





Foreword

Hon David Carter Minister for Primary Industries



There is no doubt that New Zealand's national identity and economic prosperity are inherently linked to the primary sector.

The continued prosperity of our primary producers is crucial to growing the country's tradable economy and lifting the living standards of all New Zealanders.

The KPMG Agribusiness Agenda 2012 provides compelling analysis of the opportunities and challenges facing our most important economic sector. I am confident that this year's report will again be a focal point for discussion and debate.

Even with the turbulent global economy and softening commodity prices, the outlook for New Zealand primary producers is very good. Our farmers, fishers and growers are among the most innovative and efficient in the world.

New Zealand is rich in natural resources and we sit on the doorstep of the world's fastest growing region. The rising global appetite for green growth and sustainability is presenting us with opportunities we could have only dreamed of a decade ago. We are securing premium prices for our products as a result.

We must capture the potential that currently exists in global markets. The challenge facing us is to tap into the right markets to lift our earnings and reputation for quality. Certainly, there are challenges to overcome as competition from other countries steps up, but increased productivity is key to our economic prosperity.

Our country's future, like its past, has relied on primary production. New Zealand's reputation as a leader in quality, sustainable and trustworthy agricultural products is our greatest asset. We must make the most of it.

I encourage you read to this report and explore the KPMG team's insightful analysis of New Zealand's most important economic sector.

Welcome

Ross Buckley Executive Chairman KPMG New Zealand



Agribusiness remains a fundamental pillar to the economic performance of New Zealand. Little has changed to diversify New Zealand's dependency on agriculture and primary industries since our last report. In fact, as the nearly 100 industry leaders we interviewed to produce the *KPMG Agribusiness Agenda 2012* unanimously agreed, the potential for the New Zealand agribusiness sector is significant.

The time has come for clear direction on what New Zealand's agribusiness and food strategy should be to take us through to 2030. We believe a vision for what the cornerstone of our New Zealandness could evolve to in order to improve returns for the many people, companies and communities involved in the agribusiness supply chain is desperately required. Eighty one percent of the leaders we engaged with endorse our call for a clear pan-industry strategy for the agribusiness and food sector.

Many voices are calling for collaboration and debate about pre-competitive industry good strategies. We believe it is possible to improve New Zealand's competitiveness and move New Zealand agribusiness products and services up the value chain.

It is poignant that 2012 is the international year of co-operatives. With one-seventh of the world's population involved in ownership of co-operatives and nearly 100 million people employed by co-operatives, they are on track to become the fastest growing business model by 2020. As UN Secretary General Ban Ki-moon said recently "co-operatives are a reminder to the international community that it

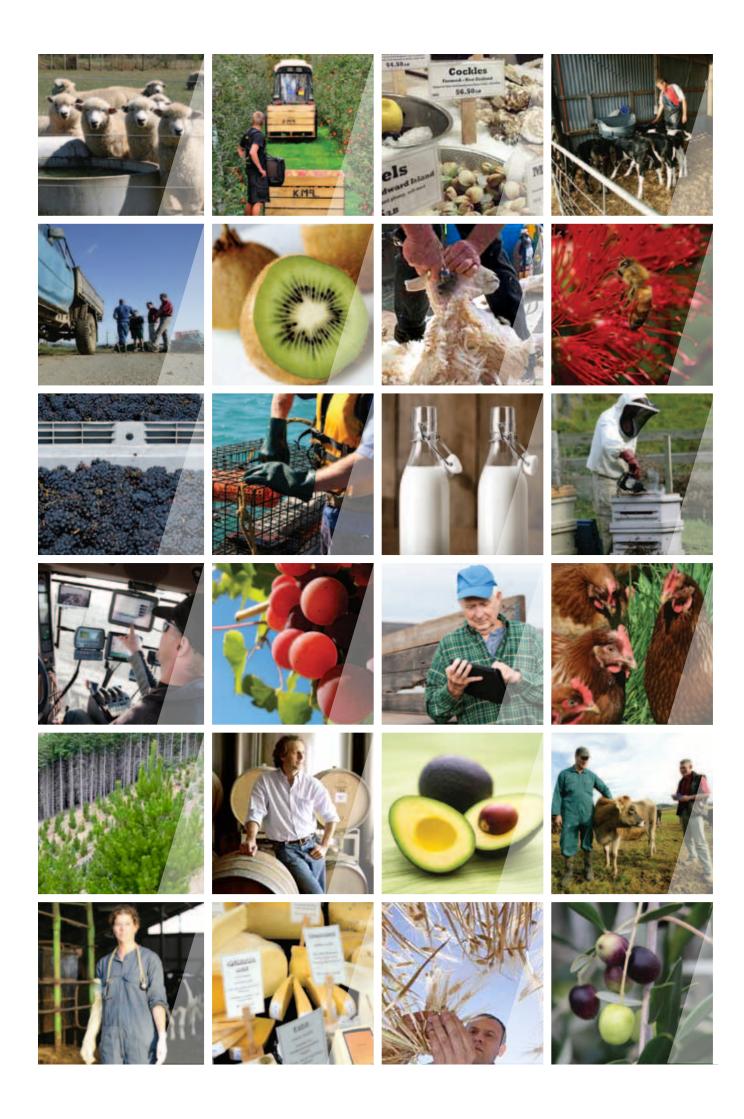
is possible to pursue both economic viability and social responsibility." KPMG believe New Zealand must take advantage of our strong co-operative foundations and invite others involved in agribusiness to collaborate in the development of a pan-industry strategy.

Undoubtedly we have the talent within New Zealand agribusiness, but we critically need a vision for what can be achieved together to enable our country to prosper.

I hope our independent report will stimulate debate about how primary industry participants could achieve more for New Zealand and is an impetus for collaborative growth. The time invested in producing the *KPMG Agribusiness Agenda* is funded by us because we believe the agribusiness sector has the potential to fuel greater prosperity for our nation.

Our appreciation and acknowledgement of the Hon David Carter, New Zealand agribusiness leaders mentioned at the back of the *KPMG Agribusiness Agenda 2012* and our 70-strong KPMG Agribusiness team for your input to this report.

The time to collaborate is now – together our future is bright.



Introduction:

People unlock our primary potential

The world does not spend much time thinking about New Zealand. The Christchurch earthquakes, the sinking of the Rena and the Rugby World Cup delivered New Zealand time in the spotlight in the last year. Beyond these major events, most people around the world will rarely - if ever – hear anything in the mainstream media about New Zealand. In reality, much of the world thinks we are part of Australia.

Despite New Zealand's lack of mainstream profile, the customers buying primary products from this country are doing so for several compelling reasons. They recognise the quality, sustainability, the unique taste and texture profiles, and most importantly, the safety of our products. They understand these attributes – not because they have seen or read about them in the media – but through the efforts of every person working in the primary sector. It is these people that unlock New Zealand's primary potential.

In the last 10 years, the world has woken up to the importance of food. The reality of feeding a world population of over nine billion people within two generations has dawned. The rediscovery of the primary sector is timely. New Zealand has once again recognised the potential of its primary sector as a key driver of the country's wealth. It is no longer considered a sunset sector.

Spreading the message to our best talent

The leaders who have contributed to this Agenda are almost unanimous that delivering on the global opportunities available to the primary sector relies first and foremost on the talent. motivation, education and commitment of the people working throughout the primary sector value chain. However, after 20 years of neglect, the primary sector has not secured its fair share of New Zealand's future leadership talent. In addition, the generation of researchers and farmers that created New Zealand's competitive advantage in pastoral agriculture are starting to retire. Urgent action is needed to provide the industry with the people it requires to achieve its potential.

This requires the primary sector to work collaboratively to deliver a compelling message about the career opportunities the sector can create for ambitious people. They may be looking to manage or own a large business, develop a science career on the edge of innovation, or experience a global career in marketing or logistics: The primary sector can deliver to all of them. There is also a role for government to send clear messages to young people about the career opportunities and the economic importance of the primary sector. One way to clearly indicate this is to provide preferential financial assistance for students looking to undertake economically valuable courses of study.

Articulating the industry's potential

Attracting the best talent also requires the industry to provide a detailed vision of the future for the primary sector, and the strategies required to deliver it. In preparing the *Agenda*, we were surprised by the strong level of support contributors expressed for the creation of a pan-industry vision and strategy. Many of the industry leaders we talked to believe that the future depends on the actions we take today, both individually and collectively.

There are many compelling reasons to emulate other countries around the world in developing a primary sector strategy, not least being the growing strategic importance of agricultural production assets. The ongoing debate around foreign investment in New Zealand's rural assets has moved the issue significantly up the political agenda over the last year.

There is also a belief that everybody will generally do better by focusing clearly on the strategic issues facing the sector; rather than the day-to-day tactical issues that consume so much time currently. Now is the time for the diverse companies that produce New Zealand's food, fibre and timber products to explore how they can work together – with the government – to make the primary sector New Zealand's pathway to prosperity.

Importantly, the strategy must not become just another report on the shelf. This will depend heavily on the passion and commitment of the people involved in envisioning the strategy. Their ability to engage, enthuse, lead and motivate every other person in the primary sector to buy into the vision will be the key to whether the initiative is transformational or theoretical

The language of collaboration

A key benefit of creating a pan-industry strategy is its ability to encourage people from across the sector to start talking the same language. If people have a consistent view of what success will look like, it is not a big step to start having 'what if' conversations and exploring the opportunities for commercial collaborations.

Our conversations in preparing this year's *Agenda* focused on opportunities for companies, industry good organisations and governments to collaborate more extensively than they have done in the past. Again, effective collaboration is reliant on people being prepared to invest the time and effort to explore opportunities. It also requires having the right forums in place for initial connections to be made.

It was recognised that sector-specific industry good organisations have a role to play in the future of the primary sector. They have the potential to be the collective voice of a sector to government and the wider population. To achieve this, they must be fully engaged with both their levy payers and organisations at all points of a sector value chain. They also have key roles to play in people development, defining sustainable production standards, and steering inter-generational innovation.

Evolving an innovation ecosystem

The reality is that New Zealand's innovation system is under-performing when compared to the rest of the world. There is no overnight fix to the issues we face. Our companies do not spend enough on innovation, and our government is expected to carry more of the burden than it should. We lack the capital to invest in research and the scientists to carry it out; people with the deep experience necessary to successfully commercialise innovation; and the advanced infrastructure (such as rural broadband) to facilitate the dissemination and uptake of innovation by producers.

Given our limited resources for innovation, we need to use the money we invest wisely to deliver the maximum value to the primary sector and the country. Our companies need to recognise the transformational potential of innovation and look to increase investment over time. Those within the primary sector should always be looking for opportunities to collaborate on innovation projects. We need to source and utilise technology available internationally to the maximum extent possible. The CRIs have an important role in helping the industry to identify this technology.

Ultimately, we need to evolve a well-capitalised innovation ecosystem built on world-class researchers that are intimately linked to the producers, processors, marketers and customers in their area of focus. We need clear lines of segregation between innovation and commercialisation, to maximise the transformational benefits of intellectual property. We need an innovation pipeline that is filled with a mix of near-to-market applied development and early stage, complex research.

It is absolutely all about people

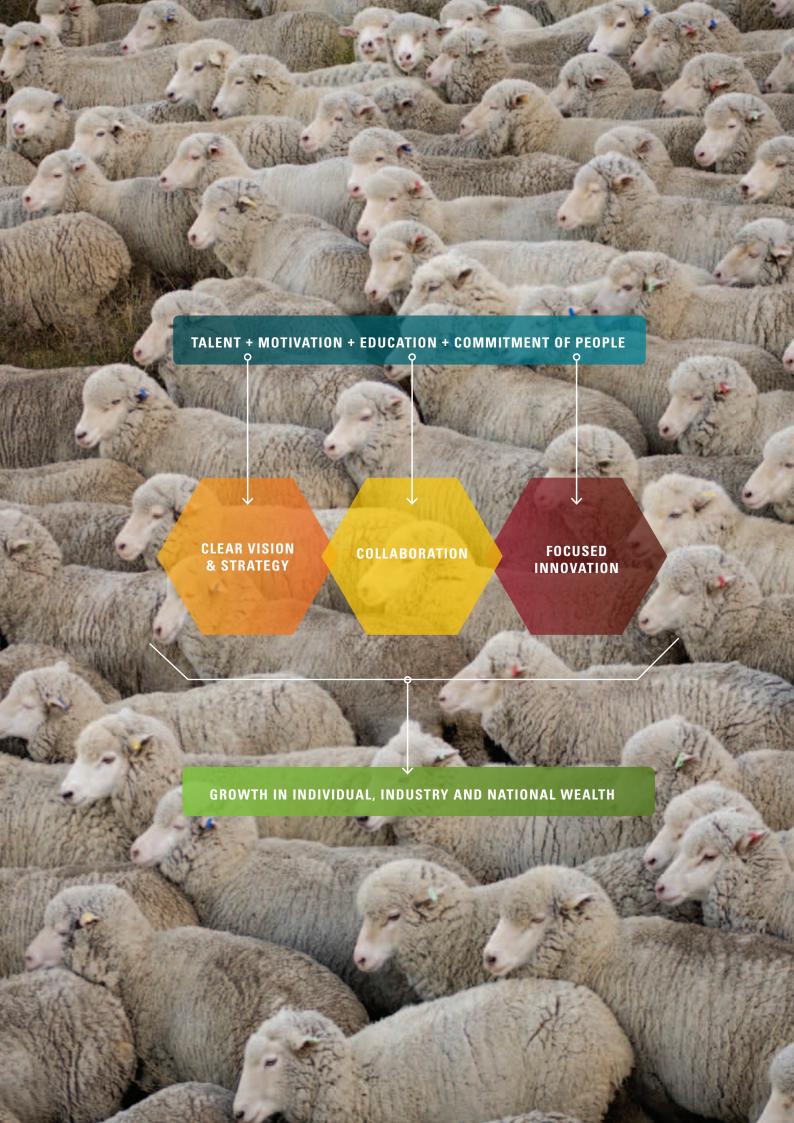
The message from this *Agenda* is very simple. The potential for the primary sector to create long-term wealth has not changed. The generation of wealth will depend on the primary sector having a clear vision for its future; an innovation ecosystem that positions it on the cutting-edge of consumer demand; and a strong

spirit of collaboration to link the strategy and innovation to commercial opportunities. None of this is possible without the best farmers, growers, fisherman, scientists, winemakers, logisticians, policymakers, bankers, veterinarians, executives, marketers, advisors, investors, extension officers; and a wider community that really understands the primary sector. It is absolutely all about people.

