

Briefing for Mayor A. Sowman and Councillors
Marlborough District Council, New Zealand
Performance – Marlborough Economy to 2012

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Prepared by Mandolin Associates

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¹ This document was revised on the 26th of January following signalled changes to the Infometrics beta-database. This has resulted in some changes, in particular correction at the industry-wide level of the Fishing and Aquaculture Industry.

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Purpose

The economic vision for Marlborough seeks to align with the national Economic Growth Agenda in a manner that is appropriate to the context of the Marlborough economy. A work-stream from the Government's Economic Growth Agenda has involved the development of a National Aquaculture Strategy.

The purpose of this brief is to provide succinct information on the performance of the Marlborough economy, in particular, from the period 2002 to 2012, and on the Fishing and Aquaculture Industry in Marlborough.

Context

The New Zealand Government's Economic Growth Agenda supports sustainable business growth in New Zealand and delineates four strategic priorities:

1. Responsibly managing the Government's finances;
2. Building a more productive and competitive economy;
3. Delivering better public services within tight financial constraints; and
4. Rebuilding Christchurch.

This brief focuses on priority number 2: Building a more productive and competitive economy. A significant contribution to this priority is made by the Ministry of Business, Innovation and Employment. For further information see web-link: <http://www.mbie.govt.nz/pdf-library/what-we-do/business-growth-agenda/bga-reports/Cabinet-paper-governments-bga.pdf>.

Aquaculture New Zealand's "New Zealand Aquaculture Strategy" which was devised by industry, under the former Economic Transformation Agenda, seeks to achieve a "sales target" (that is, revenue rather than Gross Domestic Product, GDP, target) of one billion dollars per annum by 2025 (see web-link: <http://aquaculture.org.nz/wp-content/uploads/2011/05/Strategy.pdf>).

In 2012 the New Zealand Government, under the Economic Growth Agenda, launched an overarching National Aquaculture Strategy and Five-Year Action Plan to Support Aquaculture Growth in New Zealand (see web-link: <http://www.fish.govt.nz/NR/rdonlyres/20A0ED89-A20B-4975-9E63-6B302187840D/0/AQUAstrat5yrplan2012.pdf>). At an Industry Level, the National Aquaculture Strategy requires that industry focus on:

1. Promoting environmental sustainability and integrity of aquaculture.
2. Securing and promoting investment in aquaculture.
3. Promoting Māori success in aquaculture.
4. Developing the market for New Zealand aquaculture products.
5. Maximising opportunities for innovation.
6. Strengthening the partnership with government and other stakeholders.

At the level of Government, the National Aquaculture Strategy focuses on:

1. A healthy aquatic environment.
2. Quality planning and permitting.
3. Effective response and regulation.

4. Supporting Māori objectives.
5. Increasing market revenues.
6. Increasing value through research and innovation.
7. Sound governance.

The Aquaculture New Zealand Conference 2013 was held in Nelson City from the 22nd to the 24th of October 2013. The theme of the conference was “Good for You, Good for New Zealand” (see web-link: <http://aquaculture.org.nz/conference>). During the conference two key debates relevant to the aquaculture industry in New Zealand were mooted:

1. Smart use of natural resources being pivotal to regional prosperity.
2. Regional development being key to growing incomes for New Zealand families.

Conference speakers and panels discussed the New Zealand King Salmon application for the expansion of Chinook salmon farming in the Marlborough Sounds (see web-link: <http://www.epa.govt.nz/Resource-management/previous/king-salmon/evidence/Pages/default.aspx>) which, at the time of his address, was to come before the Supreme Court.

The contention was made of “underperformance” in the Marlborough economy broadly, and in relation to aquaculture more specifically.

This brief, therefore, seeks to explore that contention by informing discussion on:

1. The performance of the Marlborough economy from 2002-2012
2. The performance of the Marlborough Aquaculture Industry 2002-2012
3. Regional development, in particular, with a focus to grow the average wage both regionally and nationally.

Executive Summary

Performance of the Marlborough Economy 2002-2012

- ✚ In most measures Marlborough has out-performed New Zealand average
- ✚ Where Marlborough has not outperformed New Zealand average, it has outperformed its closest neighbour Nelson-Tasman
- ✚ From 2007 Marlborough's performance has been negatively influenced by: (1) Drought, (2) Wine Industry consolidation, (3) Global Financial Crisis especially due to high export orientation of the region, and (4) Two Christchurch earthquakes. The economic cost of the Marlborough earthquakes of 2013 and the Interislander ferry failure is not yet fully known.
- ✚ Key strategic foci for Marlborough are sustainable growth, high quality jobs, higher individual earnings, higher qualifications, and population shape.

Measure	Marlborough	New Zealand	Nelson-Tasman
GDP Growth 2002-2012	3.3%	2.3%	1.8%
Improvement in Labour Productivity 2012	3.1%	1.1%	Not measured
Improvement in Labour Productivity 2002-2012	1.3%	0.7%	0.4%
Output per Employee*	\$58,986	\$67,025	\$51,700
Diversity/Competitiveness	>40	<80	Not measured
Median Earnings from Employment in 2011*	\$43,150	\$49,900	\$42,710
Growth in Employment	2.0%	1.6%	1.7%
Unemployment (averaged 2012)	3.9%	6.6%	5.2%
Housing Affordability 2012	6.8	7.1	8.1

*Behind NZ average but ahead of Nelson-Tasman

Performance of the Aquaculture Industry 2002-2012

- ✚ Marlborough has performed ahead of average across the Fishing and Aquaculture Industry in the years 2002-2012.
- ✚ The Fishing and Aquaculture Industry in Marlborough contributes 11% to the national GDP for this industry. Regionally, the industry has struggled to move to a growth position since 2009, however, it still performs ahead of both Nelson-Tasman and National Average. These factors indicate that Marlborough is affected by the national economy rather than solely regional conditions.
- ✚ Marlborough's Fishing and Aquaculture Industry is more diverse than Nelson-Tasman and the New Zealand economy, this is likely to influence the relative resilience of Marlborough.
- ✚ Marlborough is the lead region for the sub-industry Caged (Offshore) Aquaculture contributing approximately 82% to national GDP.
- ✚ Marlborough requires a strategic approach to maintaining activity in the sub-industry Onshore Aquaculture to maintain industry diversity, and support resilience in both the national and local supply chains.
- ✚ Marlborough requires a strategic approach to GDP growth in relation to wild fisheries. These maximally contribute to the negative growth in the region, but increasingly contribute to value-added seafood processing.

Measure	Marlborough	New Zealand	Nelson-Tasman
GDP Growth for the total Fishing and Aquaculture Industry 2002-2012	-3.7%	-4.9%	-5.0%
GDP Growth for the Sub-industry Caged (Offshore) Aquaculture	-1.00%	-3.40%	-13.7%
GDP Growth Long-line and Rack (Offshore) Aquaculture 2002-2012	-0.40%	-4.40%	1.8%
GDP Growth Onshore Aquaculture	-9.10%	-1.00%	8.9%

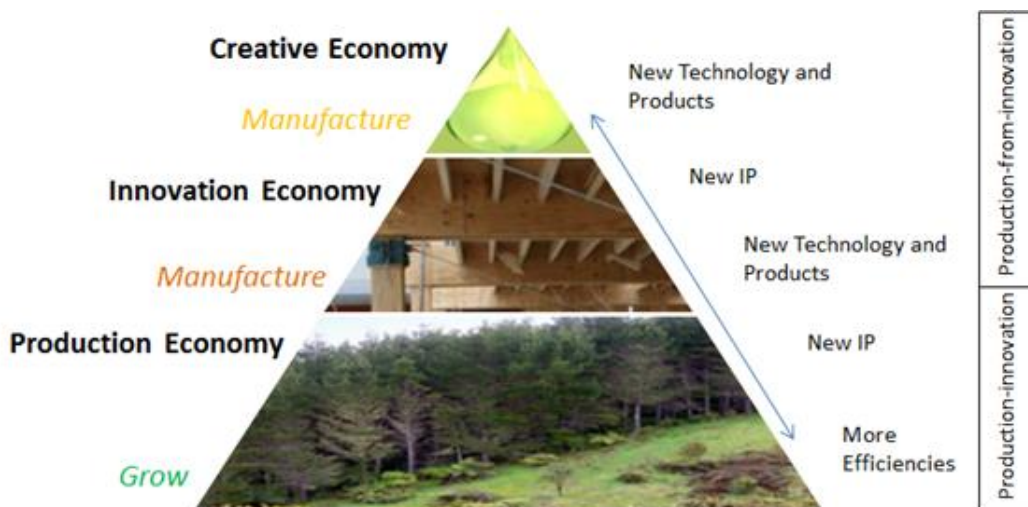
Seafood Processing Industry

- ✚ Marlborough has a comparative advantage in Seafood Processing but subject to infrastructure constraints. These constraints are being analysed and resolved.
- ✚ Growth of the Seafood Processing Industry should focus on an innovation-led and integrated approach that includes: High tech plants, co-located food and marine science, and co-location of aspects of the critical supply chain.

