

STRATEGY

Taranaki Regional Economic Development Strategy
August 2017





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Preface

We in Taranaki are modest enough to believe that our region is right up there as one of the most attractive places going, and "Lonely Planet" seems to agree. We know that because we live here.

There are no secret handshakes, but the experience of growing up and living in this region leaves a mark on us all. Our lifestyle and the lifestyle it affords is very precious and the only guarantee that we can bequeath it to our children is that it is founded on a sound and modern economic base, evenly balanced with strong and sustainable social and environmental conditions.

We want the best a modern economy can bring. We want to avoid the worst. In other words, we want an attractive lifestyle and a contemporary work scene. We "want our cake and we want to eat it too", and why not? We realise this won't come easily but we are prepared to put in the effort.

A great deal has been achieved over decades of history, building on the back of our natural resources. Natural resources will be part of our future as well, but these resources are no longer enough on their own. We need a region also built on knowledge, technology, talent and enterprise.

All this must work for the betterment of our people and our community.

This is no small task.

The Lead Team for this project has come together to lead. That's our job. This Strategy sets the direction and the Action Plan, soon to follow, will define the "doing" that is required.

This is not going to be a project just for local government or Venture Taranaki. To succeed, all of us, each in our own lives and businesses, will need to play our part. The Strategy will be a compass for us. Once we have everyone associated with this place, working together and heading in the same direction, we will become an unbeatable force. It's that important.

I wish to thank my fellow Lead Team members for their contribution, and all of those who have been involved directly or indirectly in the Strategy contributing information, thinking and inspiration. I wish to thank the local iwi who have joined us in this venture as one force for Taranaki.

I would also like to thank the funders of this programme – New Plymouth District Council, Taranaki Regional Council, South Taranaki District Council and Stratford District Council. Contributions were also made by Ministry of Business, Innovation and Employment and Te Puni Kōkiri.

To adapt the words of President John F Kennedy: read this Strategy, think about it and in so doing consider not just what your region might do for you, but what you can do for your region.

Together, let's make it happen.

Peter Tennent

Chair Lead Team Tapuae Roa - Make Way for Taranaki Taranaki Regional Economic Development Strategy



Tapuae Roa - Make Way for Taranaki

MISSION

"Taranaki - where talent becomes enterprise" 'Kia eke panuku'

NOISI



Talented People



Attractive Lifestyle



Modern, High-value Economy

30AL

Taranaki is a place where talented people want to live

The Taranaki lifestyle offering retains and attracts people

Achieve the highest proportion of technology-enabled and digitally-focused enterprises in regional NZ

ALUES

Whanaungatanga: Relationships

The people of Taranaki are at the heart of this strategy

Kaitiakitanga: Guardianship

Sustainability of our natural environment is paramount

Tuakana teina: Succession

Thinking long term, preparing for the next generation

ACCELERATION OF KEY ENABLERS

Major hard infrastructure	Māori	Major sector supports
- ports, roads, broadband -	- economy, participation -	- science, tourism -
Major business supports	Investment	Capacity, capability
- digital, innovation, incubation -	- diverse sources -	- skills, training, liveability -

APPROACH

ACCELERATION OF KEY GROWTH SECTORS

Future Foods Energy Futures

Tourism & Visitor Services

INCREMENTAL SECTOR GROWTH

Dairy	Energy	Engineering			
Food Processing	Meat & Poultry	Forestry & Processing			

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Further information about this Strategy is available at: www.makeway.co.nz.

ENTERPRISE

Executive summary

This Strategy – Tapuae Roa – is a culmination of work undertaken by the district councils and regional council of Taranaki in partnership with Ngā Iwi o Taranaki. Besides providing a new sense of direction for economic development, it will feed into the Long Term Plans of all the councils in the region, influence private sector investment decision-making and contribute to the future activities and investment decisions of Ngā Iwi o Taranaki.

Tapuae Roa - Make Way for Taranaki

Tapuae Roa refers to the footprints across centuries, looking back into the past and looking ahead to the future. It acknowledges the importance of taking a genuine long-term intergenerational view to drive the right collective behaviour and investment decisions.

The core focus of Tapuae Roa is people. It is people who take economies forward.

Mission

Talent is brought to centre stage. The mission is to single-mindedly grow the talent and entrepreneurial mind-sets, skills and capabilities of the wider Taranaki community as the foundation of a modern economy. This applies not only to business, but broader community enterprise:

"Taranaki – where talent becomes enterprise" 'Kia eke panuku'

Vision

The picture of the future recognises what is important to the next generation who are critical to achieving the outcomes sought. They value experiences and they seek balance and wish to contribute to a higher purpose beyond themselves. This vision seeks to recognise this. It is a three part vision balancing lifestyle, people and economic growth:

"Attractive lifestyles; talented people; high-value economy"

Values

Overarching values

- Whanaungatanga/relationships: our people, all the people of Taranaki, are at the heart of this strategy and we treat each other with respect.
- Kaitiakitanga/guardianship: sustainability of our natural environment is paramount.
- Tuakana teina/succession: this strategy is long term and prepares for the next generation.

Strategic values

- **Prosperity and liveability:** where lifestyle and economic transition are compatible and cities, towns and villages express pride, uniqueness and energy.
- Resilience: where there is sufficient breadth and depth in the economy to withstand the ups and downs of the commodity cycle and other disruptions.
- Inclusiveness: where all parts of the community are embraced and supported to achieve what they want.

- Resource use efficiency, waste-minimisation, biodiversity, environmental sustainability: where a nurturing attitude toward nature is part of working with and appreciating environmental resources.
- Service ethic and lifestyle: where work and life have an appropriate balance and service is delivered with quality.

Approach

Tapuae Roa is highly selective about where emphasis is placed. A strong emphasis is proposed on the 'acceleration' of the enablers that underpin the economy, together with steady incremental growth across a range of successful sectors, and with accelerated development in a few other sectors.

Development of enablers provides the foundation for growth - it is part of building the fundamentals of a high-value economy. It is the tide, that as it "flows", it "raises all boats". The key enablers include building support and capability in key strategic areas in a manner that is effective and appropriate for the development of the region.

The particular enablers targeted for acceleration are:

- Major hard infrastructure: infrastructure that provides access ports and roads.
- Major sector supports: sector-related infrastructure that supports growth science, research, and technology, plus accessibility and connectivity.
- Broadly-based people capability and capacity: the infrastructure that develops human capability and entrepreneurship and encourages liveability – education, suitable housing, skills and training and cultural development.
- Māori: capacity and capability to engage in economic growth economy and participation.
- Major business supports: business support infrastructure digital, innovation and incubation.
- **Investment**: assembling the investment capital required to facilitate development drawing on diverse and not just traditional sources.

The three sectors targeted for acceleration are:

- **Visitor sector**: continuing national growth, the unique visitor offering in Taranaki and the small share the region currently has of this market, offer significant upside.
- Energy futures: including new forms of energy (clean energy) and the production of value-add energy derivatives. The industry capability to underpin these priorities already resides in the energy sector.
- Future foods: the opportunity exists to leverage added value products from commodity food producing sectors such as dairy and meat. Changing consumer demand globally provides huge opportunity.

A breakthrough on any one of these three sectors would be an achievement. A breakthrough in all of them would be transformational for Taranaki.

Other foundation sectors such as agriculture, energy (oil and gas), engineering, food processing and forestry and wood processing will be incremental contributors. Consideration is given to the growth potential in these areas, too. Growth is also anticipated in sectors such as information communication technology (ICT), creative and mediarelated industries that thrive on talent and creativity. They are in the value chains of larger sectors and the success of those sectors will be their success.

The Action Teams, whose task is to provide details about actions and delivery, have joined-up both sectors and enablers for greater efficiency. This is intended to demonstrate convergence between sectors and enablers. Thus, the list of Action Teams is different from the enablers (see Appendix I).

Who's strategy?

Tapuae Roa is a "whole-of-region" strategy and involves a comprehensive view of sectors, enablers, sources of investment and collaboration. As such, integrated regional leadership is vital to its success.

This is a strategy for the whole Taranaki region.

It is based on the community's expectations of what they want Taranaki to be now and in the future. While activity or actions may occur in certain districts or communities, its focus is on achieving regional outcomes.

It is owned by the people of Taranaki as represented by the councils and iwi of the region. Central government recognises the value to New Zealand of having strong sustainable regions and so they have an interest in supporting the Strategy, too.

Implementing the earlier 2010 Strategy was largely in the hands of Venture Taranaki Trust (VTT). Since then much has changed. A strong partnership approach will be necessary given wider application, implementation and delivery by public and private sector organisations - including central government agencies, iwi organisations, business organisations and all councils. It is anticipated that VTT will again be a significant player in implementing the 2017 Strategy.

A strategy is needed to provide a pathway to get to where Taranaki wants to be as a region.

Expectations

Tapuae Roa sets out the expectations of what Taranaki wants. It identifies the challenges and opportunities that Taranaki faces. It sets the direction for what the region could achieve, with a tight focus and a good deal of Taranaki passion and pride.

Often lifestyle and environment are seen to conflict with economic values. There is a strong conviction that in Taranaki the two - lifestyle and economic transition - are compatible.

The people of Taranaki identify social engagement, good quality services, ease of getting around and access to the environment amongst many attractive lifestyle features. They want Taranaki to be a region of consequence and of increasing relevance to New Zealand. They want their economy, with its current reliance on commodities, to transition to a value-added economy with attributes such as developed digital capacity and technical skills, a strong focus on talent and well-developed enterprise capability.

The people of Taranaki want resource-use efficiency and reduced waste. They want a work / life balance combining productive endeavour with human, community and family values. They want a modern and inclusive economy where no one gets left behind.

Residents want the benefits of a larger population than at present and they want to retain more of their young people in the region or have them return from tertiary education or their overseas experience. They realise there needs to be tangible benefits available to them in the region to bring them back. Ensuring there is digital connectivity and the ability to support and enable it to be used is a fundamental requirement to sustain communities across Taranaki.

They want their economy, with its current reliance on commodities, to transition to a value-added economy with attributes such as developed digital capacity and technical skills, a strong focus on talent and a well-developed enterprise capability.

Challenges

The key ingredients to a high-value economy are talent and skills. Skills and qualification levels are behind national averages in Taranaki. This is partly the result of the loss of talented young people to larger centres for education and higher paying urban-based jobs, but it is also the result of a lack of focus on this matter.

Taranaki also suffers from a lack of depth in its labour market. Beyond the Western Institute of Technology (WITT) it has limited access to tertiary education and research facilities. The ability to learn and engage with others is an essential part of the platform of a modern, technical and talent-focused economy.

Taranaki does not have strong tertiary institutions and facilities such as incubators for encouraging innovation and entrepreneurship. It is not yet 'match-fit' to move further into a high-value scenario.

Taranaki is some way from the main road arterials of New Zealand and is geographically distant from the main centres. Connectivity – road, rail, digital, air, sea – is a priority.

Growth

Increasing maturity and breadth are evident in the Taranaki economy. Its concentration on two key sectors – dairy and energy – has been a source of growth in the past, but recent events have highlighted the volatility and vulnerability of the Taranaki economy. In the context of global trends that are having profound effects on communities, a continuing heavy reliance on natural resources and exporting basic commodities makes the region vulnerable. The way in which it has bounced back from softer oil and dairy commodity prices indicates a strong underlying resilience, as well as vulnerability.

On top of its profile as a 'typical' New Zealand region are some large scale key sectors – petroleum, minerals, dairy and related processing, food processing, energy-generation and distribution. These dominant sectors have produced high household incomes, amongst the highest in the country, and growth in employment. Taranaki also ranks well against other regions on well-being measures, which is partly a reflection of this affluence. Population has grown at a faster rate than most regions. The focus of growth has been on New Plymouth, which has grown faster than the national average over the last ten years. Stratford and South Taranaki have maintained steady population levels.

Taranaki needs to continue to grow to overcome the challenges it faces and achieve its future vision.

The Taranaki population is not very diverse ethnically. It has a large European population and a slightly higher Māori population than nationally, but only small percentages of people that identify with other ethnicities.

While incomes are relatively high generally, there are communities that are deprived. Māori are over-represented in these communities. The way in which Tapuae Roa seeks to lift economic wellbeing in these communities must recognise and leverage their strengths. The use of true co-design methods alongside residents in these communities will be fundamental to implementing bespoke approaches that work.

A multi-modal education offering for the region is necessary to successfully convert the latent potential in these communities into talent that is capable of making a positive and significant contribution.

The growth in New Plymouth means it is gradually morphing from a provincial service centre - in New Zealand parlance, "a provincial town," to more of a modern city generating economic activity in its own right. Taranaki needs New Plymouth to be a magnet of economic activity and an anchor for the whole region against migration of economic activity to metropolitan centres or offshore.

While New Plymouth may be developing as the regional magnet, it is critical to the region that all parts of Taranaki are supported to participate in the economy in their own right, and to indirectly benefit from New Plymouth's growth. Strong concentration in significant primary industries such as energy, primary production and processing has enabled districts outside of New Plymouth to maintain their populations, but has resulted in highs and lows in their economic performance. Acceleration of digital capability and enterprise has significant potential for the smaller communities of Taranaki.