New Zealand is a long way from the rest of the world. People can view our distance in two ways. They can say we are too far away from anything, everything is too difficult, and simply push products to market – the tyranny of distance referred to by many of the leaders. Or they can view the distance as giving our brands a sense of mystique, adventure and experimentation; leveraging this to create a market pull for our unique products. The choice is made in the minds, in the hearts and in the actions of every person in the industry every day.



lan Proudfoot Head of Agribusiness KPMG New Zealand & Asia Pacific Report author



Field Notes 2011-2012 Review

JUNE 2011 -----

NZ MERINO BECOMES A 100% **GROWER-OWNED COMPANY**

FOR PURCHASES



FACT // 5% of the global population accounts for 38% of all expenditure on apparel and footwear

Australian Wool Innovation Limited: Oct 2011

FONTERRA REGAINS 100%

CONTROL OF RD1

ONLINE STORES

KPMG analysis

EXPORTS OF NON-MEAT BY-PRODUCTS GROWS 20% TO EXCEED NZ\$1 BILLION



FACT // New Zealand exports 2.3% of the 2.6 million tonnes of leather, hides and skins traded globally

UN Food and Agriculture Organisation, www.faostat.fao.org

MILK PRICING IS SUBJECT TO MULTIPLE INVESTIGATIONS



FACT // New Zealand-produced UHT milk retails in China for RMB26 compared to RMB6 for domestic product

KPMG Agribusiness Agenda 2012 Interviews

NESTLE INVESTS IN VITAL FOODS, A PRODUCER OF KIWIFRUIT **FUNCTIONAL FOODS**



FACT // NZ exports of processed fruit and vegetables were US\$153 million in 2010, 27.5% ahead of the prior year comprehensive online shopping solution

Ministry of Economic Development – Food and Beverage Information Project 2011, www.med.govt.nz

JULY 2011

GUINNESS PEAT GROUP'S PLANTO DIVEST 65% STAKE INTURNERS & GROWERS ATTRACTS INTERNATIONAL ATTENTION



FACT // In April 2012, primary sector companies listed on the NZX had market capitalisation of NZ\$1.5 billion, representing just 2.6% of total market capitalisation

KPMG analysis

AUGUST 2011---

AUSTRALIA FINALLY OPENS THE DOORS TO NZ APPLES, WITH TOUGH BORDER PROTECTION MEASURES

FACT // The five major rural supplies

CRT is the only chain that provides a

chains operate 254 stores across NZ -



FACT // Australian apple growers are seeking A\$21.9 million in government support to assist the industry in implementing a modernisation plan

Apple and Pear Australia Limited, www.apal.org.au

FONTERRA SCALES BACK ITS UNPROFITABLE ORGANIC MILK PROGRAMME



FACT // Cross-border trade of organic products in 2010 amounted to EUR 4.4 billion, up 13% on the prior year

Organic World, www.organic-world.net

INQUIRY LAUNCHED INTO STANDARDS ON FOREIGN CHARTER FISHING VESSELS



FACT // New Zealand has the 6th largest claimed/controlled ocean space in the world

Ministry of Economic Development -Food and Beverage Information Project 2011, www.med.govt.nz

NZ MERINO AND SILVER FERN FARMS LAUNCH SILERE ALPINE MERINO. AS A PREMIUM MERINO MEAT OFFERING



FACT // The NZ Merino PGP project is expected to add NZ\$2 billion in value to the merino sector by 2019

Primary Growth Partnership, www.maf.govt.nz

SYNLAIT MILK ANNOUNCES AN INVESTMENT IN INFANT FORMULA PLANT TO SUPPLY CHINESE MARKET



FACT // Swiss food group Nestle paid US\$11.9 billion in April 2012 for Pfizer Nutrition, an infant food manufacturer

Agence France Presse

COMMENCEMENT OF NAIT FOR CATTLE IS CONFIRMED FOR MID-2012



FACT // The EU ban on Brazilian beef imports due to inadequate tracing systems cost the Brazilian economy US\$300 million in the space of a month

National Animal Identification and Tracing, www.nait.co.nz

COMVITA REJECTS A TAKEOVER OFFER FROM SINGAPORE'S CEREBUS AS IT UNDERVALUES COMPANY



FACT // New Zealand honey exports generate highest price per tonne return in the world

UN Food and Agriculture Organisation, www.faostat.fao.org



PSA SPREADS THROUGHOUT ORCHARDS ACROSS THE COUNTRY. **DECIMATING GOLD KIWIFRUIT CROPS**



FACT // By April 2012, Psa-V has been identified on 35% of NZ kiwifruit orchards

Kiwifruit Vine Health, www.kvh.org.nz

• **« OCTOBER** 2011

NZ AGRIBUSINESS IS SHOWCASED TO THE WORLD DURING RUGBY WORLD CUP 2011

MERCHANDISE EXPORTS

FACT // 46.4% of New Zealand's total merchandise exports go to the countries that competed in Rugby World Cup 2011

KPMG Analysis of Statistics NZ data

NOVEMBER 2011 ***

WOOLS OF NZ AND LANEVE BRANDS ARE PLACED INTO A GROWER-OWNED TRUST BY PGG WRIGHTSON



FACT // The Wool Research Organisation of NZ continues to fund R&D into uses of wool, despite the loss of the wool industry levy vote

Wool Research Organisation of NZ; www.woolresearch.com



TIMBER INDUSTRY SUFFERS AS EXPORTS FALL AND DOMESTIC HOUSE BUILDING REMAINS **DEPRESSED**



FACT // The existing planted forest estate in NZ has the potential to increase annual wood availability by 40% by 2020

NZ Forest and Wood Products Industry Strategic Action Plan



GOVERNMENT PROMISES FURTHER INVESTMENT IN AQUACULTURE IF RE-ELECTED



FACT // Aquaculture is expected to account for 58% of global seafood production by 2020.

Seafood Industry Council, www.seafoodindustry.co.nz

NZ FOOD SUPPLY CONFIRMED AS ONE OF THE SAFEST IN THE WORLD



FACT // The NZ government spends NZ\$95 million a year maintaining food safety in New Zealand to globallyrecognised best practice standards

NZ WINEGROWERS ANNOUNCES A NEW STRATEGY FOR INDUSTRY GOOD ACTIVITIES IN THE WINE SECTOR



FACT // The NZ wine industry is dependent on Marlborough Sauvignon Blanc. This creates risks to the industry, should the vintage fail or consumer preferences change

DAIRY FARMER, BEL GROUP, WINS THE NATIONAL HRINZ HUMAN RESOURCES INITIATIVE OF THE YEAR TITLE



FACT // BEL Group farms 2,800 hectares in the Hawkes Bay and has best in class HR management systems for its 50 employees

SALE OF CRAFAR FARMS TO SHANGHAI PENGXIUN RECEIVES OIO APPROVAL



FACT // The Crafar transaction represented 6% of the land area sales approved by the OIO in 2011

Overseas Investment Office, www.linz.govt.nz

AVOCADO REVENUE COLLAPSE AS A BUMPER CROP FLOODS EXISTING **EXPORT MARKETS**



FACT // The supply position of the NZ Avocado industry can fluctuate significantly from season to season

• **« JANUARY** 2012

THE DAYS OF ZESPRI HORT16A KIWIFRUIT CONFIRMED TO BE NUMBERED AS IT SUCCUMBS TO PSA



FACT // Growers have been offered access to Gold G3 licenses. It will take three years for the grafted plants to attain full production

FEBRUARY 2012 • >>

TURNERS & GROWERS IS ACQUIRED BY BAYWA, A GERMAN HORTICULTURE **DISTRIBUTOR**



FACT // There have been three large horticulture acquisitions: BayWa > Turners & Growers, Direct Capital > Scales Corporation, and Maui Capital > Freshmax

KPMG Field Notes

HALAL CERTIFICATION RULES ARE CODIFIED, CREATING SIGNIFICANT MARKET OPPORTUNITIES FOR MEAT COMPANIES



FACT // The global market for Halal products is estimated to worth US\$2.3 trillion per annum, with food products accounting for 61% of products sold

New Zealand Trade and Enterprise;

BULK WINE EXPORTS FOR 2011 ACCOUNT FOR 35% OF TOTAL NZ WINE EXPORTS



FACT // NZ white wine exports in bulk formats earn an average of NZ\$2.86 per litre, compared to NZ\$8.25 per litre for bottled wine

New Zealand Winegrowers, www.nzwine.com

WET WEATHER IMPACTS ON THE EXPECTATIONS OF A BUMPER GRAIN CROP



FACT // In the 2012 planting season, arable farmers will plant over 20% more feed crops, reflecting increased demand from the dairy sector

New Zealand Trade and Enterprise; www.nzte.govt.nz



INDUSTRY SIMULATES RESPONSE TO A MAJOR FOOT AND MOUTH OUTBREAK TO TEST PREPAREDNESS



FACT // The financial impact of the foot and mouth outbreak in the UK in 2001 was estimated at more than GBP8 billion

NZ Herald; www.nzherald.co.nz



FONTERRA OUTLINES ITS VISION TO GROW VOLUMES AND VALUE BY FOCUSING ON DEVELOPING MARKETS



FACT // Fonterra's strategy is focused on growing volumes, targeting areas of high-value nutritional need and executing the plans with speed: volume, value, velocity

Fonterra Co-operative Group; www.fonterra.com





IRRIGATION NZ PRESENTS A VISION FOR MORE THAN ONE MILLION IRRIGATED HECTARES



FACT // Irrigated land in New Zealand only increased 9.4% between 2000 and 2009

National Infrastructure Unit; www.infrastructure.govt.nz



APRIL 2012

VANDALS DESTROY A CONTROLLED TRIAL OF GM PINETREES



FACT // In the 2010/11 year, ERMA received 19 applications relating to development and testing of GM technologies

Environmental Protection Agency; www.epa.govt.nz



US 'PINK SLIME' (LEAN FINELY

DEMAND FOR NZ'S SAFE

PROCESSING BEEF

TEXTURED BEEF) SCARE CREATES

FACT // NZ's predominately grass-fed cattle produce leaner beef naturally, so there is no requirement to use processed products like LFTB

Meat Industry Association; www.mia.co.nz

MAY 2012

BOOT CAMP FOR NZ'S SECTOR LEADERS



FACT // 100% of industry leaders surveyed felt that more forums for cross-sector collaboration would be beneficial

KPMG Agribusiness Survey 2012



SINGLE BRAND RAISES MUSSEL PRICES IN CHINA



FACT // New Zealand Greenshell Mussels is a commercial collaboration – between Sanford, Kono NZ, Sealord and Greenshell New Zealand – to supply mussels under a single brand, Pure, in China

Pure NZ Greenshell Mussels; www.purenzgreenshell.com

STATE OF THE NATION: New Zealand's primary sector

We opened last year's KPMG Agribusiness Agenda with the statement that New Zealand agriculture was in a historically good space. We saw great opportunities in international markets as demand for safe, sustainable, high-quality food continues to grow around the world.

Nothing we've heard during the 2012 interview round suggests that the size or scale of the opportunities available to the industry have changed. So what has changed? There is now a clear realisation that the world will not spoon feed us opportunities; that nobody owes us a living.

AGENDA RECOMMENDATIONS

- Take all necessary steps to accelerate the delivery of rural broadband infrastructure so producers can embrace future technology solutions that drive productivity improvement.
- Create broad collaborations of agricultural entrepreneurs, processors, government and long-term capital investors to facilitate the development of commercial scale irrigation projects.
- 3. Prioritise the funding of student loan schemes to direct students to courses of study that are most valuable to the economy.
- Encourage industry-wide collaboration to find sustainable solutions to secure the long-term economic contribution made by New Zealand's bee population.
- 5. Define the baseline sustainability standards producers are required to meet to maintain the natural reputation currently enjoyed by New Zealand primary sector products globally.
- 6. Establish a stable legislative platform to provide certainty to foreign investors looking to make an investment in primary sector assets in New Zealand.