Measure	Marlborough	New Zealand	Nelson-Tasman
GDP Growth for the Seafood Processing Industry 2002-2012	6.7%	2.6%	0.9%

Regional Development

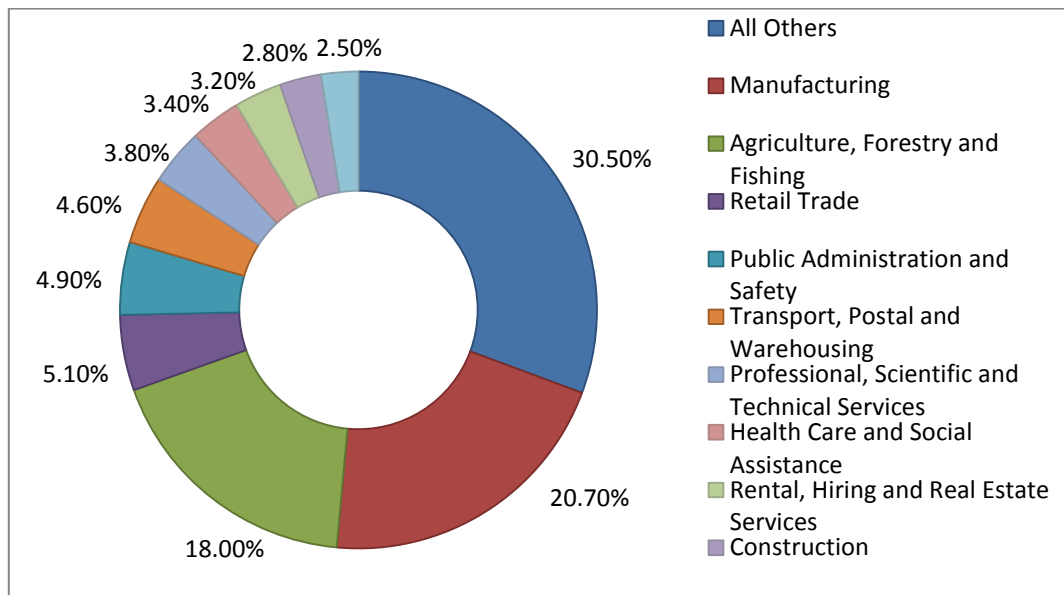
- ✚ Regional development should be customised to the regional environment, capitalise on comparative advantage, embrace innovation to enhance competitive advantage, and support the development of **both** the regional and national economy
- ✚ Marlborough’s economic development vision—**Marlborough-Smart and Connected**—has been design to cover all of the above, focusing on the efficiency of Marlborough’s Production-Innovation Economy, and the development of a robust Production-from-Innovation Economy.



The Performance of the Marlborough economy from 2002-2012

The Marlborough economy has shown increasing diversity over the 10 years from 2002-2012. Though Marlborough has a robust primary sector, its secondary sector has grown considerably to the point where manufacturing is now the lead industry in the Marlborough economy. A proliferating suite of activity in both the tertiary and quaternary sectors has established a range of “other industries” that provide services both locally and nationally.

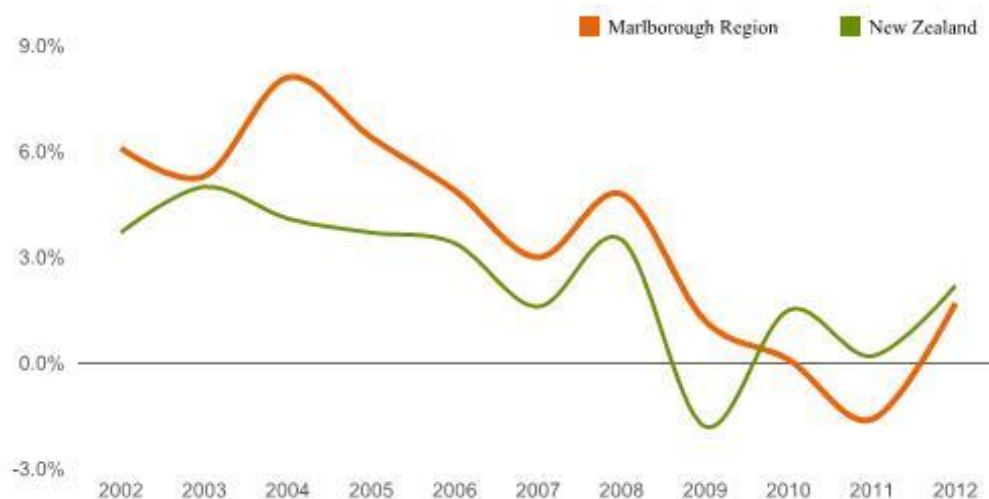
Figure 1: Structure of the Marlborough Economy by Industry 2012



Growth in Gross Domestic Product (GDP) from 2002 to 2012

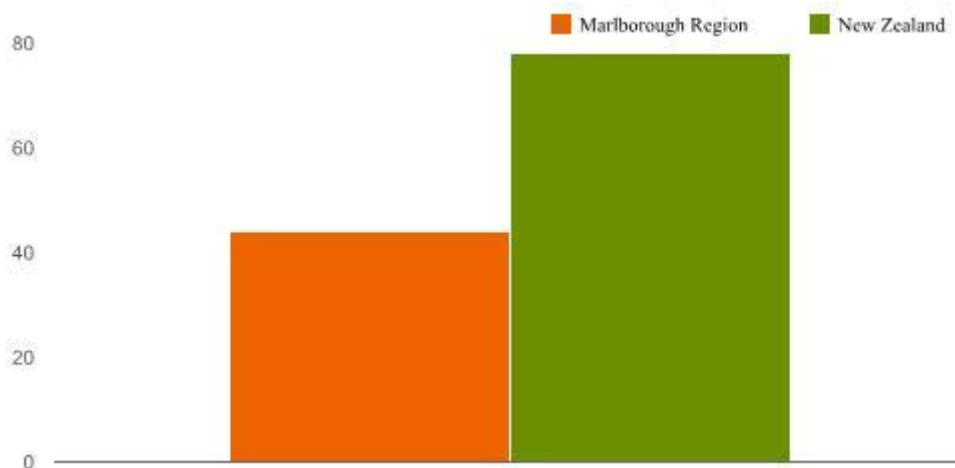
GDP Growth in the Marlborough District has been ahead of New Zealand Average from the period 2002 to 2012. Across this ten year period, Marlborough achieved an average GDP growth of 3.3% per annum, in comparison to average growth for the Nelson-Tasman Region of 1.8%, and a national average of approximately 2.3% per annum.

Figure 2: GDP Growth in Marlborough 2002-2012



The Marlborough District showed early resilience, compared to national average, to the 2007-2008 Global Financial Crisis. This resilience was due significantly to the diverse and competitive nature of the Marlborough economy, with Marlborough performing well above average on measures of Industrial Diversity and Competitiveness per the Herfindahl-Hirschman Index² (HHI).

Figure 3: HHI Index comparing Marlborough to New Zealand Average 2012



The importance of a diversified economy shows in the change in lead industries from the growth years of 2001-2009 through to the more difficult years of 2009-2012.

Figure 4: Lead Industry Contribution Change Growth versus Hard Years

The growth years 2001-2009		The hard years 2009-2012	
Top five contributors to growth		Top five contributors to growth	
Beverage and Tobacco Product Manufacturing	0.8%	Forestry and Logging	0.7%
Agriculture, Forestry and Fishing Support Services and Hunting	0.6%	Dairy Cattle Farming	0.2%
Forestry and Logging	0.4%	Seafood Processing	0.2%
Central Government Administration, Defence and Public Safety	0.3%	Postal, Courier Transport Support, and Warehousing Services.	0.1%
Professional, Scientific and Technical Services	0.3%	Wood Product Manufacturing	0.1%
Bottom five		Bottom five	
Dairy Product Manufacturing	-0.1%	Agriculture, Forestry and Fishing Support Services and Hunting	-0.7%
Fruit, Oil, Cereal and Other Food Product Manufacturing	-0.1%	Beverage and Tobacco Product Manufacturing	-0.4%
Fishing and Aquaculture	-0.1%	Central Government Administration, Defence and Public Safety	-0.2%
Meat and Meat Product Manufacturing	-0.1%	Horticulture and Fruit Growing	-0.2%
Transport Equipment Manufacturing	-0.1%	Construction Services	-0.2%
Marlborough's annual growth	4.1%	Marlborough's annual growth	-0.5%

However, a combination of circumstances did lead to a decline in the performance of the Marlborough economy, compared to national average, in the lead in to 2010. Some of these circumstances were shared with the national economy, however, others showed regional specificity. For example:

² When the HHI value is less than 100, the market is highly competitive.