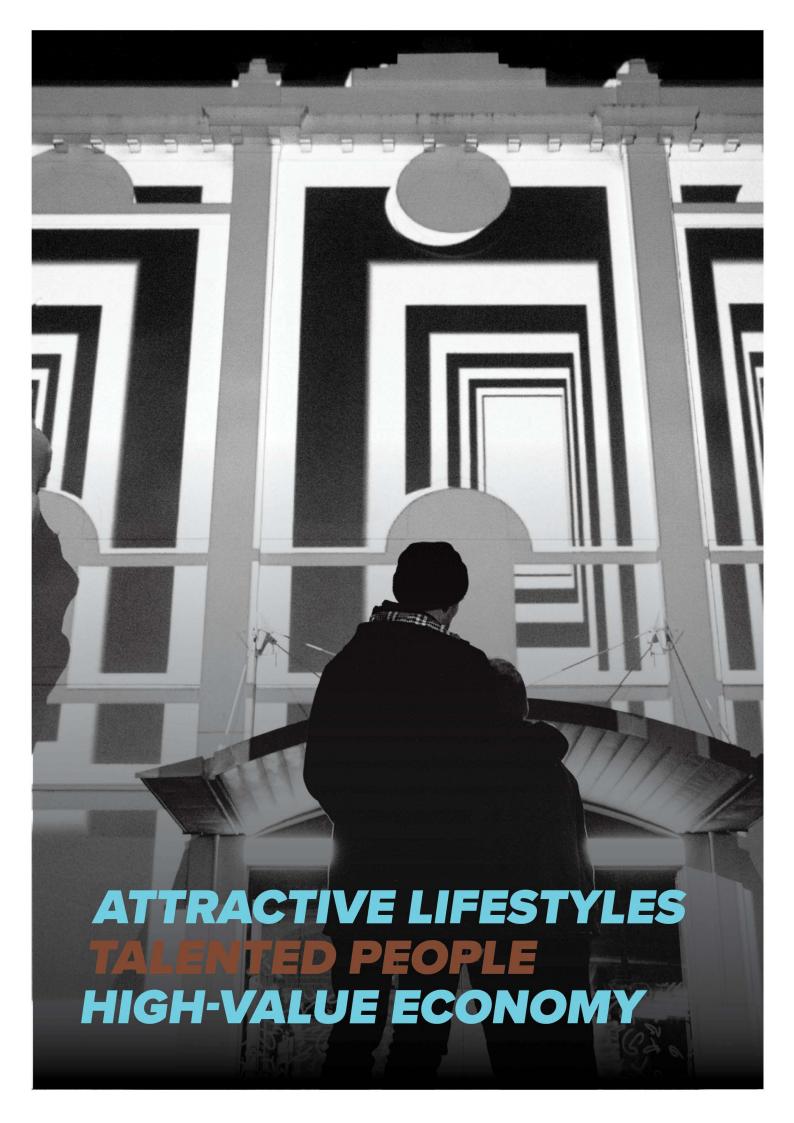
Direction

The region is transitioning from an economy based on natural comparative advantage – water, land, climate, minerals and oil – to a value-adding economy that is much more reliant on human comparative advantage – talent, enterprise, skills and knowledge.

A modern, high-value economy is first and foremost, one based on talent.

The focus of Tapuae Roa is to accelerate this transition and provide shape, purpose and direction to it. By accelerating priority sectors, a model will be created for others to follow.

A high-value economy is not just a pipe dream. Taranaki already has a significant technology profile. Industries in the energy and mineral sectors are capital-intensive with substantial investment in technical enablement. The dominant primary industry – dairy – is gradually moving towards a value-added model with increased processing in the region. Sectors such as engineering, poultry and timber are also advancing in this direction. There is a smattering of technology-based enterprise emerging in other sectors. The challenge at the heart of Tapuae Roa is to build from and accelerate this transition.



Introduction

Taranaki is truly unique. It conveys a strong sense of self. Its progress has been exemplary, built on strong sectors such as dairy and energy.

Despite the recent downturn, these two industries have created a sound base from which diversification, both vertically and horizontally, can occur.

Continuous disruption of industries has proven the frailty of relying entirely on what already occurs in the Taranaki economy. It's important to strike the balance between continuing to incrementally grow the current economic base while exploring the new. There is no room for complacency.

Past success has at times obscured challenges experienced in geographic and demographic pockets of Taranaki. These have been exacerbated by the downturn.

There has been exponential growth internationally in the influence of concepts such as social wellness, sustainability and equality. Global megatrends – positive and negative – are changing the way we do things. These global megatrends, along with changes in the local operating landscape, require careful navigation, strong leadership and meaningful partnerships.

Diversity of thought, openness of mind and a willingness to listen to each other will extract societal value from economic activity for everyone's benefit.

The Taranaki economy will be built on modern skills with a strong technology and digital bias. It will be a people-centred economy seeking to build a capable workforce able to produce products and services suited to future global markets.

Taranaki will also be an economy where lifestyle and economic transition are compatible. It will be an economy reflecting and expressing a social conscience, a nurturing spirit and a respect for biodiversity, environmental limits and everything that is unique and special about Taranaki. It will be a region realising equality amongst its people and between its many places.

The focus of Tapuae Roa is to define and accelerate the transition to a Taranaki economy where sustainable growth is in its heart, resilience is in its bones and people are at its core.

The history of Taranaki is unique and a critical part of the region's story. The stories of Taranaki have influenced significant international social movements and cannot be told by any other region in Aotearoa or the world. This strategy will provide a new chapter in the region's historical narrative.



He aha te mea nui o te ao – he tangata, he tangata, he tangata!

Background

This regional economic development strategy (the 'Strategy') was initiated by the Taranaki Mayoral Forum and undertaken by New Plymouth District Council (NPDC) on behalf of the four councils of Taranaki, in partnership with Ngā iwi o Taranaki and in association with central Government. It is intended as a refresh of the previous strategy prepared in 2010 and which has provided guidance to economic development in the region since, especially to the work undertaken by VTT.

It is branded "Tapuae Roa - Make Way for Taranaki" to convey a sense of new energy, direction and purpose in regional development, building on the significant achievements to date. It is intended to convey the idea of Taranaki achieving significant development momentum.

The Strategy development work has been undertaken by external consultants under the watchful eye of a Lead Team (see Appendix II).

An integral part of the Strategy is that portion led by the iwi representatives on the Lead Team on the Māori economy in the region and the contribution of Māori to the overall economy.

Methodology

Input for the Strategy came from:

- Detailed economic analysis: undertaken by MartinJenkins, of the region as a whole and the sectors and economic enablers within it. Summarised information is in this report. More detailed reports and sector profiles can be found on the website.
- **Detailed profiling:** undertaken by HenleyHutchings in the form of thirty seven in-depth one-on-one interviews and group meetings with councillors from all councils and further meetings with a selection of community organisations.
- In-depth review: has been undertaken by the Lead Team in its oversight role of Tapuae Roa.

What comes next?

This Strategy sets a direction for economic development. It identifies priorities and measurable goals. A companion document to be published some months later will comprise an Action Plan and will detail specific recommended actions and priorities. It will also deal with questions of leadership and responsibility regarding the advancement of the Strategy.

Besides providing a new sense of direction for economic development, the Strategy will feed into the Long-Term Plans of all the councils in the region, influence private sector investment decision making and contribute to the future activities and investment decisions of Ngā Iwi o Taranaki.

The Taranaki economy

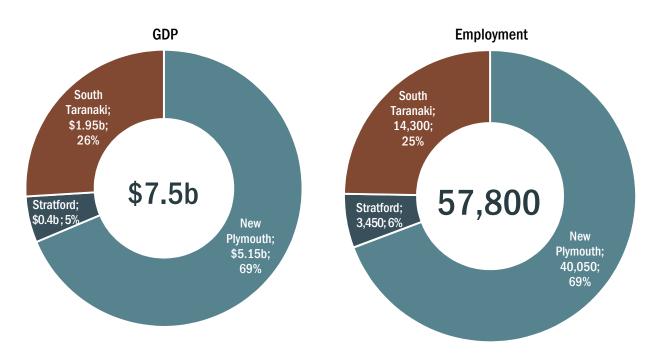
To create a strategy we need a current 'take' on the raw material we are working with – the Taranaki economy. Here is a brief overview. Detailed background profiles of the Taranaki economy and sectors are available on the Tapuae Roa website.

In 2016, Taranaki generated \$7.50 billion¹ in regional gross domestic product (GDP) and around 57,800 filled jobs. The population was estimated to be close to 117,000 as at June 2016.

The region accounts for 3.4 per cent of national GDP and smaller proportions of employment and population (around 2.5 per cent each).

New Plymouth district makes the most significant contribution to GDP in the region, at close to 70 per cent of the economy, followed by South Taranaki (26 per cent) and Stratford (5 per cent). There are similar breakdowns of employment by district.

Figure 1. GDP and employment by Taranaki District, 2016



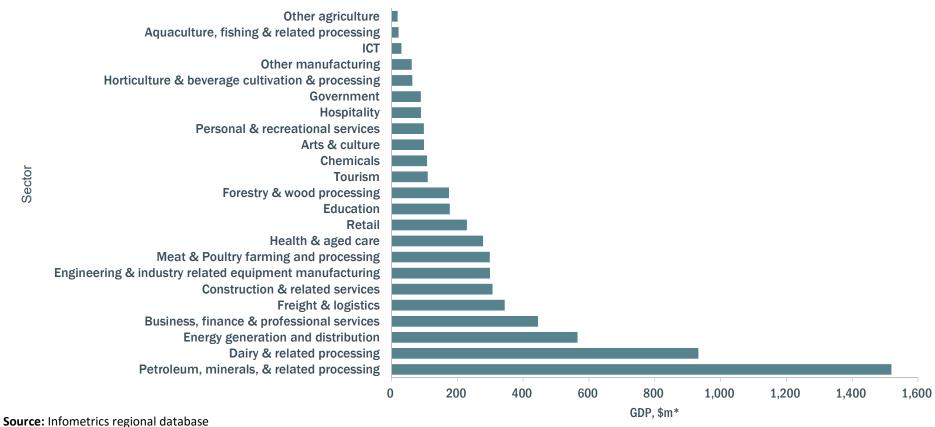
Source: Infometrics regional database

All GDP is in 2010 dollars. Growth in GDP is real, i.e., accounts for change in prices (inflation).

Sectors

Taranaki's GDP is heavily concentrated in a few sectors, with petroleum and minerals, dairy and related processing, and energy generation and distribution making up close to 40 per cent of the value of output (Figure 2). However, these sectors are not large employers, contributing only 14 per cent of Taranaki's employment (Figure 3). An overfocus on these sectors may lift GDP but their contribution to key outcomes sought by this Strategy such as population, employment and community will be less decisive.



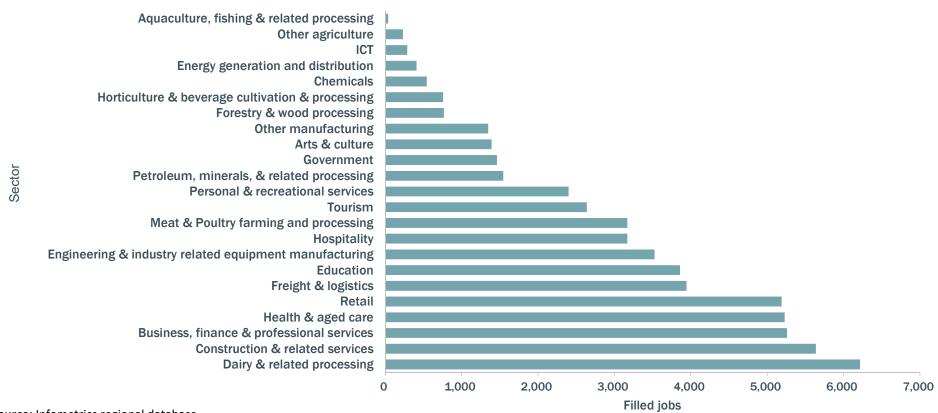


Source: Illioilletrics regional database

^{*}All GDP is in 2010 dollars. Growth in GDP is real, i.e., accounts for change in prices (inflation).

Also shown in Figure 3, employment is more evenly distributed over a range of sectors than GDP, with dairy & related processing, construction & related services, professional services, retail, and health and aged care, each contributing 9 per cent or more of employment. The job-intensive sectors of the future such as tourism are only halfway up the graph. It is important that job-rich sectors grow strongly to support the population and community growth aspirations and values expressed in the meetings and interviews conducted around the region.

Figure 3. Employment by sector, Taranaki, 2016



Source: Infometrics regional database

Trends

The following charts paint a picture of both growth and volatility for the Taranaki economy, particularly GDP and at a district level.

Since 2013, despite the impact of oil and dairy prices, the region's economy has grown by 2.8 per cent each year, the same rate as that recorded nationally.

The region has experienced a mixed GDP performance over the long-term on the back of the petroleum, dairy and energy sectors. It experienced reasonable growth from 2001 to 2010, other than the short downturn in 2007. It then declined in 2011 and 2012 before recovering once more. In the year to March 2016, GDP flattened out again.

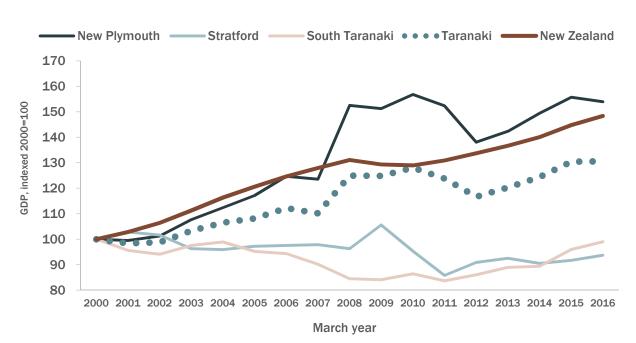


Figure 4. GDP change, Taranaki districts and New Zealand, 2000–2016

Source: Infometrics regional database

GDP growth in the region has slowed slightly over the last 5 years to 1.1 per cent each year as the downturn in oil and dairy prices was felt, whereas nationally it grew by 2.5 per cent each year.

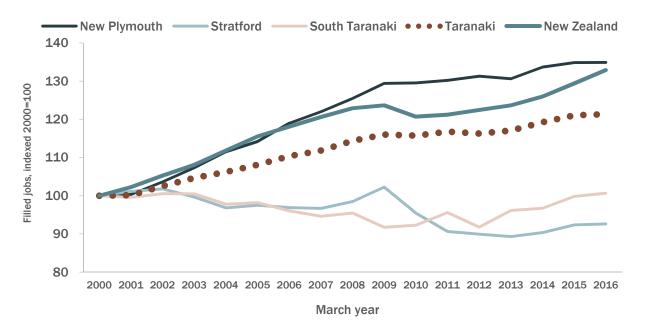
The three Taranaki districts have performed quite differently. New Plymouth has achieved very strong growth over the long-term, other than the period post the financial crisis, reflecting its strong energy and related servicing base. Stratford and South Taranaki have experienced very low growth over the long-term.