Rather, success will be earned 'customer by customer' through the hard work, imagination and passion of talented people. The kind of people who maintain a wider perspective of the world we live in – while producing highquality food, fibre and timber products that embody the best of New Zealand's resources and abilities. They are willing to collaborate when it's commercially appropriate, and they continually innovate to exceed their customers' expectations. These are the people who'll be successful in creating value for themselves, their stakeholders and the wider New Zealand economy.

This shift in perspective is critical to realising the global potential we've discussed in the last two Agendas. It is also timely – as the recent feedback from industry leaders suggests that market conditions in the short to medium term are unlikely to be as favourable as we have enjoyed in recent years. The 2011/12 year has clearly demonstrated the sheer volatility that lies at the heart of an agricultural-based economy, with various sectors being impacted in dramatically different ways.

Cooler temperatures and regular rain across much of the country over summer has provided some of the best grass growing conditions in recent memory, and driven strong production in the pastoral sectors. Yet the very same climatic conditions have made life much more difficult for arable farmers and grape growers. The Avocado industry achieved a record crop, only to see export prices collapse as the key Australian market was over-supplied. The kiwifruit industry has managed to identify a path back to prosperity from the devastating Psa-V incursion that hit the industry in 2010.

The financial outlook has been similarly changeable. The exchange rate has continued to apply pressure on the margins of exporters, while the prices of key commodity exports have all corrected downwards over the last year.

On the positive side, many industry leaders have reported a strong focus by farmers and growers on paying down debt over the last couple of seasons.

There are a number of factors likely to impact farm gate earnings in the next couple of years. These include: attempts by the Chinese government to cap their speed of growth; the ongoing debt issues being experienced in Europe; and increasing global product supply coming on line as farmers respond to the strong prices achieved over the last two years.

The prospect of returns below breakeven levels in the coming season raises the spectre of more business failures across the industry. There has also been a slowing of investment in innovation projects, which may impact on future productivity.

Our conversations with industry leaders have highlighted the need for the sector to take a longer term view. Yet tough financial times are driving many companies, by necessity, to take a shorter term focus in order to preserve cash flow and ensure their survival.



Our industry leaders highlight their priorities

In preparing the 2012 Agenda, we've again collected both qualitative and quantitative commentary from industry leaders. Comparing these findings against last year has provided some interesting insights into how thinking is evolving across the primary sector, and where priorities are shifting.

Respondents to the KPMG
Agribusiness Survey were invited to rank a series of industry priorities on a scale from 1 to 10 (with 1 being an issue of no priority at all, and 10 being an urgent priority requiring immediate implementation). Some of the questions asked in 2012 did vary from those in 2011 to maintain their relevance in light of industry developments. Where the questions addressed similar issues, year-on-year movement comparisons have been made.



So what are the top 10 priorities for leaders in 2012?

The message was clear: an uncompromised biosecurity environment should be a top priority for both government and industry. Maintaining a world-class biosecurity system to protect New Zealand's economic interests was rated as a nine or 10 priority by 83 percent of respondents to the survey. It is not surprising this remained the top priority for industry leaders, given the challenges currently being faced by the kiwifruit, aquaculture, potato and bee sectors. It has again been reinforced by the discovery of a Queensland fruit fly in Auckland during May 2012.



Maintaining a world-class biosecurity system

There remains concern as to whether enough is being done to sufficiently protect the border. This was best highlighted by the importation of strawberry planting kits from China with relative ease, and with no questions being raised by Biosecurity NZ.

While most agree on the fundamental importance of maintaining New Zealand's biosecurity, there still remains a wide range of opinions over the Government Industry Agreements (GIAs) introduced in the reforms to the Biosecurity Act passed last year. GIAs have been introduced to create structures under which the government and an industry sector can work together to: identify priority organisms; make consensus decisions on how to respond to threats; and share the costs of the response. The view of sectors towards GIA structures have not changed significantly during the year. Some sectors see a GIA as an opportunity to gain greater control over their own destiny; while others view the reforms as little more than an attempt to reduce government biosecurity funding, and pass the cost of protecting New Zealand's economic future back to the industry. The response to the Psa-V incursion has demonstrated the benefits of a co-ordinated industry, grower and government approach – but it remains to be seen whether other sectors would achieve the same

It's widely accepted that integrated management of biosecurity threats makes sense for the industry. The Government needs to provide clear assurance that it has no long-term plan to reduce its financial commitment to protecting New Zealand's borders – and it has not yet categorically provided this.



Pastoral agriculture relies on bees; yet there is a real prospect that the bee population could decline catastrophically in the next decade. Confirmation that Varroa is present in Southland means the disease is now present nationally. The mite is also developing resistance to the chemical control methods that beekeepers have used to manage the pest since it was identified in June 2000. In addition to dealing with Varroa, the sector also has a long-term control programme in place against American Foulbrood, and may still have to deal with colony

collapse syndrome that has decimated bee numbers around the world.

It was estimated some years ago that pollination by honey bees, together with the export of honey-related products, contributes over NZ\$5bn to New Zealand's economy each year. It is likely to be far greater than this today. Collective action is required to preserve the contribution bees make to the economy. The challenge cannot be left to beekeepers to address on their own.



Robust practices to support NZ's 'clean, green' image

New Zealand companies generate significant financial benefit from our intangible 'clean green' image each year. Yet it was clear from our conversations that we need to do much more to protect this benefit in the longer term. As a small country at the bottom of the world, global attention rarely focuses on New Zealand. The relatively rare cases where our farmers do fail their animals, their environment and their industry will always attract more local media attention than the numerous best-practice stories on the sustainable management of the environment. It is the failures that will play out more extensively in the glocal media. Consequently, we cannot afford failures.

There is a strong view among industry leaders that the sector must clearly define its baseline standards for sustainable production. A failure to define and enforce robust standards means we are only ever 'one rogue producer away' from immeasurable market damage.



All parties on the value chain working towards a common goal

We can say with certainty that industry leaders want opportunities to collaborate for commercial benefit. And collaboration is happening – be it industry good organisations initiating joint projects, companies exploring joint innovation opportunities through the Primary Growth Partnership, or producers using field days to share best practice. Yet there is a long way to go to achieve the level collaboration from producer to customer that's required to consistently meet customer needs around the world. The connection between farmers and the processors still creates challenges in the meat sector, for instance, while a lack of scale limits the potential of many of our horticultural product groups. The kiwifruit sector has been successful because growers believe they 'own their own future' through their involvement with ZESPRI. The challenge for other sectors is how they replicate this level of engagement to align their sector to its market.



Investing in irrigation infrastructure and water storage

The government made its first grants under the Irrigation Acceleration Fund (IAF) during 2011. Despite this, we got a clear message that New Zealand still does not fully recognise the economic and social benefits that more extensive irrigation infrastructure can bring to our economy. Proposed schemes are too often small-scale, hobby projects being run by passionate farmers; lacking a wider vision and the necessary governance skills to bring a project to fruition.

Water has the potential to unlock huge production benefits, but these can only be realised if irrigation scheme plans are built on broad collaborations of agricultural entrepreneurs, processors, regional government and long-term capital investors. New Zealand needs schemes to be developed by organisations with the requisite commercial skills – in close co-operation with the wider community - rather than by groups of individuals for private good. Ultimately, the benefits for a region should make the project so compelling that its realisation is fast-tracked, and the economic and social dividends of the project are secured at the first available opportunity.

2011 RANK **16**

High-speed rural broadband network

There is a real urgency about improving the speed and coverage of the rural broadband network - the current infrastructure is widely viewed as an impediment to productivity improvement. Continuing the status quo is likely to result in lost opportunity to the primary sector. This is because improvements in connectivity may lag behind the availability of technologies with the potential to drive a step change in agricultural productivity with a resulting impact on industry earnings. Technologies which collect, integrate and analyse data from across a production system are expected to become widely available in the next few years; however farmers will only be prepared to invest in these innovations if the user interfaces are fast and reliable. To a large extent, this will be dependent on the quality of the broadband infrastructure in the region.

The Government's Rural Broadband initiative, implemented by Chorus and Vodafone, will deliver faster broadband connectivity to around 252,000 rural households and businesses across the country. Unfortunately, this is currently scheduled to take at least five years to deliver.

Industry leaders have expressed concerns that the Government's focus for broadband remains on delivering more entertainment options to urban voters, rather than leveraging their investment to create economic value for New Zealand.



1N 2012

2011 RANK **6**

Equipping future leaders to take governance roles

A theme throughout our conversations centred on developing people with the passion, vision and insight to take on governance roles in large, complex and global businesses in the future. Strong governance is built on a fundamental understanding of the environment that an organisation is operating in. Therefore we need to be equipping more people in the industry to look beyond the day-to-day and understand their organisations' place in the world. This may be through programmes such as Pathways in Agriculture (recently launched by the Primary Industry Capability Alliance), university led programmes (such as FAME), or more in-depth immersion scholarships (such as those offered by the Nuffield Foundation). Importantly, it requires current leaders to invest in individuals who show interest and acumen, so there is a pipeline of talented people ready to take the industry into the future.



1 9.5% IN 2012

2011 RANK **11**

Completing high-quality trade agreements

There are industry concerns over whether the Government is currently focused on 'volume over value' in respect of the wide range of trade negotiations in progress. While the need to gain increased market access is critical for a small exporting nation, there was a clear message that it should not be market access at any price. There should be more focus on three key areas: i) the benefits we are able to extract from any particular agreement over the long-term ii) how it will handle the challenges that undoubtedly will arise in any trading relationship, and iii) ensuring it embeds New Zealand companies into the markets that we gain access to.





Integrating innovation systems with customers

In too many primary sector companies, the innovation teams are aligned to production – with a primary focus on doing things better in the factory rather than in the market. Linking innovation teams to marketing, and making them client-facing, will help companies to build closer relationships with international clients and deliver solutions that are more closely aligned to the lifestyle trends of the ultimate consumers.

As companies achieve success, it puts greater pressure on them to innovate harder and faster to retain a market leadership position. Market innovation is extremely expensive in comparison to delivering a commodity business model. Having deep market understanding and insight is critical to ensuring that the investment is directed into the opportunities that will generate the best return on investment.

10 0.5% RANK 1N 2012 9

Creating brands to tell NZ's provenance story

Tourism New Zealand has told the world a compelling story about the country over the last decade. Crystal clear waters, soaring mountains, the might of the All Blacks, and the land that best personified Middle Earth. In reality, there are many other countries and regions around the world that can tell equally compelling stories of natural wonder and human achievement. The provenance story for New Zealand food and agribusiness exists - but the industry has not put nearly enough effort into telling the story in a consistent and compelling manner. What differentiates New Zealand product from product from other regions with similar natural advantages? The real story we should be telling is about: i) the safety and quality of our products ii) the unique flavours and textures that our farming systems create, and iii) the efficacy of the way our products are produced. The key is to combine New Zealand's compelling natural story with the provenance of the products in a brand (or brands) with consumer appeal. This will allow our producers and organisations to better capitalise on New Zealand's existing brand values that are respected by the rest of the world.

Unexpected declines

We were surprised that two of the priorities - spending levels on R&D, and implementation of effective extension mechanisms - declined in significance to industry leaders in this year's survey.



Implementing effective extension mechanisms for innovation

Another insight arising from our conversations was that there is no shortage of innovation available to farmers and growers to implement in their production systems - just a lack of awareness or incentive to do so. Consequently, the fall in priority attached to this rating in the 2012 survey was unexpected. When the financial benefits of implementing an innovation are presented to producers in a compelling way, adoption appears to be more rapid. (The arable and poultry sectors were highlighted as having quick innovation-to-adoption cycles). The days of traditional face-to-face extension being the primary method of communication are now gone; industry good organisations and other businesses now have multiple channels to communicate to producers about innovation. The challenge is how to get the message across in a compelling way that stands out in a sea of information.



R&D spending at or above international average levels

It is widely acknowledged that New Zealand is under-investing in innovation. We explore New Zealand's innovation systems in significant detail later in this Agenda. However one industry leader challenged us to think about investment in innovation from the perspective of a dairy farmer. It is possible to argue that their business is making an investment in R&D at or above international levels through a range of different measures. For example, their industry good levies (to both DairyNZ and Beef+Lamb); through the investments their cooperative companies are making in R&D (which is withheld from co-operative share returns); and through paying taxes to assist in funding government investments. The issue with R&D may be more about how the money is being spent, rather than whether enough is being spent.

What priorities ranked lowest in the survey?

The survey only seeks the opinions of leaders on issues we consider to be of significant importance to the industry. But the flip side, or those issues which are seen to be of comparatively lower significance, can also be telling.

The two most emotionally charged issues facing the sector at the current time - foreign investment in rural land, and adoption of genetically modified technologies - received the lowest priority rankings. This possibly reflects a belief from industry leaders that investing time and effort in these areas is unlikely to achieve much. This is because debate on these matters is rarely based on scientific fact or economic reality, but subjective opinion and political dogma. It is also interesting that industry leaders do not consider the debt levels the sector continues to carry to be a high priority for resolution. This is despite Reserve Bank data indicating the level of debt has not decreased significantly since the end of the global financial crisis.