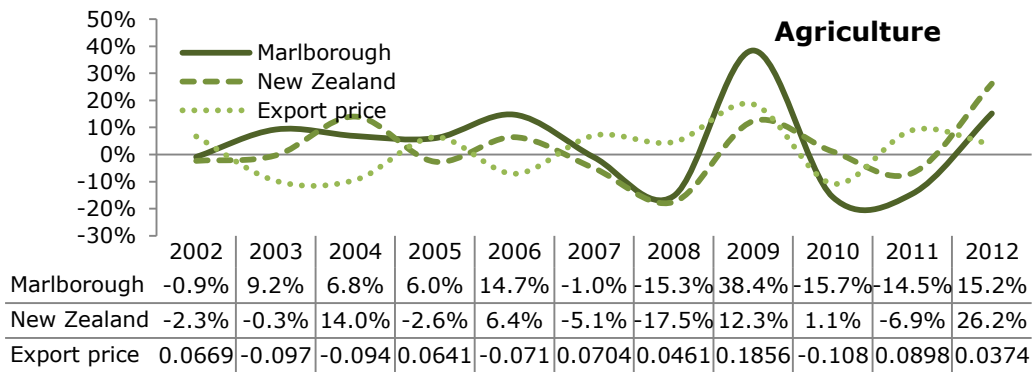
When the HHI value is between 100 and 1000, the market is said to be not concentrated.

When the HHI value is between 1000 and 1800, the market is said to be moderately concentrated.

When the HHI value is above 1800, the market is said to be highly concentrated.

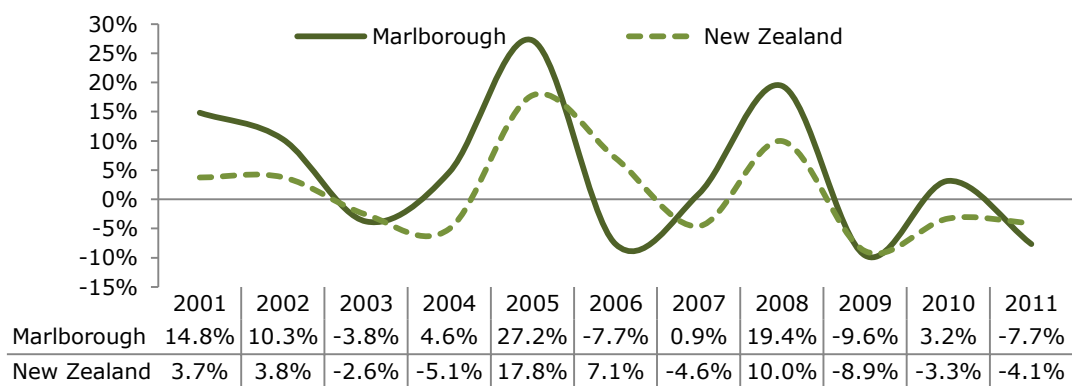
1. During 2007-2008 drought conditions led to a decrease in agricultural output which diminished resilience in this industry nationally. While Marlborough showed a dramatic growth period in 2009, the rest of the New Zealand economy did not fare as well causing some lack of confidence and “drag” on the Marlborough industry. This was further exacerbated by challenging local conditions persisting in 2010-2011.

Figure 5: GDP Growth Trend in Agriculture (net of Forestry and Aquaculture) 2002-2012



2. The 2007-2008 Global Financial Crisis began to squeeze export markets and, within New Zealand, credit supply. The Marlborough economy, as one of the most open regional economies in New Zealand, began to feel the effects of the GFC as the crises in the United States and Europe persisted. Marlborough exports approximately 20% of its gross output, compared to a New Zealand average closer to 17%. This relative openness means that global economic conditions have an enduring effect on the Marlborough economy. This is exacerbated when lead export markets such as the United States and Europe are affected.
3. The Marlborough Wine Industry experienced a significant decline in performance in 2005-2006, signalling a requirement for new supply strategies, new market strategies, diversification of wine style, and the need to focus on retention of wine production (through to bottling) in Marlborough. Though there was greater resilience to the GFC than was shown in the rest of New Zealand, difficult conditions led to a further sharp decline in output in the 2008-2009 period followed by something of a “dead cat bounce” in 2010.

Figure 6: GDP Growth trend Marlborough Wine Industry compared to New Zealand Average 2001-2012

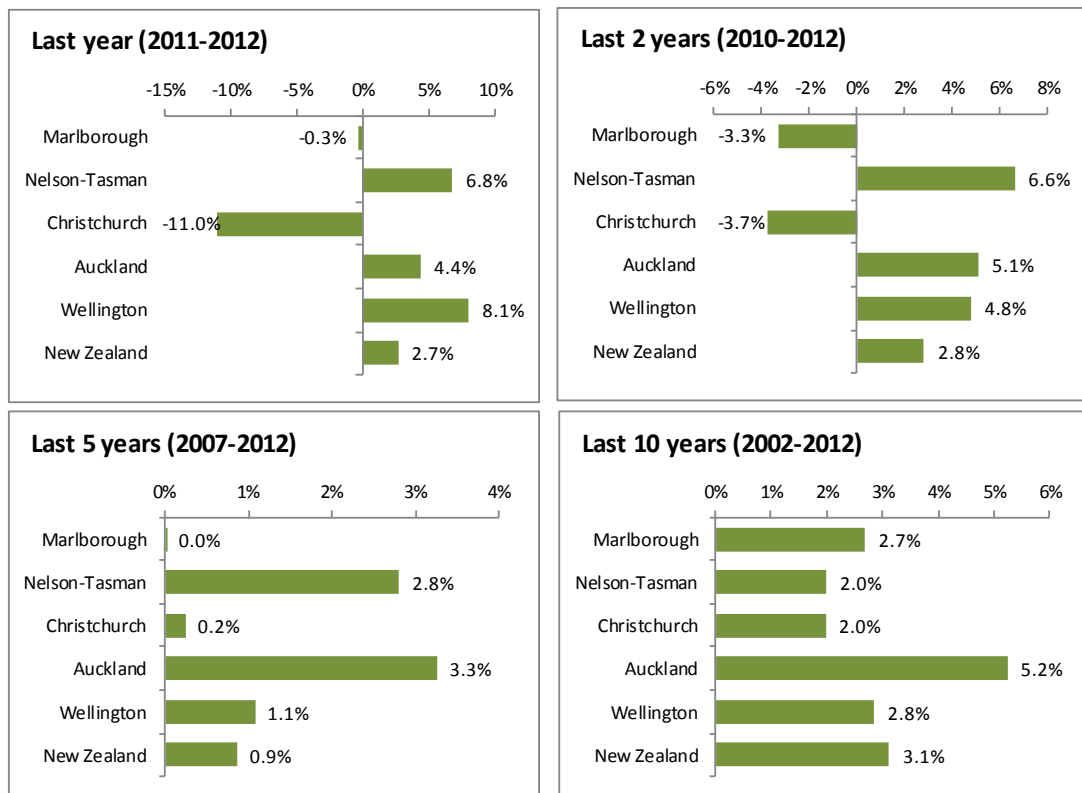


While the Marlborough Wine Industry is still working on diversification of styles and markets, to stabilise grape supply, and retaining wine manufacture in Marlborough against the pull of Auckland, there are significant signs of recovery in 2013. Business confidence is high and there has been an increase of approximately 550 hectares (around 2.3%) in vineyard area over the past twelve months. This trend is likely to continue in the short term.

The Marlborough earthquakes of 2013 resulted in product losses at wine manufacturing plants at a level that is likely to impact growth rates in the manufacturing industry in the short term, but the extent of this is not yet known. Notwithstanding that, if Marlborough is to fully capitalise on GDP growth per employee and increase in average earnings per individual, a focus on retaining manufacture in Marlborough is required. The decision on the Clifford Bay Ferry Terminal delayed investment in Ports of Marlborough exacerbating the move to wine production in Auckland. Relief in the form of new investment in infrastructure should improve local conditions for manufacturers.