Jobs in the Taranaki region have grown by 1.0 per cent each year over the last decade. Employment growth in the region has been much steadier over the long-term, growing over 2001 to 2009, before flattening over 2009 to 2012, and growing again post 2012. Continuing job growth is vital to the region's future.

The growth in employment in Taranaki has been driven by New Plymouth district, which is on a par with New Zealand.

Growth in the other two districts, Stratford and South Taranaki has been slow to negative.

Figure 5. Employment change, Taranaki districts and New Zealand, 2000–2016



Source: Infometrics regional database

Over the last five years, South Taranaki's employment growth has been strongest at 1.0 per cent each year, whereas New Plymouth and Stratford have experienced only limited growth (0.7 per cent and 0.4 per cent each year, respectively). This reflects, in part, the investment that has been made by major businesses in South Taranaki over the last few years, such as Fonterra.

The region is performing above national averages on some indicators of prosperity.

Median household income in Taranaki was lower than the national average when last measured but above several comparator regions (annual median household income in 2013 was \$58,400 compared to \$63,800 nationally, although the national median is driven by more people with higher incomes in the three major city-regions of Auckland, Wellington and Canterbury). The annual average earnings level in Taranaki in 2016 was near the top of New Zealand regions but slightly lower than the New Zealand average (\$57,610 compared to \$57,780), reflecting higher paid jobs in energy and related servicing. The average earnings level was high in both New Plymouth and South Taranaki (above \$58,000), while it was relatively low in Stratford (\$46,130).

While these averages indicate a level of economic strength, as is often the case, the averaging of information is distorted by particular industries, painting a somewhat "rosier" picture than is actually the case, particularly for those outside of New Plymouth and those not employed in energy and related servicing.

The region's labour force participation rate improved between 2008 and 2016 (from 68.5 per cent to 69.6 per cent). However, the region's employment rate fell over the period (from 66.2 per cent to 63.8 per cent), reflecting an ageing workforce.

Compared to other regions, Taranaki's labour productivity per employee in 2016 was very high at \$110,350 and well above the New Zealand average of \$95,991, largely due to the scale of the high-productivity petroleum and energy sectors. Labour productivity was much higher in New Plymouth (\$154,430) with South Taranaki just above New Zealand at \$98,765. Labour productivity in Stratford was lower than New Zealand, at \$88,727.

Based on OECD regional wellbeing indicators, Taranaki ranks lower than the New Zealand average on measures related to education, safety, health and accessibility of services. However, the region ranks higher on measures of community (proportion of people with friends and relatives to rely on in case of need) and environment. Housing is also much more affordable in Taranaki than in several other regions.

Between 2006 and 2013, population growth in Taranaki (0.83 per cent each year) was the same as the national rate. This growth rate was higher than many other regions, but not Auckland, Nelson, Waikato and Tasman.

Taranaki's population grew at the same rate as nationally between the 2006 and 2013 censuses. Since then it is estimated to have grown at a slightly slower rate than nationally.

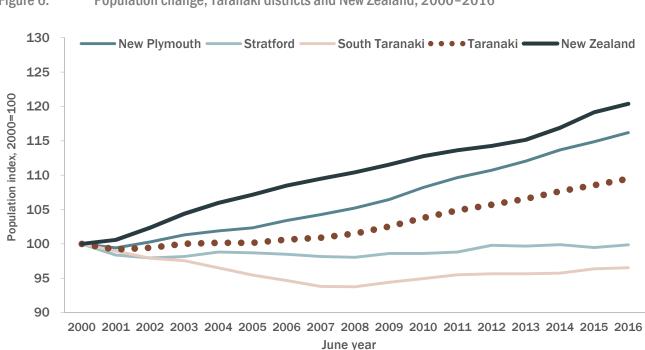
This population growth was driven by New Plymouth district, which grew relatively strongly at 1.15 per cent each year over the period, while Stratford and South Taranaki's population grew very slowly (0.17 per cent and 0.15 per cent each year respectively). Natural increase (births less deaths) accounted for about 60 per cent of the increase, with net migration (arrivals less departures) accounting for the remaining 40 per cent.

Between 2013 and 2016, the region's population is estimated to have grown by 3,130 people or 0.9 per cent each year, slower than the 1.2 per cent annual growth nationally.

At a district level, New Plymouth's and South Taranaki's populations are estimated to have grown by 2,857 (1.2 per cent) each year and 257 (0.3 per cent) each year respectively, while the population in Stratford is estimated to have increased by 17 people (0.1 per cent) each year.

A much higher proportion of Taranaki's population identifies as European (86 per cent) than nationally (74 per cent) and a smaller proportion identifies as Asian or Pasifika. Similarly, a much smaller proportion of the population was born overseas (13 per cent) than across New Zealand as a whole (25 per cent). This may limit the international connections of the region and its ability to attract a more diverse population with a variety of valuable skills.

18,150 people in the region identified themselves as Māori in 2013. This represents more than 17 per cent of the region's population, higher than the national figure of close to 15 per cent.



Population change, Taranaki districts and New Zealand, 2000-2016 Figure 6.

Source: Infometrics regional database

Māori account for 12 per cent of employment in New Plymouth, 2.1 per cent of employment in Stratford, and 13.7 per cent of employment in South Taranaki. The Māori share of employment is lower than the share of population, especially in Stratford and South Taranaki. Some of this difference is reflected by the higher share of youth. However, it tends to reflect the socio-economic issues for Māori in those districts. This outlines the importance of the partnership approach for Tapuae Roa. An effective regional economic development strategy will direct attention to these areas of disparity across all Action Plans in an attempt to lift the opportunities in these areas. The economic impact of addressing this is significant and therefore must be considered a priority.

Māori are major contributors to, and will play an increasingly important role in the future of the Taranaki economy.

Māori in the Taranaki economy have a younger age structure than non-Māori. In 2013 over a third of the Māori population were under 19 years of age compared to 27 per cent of non-Māori. Only 9 per cent were over 65 compared to 16 per cent of non-Māori. This suggests that from a demographic perspective, Māori will in future account for a larger proportion of the working age population.

An earlier report estimated that Māori contributed about 10 per cent of the region's GDP through employment. Increasing the employability of Māori through targeted and tailored education and training for higher-value futurefocused industries will lead to an increase in the value of this contribution.

Māori are also significant investors in the regional economy. Seven of the eight iwi have concluded historical Treaty Settlements with the Crown, with the value of assets received under Treaty settlement processes having more than trebled from around \$100 million to \$326 million. There are also significant Māori-owned businesses in the Taranaki region such as Paraninihi ki Waitōtara and Tui Ora. Māori are also key partners and have kaitiaki responsibility within the rohe across a number of environmental areas, including Mount Taranaki.

Conclusions

Looking at the indicators, the Taranaki economy is performing well. GDP and employment growth have been positive and performance has been close to national levels. GDP per capita is significantly higher than nationally and measures of well-being place it near the top of New Zealand's regions. On the face of it, Taranaki is doing okay.

There are issues around volatility and disparity.

The strong concentration on two sectors that are producing mainly commodities, driven by global commodity prices, means that there is significant volatility in the Taranaki economy. The drivers of consumer decisions internationally, particularly around social wellness, environment, climate change and dietary preferences add further risk to these sectors. When things go well in both sectors, Taranaki does well. When one gets the wobbles, the other sector balances it out. However, when both underperform as they have in the recent past, then the region struggles. Taranaki is vulnerable to being a boom-bust economy which makes planning difficult.

There is also disparity across the districts in the Taranaki region. Growth over the last 16 years has been driven mainly by New Plymouth district. GDP and employment growth has been faster in New Plymouth, and this is reflected in the change in population. This disparity has widened over time and is likely to continue to do so if left to its own devices.

Similarly, there is the disparity between Māori and non-Māori. This is an issue that strategic regional development should strive to relieve. With a growing proportion of the region's population being Māori, they will be an increasing share of the future workforce. Māori have a resolute interest in the region's economic development, with unwavering determination to participate fully in a thriving and purposeful economy. Ngā Iwi o Taranaki have a responsibility to the land and the people and will remain in Taranaki regardless of the region's economic state. They are therefore highly interested in playing their part to ensure the region is able to provide an abundance of opportunities for their people in alignment with their values.

There is also an issue around the future for the two key sectors of energy (oil and gas), and dairy. Both industries are mature. Gains in dairy are likely to come from either productivity improvements, or higher value processing. It is not a matter of simply converting more land to dairying, as most land in Taranaki that is suitable for dairying is already used for that purpose.

Depending upon how you look at it, the oil and gas portion of the energy sector is one that is likely to be in decline. Environmental issues around climate change and the impact of plastics, and new technologies for alternative energy and efficiency are slowing demand for oil and gas. New discoveries (such as shale oil in the US) have increased supply. It could be argued that the oil and gas sector doesn't have the growth profile that it once had.

This suggests the need to move beyond the production of commodities, and the focus on growing grass and extracting oil, towards an economy that is broader in its focus, and built on the talent and skills of its residents. This is not to say that the sectors which got Taranaki to where it is should be forsaken. They are and will continue to be important and underpin the Taranaki economy for the foreseeable future. However, growth in these sectors will be incremental.

Taranaki needs to build its base across a number of other sectors to reduce volatility in the economy. It especially needs to look at sectors where it can build a substantial presence and grow at accelerated speeds. These sectors will either be traditional sectors where value is extracted by skilled and innovative people or sectors where skilled and innovative people are the resource - an economy of talented people.

What are the challenges?

This Strategy and goals are based on the presumption that the possibilities outweigh the challenges, but it is important to be realistic about the challenges.

People dimension

- People in Taranaki have lower qualification levels than nationally.
- Training participation is also lower than it needs to be.
- There are pockets of unemployed or underemployed people representing an under-utilised resource.

Knowledge

- There is clear evidence of pockets of knowledge. The main industries, especially the technically-focused energy industry, attract highly competent people with knowledge and international connections.
- This is an important foundation, but not sufficient to take the region forward in the way this Strategy suggests.
- The challenge of attracting knowledge into the region and generating it locally will be difficult but important.

Location

• While much has been achieved, there are deficiencies throughout the region in terms of access to attractions and amenities and their presentation.

Connection

• The region is at the formative stages of some major upgrades – the northern highway, the airport and the digital network. Access of external (and local) businesses to the region can be helped or hindered through the ease of doing business.

Ambition

• A programme as outlined in this Strategy requires leadership and ambition at all levels of the region. Concern has been expressed that there is some residual complacency, but that has not been particularly evident.

Fragmentation

 A cohesive, whole-of-region effort is required. Old arguments and differences will have to be put aside in the interests of forward, cohesive action.



What kind of future for Taranaki?

What kind of future development do the people of Taranaki want?

Taranaki people want quality of life. They want a modern and progressive economy that adds value to local products. They want technology-based industries and increased digitisation of existing enterprises to enhance the region's strengths in primary production and traditional manufacturing. They want steady population growth to achieve sufficient critical mass to sustain a buoyant and resilient community.

In short, they are "particular" around their quality of life and "ambitious" around population and modernisation. It's a combination of "preserve values yet break new economic ground". These simple sentiments guide this Strategy.

Greater resilience

The regional sense of confidence that existed prior to the 2007 Global Financial Crisis and again in 2012/13 when dairy and gas prices were both high, has diminished somewhat. Things can change quickly, and they did.

The downturn in mature sectors such as oil and dairy was also a reminder that nothing can be taken for granted, or forever. Taranaki navigated the 'shocks' and retained much of its lustre but it was a reminder of its vulnerability.

Taranaki is now recapturing a bit of that swagger of earlier times, with the advantage of the realism that changes in the international economy brought. That confidence will increase with diversification, modernisation and population growth. Confidence will grow with a focus on talent and enterprise.

What has gone is any complacency.

Lifestyle and liveability

The fundamental feature of quality of life is relationships and Taranaki is built on highly cohesive communities, but there are many other important factors as well which featured in the interview phase of generating this strategy:

- Access to and diversity of environmental experiences.
- Relaxed pace of life.
- Minimal commuting times; ease of getting round; hassle-free living.
- Adequate and affordable housing.
- Access to opportunities to grow cultural connectedness.
- Ability to grow strong young cohorts of Taranaki iwi members who are technically capable, culturally competent, contributing and confident global citizens with strong links to Taranaki.
- Closeness to family; inter-generational accessibility.
- An engaging cultural life.

Lifestyle is recognised as a key factor in population attraction and retention, with regions competing against each other in New Zealand and internationally. Towns and cities now engage in active civic development to make their environments more attractive. The popularity of lifestyle attractors changes with cultural preferences. Ready access to natural attractions is strong and lasting, but urban attractors need constant attention. Interviews conducted for this Strategy indicate that community attractors in Taranaki require some attention.

Housing is also a building block in developing communities, along with skills and jobs. This is true for the community at large and especially true for Māori, as efforts are made to unlock the potential of Māori land and communities and lift achievement of iwi, across a range of social indicators.

The cultural life of the region is seen as part of liveability and an asset that locals want to continue to foster. There is palpable pride around the achievements with the Len Lye Centre, the coastal walkway, WOMAD, improvements to the townscapes of the other centres and the various botanical attractions around the region, to name a few.

Lifestyle is recognised as a key factor in population attraction and retention, with regions competing against each other in New Zealand and internationally.

Wealth-creation and jobs

The pull of quality of lifestyle and environmental attractions in Taranaki is often seen as a compensating factor to a smaller range of employment prospects. Incomes in the region have generally been steady with some high incomes in mainstream industries lifting the average. Salaries in Taranaki are at the higher end of the spectrum. The attraction is not just the sheer availability of jobs, but the quality of those positions in career and satisfaction terms, together with the salary package.

Ngā lwi o Taranaki has a particular focus. They aspire to create equal access to opportunity, particularly to education and training opportunities where the mode of delivery is relevant to their style of learning, to their context and to the industries of the future. They do not want to be training their young people for the jobs of today. They are firmly focused on building the capability and skills necessary to position their people for tomorrow's opportunities. This will ensure that their families have opportunities within Taranaki and they can continue to build on their strength as Kaitiaki of their place, their people and their culture.