23 11.3% RANK IN 2012 27

Restricting foreign investment in agricultural land and assets

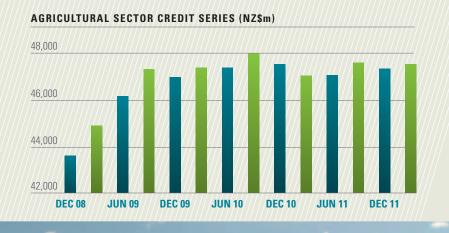
The sale of Crafar Farms has kept foreign direct investment (FDI) in New Zealand agricultural land top of the news agenda for the past year. The uncertainty around the criteria an overseas investor needs to meet in order to invest in land will impact on potential investors. Naturally they want a certain, stable environment. It is significant that the debate has focused on Chinese investors rather than the British, German, American or Canadian groups that have acquired agricultural land in New Zealand over the last year. This tends to suggest the debate has been driven by fear of the unknown, rather a staunch belief that New Zealand gains no benefit from FDI. As one industry leader put it to us: if the debate is not resolved soon and FDI dries up, this will have a material impact on land values and a consequent impact on debt levels the banks can advance.

22 \$\Pi\$ 5.6% | \$\frac{2011}{RANK}\$ **24**

Initiating field trials of cisgenically modified cultivars

Previous Agendas have highlighted the need for a mature conversation around the use of genetic technologies in our farming systems. The reality is that there is little discussion taking place on this issue at the moment. Most in the industry have put it in the proverbial 'too hard' basket. Meanwhile, the rest of the world is talking in detail about these technologies. It is generally agreed cisgenic modification is less of an issue, as natural selection would achieve the same outcomes over a longer timeframe. The potential economic and environmental benefits from the pasture cultivars being developed by New Zealand scientists could be significant. However we are no closer to proving whether the benefits can captured, the environment protected and our markets maintained, than we were this time last year. The growing global demand for food makes this a critical debate, and we have an obligation to at least consider it openly.

Agricultural credit in New Zealand has averaged \$47.3 billion over the last 12 months





IS DEBT DELEVERAGING REALLY OCCURING?

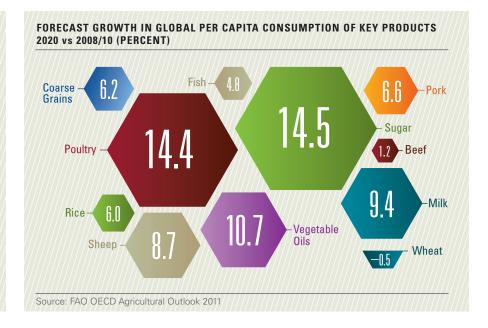
Conventional wisdom since the global financial crisis (GFC) is that farmers and growers have been applying strong farm gate earnings to pay down debt. However, a review of Reserve Bank of New Zealand data shows no evidence that the level of debt carried by the rural sector has actually reduced. This poses an interesting question: what has happened to the debt that has been paid off? All the banks have noted that customers have been deleveraging, but those with some balance sheet capacity have been prepared to

make strategic acquisitions when the price is right. The deals being done have been at significantly lower gearing levels than those seen in the period leading up to the GFC. The reported credit figures are also likely to have been impacted by the reversal of impairment provisions that were carried against nonperforming loans in the immediate aftermath of the GFC, which have been released as the accounts have reduced arrears.

What do we know about the future?

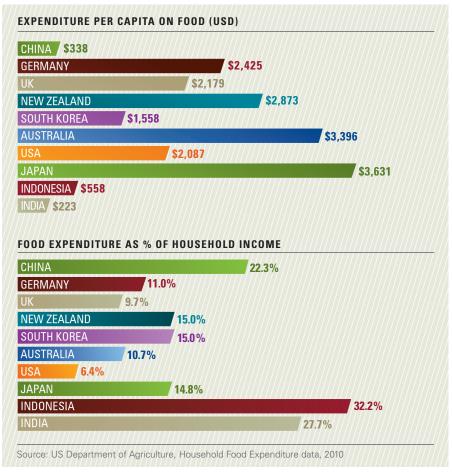
What the world eats is changing.

The weighting of global food production towards the traditional proteins eaten in the Western world will reduce as we deliver food to the growing populations in Asia, Africa and South America. KPMG Australia demographer Bernard Salt has termed this the 'Bok Choy effect'. Companies need to examine their production to ensure it meets the needs of export customers and an evolved domestic pallet.



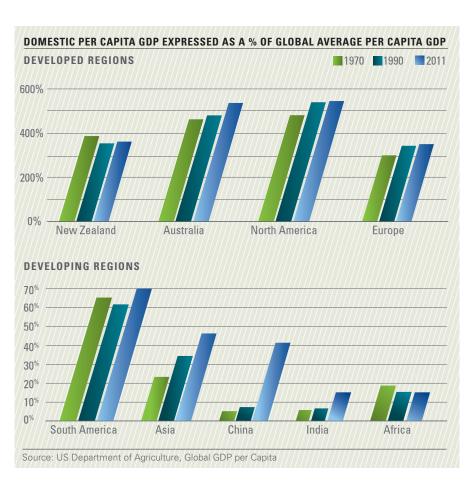
The debate over the price of food, particularly milk, which has rumbled through 2011 has missed a critical point.

Our food is comparatively inexpensive from a global perspective, and its cost is reflective of the production standards we set. The more significant issue is that per capita spending on food in our key growth markets is far lower, and those consumers are much more susceptible to changes in price.



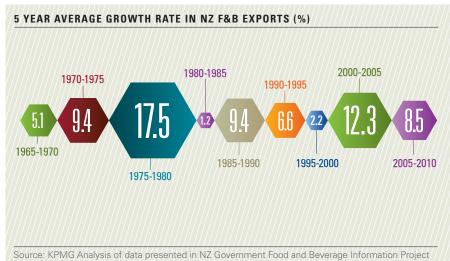
Wealth is growing in Asia but it's still below average.

The average per capita GDP for Asia (including Japan / South Korea) remains only 47% of the global average. This implies it will take a long time for our growth markets to achieve the same level of affluence as our traditional markets. The point was raised many times: when thinking about the future, we cannot ignore the customers we already have who can pay a premium now rather than later.



New Zealand has failed to achieve a stable growth profile in food and beverage exports over the last 45 years.

The profile reflects movements in commodity price cycles and fluctuations in exchange rates which says growth has come more from market trends than our own initiatives. Greater control of the sector's future, rather than decades more of the same, was a key driver for industry leaders wanting to do things differently in the future.



FutureThinking.co.nz FIELD NOTES 2030

Search.

Tuesday 15 May, 2030 10:29 AM NZT Auckland: 17° 10°

Change location

DAIRY

PEOPLE

RED MEAT

FOOD SAFETY

HORTICULTURE

WATER

KIWIFRUIT

FORESTRY

ASIA



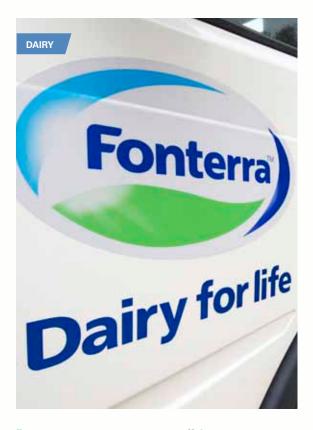
'New Zealand Primarily' gets a new look to take it into the next decade

The Prime Minister last night unveiled a new brand look for New Zealand Primarily, the primary sector branding initiative launched over 15 years ago. More than 95 percent of primary products are now exported under the scheme, which certifies the products have been produced in accordance the Primary Production Charter.









Fonterra announces two new offshore farming initiatives

With Fonterra's announcement of new dairy farming joint ventures in the Ukraine and Zimbabwe, the farmer-owned co-operative is now producing milk in 24 countries. Commenting on the deal, a spokesman noted that the co-operative will now source around 80 percent of the milk it trades from offshore, while continuing to create value for its New Zealand-based shareholders.



Largest graduating class yet for professional farming qualifications

The latest group of farm managers to be admitted to the New Zealand Professional Agriculture Leaders Institute is the largest to date, bringing the number of gualified Institute members to over 8,000. The 18 nationalities in the group reflect the international reputation of the qualification. The farm managers have completed a three-year programme, which includes a two-month overseas immersion trip.



The Food Safety Coalition secures US\$5 billion contract in India

The Food Safety Collation has won its largest ever contract to redesign the quality assurance systems and provide verification audits for over 10,000 local dairy companies across India over the next seven years. This comes five years after the government merged its food safety and verification businesses into the Food Safety Coalition and provided farmers with the opportunity to invest.









New Zealand's meat marketers consolidate abattoir operations

In the most radical step change in the meat industry in decades, eight of New Zealand's meat marketers confirmed rumours they will be consolidating abattoir operations into three regional mega-sites across the country. The marketers will continue to perform further processing and packaging in their own facilities to meet the needs of their own customers.



Meal-ready solution delivers UK Innovation Award

'The Fresh Fries' range of chilled potato products, developed out of the Global Potato PGP, has been awarded the supreme **UK Food Innovation** Award. Providing consumers with authentic potato delicacies in their home, the range was recognised for significant innovation in food technology and packaging. It's being retailed in over 4,000 UK supermarkets, despite being around 35 percent more expensive than frozen equivalents.

POST A COMMENT | READ (24)

H NEWSBOOK



Milestone reached in multi-billion dollar **Canterbury water scheme**

The regional water initiative in Canterbury has reached a key milestone as the farm containing 250,000 hectare of irrigated land was connected to the network. Established after the 2010 and 2011 earthquakes in the region, the project is a public private initiative between the Government, Canterbury Council, dairy companies, NZ Super Fund and around 20,000 Canterbury residents and farmers.



Snapper: caught in the Hauraki Gulf this morning, on a table in Shanghai tonight

The New Zealand Seafood Logistics initiative has delivered the first batch of fresh Hauraki Gulf Snapper to restaurants in Shanghai – a day quicker than the product usually gets to supermarkets in Auckland. The sustainably caught fish is transported alive to China, using the latest technology and a tightly integrated supply chain, and is demanding a huge premium over other seafood offerings.



New Zealand secures its 20th billion dollar agri-multinational

Latest financial results show there are now 20 New Zealand agribusiness companies making NZ\$1 billion a year or more in export sales. The wine and aquaculture sectors have joined dairy, red meat, poultry, kiwifruit, horticulture, fishing, honey and seeds as industries with a billion dollar exporter. The success is attributed to greater collaboration throughout the industry and clear alignment to customer needs.



New cultivars deliver more nutritional benefit than ever

ZESPRI has launched its latest range of new cultivars which orchardists will be licensed to grow around the world. The four cultivars, including a world-first purple fruit, have proven nutritional benefits to consumers, particularly in relation to bone and digestive health. Expected to be in supermarkets by mid next year, they will be promoted to customers aged 50-plus.















Asia regains mantle of global economic powerhouse

Thirty years into the Asian century and the mantle of global economic powerhouse has been returned to Asia by Europe and the United States. While growth rates have slowed from the levels seen early in the century - China, India, Indonesia, Japan, South Korea and Vietnam now all feature in the list of the world's 20 largest economies.



Virtual marketplace creates global shop front for NZ innovation

Launched last night, a new virtual marketplace portal will allow agricultural technology companies to communicate directly with customers around the world. Customers can review detailed performance data for the technologies generated from trials in 400 farming systems worldwide. This industry initiative is expected to increase exposure of New Zealand companies to domestic and international markets.





POST A COMMENT | READ (46)

■ NEWSBOOK



New Zealand wineries abandon the 750ml bottle to meet customer requirements

We no longer have to buy wine in the standard 750ml bottle, thanks to innovative New Zealand wineries. New Zealand led the global adoption of the screw cap 30 years ago and is now experimenting with a range of new product delivery options - including a club-sized 300ml bottle, a couple-sized 500ml bottle and a litre-sized box for those exploring the outdoors.



Timber construction grows in popularity as wood supply expands

Global recognition for Christchurch's iconic engineered timber cathedral has seen demand for New Zealand-produced products more than double in the last two years. This growth has enabled the timber sector to significantly scale back the export of whole logs and process more than 80 percent of the annual harvest in New Zealand. This is creating new jobs and securing significant increases in profitability throughout the supply chain.

POST A COMMENT | READ (51)

THE CASE FOR AN INDUSTRY STRATEGY

Our Field Notes from the year 2030 report on some exceptional achievements for New Zealand's primary industries. While they are fictional scenarios, they are not beyond the realms of possibility.

In fact, they are all based on visions that today's leaders have for the future of the industry. These visions are compelling – as are the potential benefits. So the question becomes: how do we get from here to there?

What would it take for New Zealand companies to deliver these kinds of successes in 20 years time? Would some form of national primary sector strategy or vision help us achieve that? Do we need a route map to the future? Recognising the importance of the industry to New Zealand, KPMG is committed to playing our part in the development of a pan-industry strategy. We will continue to work to create opportunities for industry leaders to meet, network and discuss opportunities around the future of the primary sector.



AGENDA RECOMMENDATIONS

- 1. Develop a national primary industry strategy with industry and government working together. This should encompass a vision for the wider industry and the necessary actions to implement it; as well as explore the need for an industry-wide brand or integrity mark.
- 2. Increase the connectivity between urban communities and rural New Zealand. This may include expanding Farm Day programmes, organising more events in urban regions that connect with the primary sector, and using media to highlight the realities of modern production and the benefits created by the industry.
- 3. Explore opportunities to create an umbrella body or 'green table' that could provide a unified industry voice to government and the wider population. The cross-

- sector voice will reflect the position that is best for the long-term future of the primary sector.
- 4. Analyse the likely impact of the changes in CAP on global agricultural markets; with the goal of enabling appropriate planning and investment to mitigate the impact on New Zealand's primary industries.
- 5. Encouraging industry leaders to connect regularly with those in other sectors, in order to spark new ideas and opportunities. Industry good groups could have a role in facilitating this.
- Investigate opportunities to supply customers with a virtual shopping basket, linking New Zealand-produced products with other key ingredients sourced globally.