- As the national economy struggled to recover from the GFC, Christchurch was hit by two major earthquakes—one in September 2010 and the other in February 2011. The relationship between the Marlborough and Christchurch economies is a close one. To provide a test for the effects of the Christchurch earthquake Mandolin Associates (in association with Infometrics Limited) designed the “Visitor Economy Barometer”, a simple set of direct measures of visitor activity. These were compared across five regional economies and national average. They provide evidence of a sharp retraction in the Marlborough visitor economy that correlates with the effects on Christchurch.

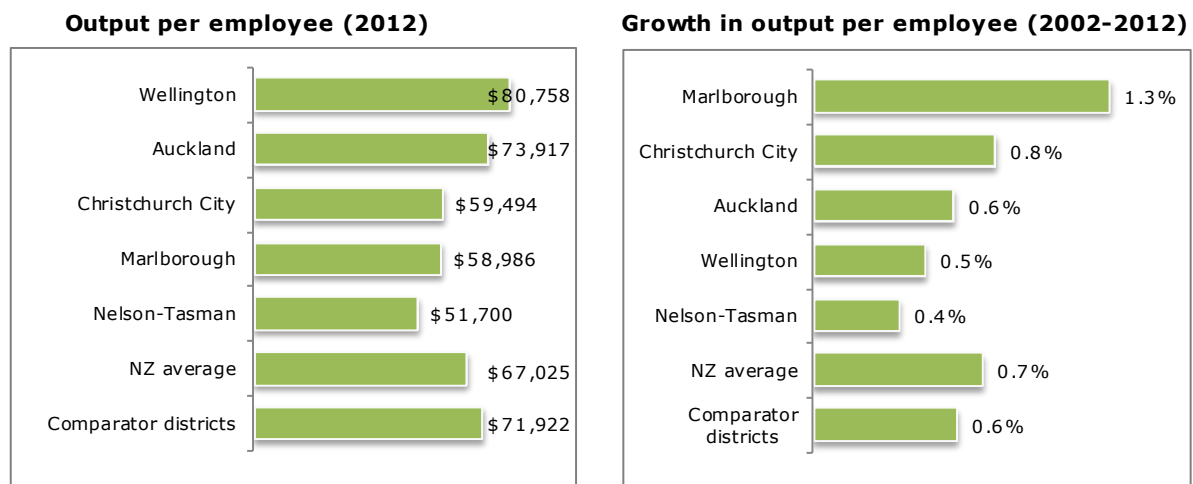
Figure 7: GDP Growth in the Visitor Economy, Various Timeframes



Overall, when viewed through a ten year economic cycle, Marlborough has outperformed New Zealand average in terms of GDP growth. In the past four years conditions have been especially difficult for Marlborough, however, it has been somewhat insulated by its economic diversity. Marlborough appears to be in recovery and is showing positive signs of increasing economic efficiency.

For example, labour productivity increased in Marlborough in 2012 by 3.1% compared to a decrease in the national economy of -1.1%. This indicates that Marlborough's economy has shown both resilience and a positive response in terms of efficiency to what have been difficult regional conditions. While a focus on increased efficiency is required to achieve output per employee that compares at a national level, Marlborough outperforms New Zealand average in terms of growth in output per employee, and significantly outperforms Nelson-Tasman in terms of both output per employee and growth in output per employee.

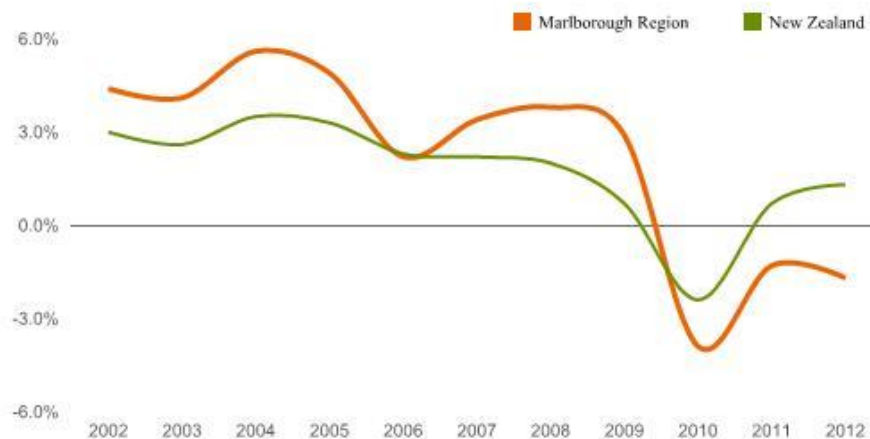
Figure 8: Comparative estimates of productivity in 2012



Growth in Employment from 2002 to 2012

Growth in employment in the Marlborough Region has been ahead of the New Zealand average for the period 2002-2012, though it has been a slightly rougher ride for Marlborough due to the level of change in industry activities over the period.

Figure 9: Growth in Employment Trend 2002-2012



Across the 10 year period, Marlborough achieved average employment growth of 2.0%, with the Nelson Region averaging 1.7%, and the national average at 1.6%. While employment growth in Marlborough has shown a decline of 1.7% in 2012, at 3.9% in total unemployment Marlborough's unemployment rate was considerably lower than that of the Nelson Region and the national average in 2012.

Figure 10: Comparative unemployment Rates (year to March 2012)



Indeed, while trending to roughly the same pattern as Nelson-Tasman, Marlborough has consistently had lower unemployment in the ten year period from 2002-2012:

Figure 11: Comparative unemployment rate from 2002-2012



It would appear, based on this comparatively low unemployment rate, that Marlborough's economy experiences supply-side shortfalls in terms of labour. This is borne out by qualitative evidence, such as the heavy reliance on Recognised Seasonal Employment personnel.

Unemployment data for Marlborough suggests that the Marlborough economy does not have problematic employment in terms of number of jobs, but does have a mismatch between the available jobs and the skills/qualifications of current residents.

Qualifications

While Marlborough has improved in terms of highest qualifications gained between the 2006 and 2013 census, there is further improvement required against New Zealand average in all areas except Level 5/6 Diploma.

Figure 12: Highest Qualification Attained for Marlborough (Census 2013)

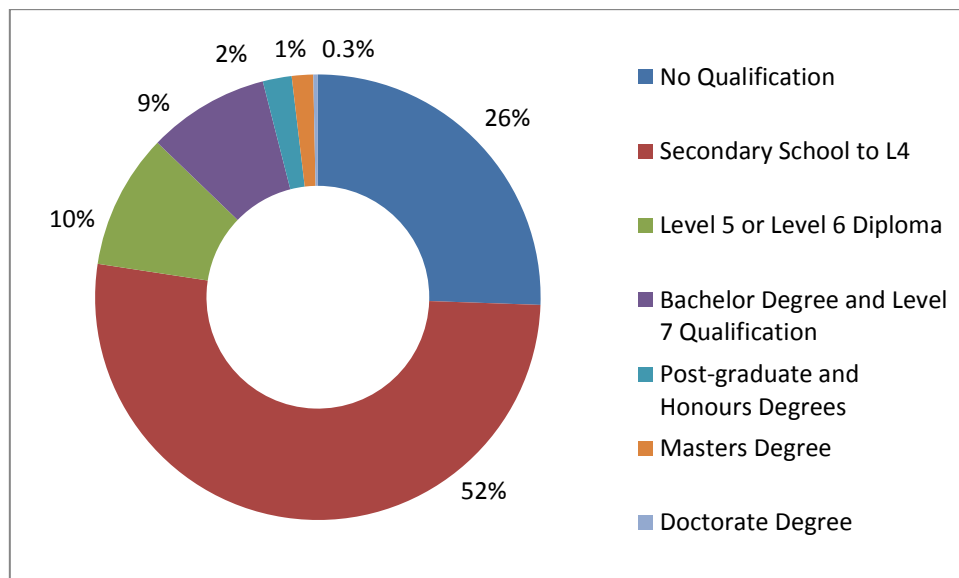
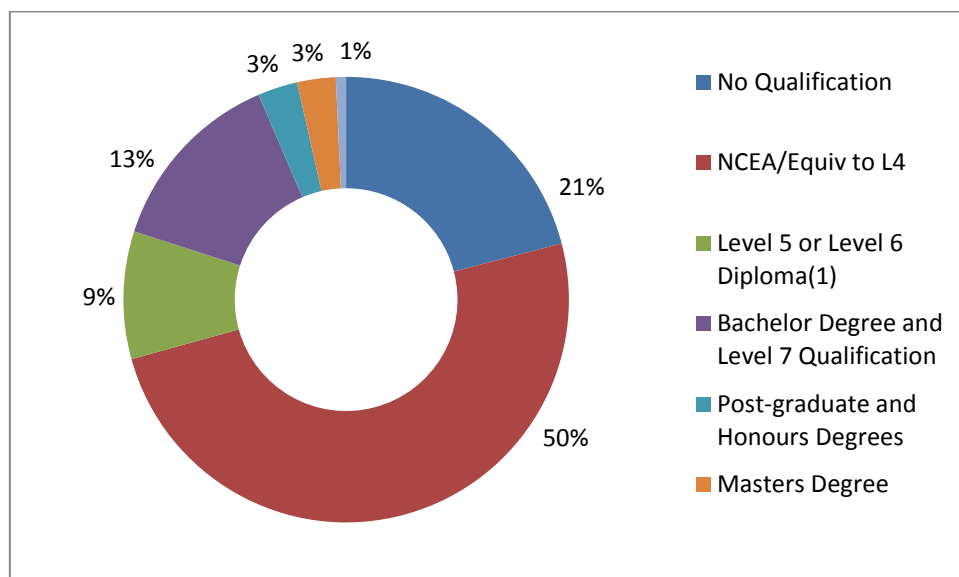