Some of the Taranaki diaspora return to the region because technology means they can work from there in their chosen profession or career. These people in some cases bring their job with them, while others with less portable employment have to find jobs locally.

While lifestyle and environmental benefits help, Taranaki needs to produce challenging jobs with a high technical and creative content to attract and retain people who will generate and bring wealth to the region. These jobs need to have future prospects of advancement - characteristic of the modern, talent and added-value economies. Regional jobs can no longer be those that are left after the "decent jobs" have migrated to larger urban areas.

The focus of these jobs needs to be in high-value sectors and industries because they drive the value chain that produces some of the more routine jobs which are part of the total package of regional development and a balanced economy.

These sectors will produce the core of new economic activity that will then spill over into other areas of the economy. These sectors will require technical, scientific, skilled servicing and middle-management jobs. They will need to be supported with appropriate tertiary training and business development capability.

Additionally, those people who are not in work, or who are in low-skilled or manual jobs, that will become gradually redundant in the economy of the next 5-10 years with the impact of robotics and automation, will require motivating and retraining to ensure they can, or can continue to, contribute in a high value economy.

A growing population

The 2010 "Taranaki Economic Development Strategy" identified population gain as a high priority and set a target of 135,000 by 2035. The region is currently on track to achieve this target. Projecting forward the historical growth rate achieved over the last ten years, Taranaki would have a population of 135,000 people by 2034. A target of 135,000 by 2035 was aspirational in 2010, but not now.

If part of the aspiration for Taranaki is a modern, contemporary and progressive economy, more population is required to replace losses due to ageing and youth 'emigration' as well as to encourage vibrancy and diversity.

Taranaki currently has a population of about 117,700, made up of New Plymouth (80,600), South Taranaki (27,800) and Stratford (9,300). The Statistics New Zealand medium projections foresee the region's population in 2047 increasing to 132,000, about 0.4 per cent each year. Under this projection, New Plymouth would have a population of 95,400, South Taranaki would have 27,300 people, and Stratford about 9,200 people. This is an additional 13,900 people over 30 years or 464 additional people each year.

However, in terms of district distribution, New Plymouth's population would grow by 0.6 per cent each year and account for all of that increase and more. The populations in South Taranaki and Stratford would both decline by 16 and three people each year, respectively. This doesn't meet the desire to achieve growth across the region.

There are two different scenarios looking ahead with respect to population. One of these is focused on the distribution of talent growth across all parts of Taranaki, and the other, where New Plymouth is the centre from which the other districts indirectly benefit. Both scenarios have benefits and drawbacks depending on relative perspectives.

Māori are particularly interested in the liveability and vibrancy of the smaller communities throughout Taranaki, which would require a focus on different economic activities, strong digital connectivity and capability building and more likely a focus at small and medium enterprise (SME) scale besides those capital intensive enterprises based in New Plymouth. The importance of digital development as a key focus from both skills development and enterprise participation angles becomes critical as a way of generating economic benefit directly into these communities.

Figure 7 (below) sets out a scenario where population is still driven by New Plymouth, but where there is a stronger contribution from Stratford and South Taranaki. This growth is based on the historical rates achieved over the last ten years, but with higher growth in Stratford and South Taranaki going forward.



Figure 7 Population targets 2047

Source: MartinJenkins; Statistics New Zealand

Achieving the growth target will require a strong focus on migration across all three districts. Table 1 (below) shows the migration required to achieve the strategy target, based on current levels of natural increase:

Table 1 Natural increase² vs. migration

	Natural increase	Net migration	Net increase
New Plymouth	5,878	27,522	33,400
Stratford	1,080	120	1,200
South Taranaki	4,377	(1,677)	2,700
Taranaki	11,335	25,965	37,300

Source: MartinJenkins; Statistics New Zealand

Net migration is projected to be negative in Stratford and South Taranaki out to 2047, meaning that there is a need to stem outward migration as well as attracting new residents. Further, locals will look to themselves with the support of Tapuae Roa leadership to grow their skills and develop vibrant local economies.

South Taranaki is also showing the way with their focus on developing these skills in teenagers.

With dropping national birth rates, population increases would inevitably involve inward migration with greater diversification of race, ethnic groups and value systems. This does not appear to concern most of those spoken to, despite currently lower rates of diversity in the region compared to regions like Auckland. They recognise the value of diversity and talent. It might be difficult to achieve this diversity if there are adverse national policy settings on immigration.

The balance of natural increase and migration is quite different across the region and this may be a consideration in development planning. Figure 7, on the previous page, looks at projections over the period 2017 to 2047. It illustrates starkly how population increases will be based on natural increase throughout the region except New Plymouth, where migration accounts for over 80 per cent of the increase. While this is not surprising, it is going to result in very different communities between the urban New Plymouth and the semi-rural towns of the rest of the region.

If Taranaki is going to have a steady increase in population, which is what a high value economy and attractive lifestyle requires, this will mean that the vast majority will go to New Plymouth, unless they have a particular desire to be part of a smaller community or national policy settings direct international immigrants to other settlements in Taranaki. Achieving the population targets set in this strategy will require actions to ensure the desired growth in Stratford and South Taranaki takes place.

Equality

Large differences in population between sub-regions do not necessarily mean increased inequality. Taranaki people are concerned when economic benefits are not filtering through to communities in the south and centre of the region. The "egalitarian" ethic is strong in Taranaki.

The "egalitarian" ethic is strong in Taranaki.

Natural increase is based on the SNZ medium projections. However, you could expect that the natural increase proportion would be higher if migrants were younger and changed the age structure within the districts. This would mainly impact on the natural increase share in New Plymouth.

Severe inequality of incomes and opportunity do not serve the goal of economic development either. Unemployment, particularly where it involves young people, represents an under-utilised economic resource. Where inequality affects Māori communities it potentially diminishes the contribution they could make to the regional economy, not to mention the effect on the people themselves.

Some development activities encourage population dispersal more than others. Tourism and expansion of the Māori economy are more likely to produce jobs in sub-regions. A balanced portfolio is vital.

Access and connection

The range of modes of connectivity: road, sea, rail, air transport and digital development rate highly as part of a development package for Taranaki. Access and connection came up repeatedly in interviews. People in Taranaki want to see the disadvantages of their isolation neutralised and the advantages optimised.

The relative geographic isolation of Taranaki impacts economic performance and lifestyle benefits.

There are different types of geographic connectivity:

- North to the growing economies of the Waikato and Auckland.
- East to the food bowls of Hawke's Bay and Manawatū.
- West to Australia and beyond.

Taranaki also has important electricity transmission line and gas pipeline connectivity. This infrastructure supports industrial development in Taranaki and enables the region to export energy to the remainder of New Zealand.

Environment and sustainability

The natural environment was highly rated by those spoken to, especially from an access viewpoint. Access to the sea, the mountain and the bush is important and part of the "liveability quotient". It is felt that the natural assets of Taranaki are still an undiscovered secret to most except locals.

Sustainability was also a widely held principle. While there is strong support for the use of natural assets for the economic development of the region, it was emphasised by most stakeholders, and especially iwi, that this must be in the context of long-term sustainability.

What type of strategy for Taranaki?

Transition

Economic growth of the next few decades cannot be sustained on commodity products alone. They will not significantly broaden the economy. They will likely produce few extra jobs and increased automation, the introduction of robotics and advances in artificial intelligence devices. More volume in the meat, dairy, oil or gas sectors may increase GDP, but not population and the vibrancy of the communities of the region.

Instead, a gradual transition is required to a different type of economy based on information, knowledge, science and technology which will not only infiltrate existing industries and add value to them, but will create new ones as well.

This transition has been talked about at a national level for decades and significant progress has been made, but Government's capacity to drive private sector modernisation is limited. It can happen, however, on the ground, in the regions, where enterprise takes place.

The regions that make this transition the quickest and the most effectively will be the success stories of the future.

The history of the next few decades will be based on how well Taranaki navigates the transition to a high-value economy.

Incremental or accelerated development

Taranaki's history is New Zealand's history – a history based on hard work in foundation land-based sectors. The future is a combination of continued incremental growth and modernisation of these foundation industries with accelerated development in some specific areas, built on technology and value-adding.

This means a **two speed** strategy – continued **incremental** development in foundation sectors and **accelerated** development in other carefully selected sectors or parts of sectors.

Acceleration involves identification for acceleration of a small number of sectors which can literally "show the way" for the region. Accelerated sectors will lead the region down the innovation and technology routes. Their selection will also have an eye to other important regional preferences such as increased population, employment and vibrancy.

Incremental improvement in foundation sectors, on the other hand, will be designed to "make way", that is, pursue steady continuous improvement and advancement in industries and enterprises with potential upside. The particular focus would be on technical modernisation, application of digital capacity and connection. It would involve taking the best of emerging technologies and, where possible, applying them to local businesses. Incremental improvement is about building resilience through modernisation and shifting the 'bell curve' of productivity and profitability into the leading edge of business and sectors.

Acceleration is even more important with enablers. If acceleration of enablers can be achieved, then it has the effect of "a rising tide lifting all boats". Acceleration of enablers is a primary focus of Tapuae Roa.

The importance of talent

Most of Taranaki's foundation industries are "sticky industries". They are "stuck" in Taranaki by virtue of their dependence on location-specific, natural resources.

Downstream value-added activity that processes these natural resources is much less "sticky". Food processing could as readily be concentrated in South Auckland (or Sydney, or Shanghai) with its deeper (and potentially cheaper) labour market, nearby active capital markets, highly skilled technical workforce and ready access to markets and transport hubs.

So what would attract these sectors to develop value-added capacity in Taranaki, rather than elsewhere?

The answer is that Taranaki needs to have what value-adding industries want. Taranaki needs to become sticky not just because of its natural assets, but because of its people – talent, training, skills and enterprise – and the other enablers that support them – transport, access, liveability, access to investment and so on.

Taranaki's regional strategy needs to focus strongly on building the human comparative advantage. This means bringing the region's resources to bear on talent and enterprise development by importing and growing local talent. This talent would not only populate the factory floor, but the 'lab', the research and development department and the management team. It would provide investment, marketing and project management skills. The challenge is not only to foster talent, but to put it to work for the region.

The challenge is not only to foster talent, but engage it through enterprise.

It means growing local talent at all levels, including engaging under-utilised labour and skills and making better use of under-utilised land. It means further enhancing the attractiveness of the region, especially on human dimensions, so that people are encouraged to stay and make their home and working life in Taranaki.

The development of local talent to achieve the objectives of this Strategy will require stronger links between industry, education and other partners at primary and secondary education levels and to give more focus to intergenerational approaches.

Key sectors

A region's economic performance is underpinned by major sectors that the region has an advantage in. Productivity, and therefore incomes in a region are linked to concentrations of activity, where similar businesses share knowledge and innovation and pools of specialist labour. These specialist areas help to attract further investment and labour.

A resilient economy also needs to maintain some industrial diversity. The more diverse the region's economy, the more scope there is for varied interactions between firms and innovation, besides affording protection against economic shocks.

An important part of this Strategy was to define and identify sector value chains that have the greatest potential for growth in Taranaki. These will be the sectors that support job and income growth in the future.

Taranaki has comparative advantages in several sectors relative to New Zealand:

- Energy (oil, gas and electricity generation).
- · Dairy product manufacturing.
- Dairy cattle farming.
- Basic chemical and chemical product manufacturing.
- Meat and meat product manufacturing.
- Poultry, deer and other livestock farming.
- Primary metal and metal product manufacturing.
- · Fabricated metal product manufacturing.
- · Machinery and other equipment manufacturing.

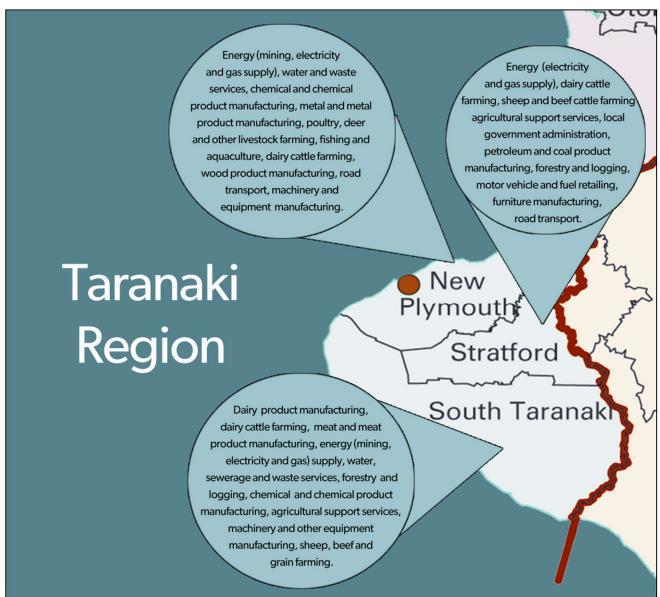
Taranaki's various sectors are not distributed evenly across the three districts. The map on the following page shows the top ranked sectors by GDP location quotient (LQ3) (over 1.2) for New Plymouth, Stratford and South Taranaki:

- New Plymouth: is 'over-represented' in dairy farming; livestock farming; fishing; energy (electricity and gas supply); water and waste services; several manufacturing industries such as chemical, metal, wood product and machinery and equipment manufacturing and; road transport.
- Stratford: is 'over represented' in electricity and gas supply, energy (principally petroleum); several primary
 industries such as dairy cattle farming, sheep and beef cattle farming, agricultural support services and
 forestry and logging; motor vehicle parts and fuel retailing and road transport.

³ Local Quotient is a measure used to define comparative advantage. An LQ greater than one means that the industry is 'over-represented' relative to the rest of New Zealand, which suggest it is a net exporter and that some comparative advantages exist. The higher the LQ the more likely this is.

• South Taranaki: is 'over represented' in a range of agriculture and related processing industries, including: dairy, meat, forestry and logging, and agricultural services; energy (electricity and gas supply), water and waste services; chemical and chemical product manufacturing and; machinery and equipment manufacturing.

Figure 8 Sector concentration by Taranaki district



Source: Map adapted from www.lgnz.co.nz. Industry specialisations from MartinJenkins.