What is the current state of collaborative activity in New Zealand agriculture?

The view of industry leaders on industry collaboration was fairly consistent. They believe there is not enough collaboration. And when it does happen, it's often reactive rather than proactive. So what are the barriers or challenges to effective collaboration?

An extensive range of challenges were identified, many of which were considered to be historical and entrenched. For example, there's a 'them and us' feeling from smaller industry sectors dealing with the dairy industry. There is the inability of individuals to leave their self-interest at the door in searching for the best solution. And there are companies failing to recognise the synergies that collaboration could deliver.

There were overly-ambitious initiatives, launched with a big bang but only to fizzle out rapidly when the goal of being 'all things to all people' became unachievable. Add to this a widely-held view that there is a lack of appropriate forums for collaborative opportunities to be explored, and the limited time leaders have to spend reflecting on wider issues beyond those facing their own organisation. All together, the situation could be viewed as fairly dire.

On a more positive note, there are areas where collaboration is occurring. Individuals, companies and sectors are sharing ideas and generating opportunities to create value for themselves and the economy by starting 'what if' conversations.

These conversations often happen informally, or as a by-product of another initiative. It may even be focused on peripheral activities to core business. But the fact remains, when people can see mutual commercial benefits they are prepared to invest in a collaborative activity – because it makes commercial sense to do so. This has been demonstrated by the wide range of organisations that have been

prepared to join into consortia and seek government co-investment in Primary Growth Partnership (PGP) schemes.

There is no overarching strategy for the industry. Yet there is a wide spectrum of initiatives driven by organisations from government to individuals that contribute to the growth and development of New Zealand's agricultural sector:

Government-led initiatives

The government is well-placed to encourage collaborative behaviour, given that it can direct funding towards projects that deliver wide benefits to the economy. The current Government maintains a range of programmes that are used to support industry initiatives - including the Irrigation Acceleration Fund and the Sustainable Farming Fund – as well as providing direct support to businesses looking to grow export market opportunities through New Zealand Trade and Enterprise (NZTE). The Food and Beverage Information Project, led by the Ministry for Economic Development (MED), is developing a set of resources that provide a comprehensive analysis of New Zealand's food and beverage industries. The aim is to support companies looking to grow and expand.

Issue-based initiatives

Groups of interested parties are occasionally brought together to develop a collective response to a specific issue. The most high-profile of these in recent times is the Land and Water Forum. This brought together a wider group of organisations, from

within and outside the agricultural industry, to develop a shared vision for better water management in New Zealand. During our conversations with industry leaders, we became aware of a range of single-issue focus groups which are currently active, including a group focused on the reduction of agricultural greenhouse gases.

University-based initiatives

Universities are natural collaborators in primary sector initiatives, given their commercial independence and their access to research resources. A recent example of university and industry collaboration was the establishment of the Centre of Excellence in Farm Business Management. It is a joint venture between Massey and Lincoln Universities, with funding provided by DairvNZ.

Sector initiatives

Individual sectors have developed strategies with significantly different levels of detail and focus. The Dairy sector strategy has been developed by DairyNZ, and is focused on the work the organisation performs in supporting farmers to improve their on-farm business. The Red Meat Strategy, developed by Beef+Lamb and the Meat Industry Authority, covered more ground and highlighted the strategic opportunities in the areas of stock procurement and co-operating in market.

Federated Farmers initiatives

The unique position of Federated Farmers as an independent representative of the farmer population makes the organisation an important collaborator in many pan-industry initiatives. Many conversations noted the important role Federated Farmers play in addressing a range of issues; including regional plans, water management and farming standards.

Company strategies

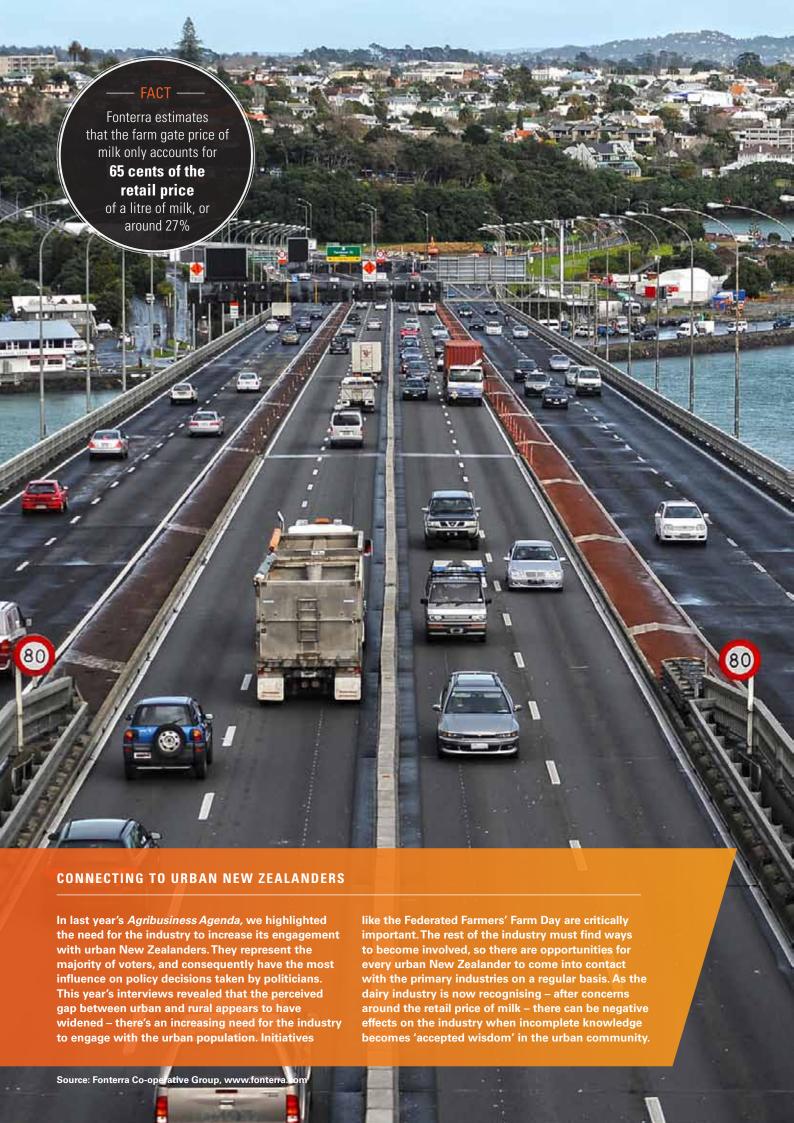
Larger companies in the sector have developed their own strategies for driving their business forward and delivering sustainable growth in shareholder wealth. The most recent and high-profile example was the new strategy announced by Fonterra in March.

Individual initiatives

There is also a range of informal networks and groups that exist around the country, providing opportunities for people to share information and ideas. Many felt these informal connections and networks deliver the most effective results; as the lack of structure creates an environment where people are comfortable to share best practice and explore frontier opportunities.

The low level of connectivity between rural and urban New Zealanders remains an area of significant concern for industry leaders. They perceive that the gap between the two communities continues to grow. Having a good understanding between the communities is significantly more important to the rural community than to its urban counterpart. The rural community needs the wider population to understand the contribution agriculture makes to the economy; and to recognise that in order to generate those benefits, there is an unavoidable impact on the environment. Understanding this trade off will provide for a more open conversation between the two communities. There needs to be a conversation around the extent of the 'license to operate' the wider community is prepared to give to the agricultural sector, and the safeguards they expect the industry to employ to protect the environment.

The relationship between the agriculture and tourism sectors was raised in a number of conversations. Many tourists come to New Zealand to experience the scenery, enjoy the food and drink the wine. Therefore the tourist sector depends heavily on a responsibly run primary sector to protect the environment and reinforce the 100% Pure NZ brand. There is a view that both industries could generate benefits from developing closer relationships – both from providing visitors with deeper and more realistic agricultural experiences, and promoting New Zealand's food and beverage products more effectively to those same visitors.



What have other countries done to plan for the future?

New Zealand is not the only nation without a formalised pan-industry strategy for food and agriculture, but there are a growing number of countries that are developing plans. Strategies are being developed in response to growing concerns around long-term food security, and expectations of significant changes in producer subsidies as governments implement spending cuts and austerity measures in response to the continuing economic uncertainty.

Ireland

The Irish Government launched a national strategy, Food Harvest 2020, in February 2010. The aim was to provide the industry with clarity of vision and clear action plans to enable the agrifood, forestry and fisheries sectors to contribute to Ireland's economic recovery and long-term growth.

In 2010, the British Government launched its first national food strategy in more than 50 years. Food 2030 set out a vision for the national food system and the steps necessary to reach the goals. Their vision was for a food system where consumers can choose and afford healthy, sustainable food; with the demand being met by profitable, competitive, highly resilient primary sector businesses backed by first-class research and development.

Australia

The increase of overseas investment in Australian agricultural assets prompted the Australian Government to start developing a National Food Plan during 2011. It is intended to ensure that government policy settings are aligned to fostering a sustainable, globally competitive, resilient food supply that supports access to nutritious and affordable food.

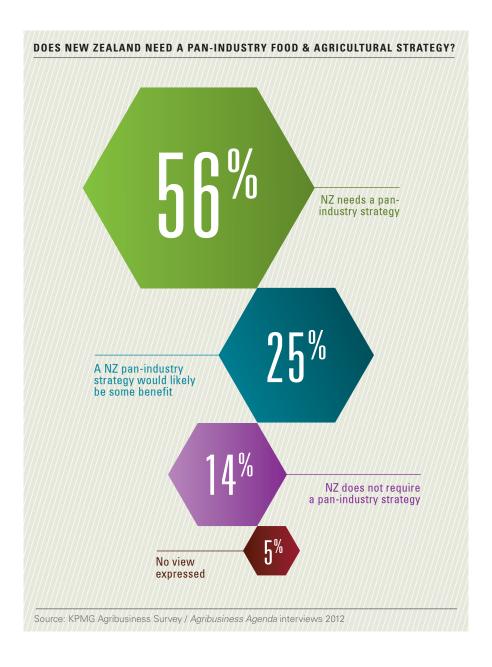
Denmark

The Danish food sector has a number of initiatives focused around the dairy and pork sectors the country is worldrenowned for. The Danish Food and Agriculture Council is currently leading a strategic initiative that aims to balance the needs of society with the potential for Danish agriculture to generate substantial export revenues. The Danish Government also has a clear strategy for developing the economic well-being of rural communities through promotion of agriculture.

These examples are representative of initiatives in progress in countries around the world. It's interesting to note they are substantially government led (although the Danish Food and Agriculture Council is an umbrella group encompassing businesses, trade and farmers' groups). The other notable factor is the common focus on delivering food that meets the needs of the wider community, while supporting an economically viable agricultural sector.

A clear message received: New Zealand needs a pan-industry strategy

The majority of leaders who have contributed to this year's Agenda support the development of a pan-industry strategy or equivalent. More than 80 percent believe New Zealand needs a pan-industry strategy or vision, or that an initiative would likely create some value for the industry. This was a significantly stronger level of support for the creation of a strategy than we had expected, given the lukewarm response to the idea we'd received in preparing last year's Agenda.



PRODUCER SUPPORT PAYMENTS AS A PERCENTAGE OF GROSS FARM RECEIPTS OECD AVERAGE —— FACT — NORWAY **SWITZERLAND** Producer support JAPAN SOUTH KOREA payments in New Zealand ICELAND are the lowest in the TURKEY 20 OECD, at around 1% EU27 18 CANADA of gross farm NORTH KOREA USA receipts CHILE AUSTRALIA NEW ZEALAND



CAP REFORM CHANGES THE GLOBAL GAME

Changes are afoot to the Common Agricultural Policy (CAP), as the EU looks to make the policy more effective in creating competitive and sustainable agricultural systems in Europe. Why would this be a concern for New Zealand agriculture, given our producers have operated without the benefit of government subsidies for decades? The reform of the CAP is a defining event for agriculture in the EU, as it will expose agricultural earnings to market prices for

the first time. Many producers will have two choices – shut up shop or become more innovative, efficient and productive. While the reform of CAP will not have a big-bang impact on international markets for agricultural products, it will result in change.

New Zealand cannot afford to be complacent and now is the time to be thinking about how our industry responds.

Why do so many leaders think a pan-industry initiative is necessary?

We were given many and varied reasons for the need to develop a pan-industry initiative, although the common theme came down to the simple message that everybody generally does better when people work together. Many leaders suggested that we simply can't afford not to work together. As the only developed country that relies on the primary sector to underpin our economic wellbeing, we not only have to be as good as the rest of the world - we have to be better.

Many believe this is only achievable by developing a clear vision of the potential of New Zealand's primary sector; and building a broad coalition of industry, government and the wider community to deliver on these objectives.