Figure 13: Highest Qualification Attained for New Zealand (Census 2013)



Employment and qualification data suggests the need to focus on the development or transfer of technologies to reduce low wage employment, and a corresponding focus on increasing quality jobs supported by higher qualifications—rather than a focus on the creation of more low wage employment. This analysis is also supported by burgeoning self-employment in Marlborough which is, on average, higher in Marlborough (at 20.5%) than in the national economy (at 16.8%) in 2012.

Standard of Living

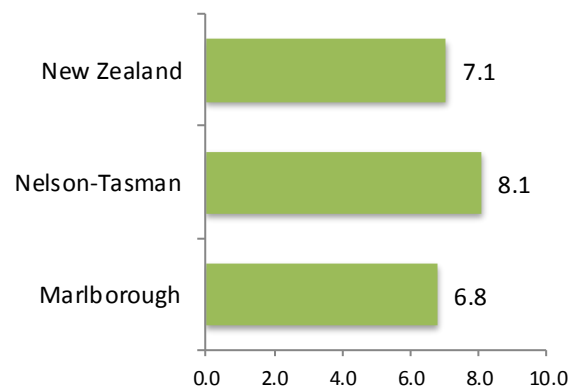
The annual median earnings³ for employed Marlborians were below the national average in 2011 at \$43,150 and although Marlborough experienced growth of 2.6%, this did not compare favourably with the growth of New Zealand average at 3.2%. This being said, Marlborough did compare favourably against Nelson-Tasman in terms of median annual earnings from employment.

Figure 14: Median annual earnings (year to March 2011)



The slightly higher median annual earnings, alongside lower median house price, means that Marlborough continues to rank better than New Zealand average and Nelson-Tasman for housing affordability.

Figure 15: Housing affordability index (year to March 2011)



These factors, alongside the relatively low unemployment rate, and high quality of lifestyle mean that there remains a focus on families in Marlborough and this has seen enrolment rates increasing (particularly at primary school level) in recent times. This focus on families is reflected in the current population shape, which shows a good population size in the 0-14 age range, before tapering off a little in the 15-29 year age range as children leave Marlborough to attend University or seek employment elsewhere.

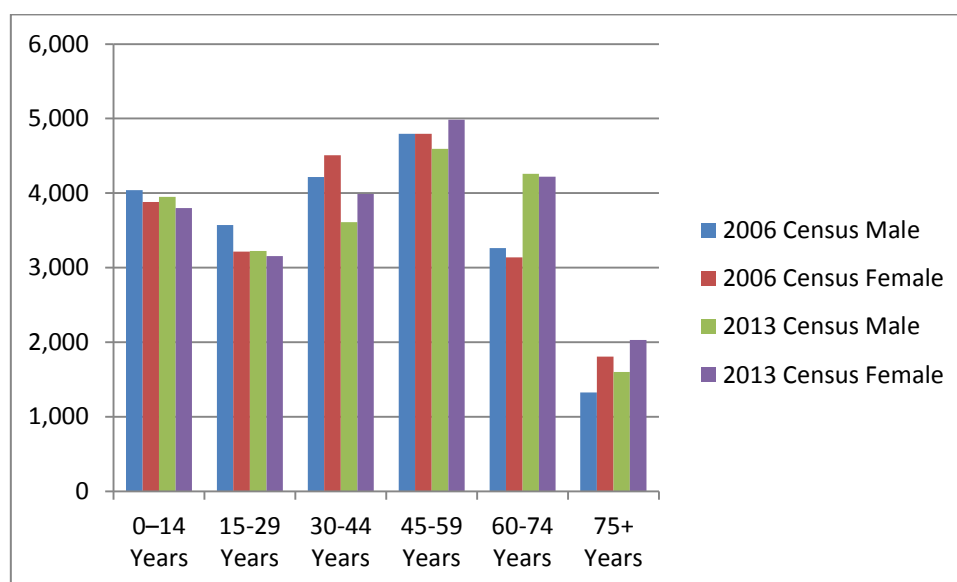
³ Note that this is earnings per individual and not household income as reported by the Ministry of Business Innovation and Employment. Other factors affect household income; it is therefore a problematic measure in relation to standard of living. Also, our focus here is on median earnings from employment net of beneficiary income.

Population, Productivity and Standard of Living

As previously stated Marlborough performed ahead of the New Zealand average with annual GDP growth of 3.3% across the ten year period from 2002-2012. In addition, in 2012 Marlborough's labour productivity improved by 3.1%, significantly outperforming the New Zealand economy at 1.1%. At the same time, Marlborough's population grew by 2.0%. With a total population of 43,416 residents in 2013, it is not appropriate for Marlborough to target a high growth population strategy (such as that embraced by New Zealand's largest Region Auckland).

What is vital is that Marlborough has a population strategy that focuses on the shape and average age of the population; and that population growth occurs within this context. Innovation is integral to Marlborough's economic performance; and human capital and creative capital are cornerstones of innovation. Of particular interest are the age cohorts from 30-60 years, their qualifications and skills, and their ability to obtain and sustain high quality employment in Marlborough.

Figure 16: Shape of the Marlborough Population 2006 and 2013 (Statistics New Zealand, 2013)



Between 2006 and 2013 Marlborough's population grew by approximately 2%, however, it also changed shape. In short, Marlborough's population aged. This can be seen in the following net change in each age cohort between 2006 and 2013.

Figure 17: Net Change in Population by Age 2006-2013 (Statistics New Zealand, 2013)

Marlborough Region		
Age Range	Net Change	% Change
0-14 Years	-171.0	-2.16%
15-29 Years	-408.0	-6.01%
30-44 Years	-1122.0	-12.87%
45-59 Years	-15.0	-0.16%
60-74 Years	2076.0	32.41%
75+ Years	498.0	15.90%

The problem here is not that the 60+ age range is increasing; but that all other age cohorts are decreasing. What Marlborough needs, strategically, is for all other age cohorts (especially those 30-59 to increase at the same, or at a slightly faster pace than the 60+ cohort. In the past Marlborough has “marketed” a lifestyle proposition – quiet towns, beautiful scenery, relative safety, away from the congestion of big cities, warm weather, good mobility due to good roads and “flat land” and—comparably—a low cost of living. All of which appeals to the 60+ cohort. If Marlborough is to attract age cohorts more relevant to increased productive output and earnings per individual (30-59 years), it must offer more; including high quality jobs, schools, housing, and a vibrant and inclusive social environment.

The Performance of the Fishing and Aquaculture Industry from 2002-2012

The Marlborough Fishing and Aquaculture Industry has performed ahead of the New Zealand average in the period from 2002 to 2012 with average GDP change of -3.7% per annum, compared with the New Zealand average of -4.9% per annum. At 11% total contribution to the national GDP total, and maintaining a better performance, it more likely that Marlborough was adversely affected by national and global economic conditions, than solely by factors in the local economy.