Determining key sectors in Taranaki

Key sectors are those that offer the greatest potential for output and employment growth in Taranaki. Consistent with the approach used in regional growth studies in other regions, potential was determined based on three criteria:

- 1. Competitive strengths: the current or potential strength of the sector value-chain in Taranaki. This was assessed by considering employment and GDP scale and growth, estimated productivity and growth, and the concentration of the sector (LQs).
- 2. Market opportunities: sector value-chains with large and growing demand for their products or services and hence potential for investment, talent and business attraction and development. This was assessed by considering:
 - National growth (i.e. GDP and employment trends and forecasts of GDP and employment nationally)
 this is particularly relevant for service-based sectors that are predominantly selling domestically (and hence growth suggests growing national demand).
 - Export demand potential based on trends in regional export estimates and trends in the value of New Zealand's exports worldwide.
- 3. **Broader impacts on the economy**⁴: the extent to which the sector value-chain impacts on other industries and incomes. Broader economic impacts were assessed by considering:
 - Whether the sector has been identified as an important driver for the region or districts in previous research.
 - Sector earnings.
 - Forecast growth in employment.

Table 2, which follows, provides a summary assessment of each sector value-chain against the range of competitive strength, market potential, and broader economic impact measures. Shading reflects the importance of the sector under that measure, where a darker shade of brown means greater size or concentration, or faster growth.

Based on all the preceding analysis and initial discussions with stakeholders, we have identified where growth is likely to come from in Taranaki. There are five key sector value-chains that have the greatest potential to drive income and employment growth. There are also a few niches which are currently small but may continue to contribute more significantly to jobs and incomes in the future.

Key sectors

Key sectors are those that are ranked highly on several of the criteria, i.e. they are of significant scale, are reasonably concentrated in the region, have demonstrated growth in employment, have large flow-on impacts to other sectors, and have further potential for growth through extension based on what is known about resource availability, the potential for productivity improvements, national and/or offshore market demand. Key sectors are:

- Dairy and related processing (referred to as dairy in the remainder of this Strategy).
- Energy petroleum, minerals and related processing including energy futures.
- Meat and poultry farming and related processing (food processing).
- Engineering and industry related equipment manufacturing (engineering).
- Tourism and visitor services.

⁴ These factors were only considered for sectors that rated highly on competitive strength or market opportunities.

Table 1. Competitive strength, market potential and broader impact ratings of sector value-chains, Taranaki

									Broader economic impacts
Taranaki	GDP (2010\$m)	Filled Jobs	Labour productivity	GDP LQ	Empl LQ	2011-2016, %pa change		Identified previously as a	
Taranaki	2016	2016	2010\$ <i>,</i> 2016	2016	2016	GDP	Empl	Lab prod	key sector
Horticulture & beverage cultivation & processing	62.9	758	\$83,044	0.3	0.4	-1.7%	-1.6%	-0.1%	VTT
Meat & Poultry farming and processing	298.6	3,169	\$94,217	1.8	1.9	2.9%	2.1%	0.8%	VTT
Dairy & related processing	932.8	6,216	\$150,067	4.1	4.4	3.8%	1.2%	2.6%	VTT
Forestry & wood processing	174.4	769	\$226,826	1.4	0.9	2.9%	0.2%	2.7%	
Energy (petroleum, minerals, & related processing)	1,519.3	1,545	\$983,398	6.7	2.4	-2.5%	1.8%	-4.2%	VTT
Other manufacturing	61.0	1,348	\$45,244	0.3	0.7	-3.9%	-2.2%	-1.8%	
Business, finance & professional services	445.2	5,262	\$84,619	0.4	0.7	2.1%	1.7%	0.4%	
ICT	30.0	288	\$104,197	0.1	0.2	1.0%	-0.5%	1.5%	
Arts & culture	98.8	1,393	\$70,909	0.4	0.6	1.3%	-1.1%	2.3%	VTT (Film)
Engineering and industry related equipment manufacturing	299.3	3,526	\$84,891	1.4	1.8	1.0%	1.5%	-0.5%	VTT
Construction & related services	306.7	5,637	\$54,412	0.7	1.0	0.2%	0.3%	-0.1%	
Freight & logistics	343.8	3,945	\$87,152	0.6	0.9	1.7%	1.2%	0.4%	
Retail	229.1	5,190	\$44,147	0.7	1.0	3.4%	-0.2%	3.7%	
Hospitality	89.4	3,169	\$28,221	0.6	0.9	1.2%	-0.2%	1.4%	
Personal & recreational services	98.2	2,400	\$40,902	0.4	0.8	0.4%	0.7%	-0.3%	
Government	88.9	1,463	\$60,738	0.3	0.6	-1.2%	-0.5%	-0.7%	
Education	177.2	3,859	\$45,910	0.6	0.9	-0.8%	-0.2%	-0.6%	
Health & aged care	278.3	5,229	\$53,227	0.7	1.1	1.9%	1.7%	0.2%	
Chemicals	107.9	544	\$198,338	2.3	3.0	9.7%	7.6%	2.0%	
Property & real estate services	265.5	931	\$285,320	0.6	0.9	2.0%	1.2%	0.8%	
Energy (generation and distribution)	565.4	409	\$1,383,181	3.1	2.2	4.0%	6.1%	-2.0%	
Tourism	110.0	2,640	\$41,667	0.4	0.6	-0.4%	-1.1%	0.8%	VTT

Source: MartinJenkins, based on Infometrics regional database

Note one: Some small industries have been excluded from this list to make it more readable, but as a result the columns do not sum. The totals include those industries excluded to give a correct overall picture.

Note two: Location Quotients (LQs) measure the concentration of industry in a region. This provides an indication of comparative advantages. They measure industry activity within a specified location relative to industry activity nationally. An LQ greater than one means that the industry is 'over-represented' relative to the rest of New Zealand, which suggest it is a net exporter and that some comparative advantages exist. The higher the LQ the more likely this is.

Niches with potential

Horticulture and related processing, education and training, arts and culture did not emerge from the analysis as key sector value chains overall for the region. However, there are emerging niches or very small industry segments related to these sector value chains where prior research has identified potential for growth if the right conditions can be created, for example:

- Mānuka honey.
- International education.
- Creative services (including elements of ICT, cultural services and design).

The question then is how we prioritise our efforts across and within these and other sectors.

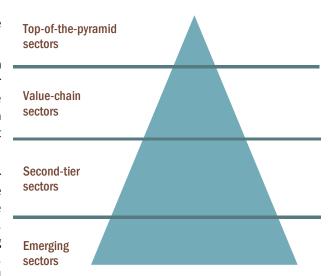
The economy of the future will be an amalgam of changing future demands and expectations, and the historical legacy that is the current economy. The Strategy needs to blend the best attributes of both.

The development pyramid

The development pyramid is a device to view the current economy and to help set priorities.

At the top of the pyramid are a few **foundation sectors** - dairy, oil and gas. They are small in number but large in economic contribution. They set the height and breadth of the pyramid which is drawn intentionally tall and narrow to reflect the current narrowness of the regional economy.

Below these leading sectors are significant valuechain sectors. These are sectors spawned by the foundation sectors as they owe their existence to the value chains created by those sectors. For example, energy and dairy have spawned heavy engineering and dairy has spawned commodity food processing. Both draw on transport and logistics, investment and service enterprises.



Engineering has expanded beyond its dependence on energy and dairy and is an export industry in its own right. It has built outwards beyond its traditional 'sponsor' industries as well as upwards into them.

At the next level down are the **second tier sectors**. There are quite a number of these and some are very significant. They include some smaller foundation sectors such as sheep and beef farming and processing, forestry and wood processing, fishing, and more recent sectors such as poultry and honey production. As depicted in the diagram they thicken out the lower reaches of the pyramid and represent a large portion of the economy.

At the base of the pyramid are a large number of smaller sectors consisting largely of small enterprises which are often urban. They include tertiary businesses such as professional services, hospitality, small manufacturing and processing and, most importantly, some emerging sectors that may in time move up to higher tiers in the pyramid. It is also the level at which innovative enterprises are trying to enter the market.

The development opportunity is to broaden activity at every tier of the pyramid. The region needs sectors that will "make way" and serve as inspiration across the whole economy.

Current position

Compared to other regions, Taranaki is undoubtedly well-off. Higher incomes reflect the legacy of the strong top-of-the-pyramid sectors.

As the last five years have demonstrated, mainstay sectors like dairy and energy cannot be taken for granted. The oil price downturn was not anticipated and the threat to dairy from commodity price fluctuations and artificial protein products should not be under-estimated either.

Despite their size, these mainstay sectors like dairy and energy cannot be taken for granted. The oil price downturn was not anticipated and the threat to dairy from commodity price fluctuations and artificial protein products of the future should not be under-estimated either. Dairy on-farm production improvements will continue, but productivity rates are already relatively high, additional land for dairy is limited and environmental capacity is approaching its limits. Alternative sources of fossil fuels and global warming are likely to affect demand for fossil fuels anyway. The enormous recent drop in investment in oil exploration in Taranaki illustrates just how quickly things can change.

However, gas which is a big part of the Taranaki energy mix, is likely to be a transition fuel to a low carbon future and will continue to be important (as long as supply holds up).

Foundation industries such as sheep and beef farming, forestry and fishing all make significant contributions and may grow by increments. There are potential productivity gains in hill country farming. The emerging forestry inventory is good without being spectacular and returns from fishing are steady, though increasingly constrained by environmental regulations despite New Plymouth being New Zealand's only westerly-facing port of significance.

Many of the long term foundation industries built on natural comparative advantage will provide vital undergirding to the regional economy and their contribution is vital but not assured.

The visitor sector is seen locally as a credible top-of-the pyramid entrant with the possibility of iconic attractions on a par with the Tongariro Alpine Crossing.

The visitor sector has significant potential building on the many attractions associated with the mountain, coastal reaches and the cultural life and history of the region. The tourism sector is under-developed in Taranaki and, with the sector growing globally, has significant upside.

It must be remembered that virtually every region in New Zealand is focused on tourism expansion making it highly competitive and the capacity issues of infrastructure and impact on lifestyle and liveability need to be considered. Tourism has 'environmental limits', just like other sectors built on natural assets.

The importance of tourism is that it has the potential, at this point in time, for significant growth off a low base. It can contribute to urban, rural and remote areas where attractions are located. Being labour-intensive it attracts people who contribute to experiential and liveability values and population growth. The criticism that it pays low

wages is valid, but many parts of New Zealand have begun to show how premium products can attract premium rewards and the sector directly supports higher paying industries such as construction and business services.

Comparative advantage of the future

Within the regional economy there are a few interesting anomalies. The most significant anomaly is the poultry industry. Taranaki has a comparative advantage in this industry in the sense that it produces chicken meat at well beyond the needs of the region. There are no obvious advantages from the local labour market except what has been built by the industry itself. It is located in Taranaki largely because of the leadership and initiative of a few visionaries who sought to develop a rearing industry isolated from disease, and expanded beyond that to the industry of today. Its presence in Taranaki is based more on a **human** rather than a natural comparative advantage – on people rather than geography.

Another example is the engineering sector. Having gained critical mass from its work in the dairy and energy sectors, engineering companies have sought further opportunities outside the region, in fact, outside New Zealand. This is the product of the leadership and foresight of motivated people – once again, the **human** comparative advantage.

Poultry and engineering sectors could be seen as metaphors for the future of Taranaki. They are the result of leadership, entrepreneurship and commitment to the region. They have built intellectual property, labour force skills and capabilities and created their own ecosystem of activity. If this metaphor is applied across the current Taranaki economy where might it lead us?

It is human comparative advantage – talent, skills, enterprise and knowledge – that will provide the engine of future growth.

Industries of the future will be based on human comparative advantage as much as natural comparative advantage.

To apply this metaphor to other sectors, what are potential extensions of, say, the energy sector? There are current extensions into specialist fossil-fuel products such as methanol, ammonia-urea fertiliser and LPG. The sector possesses intellectual property, labour force knowledge and skills that may lead to further extensions possibly even into non-fossil products like hydrogen for energy storage. These could be collectively described as "energy futures".

From the base of the dairy, meat and other food industry activity, what are potential extensions? Primarily these can be found in value-added processing. The dairy and meat sectors are already moving gradually in this direction as international markets open to these types of products. A combination of specialist knowledge, technical expertise, a skilled workforce and readily available raw material is required. The high technology component is vital to keep costs at internationally competitive rates. This could be described as "future foods" and would be the product of **human** comparative advantage.

These are examples of sectors with significant potential scale, but there is the potential for extension of many industries, large or small. The opportunity with these industries is to build their technology and digital platforms to drive both efficiency and new product opportunities.

This is emerging in many forms and will continue to grow:

- Benchmarking of on-farm (hill country sheep and beef) performance to encourage greater productivity and profitability.
- Use of technology to ensure the efficient collection of milk.
- Use of automation and robotics in intensive farming industries such as chicken meat.

- Increased production of engineered timber as the market builds.
- High 'spec' engineered products for new industries.
- ...and so the list goes on.

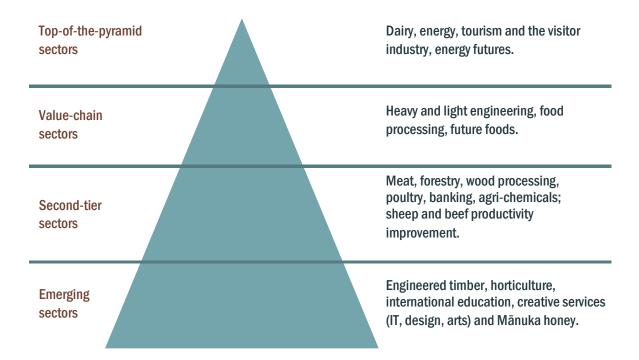
This is the type of development characteristic of a modern economy. Taranaki has a heritage of technology and innovation and an aspiration to be a technology hub of the future. Taranaki needs to position itself to accelerate this type of development.

Sector priorities

In identifying sector priorities we need to fill out the pyramid presented earlier. This diagram below incorporates the key opportunities that have been identified at each level.