Some of the benefits identified include:

Changing industry thinking from tactical to strategic

Industry leaders, often out of necessity, spend much of their time focused on tactical issues and are not afforded the time to think strategically. The process of developing a pan-industry vision will challenge the whole industry to expand its thinking, and look more widely at the potential global opportunities for the primary sector.

Increasing recognition of the power of 'we'

It has been noticeable in preparing this year's *Agenda* that thinking among industry leaders is becoming increasingly aligned. More leaders are talking about 'we' rather than 'I' in respect of initiatives that they are involved in. Consequently, a pan-industry initiative is not seen as significant jump, but the logical next step to build on the commonality of thinking.

Engage and excite passionate people to encourage them to build a career in the primary sector

A pan-industry vision would provide a clear statement of the aspirations the primary sector has for itself over the next 20 years or more. Clearly communicating this vision will provide talented people with a clear understanding of the industry's potential to offer them a challenging, international career in science, business or marketing.

Acknowledge that the industry can learn by broadening its vision to other industries and overseas

As one leader noted, "farmers listen to themselves too much and don't listen to others enough." A pan-industry strategy provides an opportunity to think outside traditional boundaries, and find exemplars from other industries and countries that can provide relevant learnings to the industry.

Clearly define the attributes of New Zealand food, fibre and timber

New Zealand's primary sector benefits economically from leveraging the attributes customers attach to our food, fibre and timber products (i.e. safe, high-quality, sustainable, ethically produced, innovative, reliable). A panindustry vision will provide a collective view of what the key attributes are, and clarify the steps necessary to ensure they are protected for the long-term benefit of the industry and economy.

Allocate resources to where New Zealand can win

A strategy provides an objective analysis of the current state of the sector and its opportunities in market to win. This would ensure limited resources can be targeted to the opportunities that will create the most value. It also provides clarity on the areas where further investment would not be valuable and consequently should not be pursued. Such an analysis would enable targeting of government funds to support transformational initiatives for the economy.

Create a framework for engagement with the wider population

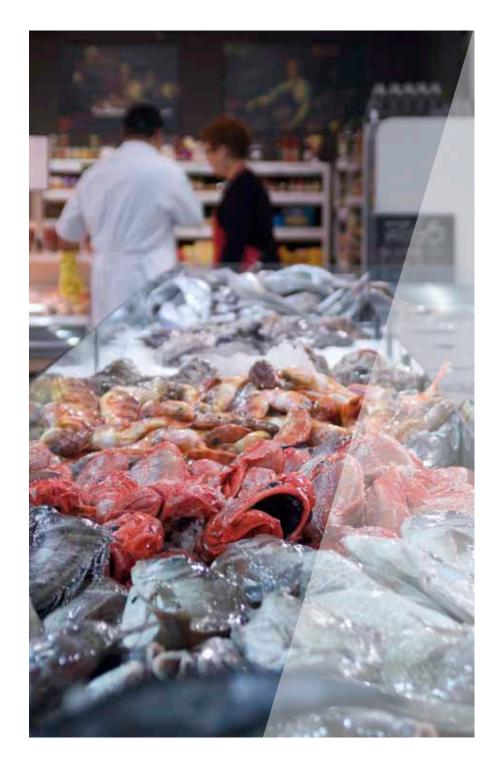
Regardless of the official line from the Ministry of Primary Industries, there is a strong belief that the gap between the urban and rural communities is growing and this can only be bad news for the primary sector. A strategy would provide a vehicle to engage the urban population and help them to understand the contribution the industry makes to the economy, environment and wider society. It would also help to define the boundaries of the license to farm that the wider population grants to the industry.

Explore opportunities to maximise the value of the industry assets

When sectors work in isolation, opportunities to maximise the value that can be extracted from assets and intellectual property may not be fully realised. A strategy could potentially create synergies in a number of areas. These include adopting more comprehensive wholeof-system strategies; better leverage of the depth of agri-tech knowledge; and opportunities to benefit from commodity processing know-how in other countries.

Other factors

There were a number of other points raised. They include: clearly articulating the compelling reasons for building supply chains that work from the customer back; encouraging crossindustry sharing of information and benchmarking; and enthusing the government and other politicians to recognise the benefits of the primary sector (and take greater account of the industry and rural communities in developing policy).





THREE STRATEGIC STORIES

Three sectors – red meat, wine and forestry – have developed and launched industry strategies in the last 18 months. The nature of those strategies demonstrates the different ways organisations might approach pan-industry strategy. The scope for the red meat strategy was restricted to the identification of areas of opportunity to increase the sustainable profit of the sector. The report identified three specific opportunities; but did not set out an implementable action plan of the steps that the wider industry

could take collectively to assist in capturing the incremental benefits.

This contrasts with the approach taken in the forestry and wine sectors, where it was recognised that market conditions had changed substantially and the sectors needed to identify a new way of collaborating to maintain their relevance. The resulting strategies were not restricted in scope; and are detailed on the opportunities for the sectors, and actions that collectively need to be taken to capture the benefits.

What were the arguments against such an initiative?

Many of those who saw benefits in adopting a pan-industry initiative also sounded a strong note of caution. They expressed doubts about the ability of the industry to deliver an outcome, given a history of incomplete and unsuccessful attempts at collaboration.

A range of other challenges to the delivery of an effective pan-industry initiative were highlighted during our conversations:

- » The primary industry is made up of a diverse range of businesses with different drivers of value, opportunities and challenges. The diversity was raised as a major impediment to the creation of a pan-industry initiative, as there may be insufficient common ground to develop a wider vision or strategy.
- » The extremely competitive nature of many sectors was thought to make the identification of common ground even more challenging, as companies would not share in areas of competitive advantage.
- The challenges of implementing a strategy within a company can be difficult enough. These are amplified when attempting to do so within an industry. The lack of accountability on individuals and organisations to implement the strategy means compliance is often piecemeal and the benefits are not captured. This has impacted on the success of a number of industry strategies developed in recent years.
- » Organisations already come together to develop joint responses to issues when a collective response is beneficial - for instance around biosecurity or animal welfare. Some would argue the available value is already being extracted from areas of common interest, and consequently a pan-industry initiative is unlikely to create significant additional benefits.

- The industry only changes when there is a compelling event. Currently there is no event that is sufficiently compelling to inspire an industry-wide response. Developments such as reform to CAP and the requirements for sustainably produced products are evolving slowly and, as such, are unlikely to encourage individuals or organisations to commit time and resource to a collective response.
- » Many leaders outside the dairy sector saw the dairy industry as a major impediment to any pan-industry initiative. A range of views were expressed, from any initiative becoming 'nothing more than another vehicle for the dairy sector to achieve its objectives', through to key participants in the dairy industry not feeling the need to engage; effectively making any initiative irrelevant from the outset.
- » Surprisingly, the involvement of the government in any initiative was also identified as an impediment to success. This despite the government's access to resources and their ability to make changes to policy settings that no other organisation in the country can do. The concern expressed was that the government is obligated to think about issues more broadly, rather than having a solely commercial focus. This could result in a sub-optimal strategy outcome being negotiated.

What might a pan-industry initiative look like in practice?

The success of any initiative comes down to a single key factor – the people involved and their ability to engage, enthuse, lead and motivate others with the vision. Selecting the right people to lead any project is critical. But our conversations confirmed our own view: this would probably be the most difficult step of the whole initiative. Each person brings their own set of inherent priorities and values with them; making one group's star candidate completely unacceptable to another group.

Get the selection wrong at this stage, and project is unlikely to achieve even a fraction of its potential. So who would be the best candidate, or candidates, to lead a pan-industry initiative? The spectrum of views ranged from i) a single, experienced executive that has worked for most of their career outside the primary sector, or ii) an existing elder statesman of the industry iii) a nucleus of self-selecting industry leaders with common thinking, goals and aspirations, to iv) a wider group of industry and government representatives that develop the strategy by committee.

The most commonly expressed opinion, however, was that the project needs a champion – someone with *mana* and passion – who is prepared to stand up and deliver the rallying cry to the rest of the industry. Whether the person leads the project alone or as a part of a group, their presence is critical. Their ability to engage and unify wider groups around common goals is more important than their previous work experience; as is their commitment to delivering the best rather than a consensus outcome.





Once the project leadership is identified, a range of additional decisions need to be taken before substantive work on the strategy can start. Although there was no clear consensus on the correct path to take, the issues canvassed include:

Breadth of strategy

The perceived challenges of uniting the industry meant there was a preference for any initiative to focus on a range of common interest areas. Some believe engagement is more likely to be successful with this approach, at least in the first instance. Rather than going for a more game-changing wider vision, many argued it would be preferable to take a series of small steps around areas such as biosecurity, market access, rural and urban engagement, water investment or sustainable production. Others argued for the wider view. They believe that if a piecemeal approach is taken, the window of opportunity that currently exists may close before we start to understand the extent of the potential opportunities.

Visionary thinking

Regardless of what issues the strategy sets out to address, there was wide agreement that the process needs to take people outside their comfort zones, challenging them about what could really be possible in 20 years time. Why think about how we lock in a steady \$8 per kg milk payout, when we should challenge ourselves to think about how this could be \$18 or \$80? Engaging people to think about opportunities from beyond the boundaries of current reality will be a challenge, but the 'Reality Distortion Field' worked for Steve Jobs¹ - and made Apple one of the world's most valuable companies.

Government engagement

There was little consistency around the role for government in an initiative. Some believed an initiative could only be government-led and run - using the development of the New Zealand tourism strategy as an analogous example. Others did not see any role for government in an initiative. We would expect that the likely situation is somewhere between the two with government being an engaged participant rather than the project leader; providing support with knowledge, funding and policy expertise.

Objective analysis

There was little dispute on this point. Any initiative needs to be built around an objective assessment of the current state of the industry, and it was recognised that the industry sectors themselves may not best placed to perform such an analysis. The work done for the New Zealand Food and Beverage Information Project provides a framework that could be developed to deliver an objective assessment of each sector from a domestic perspective. The greater challenge will be obtaining objective information about the current and future market opportunities for our agricultural sectors.

Process facilitation

Regardless of the size or scope of any initiative, there is a need for some level of facilitation to co-ordinate work plans, collate information, capture thinking and manage communications. There were limited views expressed around this area, as it's more focused on the mechanics of the process rather than outputs. Our experience suggests that

facilitators that do not let a question pass until it has been answered fully are critical to a successful process.

Unsurprisingly, there is also little consensus in relation to the nature of the final output from any initiative. The perceived difficulties the industry would face in collaborating effectively tends to drive views on the depth of output that an initiative would generate. However there was consensus that any initiative should be expected to produce, at a minimum, a clearly articulated vision for the primary sector. It should identify the areas of collaboration, and provide a framework to realise the benefits that can be obtained from working together.

Others saw the initiative having the potential to produce much more extensive output - and provide inspirational goals for the industry for the next 20 years. The opportunities raised included commercial collaboration opportunities, international opportunities to be explored, applications for Primary Growth Partnership funding for specific projects, changes to the legal environment to establish a platform from which the industry can prosper, or creation of a New Zealand primary sector brand. The potential actions would only be limited by the thinking of the industry.

¹ Steve Jobs by Walter Isaacson, 2011

We have been asked the question: what would our recommendation be around the development of a panindustry strategy?

With the rapid evolution of the global food system – and the opportunities and challenges this creates - we have no doubt that now is the time to develop a primary industry strategy. In our view, it should be led by a single champion, probably appointed by the Minister of Primary Industries. This person may not necessarily have worked in the sector in the past. We believe a nucleus steering group of industry people should be convened by the champion to act as their sounding board and provide creative, visionary thinking. The people that would logically form the nucleus are those that actively seek opportunities to collaborate, and see the potential for New Zealand primary products in the widest possible sense.

This answers the question as to the scope of the initiative: it should be all encompassing. Furthermore, they should be given the freedom to start with a blank sheet of paper in building a strategic vision and implementation plan.

The project requires close government engagement, but we consider that the initiative should be a private sector-led partnership. The funding should come from the entities that stand to benefit from implementing the vision and strategy. The process of creating a final strategy is likely to involve a number of phases and iterations, initially involving a limited group of people which would broaden from the nucleus as the project progresses. We also believe it is critical that engagement with wider New Zealand community occurs at the appropriate stage of the process.

New Zealand has seen the benefit that can be derived from an effective panindustry strategy in the tourism sector. The primary sector is bigger, generates more export earnings and probably has more opportunity to become great.

Now is right time to put old differences aside, and to act, as the opportunities are immense. We simply need to identify which opportunities deliver the best chance of success, and the most significant returns, to ensure that our capital is used in the most effective manner.







It's good to talk!

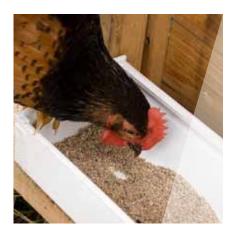
There are few regular opportunities for industry leaders to share information and discuss matters of mutual interest in the agricultural sector.

Most cross-organisation discussion is done informally on a person-to-person basis.

We were told of occasional groups of CEOs that gather informally to discuss industry issues, as well as more formal forums that exist for pan-industry conversations; but these are rarely focused solely on the primary sector (in the sense, for instance, of the large companies group run by Business New Zealand). There was a widely held view that the primary sector would benefit from having more regular, high level cross-sectoral forums. This would provide a diverse group of industry leaders the opportunity to talk more widely about their business and the primary sector in general.