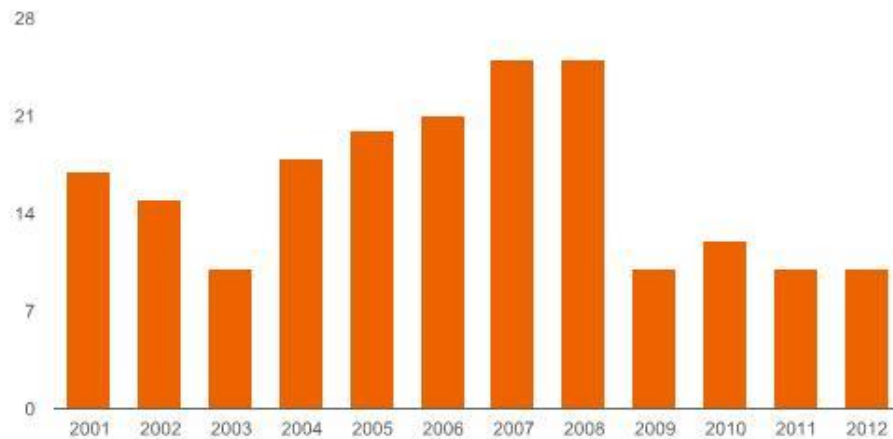
Table 1: Total Fishing and Aquaculture Industry, comparison Marlborough to NZ Average (2002-2012)

Marlborough Region			New Zealand Average	
	Change pa Marl	% of NZ in 2012	Change Pa NZ	% of NZ in 2012
		%		%
Gross domestic product (GDP)	-3.7%	11%	-4.9%	100%
Employment	-3.2%	8.6%	-2.6%	100%
Business units	-2.1%	11.0%	-3.2%	100%

The Marlborough Fishing and Aquaculture Industry also performed ahead of the Nelson-Tasman Fishing and Aquaculture Industry which contributed 35% of total GDP to the nations GDP in 2012, but suffered a retraction in GDP of -5.0% per annum (on average) across the 2002-2012 period.

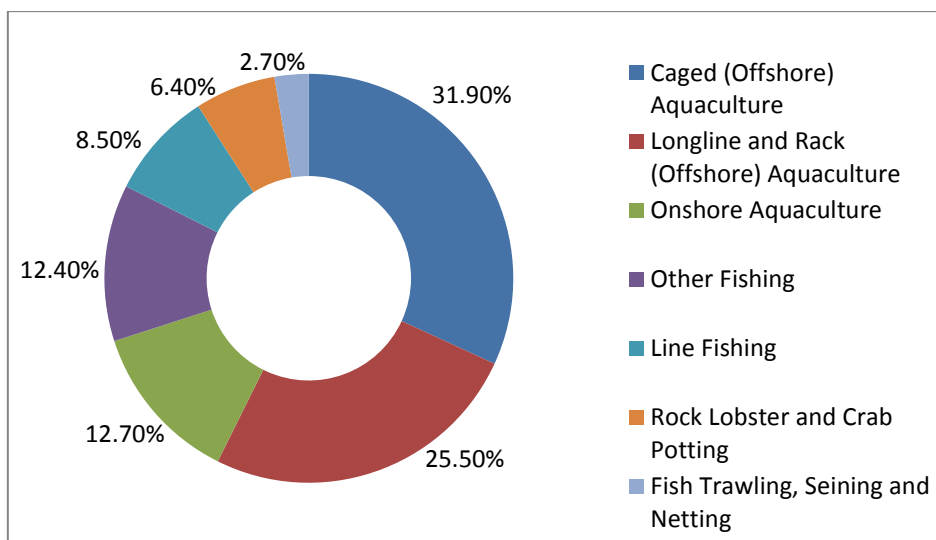
The industry in Marlborough still struggling to regain a growth position in 2012 (see Figure 18); however, this is not a position unique to Marlborough, for example net change in GDP for Marlborough 2011-2012 was -1.3%, for Nelson-Tasman -2.0%, and for the nation’s Fishing and Aquaculture Industry -1.5%. This remains, therefore, a national industry and economy issue, rather than being a performance issue specific to Marlborough.

Figure 18: GDP Growth Trend for the Marlborough Fishing and Aquaculture Industry 2002-2012



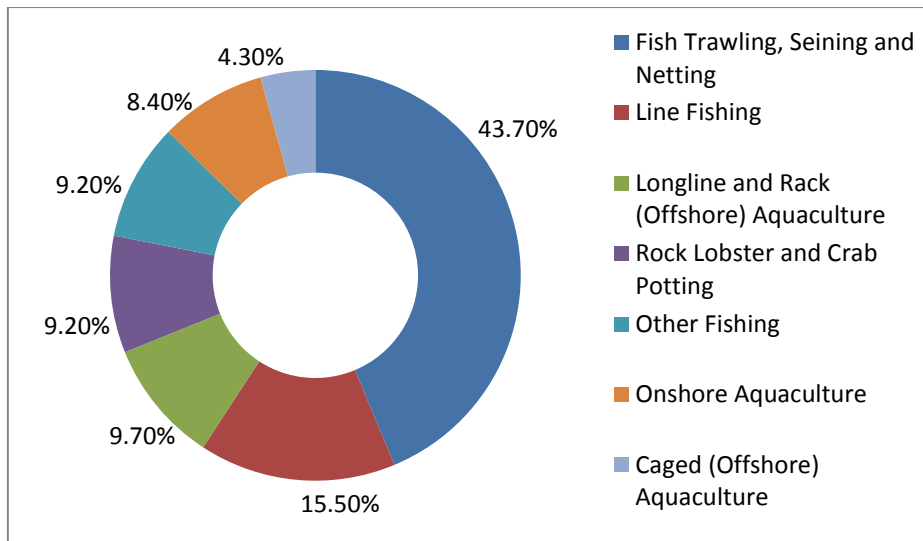
Importantly, the Fishing and Aquaculture Industry categorisation covers a diverse range of activity, with regions showing comparative advantage in different sub-industries. The following table shows the top performing sub-industries within the Fishing and Aquaculture Industry for Marlborough.

Figure 19: Contribution of Sub-industries to the Fishing and Aquaculture Industry in Marlborough 2012



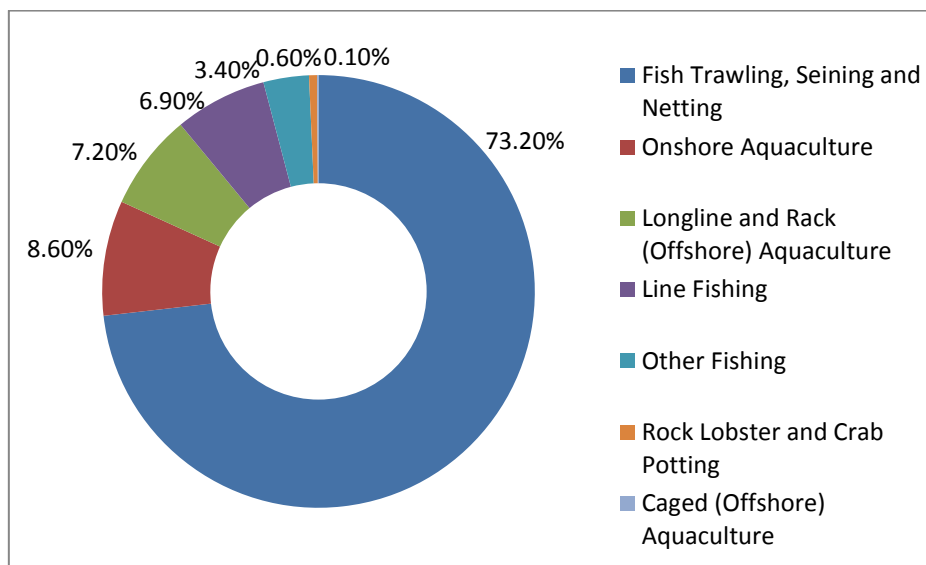
Although it is reasonable to assume that the New Zealand economy is relatively dependent on the Marlborough District in relation to the Caged (Offshore) Aquaculture sub-industry; within Marlborough, the Fishing and Aquaculture Industry shows a good level of diversity compared to the rest of New Zealand where wild fishery activity is still dominant. For example, in Marlborough the total contribution of farmed stock is 70%, against wild fish harvesting of 30%. By comparison on average the New Zealand economy is reliant on wild fish harvesting at 78%, against 22% from farmed stock.

Figure 20: Contribution of Sub-industries to the Fishing and Aquaculture Industry in the NZ National Economy 2012



The reliance on the more traditional wild fisheries sub-industries is further accentuated in the Nelson-Tasman economy which maintains GDP of 84% on wild fish harvesting against 16% of farmed stock.

Figure 21: Contribution of sub-industries to the Fishing and Aquaculture Industry in the Nelson-Tasman Economy 2012



A deeper dive into Marlborough's Aquaculture

For the purposes of further analysis, we have selected the top three sub-industries in Marlborough economy's Fishing and Aquaculture Industry for discussion. The top three sub-industries are all aquaculture, not wild fisheries.