"Top-of-the-Pyramid" sector opportunities

There are incremental opportunities for development within dairy and energy. For example, in dairy there are productivity gains to be made with the tactical use of irrigation, precision agriculture and improvements in on-farm productivity. Efficiency improvements can also be gained such as the work that Venture Taranaki (VTT) is doing encouraging efficient resource use between large (mainly energy-related) infrastructure operators. These improvements are incremental but nevertheless important.



There is a real opportunity to get at least one more sector up to sufficient scale that it is in this top category. There are two sector opportunities that have the potential scale for such acceleration – tourism and energy futures.

The tourism potential is illustrated by the region gaining plaudits from Lonely Planet as the number two region in the world to visit, illustrating that there is a sound foundation already in place.

Energy futures is a cluster of opportunities, some admittedly 'blue-sky' involving both non-renewables and renewables. These are potential products of the future. The existing energy industry is the foundation.

Besides growing themselves, these sectors will also gradually build greater depth and dimension into the regional economy through the value chain and become a beacon of what is possible.

- Lead opportunities -

- **Tourism** has huge acceleration potential. It is relatively undeveloped. There is a buoyant market, a strong natural asset in the region and already well-developed capability.
- **"Energy futures"** is a blue skies and high risk, but potentially high return, opportunity. It is an industry of the future. Can Taranaki "board the bus to success"?

Value-chain sector opportunities

At the second level are the value chain opportunities, which are extensions of top-of-the-pyramid sectors. Engineering is an obvious current example. It has shown the capacity for steady growth and it is to be hoped that this continues. The food growing sector has the potential to spawn or extend high value food and ingredient processing – "future foods".

The energy sector has the potential to extend or spawn industries that come under the heading of energy by-products: bitumen, fertiliser and others.

These value-chain sectors, being an offshoot of substantially successful sectors, have themselves a significant chance of success where they are scalable.

- Lead opportunities -

- **Engineering** is a highly active sector and has the potential to accelerate. At present this is being well managed within a 'consortium' approach facilitated by VTT. Limited additional value could be supplied by the Strategy, but further investigation could reveal where support could be valuable.
- **"Future foods"** or the processing of high-value foods from agriculture industries, particularly the dairy and horticulture industries, offer significant acceleration potential. This has been previously contemplated and some work has been done in the past. Now is potentially its time.

Second tier sector opportunities

At the second tier are some sectors that have been around for a while and more recent sectors with promise. Traditional pastoral farming sectors such as hill country sheep and beef fall into this category, and so do poultry, wood processing, and agri-chemicals. Banking, with the TSB Bank located in the region, is also significant.

Significant expansion of timber processing requires investment in the hundreds of millions of dollars and a reliable supply of timber. It is doubtful whether there is an appetite to plant trees at the rates experienced in the 1990s, so this opportunity is probably limited, but ventures in engineered wood products (an emerging sector) are less reliant on plentiful supply and more on technology, research, science, Intellectual Property and a skilled workforce, and therefore have future potential.

Poultry is a mature industry and if export is contemplated then high technology and high investment facilities are required, together with strong market connections. These second tier opportunities also require leadership for growth.

The second tier has lots of potential for incremental growth, but no obvious candidates for accelerated growth.

Lead opportunities -

- **Poultry** has shown significant growth and appears to be approaching another take-off point. The key to acceleration is an export market which is not yet clearly available. This is a mature industry and well capitalised. It is not clear how a regional Strategy could enhance its prospects at this time.
- The **agri-chemicals** sector is focussed within several companies and has potential, but the upside of applying significant effort to it is not sufficiently clear at this point.
- **Engineered timber** has a significant regional legacy but a slowly growing market. It is not clear what a regional Strategy could add at this point.

Emerging sector opportunities

At the base of the pyramid are niche sectors. They are small, but have scope for growth. These include: international education, creative services (including ICT, design and arts) and specialty foods (including Mānuka honey). While horticulture is small in the region, its potential contribution to "future foods" initiatives needs to be considered and for that reason it has been included as a potential emerging sector.

As with the second tier, there are no obvious candidates for accelerated growth as many of these sectors are dependent on growth in larger sectors; they don't have sufficient scale for what is required, as is the case with Mānuka honey. There will also be growth of SMEs across many sectors, some of which might emerge up the pyramid, while others will remain smaller.

- Lead opportunities -

- The **creative and ICT** sectors are small but emerging and will have an important role to play in the value chains of other sectors. They are not acceleration sectors, at least not at this stage.
- **Horticulture** is limited in the region despite the quality of the region's soils and the temperate climate, but has a potential role to play in "future foods". A range of crops have potential for commercial development in Taranaki.

Summary

The three sectors targeted for acceleration are:

- **Visitor sector:** continuing national growth, the unique visitor offering in Taranaki and the small share the region currently has of this market, offer significant upside.
- Energy futures: including new forms of energy (clean energy) and the production of value-add energy derivatives. The industry capability to underpin these priorities already resides in the energy sector.
- Future foods: the opportunity exists to leverage added value products from commodity food producing sectors such as dairy and meat. Changing consumer demand globally provides huge opportunity.

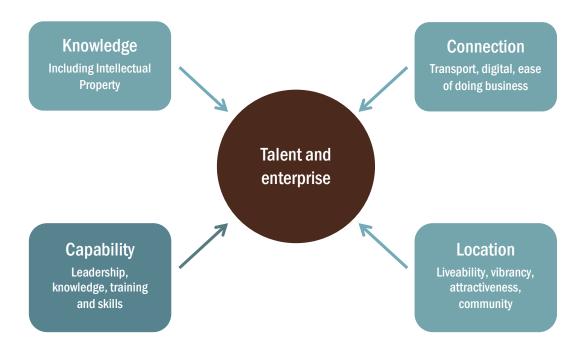
Priority action will be identified in the Action Plan including the approach to sector development which, for example, could include both local business development and recruitment of relevant businesses into the region.

Key enablers

Much of the human comparative advantage lies in enablers - actively growing skills and capabilities, knowledge and enterprise and supporting enablers such as access to the region, research, technology and the general attractiveness of the region.

The core idea driving Tapuae Roa is enhancement of the human comparative advantage expressed through talent and enterprise.

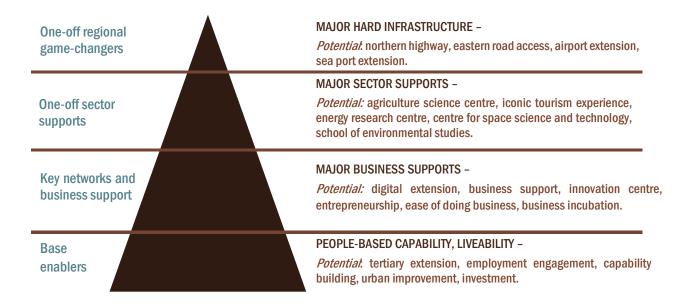
The diagram below places the talent and enterprise enabler at the heart of the enablers – all enablers can be seen as contributors to the development of the human comparative advantage. Tapuae Roa emphasises the wisdom of Taranaki getting an early mover advantage on the talent and enterprise enabler. Timing is everything. The time for Taranaki is now.



There are some challenging issues in these enablers. For example, is it possible to convince investors, such as Government transport investors, to build or even over-build infrastructure such as roads not only for current demand but anticipated future demand? How can education and training investors be persuaded to invest in skills development, especially for skills that are anticipated rather than immediately required? How can urban amenity projects be developed when many ratepayers believe that current amenities are adequate or would rather rates were kept tightly in check? Sectors and enablers need to be seen as co-dependent, or perhaps co-supportive, to create a viable strategy.

The enabler pyramid

The pyramid framework can be applied to enablers in a similar manner to sectors. As with sectors, it is the mix of enablers that is the key to success. The pyramid focuses on the hard and soft (people-based) infrastructure enablers that support growth. Accepting that talent and enterprise are the centre piece, it is then necessary to examine enablers in greater detail to identify what exactly is required.



Major hard infrastructure

Major hard infrastructure is required to underpin the current and especially a modern growing economy. The key priorities have been identified as:

- Roading: the roads to the south are good, but the vital SH3 link to the north is significantly sub-standard, as
 is SH43 to the east. New Zealand Transport Agency (NZTA) is well advanced in planning for improvements to
 SH3 to the north. NZTA also intends to undertake an investigation into improvements to SH43 and is looking
 at options to accelerate this. A highway linkage to the east of a high standard would be beneficial in moving
 freight across the country to Taranaki and even on to Australia.
- Air and sea ports: an upgrade is planned for the airport. New Plymouth District Council has recently acquired
 full ownership of the airport company and a terminal development has been confirmed. There was discussion
 with some respondents about the future contribution the sea port could make to economic development. In
 particular, the idea of a "blue water" connection from New Plymouth to the South Island was raised as was
 consideration of restoring container shipping to Port Taranaki.

Major sector supports

Infrastructure is often at the heart of sector development. Work is currently progressing on evaluation of opportunities in this area. Sector-related enablers can provide a significant impetus to sector growth. Arrangements in this area are likely to have a public and private dimension. This Strategy is not necessarily recommending all of these opportunities as they will be more deeply evaluated in the action planning phase and beyond.

Options being considered are:

- Food innovation acceleration network and hub: this would be an extension of existing entities such as crown
 research institutes (CRIs) or universities, but owned and controlled locally. The emphasis would be on
 innovation uptake in agriculture and downstream industries. Many of the sectors identified in the pyramid
 rely on active innovation, particularly areas such as future foods. Innovation capability is vital if Taranaki is
 to build to the next stage of its development. The recently formed Dairy Trust Taranaki could be an aspect
 of this enabler.
- Energy research centre: the concept of an industry-led energy innovations research centre has been proposed. This would help the industry explore and develop more diverse and sustainable energy streams and could support the energy futures initiative if it proves viable.
- Iconic tourism experience: to boost tourism on the scale anticipated, major attractions are required. The most promising is the proposed "Taranaki Crossing" mountain to surf from the North Egmont Visitor Centre on Taranaki Mounga to Oakura Beach.
- **School of environmental studies:** such a proposal has been aired for consideration. It involves a world class institution, internationally connected, specialising in environmental science, economics and policy.

These specific enablers are being considered because they relate to the priority sectors. A priority concern for Ngā lwi o Taranaki is the extension of the reach of enablers such as these into local areas where communities are located.

Major business supports

This cluster of activity provides direct support to the development of talent and enterprise by providing operational support to businesses at their different stages of development, from early start-up to mature operation. Options being considered are:

- Digital: recent announcements on digital connectivity have improved the prospects for the region. There are still issues on parts of the "ring plain" and in particular in the eastern hill country. There is world-class fibre-based broadband available in New Plymouth, Oakura, Hāwera and Normanby. Urenui, Waitara, Inglewood, Stratford, Eltham, Opunake, Manaia and Pātea will get fibre by 2021. Optic fibre is provided to rural schools with under-utilised opportunity to extend this coverage to local communities. There is strong regional interest in the improvements to rural broadband in Taranaki capable of being achieved when the funding for the second round of the rural broadband initiative is announced. Depending on the outcome, there may be opportunity for further local investment to leverage Government investment in improving coverage in the region.
- Innovation hub: the current proposal for such a hub in Taranaki is of great interest. This could take a variety of forms and is likely to comprise both "bricks and mortar" and virtual forms. The strength of it, as a centre of talent and enterprise leading to innovation, is enticing.
- Business support, entrepreneurship and incubation: there is no incubator in Taranaki although the shared workspace for emerging businesses at Manifold plays some of this role. This set of activities is also closely related to the innovation hub idea. All are central to the talent and enterprise mission.
- Business support/ease of doing business: this is part of building the underpinning a support structure for sector development.

Digital development is not just about the availability of Ultra-Fast
Broadband/Rural Broadband Initiative, but also the capability of the region
to leverage it.

People-based capacity and capability building and liveability - the Māori enabler

Māori are a key partner in Tapuae Roa. Fundamentally, Taranaki iwi are tangata whenua and will be a constant in Taranaki into the future. They are not going anywhere.

There are opportunities for Māori both as employees and business owners across all existing and future growth sectors. Māori have the opportunity to gain high value skills and qualifications and will play an important role in the vibrancy and liveability of the region, significantly contributing to the character and uniqueness of Taranaki.

The intention is to develop Māori-related activity as part of Tapuae Roa. Māori development is both a sector and enabler. There is potential for Māori economic development across both incremental and accelerated sectors and their involvement in the range of enablers. In particular, there is a great opportunity in bringing under-utilised resources into production, whether that be land, labour or capital, building on thriving foundations of Māori enterprise and investment, and encouraging and fostering the talent of the youthful and growing Māori population.

The opportunity for Māori in the region lies broadly in future-focused industries.

Other than the activities of Parininihi ki Waitōtara in dairy, Taranaki's two key industries are capital intensive and have low levels of participation by Māori (as employees and employers). As such, they do not form key areas of focus for Taranaki Māori in Tapuae Roa. Māori will be active across a range of industries through a focus on a strong and healthy microenterprise eco-system. Underpinning this eco-system will be:

- Deep digital, robotic, artificial intelligence and cognitive technology capability.
- Strong, science, research and development relationships to add value to land utilisation activities.
- Leveraging of Taranaki stories.
- A strong culture of innovation throughout the iwi and Māori business landscape.
- Māori economic participation in growth sectors.

Māori engagement includes businesses, skill and knowledge across all aspects of the economy. It involves taking more of an "enabler" approach to Māori capability and capacity and assisting to build the "human comparative advantage" with Māori in a similar manner proposed for the whole region. These opportunities are not specific to particular sectors but exist across all sectors. The advantage of the Māori economy is that it has access to land, capital and labour and a growing momentum as drivers and deliverers of economic development activity. An innovative approach to education and capability development can accelerate the rate at which skills are acquired and converted into value for whānau, communities and the region.

The Māori Action Plan will consider the interests of the next generation and has a strong focus on high-value science and innovation-based, technologically and digitally enabled industries. It will also recognise the strengths and levers that Taranaki Māori bring to Tapuae Roa. These strengths and levers include:

- An intergenerational view driving sustainable behaviour for long-term results.
- A guaranteed interest and commitment to Taranaki, leading to investment decisions with patient capital.
- Keepers of history and story to underpin the uniqueness of Taranaki compared to other regions of Aotearoa and the world.
- Strong and deep national and international public and private sector networks through individual and business connections, including Stanford University and Silicon Valley, leading to networks of potential export partners.
- The Ngā Iwi o Taranaki diaspora, providing access to talent residing outside of Taranaki who have a deep interest in the wellbeing of their home rohe.