We floated the idea of having a more formal arrangement in the industry to facilitate cross-sector discussions. While some could see little value in putting structure (and cost) around conversations that happen informally when needed, we were also provided with range of possible structures for such discussions:

- » A peak industry body set up to bring together a wide group of stakeholders and reach a consensus on issues, so the industry speaks to external stakeholders with a single voice.
- » An advisory group to the Minister of Primary Industries that takes the pulse of the industry through regional and sector discussions. It then reports on this and the recommended actions to the Minister.
- » A fully resourced 'green table', that discusses key industry issues and makes recommendations that are then developed by a secretariat into actions and policies for the industry and government to adopt.
- » A membership body similar to (or integrated with) Business New Zealand that has specific focus on the unique issues that relate to businesses operating in the primary sector.









At the supermarket, we generally don't buy one product – we buy a basket of compatible products to make a meal. Similarly, when the customers of major global agribusiness look to purchase their ingredients, they will buy as many products as possible from a single, reliable supplier. New Zealand's agricultural exporters (with one notable exception) generally go to customers in international markets offering products from a single category. Professor Keith Woodford has suggested that we could create significant value by replicating the

approach that groups like Olam International, Cargill or Louis Dreyfus take to market; by looking to provide customers in Asia with a wider product offering through the use of a virtual New Zealand shopping basket. Why would New Zealand companies not look to build deeper customer relationships by supplying a wider range of products and securing a larger share of their spend? If this means sourcing and supplying products we do not currently produce in New Zealand, this is something we should consider doing.

Is there a role for a New Zealand agribusiness brand?

A view expressed in a number of conversations was that the development of a generic New Zealand Agribusiness brand could create benefits for companies, the industry and the economy.



There is much talk about the need for New Zealand business to take a more effective 'NZ Inc' approach to the market. As a small country located a long way from market, there are undoubtedly opportunities for commercially appropriate collaboration. This is perhaps best illustrated by the work New Zealand Winegrowers has done to allow branded wine producers to share the costs of promoting their brands at a range of international events.

The concept most often suggested was an 'Intel inside' type of brand device that can be promoted on a standalone basis, while complementing other New Zealand and international brands. For instance, it could be used by food companies that are incorporating New Zealand-produced ingredients into their products. The values attributed to the brand would need to align closely with the existing brand equity attributed to New Zealand-produced food, fibre and timber (i.e safe, highquality, sustainable, ethically produced, innovative, reliable etc). Any producer would need to demonstrate how their production achieves the defined standards for each attribute, in order to license the brand for use with their product.

The New Zealand primary sector should have the success of its customers as its core focus - be they manufacturers, retailers or restaurants. This could make a New Zealand co-brand valuable to many companies who are supplying product under their own brand, or manufacturing using New Zealand components. It was noted that the 100% Pure NZ brand, developed by the tourism industry over the past decade, could be used as the basis for building a primary sector brand. Values such

as food safety and ethical production standards would need to be given much stronger prominence.

Caution was expressed that the process of developing the brand should not be rushed. It would require detailed consultation with the potential users around various issues - such as defining the production standards that should support the brand values, the sectors where a market need exists for such a brand, and the nature of the promotional activity to be undertaken. The inability of the Woolmark to move New Zealand out of the commodity market was noted as example of the risk associated with industry marketing initiatives. It was also noted that end customers may not be as welcoming of a New Zealand brand as we would expect. They may view it as locking their products too closely to New Zealand supply, providing the supplier with greater price leverage and reducing the value of their own brands.

There is no doubt that the cost of developing new consumer brands is significant, particularly when focusing on markets with the scale of China, India and Indonesia. Pooling the investment that individual companies are able to make with government market development funding - around an industry brand or integrity mark may provide the opportunity to achieve greater market awareness of a basket of New Zealand products than individual companies working in isolation.

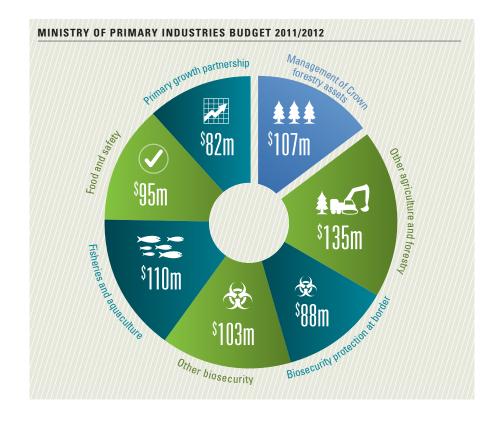
What is the role for government in a pan-industry initiative?

Any pan-industry initiative needs to have close alignment with the government – given that they have the scale, resources and ability to implement policy changes that no other organisation possesses.

The impression from our conversations was that the government is viewed as being willing to have the right conversations with business, when it comes to improving the platform for New Zealand companies to do business internationally. There was also a general view that the creation of the Ministry of Primary Industries is a positive step, as it has encouraged the Ministry to focus on where it can create value for the sector.

The same point was flagged during a number of conversations: that there is still work to be done to move the new Ministry to a position where it is a more of a facilitator for the industry, rather than a regulator. The depth of understanding of some of

the smaller sectors was identified as a concern. There was also a view that the Ministry has previously been relatively risk averse - and more comfortable supporting short-term initiatives with more certain, immediate paybacks; rather than engaging with long-term, more risky but potentially game-changing programmes. It was recognised that the government is able to provide great support when engaged appropriately. Yet the overwhelming view was that leadership of any panindustry strategy should be driven by the industry, with the strategy being used by the Ministry of Primary Industries to further clarify the areas where its engagement can contribute most value.





BEYOND THE MINISTRY OF PRIMARY INDUSTRY

Having merged the Ministries of Agriculture and Forestry and Fisheries, are there opportunities to integrate other areas of the government's interaction with the primary sector into the Ministry? The Ministry already handles the agriculture, forestry, biosecurity, food safety and fisheries votes. But beyond these, there are further significant investments in the sector made by other Ministers and Ministries. The Ministry of Science and Innovation invests NZ\$104 million to support R&D in

the biological industries and provides core funding to the agricultural CRIs. The agricultural industry training organisations and universities are funded via the Ministry of Education; and trade development grants and the Food Innovation Network are funded through New Zealand Trade and Enterprise. Given that future success for the sector is dependent on the right people and the right innovation, having a single point of control over spending in the sector would seemingly improve effectiveness of any spend.

IS THERE A FUTURE FOR INDUSTRY GOOD ORGANISATIONS?

What is good for the industry is not always immediately beneficial to an individual. Acknowledging this creates the need for industry good bodies that are able to take a longer term perspective on strategic opportunities.

The term 'industry good' is used freely in New Zealand - and is applied to any activity where something is done for the benefit of the industry for reasons other than commercial gain. The following groups were all identified as making some industry good contributions in their activities. They include: membership organisations, levy-funded organisations, trusts that make grants to the sector, the Crown Research Institutes, universities, and local and national government. (For the purpose of our conversations, we limited consideration of industry good to the levy-funded and membership

We've had many conversations around the future role of industry good organisations over the past year, so we decided to explore the issue in more detail. Our particular focus is on: i) whether the industry good organisations are creating long-term value for those that provide their funding, and ii) exploring how industry leaders believe the role of the organisations should evolve in the future².

We were unable to source publicly available financial information on the following organisations that administer a Commodity Levy Order: Federated Farmers Herbage Seed, Aquaculture New Zealand Ltd, The New Zealand Seafood Industry Council Ltd, United Wheatgrowers (NZ) Ltd, New Zealand Cassis Ltd, Challenger Oyster Management Company Ltd and Challenger Scallop Enhancement Company Ltd.



AGENDA RECOMMENDATIONS

- 1. Industry good organisations should:
- A. Explore opportunities to leverage a wider range of channels to reach their levy payers (through banks, rural suppliers and advisers) to maximise the uptake of innovation.
- B. Aim to limit their focus on the three or four key areas that will create the greatest value for their levy payers.
- **C.** Actively support initiatives that engage with women, to support them in their role as director or trustee of their farming business.
- D. Seek to include independent directors from outside the sector on their boards to fill any skill gaps the board has and provide objective opinions.
- **E.** Look to **take more active roles in people development** and establishing standards to protect the key attributes of New Zealand production.

- 2. Review the structure of the industry good sector, as part of any pan-industry strategy exercise, to identify the optimal number of organisations and their alignment to support the future development of the industry.
- Explore whether the sector would benefit from creating a single industry good organisation incorporating representatives from across the value chain.
- 4. Make changes to the levy voting system to deliver a more equitable outcome to the major funders of the organisation.
- **5.** Amend the levy system to allow organisations to have a series of targeted levies of differing lengths to match the timeframes of the associated projects.

Industry good investment

There are currently over 25 Commodity Levy Orders in place. From publicly-available financial information, we obtained information on the organisations administering 18 of these orders. The total revenue for these organisations is NZ\$143m – of which 74 percent is generated from commodity levies.

The chart indicates the level of spending the larger levy-funded organisations make on two significant areas of industry good activity: research, and marketing and promotion.

In addition to the commodity levy organisations, there are a range of other organisations with varying legal structures that also provide industry good services to their membership. Some are established under a parliamentary act (like New Zealand Pork); others are substantially trade organisations (for instance the Forest Owners Association); while others are effectively membership bodies (like the National Beekeepers Association). Other professional organisations, such as the New Zealand Veterinary Association and the New Zealand Institute of Primary Industry Management, also fulfil an industry good role through the provision of knowledge and information to the industry.





CHANGING ROLE FOR VETS

The traditional image of a vet is a James Herriottype on a windswept moor. This image is fading fast, as the sector responds to legislative and demographic changes. The vet has historically been on the front line to protect the industry; in a position to identify animal welfare, biosecurity and food safety issues early. However, it is not certain that they will be around to provide this industry good role in the future. Developments in the prescription and dispensing model for animal health products deliver more options to farmers, but change the economics of a veterinary practice. These changes are accompanied by an ageing population of experienced vets, and the majority of new vets being young females. This means the traditional model, a vet on call 24/7 providing expert advice as part of a wider supply relationship, may soon be a thing of the past, potentially leaving the industry more exposed to biosecurity and other risks.

Are the organisations currently delivering to their funding members?

It is recognised that industry good organisations are a necessary part of New Zealand's primary sector. During our discussions, organisations were credited with many successes. These include: providing proactive on-farm support to farmers (for instance in the dairy and arable sectors); addressing the market access issues that arise (particularly in the horticulture and red meat sectors); integrating food safety standards into production models (notably in the pork and poultry sectors); providing a voice with government to change legislation (a recent example being aquaculture); and the promotion of sustainable production systems (the sustainable wine growing initiative being a good example). Industry good is at its most effective when a levy payer sees their contribution as an investment rather than a cost, because the organisation's programme is focused and relevant to them.

However, most of the leaders we spoke to did not believe that the industry good sector is delivering to its full potential. At the core of this assessment were two widely held and over-riding perceptions:

The focus for industry good intervention is not clear

If a commercial company can see the economic benefit of a project, there is little dispute that there is not a role for industry good in that project. The generally held view is that industry good has a role where there is 'market failure' – although there is no clear definition of 'market failure' and, as consequence, the natural extent of industry good activities.

Projects that would qualify as a 'market failure' – where industry good intervention is likely needed – include those where there is: i) an inability to secure a sufficient return on investment to generate a payback, ii) risk that the benefits of an individual's investment immediately becomes available to everyone in the industry, or iii) a risk or return profile that does not meet an investor's requirements.

Maintaining the quality of industry good investment should mean the reasons a project is not being done commercially are carefully explored before a funding commitment is made.

It is a constant challenge to demonstrate value to members

A commercial project usually produces a product or service that can be marketed for profit. The nature of industry good investment means it often generates outcomes that are more intangible in nature (for instance additional market access, a farming system tweak, a regulatory concession) rather than a product or service. This challenges the organisations to clearly articulate how levy funds are being used to create value for the levy payers – and historically, this has not been one of their strengths. One of the factors underlying the loss of the wool vote was a lack of understanding of the value the levy investment created; it was viewed as cost. The organisations consequently need to consistently communicate the genuine value they are creating for the industry. It appeared from our conversations that the voluntary membership organisations are far more effective at communicating the value they deliver, as they have to ask members to renew their subscriptions annually.

In addition to these overriding comments, a range of other matters were raised during our conversations on the current performance of the industry good organisations.

The following are or have the potential to impact on the effectiveness of their delivery to levy payers:

Boundaries of activity

The boundaries between the activities of commercial companies and the industry good organisations used to be clearly defined, but are now becoming increasingly blurred, particularly in the dairy sector. For instance, Fonterra now runs on-farm programmes with shareholders to help them improve their performance (albeit the overriding goal is to maintain the quality and quantity of product entering their supply chain). The initiative extends Fonterra's role into the on-farm practice area that has been DairyNZ's preserve. The concern was expressed that if it becomes less apparent whether a particular initiative is a commercial or industry good project, this could result in the whole industry incurring more cost.

Constrained by independence

Producers are thought to attribute more value to advice from industry good bodies, because the organisations are independent and the research performed is not linked to a specific product. The challenge, however, is getting the advice incorporated into the farming systems. Industry good research is only valuable if it is implemented. There is a concern that in trying to protect independence, organisations are potentially impacting uptake by not leveraging all the

distribution channels available to get their information to the producers. This might include working with banks, rural suppliers, trusted advisors, processors and packers to disseminate best practice information.