The sub-industries discussed here are A020100 Long-line and Rack (Offshore) Aquaculture, A020200 Caged (Offshore) Aquaculture, and A020300 Onshore Aquaculture. In each section the Australia

New Zealand Standard Industry Classification (ANZSIC 2006) definition of the industry is included⁴. The three industries are listed in order of size of GDP contribution to the Marlborough economy.

A020200 Caged (Offshore) Aquaculture

Primary activities

- Finfish farming (caged)
- Salmon farming (caged)
- Trout farming (caged)
- Tuna farming (caged)

Marlborough makes the most significant contribution to New Zealand's GDP earned through this industry activity at 82% of the total industry. While Marlborough's industry has experienced a retraction of -1.0% over the past 10 years, it has still outperformed the New Zealand average of -3.40%.

Table 2: Caged (Offshore) Aquaculture Sub-industry, comparison Marlborough to NZ Average (2002-2012)

<i>Marlborough Region</i>	<i>New Zealand Average</i>			
	Change pa Marl	% of NZ in 2012	Change pa NZ	% of NZ in 2012
	%		%	
Gross domestic product (GDP)	-1.00%	82%	-3.40%	100%
Employment	-1.60%	74%	-2.80%	100%
Business units	1.10%	63%	-1.70%	100%

In the period from 2002-2012 Marlborough considerably outperformed Nelson-Tasman which showed a decline in this sub-industry of -13.7%. The lead performer, in terms of growth, was the Waikato Region at 14.0% growth in a developing sub-industry.

Table 3: Regional Contribution to the Caged (Offshore) Aquaculture Sub-industry 2012

District	GDP Change pa %	% of NZ in 2012
Marlborough District	-1.0%	82.0%
Southland Region	-17.8%	4.2%
Canterbury Region	-6.1%	7.8%
Nelson-Tasman Region	-13.7%	1.0%
Waikato Region	14.0%	5.0%
Total		100.0%

⁴ Note that the ANZSIC 2006 definitions include all categories that can be measured within that sub-industry. It does not assume that all activity occurs in all regions.

A020100 Long-line and Rack (Offshore) Aquaculture

- Primary activities
- Mussel farming (long-line)
 - Offshore long-line or rack aquaculture
 - Oyster farming (rack)
 - Paua farming (long-line or rack)
 - Pearl oyster farming (rack)
 - Seaweed farming (long-line or rack)

Table 4: Long-line and Rack (Offshore) Aquaculture Sub-industry, comparison Marlborough to NZ Average (2002-2012)

Marlborough Region	New Zealand Average	
	Change pa Marl	% of NZ in 2012
	Change pa NZ	% of NZ in 2012
	%	%
Gross domestic product (GDP)	-0.40%	29%
Employment	-1.50%	24%
Business units	-1.50%	33%

Marlborough makes a substantive contribution to GDP for New Zealand, at 29% of the total sub-industry classification for Long-line and Rack (Offshore) Aquaculture. While there has been, statistically, a light retraction over the period 2002-2012 in this activity it is below -1.0% and is therefore not statistically significant.

What is clear is that Marlborough has outperformed against the New Zealand average, which shows a significant decline at -4.40% over the same period. Marlborough did not perform quite as well as Nelson-Tasman in this sub-industry during this period, with Nelson-Tasman achieving an average growth rate of 1.8%. Comparative growth rates and sub-industry GDP contribution are shown below.

Table 5: Regional Contribution to the Long-line and Rack (Offshore) Aquaculture Sub-industry 2012

District	GDP Change pa %	% of NZ in 2012
Marlborough District	-0.4%	29.0%
Auckland Region	-10.4%	8.5%
Bay of Plenty Region	-21.8%	0.2%
Canterbury Region	8.8%	0.6%
Nelson-Tasman Region	1.8%	26.0%
Northland Region	-12.2%	10.0%
Southland Region	-4.9%	4.7%
Waikato Region	-3.1%	21.0%
Total		100.0%

A020300 Onshore Aquaculture

Industry code A020300 Onshore Aquaculture

Primary activities

- Crustacean or mollusc breeding or farming (pond or tank)
- Fish breeding or farming (pond or tank)
- Fish hatchery operation
- Ornamental fish farming
- Paua farming (pond)
- Prawn farming (pond)
- Salmon farming (pond or tank)
- Trout farming (pond or tank)
- Tuna farming (pond or tank)
- Yabby farming (pond or tank)

While Marlborough makes a substantive contribution to total GDP for this sub-industry, at 17%, its role has decreased in this sub-industry with hatchery and spat operations becoming an increasing focus of the Nelson-Tasman Region in the past 10 years. Indeed, Nelson-Tasman now generates 36% of the GDP for this sub-industry, with average growth over 2002-2012 of 8.9%. Drivers for this include comparative advantages in terms of appropriate fresh and shallow water spaces, Government investment, Cawthron Institute investment and significant Māori investment in the Nelson-Tasman Region.

Table 6: Onshore Aquaculture Sub-industry, comparison Marlborough to NZ Average (2002-2012)

Marlborough Region	New Zealand Average	
	Change pa Marl	% of NZ In 2012
	Change pa NZ	% of NZ In 2012
	%	%
Gross domestic product (GDP)	-9.10%	17%
Employment	-8.90%	12%
Business units	-2.00%	13%

A key consideration for Marlborough, in regards to this sub-industry, is how to optimise the potential for this sub-industry in Marlborough in order to maintain diversity both within Marlborough and to head off an over-reliance on Nelson-Tasman to generate spat, thus supporting greater economic resilience for the downstream farming and processing industries.

Table 7: Regional Contribution to the Onshore Aquaculture Sub-industry 2012

District	GDP Change pa %	% of NZ in 2012
Marlborough Region	-9.1%	17.0%
Auckland Region	-14.2%	0.7%
Bay of Plenty Region	1.3%	2.7%
Canterbury Region	0.3%	30.0%
Nelson-Tasman	8.9%	36.0%
Otago Region	8.9%	3.0%
Southland District	∞	1.7%
Canterbury Region	∞	2.4%
Waikato Region	-7.5%	6.5%
Total		100.0%

From “Growing” Seafood, to “Processing” Seafood – Growing Value through Innovation

While the Aquaculture Industry is an important contributor to the Marlborough economy, if Marlborough is to capitalise fully on the potential of this industry and, in doing so, increase both GDP per employee and annual earnings per individual in Marlborough it must also focus on value added processing within the Seafood Processing sub-industry.

Table 8: Comparison Seafood Processing Industry Marlborough/NZ Average (2002-2012)

Marlborough Region	New Zealand Average			
	Change pa Marl	% of NZ in 2012	Change pa NZ	% of NZ in 2012
	%			
Gross domestic product (GDP)	6.70%	9.70%	2.60%	100%
Employment	0.20%	11%	-3.20%	100%
Business units	0.00%	7.60%	-2.30%	100%

Marlborough has performed ahead of the New Zealand average in terms of growth in GDP contribution from the Seafood Processing Industry with an average increase of 6.7% per annum in the period 2002-2012. By comparison, the Nelson-Tasman Region contributes 27% of the total GDP for the Seafood Processing Industry, but growth is relatively stagnant at an average of 0.9% per annum over the same period.

Figure 22: Regional Contribution to the Seafood Processing Industry 2012

District	GDP Change pa %	% of NZ in 2012
Marlborough	6.7%	9.7%
Auckland Region	4.5%	15%
Bay of Plenty Region	6.4%	7.2%
Canterbury Region	3.3%	25%
Gisborne Region	8.7%	1.7%
Hawkes Bay Region	2.3%	1.0%
Manawatu-Wanganui Region	2.8%	0.7%
Nelson-Tasman Region	0.9%	27%
Northland Region	6.5%	0.9%
Otago Region	-17.2%	0.6%
Southland Region	6.3%	6.0%
Waikato Region	1.9%	3.1%
Wellington Region	-9.0%	0.8%
West Coast Region	2.3%	1.3%
Total		100.0%

The growth in the Seafood Processing Industry in Marlborough suggests that there is comparative advantage for Seafood Processing in Marlborough. Qualitative research has shown that this growth is constrained by physical infrastructure, for example:

- a. Requirement for airport expansion to take larger, refrigerated air freight;
- b. Requirement for port expansion to allow refrigerated container transport;
- c. Appropriate business park space.

Airport expansion has now been analysed and approved. Port expansion is now completing analysis in the wake of the Clifford Bay decision, and business park space has been allocated at Omaka, though further consideration should be given to space in the Picton/Sounds areas.