While Tapuae Roa acknowledges the importance of New Plymouth, the Māori Action Plan will give more focus to the importance of liveability and vibrancy in the rural towns of Taranaki. These areas will be critical to iwi-based enterprise and as such, the key role of towns will be highlighted.

People-based capacity and capability building and liveability – general needs

There is simply not the supply of the required skills and capabilities in the region for the development envisaged in this Strategy. A concentration on skill development is required involving both public agencies such as Tertiary Education Commission (TEC), Ministry of Business, Innovation and Employment (MBIE) and independent tertiary providers (ITP) and private (particularly larger enterprises or sectors) investment. The areas of skill development would need to relate to the priorities of the Strategy.

Skill and talent development will be directed right through the age groups. A culture of engaging children at a young age to build interest and skills in high value sectors, and skill development at all career stages is important. It would also operate in the interface between business and training institutions, rather than the separation that is evident at present. In practice, this would mean learning programmes delivered at the business site and in-service programmes, as well as traditional training packages run by educational institutions.

It is noted that skill is only part of the performance package. There needs to be "will" and motivation. There will be the need for culture change regarding work and participation in the future direction of Taranaki. It is envisaged that some sort of statement of intent or charter and supporting education programme may be required to ensure that the mission and vision of the strategy is shared across the community.

If the attractiveness and vibrancy of the region – its liveability – is not perceived as sufficient, then skills and talent will either not be attracted, or will move out and seek "greener pastures". The view was commonly expressed by respondents that while Taranaki has come a long way in this regard, it still has a long way to go. In addition, other regions are competitive, for example, in developing urban/town amenities, visitor amenities and attractions. Work is progressing on where the priorities lie. It was also noted that the region has significant assets to build on to increase vibrancy. These are natural and social/cultural assets.

If the attractiveness and vibrancy of the region – its liveability – is not perceived as sufficient, then skills and talent will either not be attracted, or will move out and seek "greener pastures".

The "investment" enabler

Investment is an enabler. Research has indicated that there are wider sources of investment funds in the region than is immediately apparent. This needs to be a sharp focus of Tapuae Roa in the action planning stage.

The dimensions of investment include:

- Central Government: there are three areas where Central Government investment is important:
 - Feasibility: establishing the viability of a project or programme is often a first step to securing funding. Government funding at this feasibility stage can help move a project forward.
 - Partnership arrangements: there will be projects where public/private shared arrangements will enable progress.
 - Direct funding of services or facilities: on-going core funding for such things as the Department of Conservation's (DOC) management of the public conservation estate or track construction.
- Local government: this sector is the primary go-to sector for regional development funding but the resources are limited. As much as possible, local government should seek to partner with others and use its resources strategically to leverage additional support.

- **Private investment:** this will involve companies and enterprises investing in businesses and projects, and raising capital to do so. There are demonstrable investment skills and capacity in the region but VTT report that despite that, investment deficiencies are significant and on-going.
- Foreign Direct Investment: international investment sources, especially for major projects.
- Structured philanthropy: Taranaki has several significant philanthropic organisations already operating. There is the opportunity for these parties to support activities outlined in Tapuae Roa or perhaps for a new trust to specifically manage regional development support.
- Trusts funding is available in a number of trusts, foundations, iwi and special funds. Such funds are available, though some are trapped in trusts with restrictive deeds.
- Port Taranaki: is a major institution in the region and is a potential investor in the right type of project (associated with the port).
- Tertiary investors: Western Institute of Technology (WITT) is a potential investor in aspects of the Strategy that are aligned to its mission.
- **High net-worth individuals:** there are people in the region who have already invested in civic amenities and local businesses. Channelling these investors into the mix may result in a significant contribution. There is an emerging angel market in Taranaki that needs to continue to develop to provide funding for innovative startups.
- **Incubators:** there is a co-working space in the region called Manifold. It is not an incubator and serious consideration is required of the role an incubator could play.

A comprehensive investment plan is required to sit alongside the Strategy and Action Plan so that the transition from planning to action is as seamless as possible. It is intended that the investment profile of each project emerging from the Strategy would be addressed in the Action Plan, at least at a high level.

Summary

The enablers targeted for acceleration are:

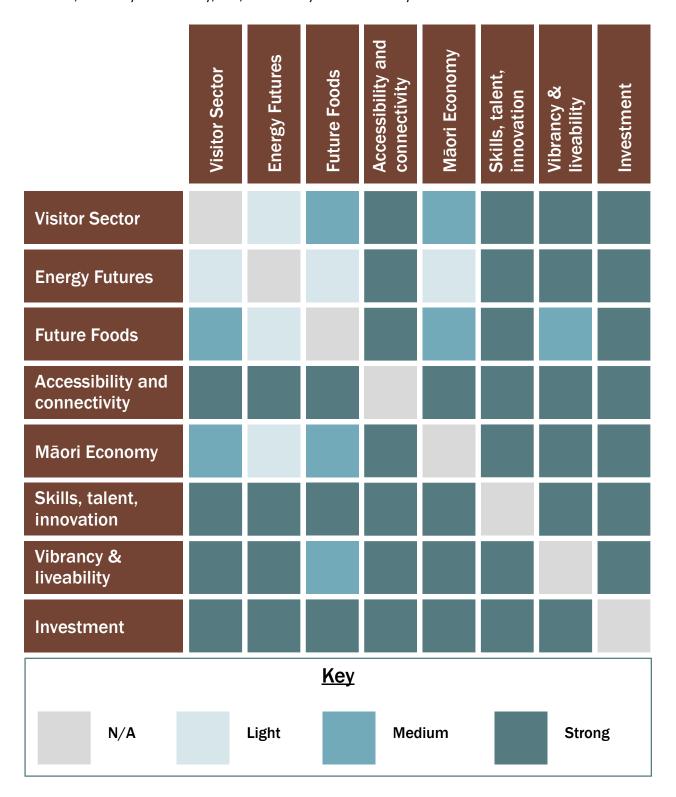
- Major hard infrastructure: sea port, airport, roads and broadband.
- Major sector supports: science, research, and technology plus accessibility and connectivity.
- Broadly-based people capability and capacity: infrastructure that encourages human capability, entrepreneurship and liveability education, suitable housing, skills and training and cultural development.
- Māori: potential for Māori contribution across incremental and accelerated sectors and the enablers.
- Major business supports: digital-enablement, innovation and incubation.
- Investment: assembling the investment capital from drawing on diverse and not just traditional sources.

Not all aspects of these enablers will be able to be addressed. It will be the task of the Action Plan to identify where the areas of priority should lie. Priorities need to be matched to resources.



Synergies between sector and enabler priorities

Synergies, or convergence between sectors and enablers are vital, and priorities can be set on that basis. This diagram maps sectors against enablers and enablers against sectors. It employs the category titles being used for the Action Teams. In particular, it demonstrates the fundamental importance for all sectors of actions to grow: investment; liveability and vibrancy, and; accessibility and connectivity.



Vision, mission, values and goals

Vision

The vision is derived from the expectations gathered from the interviews and group meetings held across the region. In these meetings respondents gave a clear and largely unanimous steer on how they see the future.

They want to protect and retain prized lifestyle values. They also painted a picture of a modern Taranaki economy characterised by an increased array of value-add activities, digitally-enabled, high levels of investment and high productivity.

Converting this to a vision makes for a kind of three-part vision, with three elements forming one. The vision has been captured in the following words:

"Attractive lifestyle; talented people; modern, high-value economy"

The vision is beyond simply expanding a provincial economy based on traditional foundation sectors (such as agriculture, energy and minerals). It combines these traditional roots with key new dimensions characteristic of a modern, technical and high-value economy, together with the lifestyle dimensions of a provincial community. It envisages continued growth and innovation in foundation sectors and accelerated development in contemporary technology-based enterprises.

Mission

Is there a single key to unlocking this vision? The answer is no. A multi-dimensional approach is required. But one element is more important than others – 'talent'. There is no human comparative advantage without talent. Talent doesn't just happen. It is the result of a systematic programme of identification and enhancement.

The mission recognises this important ingredient:

"Taranaki – where talent becomes enterprise"

'Kia eke panuku'

Talent is the raw material of Taranaki's future; enterprise is its expression. Such a mission involves making talent development a mission and a "Taranaki virtue".

Talent development includes the enhancement of learning, fostering and searching out talent, building and supporting enterprise and enterprises. It is a strong capability and modernisation mission that can be measured.

It is people-centred and involves "growing our own" talent as well as drafting in external talent to stretch, lead and fill gaps where necessary.

The "enterprise" element of the mission involves turning human assets into economic benefit at a level of planning and commitment that is significantly greater than at present. Enterprise, whether economic, social or environmental, is the application of talent for benefit.

The focus is on building the human comparative advantage into workable and profitable enterprise.

Talent is the raw material of Taranaki's future, enterprise is its expression.

Values

Overarching values

- Whanaungatanga/relationships: our people, all the people of Taranaki, are at the heart of this strategy and we treat each other with respect.
- Kaitiakitanga/guardianship: sustainability of our natural environment is paramount.
- Tuakana teina/succession: this strategy is long-term and prepares for the next generation.

Strategic values

- **Prosperity and liveability:** where lifestyle and economic transition are compatible and cities, towns and villages express pride, uniqueness and energy.
- Resilience: where there is sufficient breadth and depth in the economy to withstand the ups and downs of the commodity cycle and other disruptions.
- Inclusiveness: where all parts of the community are embraced and supported to achieve what they want.
- Resource use efficiency, waste-minimisation, biodiversity, environmental sustainability: where a nurturing attitude toward nature is part of working with and appreciating environmental resources.
- Service ethic and lifestyle: where work and life have an appropriate balance and service is delivered with quality.

It was noted that these values should not simply be part of a strategy document, but should gradually be a shared perspective of people in Taranaki. They may require some sort of process of public education and engagement.

Goals

Goals are the accountability statements that focus the Strategy. They must be tangible and measureable and can be broken down into deliverables and success indicators.

The three goals here emerge directly from the vision. Their achievement is the pre-condition for success.

1. Talented people: "Taranaki is a place where talented people want to live."

- This strategy is people-focused. It is dependent upon growing, retaining and attracting talented people.
- Taranaki experiences a level of qualifications below the national average, which has an impact on the availability of skills in the workforce. This is in large part the result of the exit of young talent from the region for education and opportunities post-secondary school, but not only from secondary schools. The net-effect of this outflow is to significantly lower the average level of qualifications.

Retaining or attracting talent is only part of the story. A systematic programme of talent enhancement is the other part.

Target:

Taranaki is a place where talented people can and want to live.

Key Measure:

Increasing population over age 25 with a post-graduate certificate, i.e. greater than Level 4.

Other key indicators:

- Fulfilling the potential of young people through work.
- Servicing technology-based industries of the future.
- Effective management skills to take businesses from small to large.
- A basket of criteria including completions, qualifications and industry performance measures.
- Growth of technical and technology-based enterprises and industries.
- Effective management skills to take businesses from small to larger.
- Discernible increases in innovation activity and commercial application.
- Active entrepreneurship in local enterprises.
- Energetic leadership in business and community.
- Unproductive young people getting into work.
- Reduced NEET rate (NEET refers those "not in employment, education or training" which is generally young
 people in the 16-24 age group, though not exclusively).

2. Attractive lifestyles: "The Taranaki lifestyle offering retains and attracts people."

• The Taranaki lifestyle offering retains and attracts people. What makes up an attractive lifestyle is very personal. It is about convenience, accessibility, environment, relationships and so on. It is also about the physical look and feel of towns and cities. Taranaki has the motivation to be amongst the most attractive places to live in the country and indeed the world. Much progress has been made in recent years, but this is a dynamic area and requires constant attention.

Target:

• People want to live in Taranaki. "You get to live in Taranaki" is a key selling point for businesses looking to attract staff.

Key measure:

• Lift the liveability quotient of the region to amongst the highest in regional New Zealand.

Other key indicators:

- Percentage of population aged 25-34.
- Taranaki consistently scores at or near the top of international lifestyle measures.
- Retention of at least current median individual incomes and household incomes.
- Reduced inequality on a consistent year-by-year basis, as measured by the social deprivation index and Māori disparity statistics.
- Protection of and ease of access to, the natural environment.
- Availability of and access to community-based health, welfare and education services.
- A vibrant year-round events programme across the region.
- Attractive urban environments throughout the region.
- Quick and easy access in and out of the region, and a clear Taranaki story that people can relate to.

3. High-value economy: "Achieve the highest proportion of technology-enabled and digitally-focussed enterprises in regional New Zealand."

- Taranaki businesses apply talent, innovation and technology to deliver high value goods and services through their traditional and new activities.
- International evidence indicates that digitally enabled enterprises consistently outperform conventional
 enterprises. The energy industry in particular, has brought Taranaki into the world of technology-based
 enterprise. If a high uptake of digital capacity and capability can be achieved in Taranaki, it will follow that
 the enterprises and the region as a whole is successful and competitive. This includes digital adoption as well
 as digital connection.

Targets:

- Achieve and maintain the highest proportion of technology-enabled and digitally-focused enterprises in regional New Zealand.
- Taranaki reaches internationally rated scores on the McKinsey scale of technology and digital enablement by 2025.

Key Measures:

- Proportion of technology-enabled and digitally-focused enterprises.
- McKinsey scale of technology and digital enablement, for example.
- Share of employment or GDP in "tech" businesses.

Other key indicators:

This includes a basket of digital connection, digital-enablement, application and use of technology in production and labour productivity rates:

- High levels of connectivity are rapidly achieved in all parts of the region.
- Current high levels of labour productivity are at least maintained.
- High levels of digital skills are achieved in the workforce.
- Taranaki businesses are succeeding outside as well as within the region.
- Taranaki businesses are developing a comparative advantage in their area of business.
- There is evidence of improved entrepreneurship, innovation and access to capital.
- The proportion of hi-tech industries in the region is increasing.

