intensive industries

The World Economic Forum has described the wave of technical disruption since 2000 as the Fourth Industrial Revolution¹⁰. This revolution has seen a shift from simple digitisation to innovation based on combinations of technologies and is forcing companies to re-examine the way they do business.

This is having a particular impact on the knowledge intensive services sector with technologies such as advanced computing, the cloud and mobile internet disrupting the business models of the financial and business services sector and business outsourcing. With the emergence of digital payments and cloud accounting, traditional banking and accounting business models are increasingly not fit for purpose and the rapid emergence of big data analytics and artificial intelligence is reducing traditional player's competitive advantage.

Capitalising on existing comparative advantages across the knowledge intensive services sector, and specifically in big data and financial payments, and achieving early mover status in adapting other tech platforms will play a key role in Auckland's emergence an international knowledge capital.

¹⁰ weforum.org/focus/the-fourth-industrial-revolution

How does Auckland capitalise on this opportunity?

With a strong knowledge intensive services industry and knowledge enabled labour force, an enhancing international reputation and a track record of attracting knowledge intensive services investment, Auckland is emerging as a knowledge capital in the Asia-Pacific. With the global economy shifting eastwards towards Asia and opportunities presented by technology and globalisation, Auckland can play a much more significant role than it does today and further increase its prominence in the region. To do this the city must:

- Through strong promotion, building on established trading relationships and leveraging our diversity and supportive business environment, seek to increase share of knowledge intensive services FDI projects in the Asia-Pacific.
- Be at the forefront of technology adaption and development, ensuring we are seen as a world leader where we have comparative advantage and as a first mover where we have implemented early. ATEED's next paper in this series will explore the impact of disruptive technology platforms and identify where Auckland has specific areas of comparative advantage which can be leveraged to support growth.
- Building on international perceptions shifts, position Auckland internationally as a knowledge capital, highlighting its key strengths and assets, particularly in niche areas of competitiveness.
- Support internationally focused knowledge intensive services firms based in Auckland to access new markets.



GET IN TOUCH

ATEED welcomes comment and feedback on the economic insights series.

ATEED Business, Innovation & Skills

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ABOUT ATEED

Auckland Tourism, Events and Economic Development (ATEED) is Auckland's economic growth agency, and an Auckland Council controlled organisation. It facilitates business and industry sector development, investment attraction, tourism and major events activities, and markets Auckland as a destination.

ATEED works with public and private sector partners to drive the growth of Auckland's skilled workforce, support Auckland's advanced industries to increase trade and attract investment, and promote a culture of innovation and entrepreneurship through initiatives like GridAKL - Auckland's Innovation Precinct at Wynyard Quarter.