At present, due to seafood farmed in Marlborough being transported to Nelson-Tasman for processing, there are inefficiencies that reduce high value GDP contribution in Marlborough, and inflate it in Nelson. At the level of the national economy, these inefficiencies may be measured in opportunity cost. In order to fully capitalise on the value of the Seafood Processing Industry in Marlborough an analysis should be undertaken to ascertain the efficiencies of relocating processing to Marlborough.

In accordance with the national strategy for aquaculture and economic development, this analysis should be broad in focus and encompass:

- a. Design and build of high technology processing plant/s.
- b. Co-located food science facilities that focus research effort on high value protein, nutraceutical and pharmaceutical compounds, and reduction-elimination of fish processing waste streams.

- c. Co-location of marine scientists to maximise environmental monitoring systems and wellbeing, species wellbeing, and harvestable bioactivity.
- d. Co-location of businesses in the manufacturing and service supply chain.

Regional Development in Marlborough

In 2005, the New Zealand Treasury presented their analysis of regional economic development in New Zealand, asking the key question: “How much does economic development at the regional level affect economic growth?”⁵ The Secretary to the Treasury, John Whitehead, noted that international and national research showed that “almost all” OECD governments pursue active regional development policies, with New Zealand being a “relative latecomer” to regional economic development.

Whitehead noted that contemporary foci in economic development favour activities that support improved economic efficiency, provision of supportive infrastructure for growth, and an emphasis on collaboration and partnerships. Of import is an emphasis on leveraging comparative advantage to achieve greater value from regional activity; along with the building of regional capability through investment in human and social capital, new technologies, and good practice in financial structures and management.

Whitehead contended that the analysis had shown that regional economic development should not be based on “pre-packaged” solutions but must be customised to each region, thus leveraging regional human and creative capital through local input and management. Whitehead supported strategic connection to national development goals that capitalises fully on regional advantage.

Accordingly, the starting point for the development of the new economic vision for Marlborough was analysis of the national Economic Growth Agenda which drives, not solely economic growth, but innovative approaches to sustainable economic development and business that focus on higher GDP per capita and an increase in annual earnings per individual in the national economy. This was followed by a statistical profile and analysis of the Marlborough regional economy, and a study on industry development and innovation within the Marlborough region.

Following a lengthy period of research and consultation, Marlborough launched its economic vision on the 1st of July 2013. Marlborough’s economic vision, **Marlborough – Smart and Connected**, focuses on a high value, globally-focused economy that capitalises fully on the regions strengths.

Over the next decade Marlborough will become a globally connected region of progressive, high quality enterprise known for our economic efficiency, quality lifestyle, desirable location and natural environment.

Marlborough will be smart and connected.

⁵ See: <http://www.treasury.govt.nz/publications/media-speeches/speeches/growthchallenge>

In order to ensure a practical and measurable approach to the development of the Marlborough economy, the vision is supported by a development framework that begins with “Smart” Governance and incorporates all facets that should be accounted for in order to plan for and implement sustainable improvement in the Marlborough economy.

Table 9: Marlborough - Smart and Connected Framework

Marlborough - Smart and Connected					
Governance	Environment	People	Economy	Mobility	Living
Inclusive Enabling Participative Transparent Strategic Connected	Attractive Control over pollution levels, forms and effects Systems for protection and care Sustainable resource management	Quality jobs Increasing incomes Increasing capital wealth Education Life long learning Diversity Flexibility Creativity Tolerance Engaged and participative	Increasing GDP per FTE Innovation Entrepreneurship Productivity Flexible labour International connections Ability to transform Ability to connect	Local accessibility National accessibility International accessibility Sustainable Innovative Safe	Health Individual safety Access to quality housing Access to quality education Access to quality employment Cultural facilities and events Sports and Recreation Opportunities for participation Social cohesion

In essence the word “smart” represents the need to drive innovation toward both productive efficiency and new value-added product development and manufacture in Marlborough. The word “connected” represents the need to focus on networking people and resources effectively locally, nationally and internationally—and the need to maintain a positive strategic influence on the national economy.

Since the implementation of the **Marlborough – Smart and Connected** vision—and in line with work conducted during the analysis and consultation phase—Marlborough has achieved some key milestones, including:

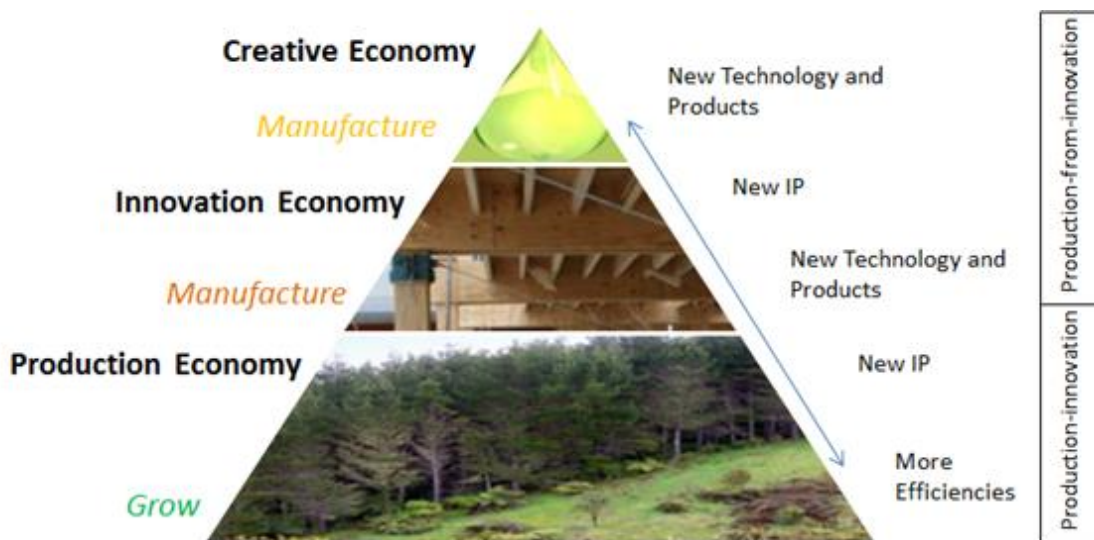
1. Completion of an innovation stocktake and design of a new business support structure (see Appendix One) for Marlborough that focuses on high growth, export and innovation.
2. Completion of the first phase of industry analysis and strategy development across eight key industries. Launch of phase two detailing the economic strategy for the Forestry, Logging and Wood Products Industries which show high value, high growth in Marlborough.
3. Launch of the new Marlborough Research Centre alliance with Massey University and the Riddett Institute, the new Food and Beverage Strategy, and the Regional Food Innovation Cluster. Projects have been identified, and are being scoped now.

4. Analysis of infrastructure including expansion of Marlborough Airport (approved), Port Marlborough (underway now), and Marlborough Roads (for high productivity vehicles).
5. Launch of a new Growth Plan (for consultation) including new space allocations for high quality business park development.
6. Discussions have been opened to assist Iwi Investment entities.
7. The launch of Smart Business Marlborough – a facilitation service that is intended to assist high growth, export and innovation focused businesses that are moving to or expanding in Marlborough to efficiently and effectively navigate the requirements of the Resource Management Act.

In the short time since engagement with industry began we have seen a marked improvement in labour productivity as businesses re-gear to be more labour efficient, and to invest in innovation, and Marlborough has significantly improved it's connectedness within the research, science and technology arena.

A key focus for Marlborough is to move to a Production-from-Innovation economy. This is to be achieved by: (1) Focusing innovation on economic efficiency in key industries; (2) Spin out of new processes and technologies from that innovation; (3) Production of new technologies from that innovation, and; (4) Focusing on innovation in that new level of production to create new processes and technologies for manufacture and export.

Figure 23: How innovation happens in Marlborough



Marlborough's vision aligns with the drive to sustainably increase both economic growth and productivity across New Zealand. In particular, Marlborough's future focus is growth in GDP, growth in GDP per employee, and growth in earnings per individual in the Primary, Secondary and

Quaternary Sectors⁶. Unlike Auckland, Marlborough does not require a drive to exponentially increase population size (and which would not align well with Auckland's Growth Strategy), but Marlborough is sensitive to population shape.

The key to Marlborough's future is better use of its resources through the application of innovative practices at the level of both production and manufacture; leading to the development of new technologies that are exportable in both manufactured and weightless states. In short, Marlborough's focus is innovation at all levels: Process, technology, organisational model, and markets; and on smart people who are well connected to the nation and the world.

⁶ It is reasonable to assume that this growth in earnings will result in positive effects on the Tertiary Sector.

Appendix One – Proposed Business Support Structure