Action Plan

The next stage of Tapuae Roa is the creation of an Action Plan to deliver on these goals. That work will be guided by this Strategy and will define the key actions as tightly as possible in both the short and long term required to advance Tapuae Roa. It will be published as a companion document to this one.

Six Action Teams have been formed which, for efficiency, are in some cases amalgams of sectors and enablers. They are led by members of the Lead Team. A further two areas are being developed by the consultants together with lead team members, but no team, to give a total of eight.

Those areas with Action Teams are: visitor sector, future foods, energy futures, Māori economy, skills, talent and innovation, and vibrancy and liveability.

The two areas without Action Teams are: investment, and accessibility and connectivity.

Vision, mission, goals and measures

VISION

"Attractive lifestyle; talented people; modern, high-value economy."

MISSION

"Taranaki - where talent becomes enterprise"

'Kia eke panuku'

APPROACH

GOAL 1: TALENTED PEOPLE

Taranaki is a place where talented people want to live

- Fulfilling the potential of young people through work.
- Servicing technology-based industries of the future.
- Effective management skills to take businesses from small to larger.
- Discernible increases in innovation activity.
- Active entrepreneurship.
- Energetic leadership in business and community.
- Connectivity digital and physical.



GOAL 2: ATTRACTIVE LIFESTYLE

The Taranaki lifestyle offering retains and attracts people.

- Protection of, and ease of access to, the natural environment.
- Availability of community-based health, welfare and educational services.
- A vibrant year-round events programme across the region.
- Attractive urban environments.
- Quick and easy access to the region.
- A clear Taranaki story.



GOAL 3: MODERN HIGH-VALUE ECONOMY

Achieve the highest proportion of technologyenabled and digitally-focussed enterprises in regional New Zealand.

- High levels of connectivity are rapidly achieved.
- High levels of labour productivity are maintained.
- High levels of digital skills are evident in the workforce.
- Local businesses are succeeding outside the region.
- Businesses are developing a comparative advantage in their area of business.
- There is evidence of improved entrepreneurship and innovation.
- There are more hi-tech industries in the region with access to capital.

Achieve specific targets for sectors and leverage our enablers.

Accelerated development in:

Sectors

- Future foods.
- Energy futures.
- Visitors/tourism.

Enablers

- Infrastructure.
- Sector supports.
- Business supports.
- Broadly-based people capability.
- Māori.
- Investment.

Appendix I: Action area and enabler profiles

This section provides some statistical background related to the priority sectors and enablers.

Future foods

Overview:

Dairy:

- A foundation industry for future foods.
- Employs over 6,000 people.
- \$933 million in GDP (2016).
- Comprises 12.5 per cent of the economy.
- Has produced \$2.54 billion in export earnings (2015).
- High labour productivity (\$150,000).
- Sixty-five percent of employment in production; 30 per cent of employment in manufacturing.
- Over ten years there has been a slight decline in GDP and employment; over the last five years there has been strong growth.

Food cultivation and processing

- Employs 4,160 people and generates \$380 million in GDP (2016) and accounts for five per cent of GDP.
- Is a major exporter of \$585 million in value in 2015.
- The horticulture industry has been in long term decline in employment and output.
- Livestock farming has experienced a slight decline.
- There are significant processing businesses in the region. Besides major processing there are significant bioextracts, food additives and industrial compounds industries.
- The region is a major supplier to the fast food industry.
- Mānuka honey is emerging as a strong local product.

Prospects:

- These sectors represent a strong foundation for a future foods industry.
- Regional processing is extensive with the major companies represented and many have offshore investment in their current operations.
- The region does not have adequate access to research and development to support development.
- Without improved leadership and supply-chain scale-economics the horticulture industry is unlikely to grow.

Energy futures

The energy futures sector is made up of the oil and gas exploration and extraction sector, energy derivatives like methanol and the energy generation and distribution sector.

Overview:

- The energy sector employs over 1,950 people and generates \$2.08 billion in GDP, about 28 per cent of the regional economy.
- The sector exists within the context of national and global energy transition strategies focused on achieving energy security while ensuring sustainability and reducing greenhouse gas emissions.
- The oil produced in Taranaki offsets the cost of oil imports, however, production has been in decline over the last seven-to-eight years with no substantial new discoveries.
- Oil and gas exploration has collapsed to \$10 million in 2015 from \$300 million in 2010 due to international market changes. Exploration was an indication of industry continuity. Without it, continuity is less assured.
- The sector attracts a talented and international workforce and offers high paid jobs.

Prospects:

- Near-term growth of the existing industry will be incremental and driven by continued focus on natural gas as an energy transition resource, displacing coal and oil.
- Material exploration success is a prerequisite to a step change in the existing oil and gas derivatives sectors. This is a mid to long-term growth opportunity requiring central government support.
- The challenge is to create new opportunities. A key near to mid-term opportunity is the establishment of a hydrogen production and distribution industry to provide a low emission and locally sourced transport fuel, green existing industry, and capture a potentially significant new export market. This is one opportunity that will be explored by the Action Team.

At a higher level the opportunity involves a number of enabling activities:

- Retaining and growing energy capability to serve new energy pathways.
- Developing Taranaki as a "test-bed" for research and development and commercialisation.
- Improving regional ability to influence regulators for 'Taranaki Energy Inc.'.
- Facilitation of investment and joint ventures.

Visitor industry

Overview:

- Employs 2,640 people and generates \$110 million towards GDP (2016) and is 1.54 per cent of the regional economy.
- The sector has a low productivity profile and has grown slowly in the last ten years and a little more quickly in the last five years.
- Visitor expenditure has grown from \$291 million in 2009 to \$335 million in 2016, or two per cent a year, well below the national average. Recent growth has been stronger.
- Taranaki attracts a small share of international visitors 17 per cent compared to the national average of 43 per cent when measured by guest nights (from the accommodation survey, June 2017). When measured by share of expenditure the figures are 23 per cent and 43 per cent respectively. There has been a growth spurt in the last year.

Prospects:

- Given the low base, there is enormous potential for upside from both domestic and international tourism.
- There is an emerging programme of cultural events and attractions.
- Major initiatives are required, such as the Taranaki Crossing, to "amp up" the sector as it is arguably one of
 the largest opportunities in the region in the next three-to-five years. An Action Team specific to this sector
 has been formed.

Māori

Overview:

- The Taranaki region is home to eight iwi Ngā Iwi o Taranaki.
- Treaty settlements in the region are well advanced, with iwi assets totalling well over \$300 million.
- Over 18,000 people identified as Māori in the 2013 census representing 17 per cent of the Taranaki population.
- The Māori population is younger and growing faster than non-Māori. This growth is forecast to continue at 2.5 per cent a year compared to 0.5 per cent for non-Māori.
- Māori only make up 17 per cent of the labour force and are over-represented in lower-skilled occupations. They are also over-represented in unemployment rates.
- By 2038 Māori will account for 25 per cent of the working-age population.

Prospects:

The opportunity for Māori in the region lies broadly in future-focused industries. Māori will be active across a range of industries through a focus on a strong and healthy microenterprise eco-system. Underpinning this eco-system will be:

- Deep digital, robotic, artificial intelligence and cognitive technology capability.
- Strong science, research and development relationships to add value to land utilisation activities.
- Leveraging of Taranaki stories.
- A strong culture of innovation throughout the iwi and Māori business landscape.
- Māori economic participation in growth sectors.

Accessibility and connectivity

Overview:

- Taranaki is an export-focused economy. However, the role of the sea port has adapted in recent years as
 global shipping logistics have changed. Currently, the Port's main focus is on servicing the energy industry.
 However, the Port needs to be ready to adapt to continuing changes in national and global freight logistics.
- Because of its location and associated amenities the Port also has a role to play as part of the resident and visitor experience.
- The airport is a vital link for the Taranaki economy and there are plans for a major new redevelopment to cope with visitor growth. New Plymouth District Council has recently taken over the Crown's share to give it 100 per cent ownership.

- Highway access from the south is of a good standard but from the north and east it is below what is required to ensure adequate connection into the future. The New Zealand Transport Agency (NZTA) has a plan to upgrade the northern access.
- Ultra-Fast Broadband (UFB) is expanding in the region, with fibre already installed in New Plymouth, Oakura, Hāwera and Normanby through UFB1. UFB2 will involve the installation of fibre in Urenui, Pātea, Manaia, Opunake, Okato, Eltham, Inglewood, Stratford and Waitara.
- 71 per cent of households had internet connection in 2013 compared with the national average of 77 per cent.
- All districts have digital enablement plans.

Prospects:

- The redevelopment of the airport will add significant capacity for it to play a vital role in the future of the region.
- The role of the sea port in the future remains uncertain and requires analysis.
- Roading access improvements are urgently needed.
- While digital enablement workshops have been held, they do not represent anywhere near a sufficient response for the need for businesses in the region to take advantages of the connections. Further expansion of high speed fibre to all small communities is critical to their attractiveness.

Skills, talent and innovation

Overview:

- There are relatively high levels of early childhood, industry and adult education and training, but relatively low attainment of formal qualifications.
- People involved in industry training and apprenticeships are at 3.9 per cent of the population against a national average of 3.3 per cent but completions are below the average.
- At the 2013 census, 12 per cent of people aged 15 years or over had a bachelor's degree compared to 20 per cent nationally, with New Plymouth at 14 per cent, Stratford at eight per cent and South Taranaki at eight per cent.
- At the same census, 28 per cent had no qualification compared with 21 per cent nationally.
- In 2015, lower proportions of school students achieved 'at' or 'above' the national standards for reading, writing and mathematics.
- Taranaki's NEET rate is higher than the national rate (except in 2010 and 2013).

Prospects:

- This picture of at-or-below average achievement is an insufficient base on which to build a modern, value-added economy. Significantly higher skill levels are required together with larger number of qualified people.
- This enabler has been singled out as a major development area and an Action Team gathered to identify priorities for action.

Appendix II: Members of the Lead Team

Peter Tennent, Chair

Peter retired as New Plymouth District's Mayor in 2010, but continues to take a governance role in many trusts and community groups. Peter was judged one of the world's top 10 community leaders in 2010. He is absolutely dedicated to this region and country – all that we are, and all that we can be.

Wharehoka Wano, Deputy Chair

Born and raised in Hawera, Wharehoka has been based amongst his Taranaki and Te Atiawa Iwi for the last 30 years. After a long career in Education, Wharehoka took up the role of CEO for Taranaki Iwi in mid-2016. He is also Chair of the Taranaki Māori Trust Board and Deputy Chair of Te Kotahitanga o Te Atiawa.

Sophie Braggins

Sophie has been the Chair of the Taranaki Chamber of commerce since December 2015 and is the Chair of the CEO Forum. She has 14 years of commercial experience in the fields of human resources and strategic business consulting and is currently Head of Innovation at Govett Quilliam The Lawyers.

Robin Brockie

Robin is a recently retired partner of the chartered accounting practice of Staples Rodway Taranaki Limited, where he had been a partner for 31 years. His community interests have spanned a variety of organisations in the sectors of education, health and welfare, and visual and performing arts.

Andrew Clennett

Andrew is a founder and CEO of Hiringa Energy. He has held a number of senior management and executive roles in the energy sector including most recently the General Manager Well Engineering and Well Operations at Todd Energy, New Zealand. He holds a Bachelor of Engineering (Hons) (Mechanical/Electrical) from the University of Tasmania, Australia and is a member of the Society of Petroleum Engineers (SPE) and a Trustee of BeSafe Taranaki.

Neil Holdom

Neil was elected New Plymouth District Mayor in 2016. He has a background in strategic management, government relations, information technology, communications and public relations having worked for Independent News Limited, Fairfax and more recently, Powerco. He has a BA in Political Science and Philosophy from Victoria University of Wellington.

Te Pahunga (Marty) Davis

Marty is Tumu Whakarae (Chairman) at Te Kaahui o Rauru and a Trustee of the Te Whare Punanga Korero Trust – the Māori Health Governance Group which works strategically with the TDHB to improve Māori health. Marty has worked tirelessly for successful treaty settlements.

David MacLeod

David is Chairman of the Taranaki Regional Council and also serves on the boards of Fonterra, Port Taranaki Limited and A.J. Greaves Electrical Limited. He is a director of P.K.W. Farms GP Limited, one of Fonterra's largest shareholders; and is a shareholder of Far South Farms Limited, which owns a dairy farm in Southland.

Al Morrison

Al is the Senior Regional Official for Taranaki, representing Central Government's interests in Taranaki, and also Deputy Commissioner, System Performance for the State Services Commission.

Bronwyn Muir

Bronwyn is the Managing Director at OnFarmSafety New Zealand, based in Stratford. She is also a Director of Muir Farms Ltd (where Bronwyn and husband Phill farm 650 dairy cows in Taranaki) and Muir Enterprises Ltd, Chairwoman of Taranaki Woman in Farming, and until recently was the Taranaki Provincial President of Taranaki Federated Farmers.

Kevin Murphy

Kevin Murphy is the Managing Director/CEO at TSB Bank. He has more than 20 years of experience at senior executive level with TSB Bank, contributing as Finance Manager then Deputy CEO before taking on the Managing Director/CEO role in 2010.

Liana Poutu

Liana is currently the Pouwhakarae/Chairperson for Te Kotahitanga o Te Atiawa Trust. She also serves as a trustee and director of several organisations including Te Atiawa Iwi Holdings Ltd Partnership, Tui Ora Ltd and Te Reo o Taranaki Trust. Liana was born, raised and schooled in Taranaki and is affiliated with Te Atiawa and Taranaki Iwi.

Dan Radcliffe

Dan is the founder and CEO of International Volunteer HQ, the world's leading volunteer travel company, which is established in 40 countries. Dan was named the youngest-ever New Zealand Entrepreneur of the Year in 2014 and NZTE Outstanding New Zealand Business in 2015.

Scott Walls

Scott is the Head of Farm Source – Taranaki, at Fonterra and was previously Head of Cooperative Affairs – Taranaki, General Manager Operation – Lower North Island, and a Site Manager at Fonterra.







A plan to prosper Taranaki