Leveraging levies

The collective investment in research and other initiatives gives the industry good organisations the ability to match contributions from the levy payers with government funding to deliver a greater number of projects and create more value. The sectors that have voted to move away from levy structures have discovered it is difficult to secure government investment in a project if a sector does not speak with a single voice. From our analysis of the financial results of industry good organisations, very few clearly demonstrate the amount of government leverage they are able to deliver to levy payers through collective investment. They are consequently under-emphasising an important benefit of the industry good model.

Scale and focus

On the surface, it appears easier for organisations that achieve greater scale to be more effective in creating value for their members. However, our conversations illustrated that the organisations that generally deliver the greatest value to their levy payers are those with the greatest focus on a limited, relevant programme. The Foundation for Arable Research was consistently highlighted as an organisation that has achieved both scale (through collecting levies on a range of complementary arable products) and focus (in that it has limited its agenda to improving crop

outcomes), and is consequently delivering value to its levy payers. This was contrasted with the horticulture sector, which has large number of small organisations and a diverse range of priorities. It was commented that the horticultural sector could extract more benefit from its industry good investment by consolidating and focusing the areas of investment.

Maintenance or growth

Industry good activity is normally connected with growth (for instance, strategies to increase milk production or creating a presence in a new market). Yet the consistent view from our conversations is that spend is more about maintaining the position of a sector than growing it. It was suggested that growth spending in some sectors may be as low as five percent, with much greater focus put on areas such as biosecurity and animal health to ensure the current position of the sector is maintained. This tension between providing a 'safety net' to a sector and the need to deliver profit increases is not clearly understood by levy payers. Much of the value that some industry good organisations deliver is in keeping the playing field level, and preventing the erosion of profitability for their members' businesses.

COMPARISON OF SIZE OF FARMS AND THE ESTIMATED SHARE OF AGRICULTURAL LAND THEY OCCUPY ---- FACT -% OF TOTAL FARMS HECTARES 2000+ The 2,235 farms with area 1000-1999 greater than 1,000 hectares 400-999 (3.5% of farms) in 2007 200-399 were estimated to account **ESTIMATED % OF FARM AREA** 100-199 for around 45% of the 60-99 agricultural 20-59 land area 0-19 100% 10

A CORPORATE FARMING FUTURE

While there are still many family-run farms, their numbers are slowly decreasing. This will continue as investors continue to wake up to the long-term growth potential in the agricultural sector. This presents a significant challenge to industry good organisations that have historically had the family farmer as their levy payer and key client. An increasing proportion of levy funding is now coming from the corporate farming business, and this is putting pressure on organisations to change

the nature of the information they deliver and the methods of delivery. Corporate farmers generally farm for profit and cash return rather than capital gain. With the need to fund returns to their investors, there comes an increasing focus on cost control and revenue maximisation. Corporate farms are run by managers – which in turn creates a demand for specialist farm management training. This may cover a wider range of issues such as HR practices, risk management and financial reporting.

Differentiating between levy payers

The days of the traditional family farmer dominating the levy receipts are numbered – and the future looks far more corporate for the primary sector. This presents industry good organisations with a challenge to meet the needs of an increasingly differentiated group of members. As they are discovering, it is much easier to deliver value to group of homogenous members compared to a diverse range of levy payers who are operating different farming systems with dramatically different aspirations for their businesses. The lack of homogeneity of levy payers has always been a challenge in the sheep and beef sector and horticulture sectors. And as business models evolve in the dairy, wine and fishing sectors; all alluded to the challenges of dealing with increasingly diverse groups of levy funders. One solution no longer fits all. Extension is required to be delivered through a wider range of channels, and measuring the success of an initiative becomes more important.

Respectful engagement

Industry good organisations are starting to recognise that the chances of an innovation being adopted increase by engaging with producers at multiple levels. With most farm businesses being based on husband and wife partnerships, the industry good organisations are increasing their focus on supporting the female partner to fully undertake their role as a director or trustee of the business. The old tendency of telling the husband what to do at a Field Day is no longer sufficient. A good example of this is the support that DairyNZ provides to the Dairy Women's Network. There is a need for more similar initiatives across the primary industry.

Responding to challenges

The collegiate nature of the industry comes to the fore when it is faced with challenging times. That is when industry good organisations can clearly demonstrate the benefits of sectors working together. Whether it's coordinating an industry response to a drought, or supporting farmers impacted by the Canterbury earthquakes, the industry good body is a focal point for a co-ordinated response. While the industry responds collaboratively to many natural challenges, there are business challenges that producers will not naturally collaborate over to retain their competitive advantage (for instance responding to labour market tightness). Industry good organisations need to assess whether they have a role to play to assist levy payers through economic challenges. Horticulture NZ did so in working with other sectors and the government to implement the Registered Seasonal Employer (RSE) scheme to free up labour markets.

Working together

The RSE scheme is good example of the pan-industry benefits that can be derived from organisations working together. The question was raised on many occasions during our conversations whether there is sufficient interaction between industry good organisations to maximise the value generated from levies. There is a perception that many organisations are doing fundamentally the same things – in isolation – utilising far more total resource than if the project was delivered collaboratively. This raises an obvious question: do we have too many industry good organisations? Would levy funds deliver more value if there was some consolidation of organisations? It is interesting that the Danish Food and Agriculture Council, referred to earlier,

was created from the merger of the industry good organisations of the dairy and pork sectors. In the UK, the statutory levy boards for the red meat, pork, dairy, horticulture, potato and grain sectors were merged into a single organisation, the Agriculture and Horticulture Development Board, in 2008.

Leadership

As always, the success or otherwise of an industry good organisation is dependent on the calibre of its leadership. Articulate, passionate leaders provide a credible focal point for contact with government and other industry organisations. As is so often the case, personalities and history can have a significant impact on outcomes an organisation is able to achieve.

It was no surprise that there is a widely held view that industry good organisations are inherently political. The democratic nature of board elections gives the levy payers the opportunity to direct the course that the organisation takes. Yet it does not always deliver the skills to the board table that the organisation and its management require. The fear of 'gumboot politics' is considered to prevent many strong candidates from standing.

For effective governance of an industry good organisation, the board needs to have a sufficiently wide vision. For example, they may need to make an early investment in a technology, to ensure it is ready for producers when they realise they need it. This requires boards to be closely connected with the whole spectrum of members and be cognisant of their needs. A number of organisations have also established formal processes for regularly testing their work programmes with producers to ensure they are aligned to their needs. This is an initiative we believe other organisations could look to implement.

A common theme from our discussions was that many boards are too focused on the detail, rather than delegating operational matters to management. This issue could be addressed by universal inclusion of independent directors on the boards of industry good organisations. They would also deliver a wider vision than those involved in the sector on a day-to-day basis can bring. They are able to divorce themselves from any emotion that may exist around funding decisions and consider them objectively in line with the organisation's strategy. We recommend that every organisation critically assess the skill set around its board table. The organisation's constitution should allow them to appoint or co-opt one or more independent directors with the skills the board lacks. For instance, if organisation has a strong marketing focus, does the board have a director with sufficient experience in marketing?

From our conversations, it appeared that the boards of the single industry good organisations (SIGOs) inherently have access to a wider range of skills at the board level than a producer organisation. (A SIGO is where organisations from across a sector value chain co-operate, like Deer Industry New Zealand). The organisations are able to think about the opportunities for the sector in their widest sense, as the impact of any initiative throughout the value chain is able to be assessed. We understand that there are a growing number of sectors that are exploring the opportunities to create a SIGO. This makes sense when trying to maximise the value returned from the customer to producer value chain.

FACT -Australia is forecast to produce 298,000 tonnes of apples in the 2012 harvest, compared to New Zealand's forecast harvest of 502,000 tonnes. The combined production is around 15% of forecast Southern Hemisphere production **OPENING THE AUSTRALIAN BORDER TO APPLES?** When the Australian government opened its border authorities have imposed on the exported fruit would most likely have rendered it useless. borders to New Zealand apples after 90 years, it was expected this new opportunity would provide The Australians are not accepting any fruit with leaf a boost to beleaguered apple growers. Pipfruit NZ matter, which requires exporters to conduct 100 attempted to obtain a Horticulture Export Authority percent hand inspection of all export fruit. Pipfruit NZ license to ensure the opportunity was appropriately is now working with the government to demonstrate developed, with only high-quality fruit being that small amounts of leaf matter pose no threat exported to Australia. The attempt to implement to Australia. They're also working with the industry an HEA was not successful - but in any event, the to create technology to reduce the cost of hand extreme phytosanitary standards that Australian inspections of packed fruit. Source: World Apple and Pear Association, www.wapa-association.org

Where should industry good organisations focus their resources?

We asked participants in the **KPMG** Agribusiness Survey to priority rank a range of activities that industry good organisations could deliver to their funding members. The chart to the right provides an analysis of the results. The highest ranked activities were representation of the sector with government agencies, and managing R&D investments. This is not surprising, as these are generally delivered by most industry good organisations.

Given the importance of ensuring that the research effort of the organisation is picked up and used by levy funders, we had expected that the top three would have also included extension. Yet supporting initiatives to increase market access was more highly ranked. This reflects the important role many industry good organisations play in working alongside government to address non tariff barriers that can suddenly arise around food safety or phytosanitary issues, slowing or closing market access. The importance attached to market access activities, compared to the work a number of organisations do around international trade development (ranked 11th equal), indicates that the contribution around market access is far more measurable and valued by industry leaders.

We were surprised by the low ranking attached to the biosecurity role of industry good organisations (8th equal). Particularly as the GIA structure introduced under the biosecurity reform legislation requires industries to engage more substantively with the government around the issue. This is possibly due to the uncertainty surrounding how the GIA structures will develop, and the role that industry good organisations will play. The 8th equal ranking of people development and training was also a surprise; given the strong focus throughout the conversations we had on the importance of having the right people.

No-one considered collective purchasing led by industry good organisations to be a priority. This probably reflects the fact this area is well serviced by a competitive commercial sector, and it's not an area people would expect the organisations to get involved with.

PERCENTAGE OF RESPONDENTS RANKING THE ACTIVITY IN THEIR TOP 3 ACTIVITIES FOR INDUSTRY GOOD ORGANISATIONS



As the survey demonstrated, there is a general level of support for the market access work that industry good organisations perform. The same cannot be said for the marketing role that many organisations take on. It's fair to say that the role in market development and promotion was the greatest area of contention in respect of industry good activity. Many argue vociferously that marketing is a commercial activity, and should be left to the companies that have product to sell. Yet there is a counter argument. The history of many industry sectors suggests that the exporters will not invest in marketing if it is not also being done by an industry good organisation.

- Much of the marketing activity funded by industry good organisations has been generic in nature. It promotes the properties of the product rather than telling a brand story. For instance, 100% New Zealand Pork (NZ Pork), or I Love Eggs (Egg Producers Federation of New Zealand). Generic marketing can assist in establishing a floor on the selling price of a product, by increasing awareness of the product's attributes. Generic marketing also lends itself to promoting the origin of the product. This has been a key focus of NZ Pork, where domestic producers have to compete against imported products. It is interesting to note that globally, the prime focus of many industry good organisations is the generic promotion of the product. For instance, Meat and Livestock Australia undertakes extensive generic marketing of Australian beef around the world.
- Levy funded generic marketing has also been launched to build the profile of a product in a new market before one or more branded products have achieved recognition. The wine industry has used its 'New Zealand Wine - Pure Discovery' generic promotional brand to introduce New Zealand wine to new markets and customers. However, the wine sector recognises that generic promotion has a limited life, and needs to be replaced with commercial brand marketing as the market develops. It was noted that once brands are established, generic marketing only serves to support the substitution of one brand for another; a role which is clearly not an industry good function.
- The challenge with any generic marketing is measuring the return on the investment made by levy payers. The usual measure for success of an advertising campaign is sales increase. But as the industry good organisation does not have product to sell, measures such as growth in market share or increase in exports give some indication of the effectiveness of the campaign. However other factors also have a significant impact on these metrics including the diverse strategies taken by the commercial companies selling product into the market. Consequently, a number of industry good organisations have redirected their market support funding from generic campaigns to co-promotional activity with the commercial companies. In matching commercial company funding, it provides assurance to levy payers that their funding is being used on projects that companies are prepared to spend their own money on.
- » Some industry good bodies do not engage directly in marketing and promotion activities, but do fund initiatives that provide relevant market information to their levy pavers to assist them with business decisionmaking. One example is the AIMI (Arable Industry Marketing Initiative) which is funded by the Sustainable Farming Fund, the Foundation for Arable Research, Federated Farmers and other arable sector bodies. One of the key actions of AIMI is to capture and report production, storage and market data for the major cereal crops grown in New Zealand. This provide growers with information they need to produce high specification crops with the customer in mind.





» The other promotional activity that is levy funded in some sectors is industry awareness campaigns, such as the 'Go Dairy' initiative run by DairyNZ. This activity is about increasing awareness of the sector, its economic contribution, environmental standards and career opportunities. Given the need to build connections with the urban population (to ensure that the dairy sector is able to retain its license to farm in a commercially viable manner), such activities would appear to offer substantial value.

.....





Marketing and promotional activities are a valid use of industry good levy funds, with a couple of provisos. Firstly, they must generate an adequate return to the levy funders. Secondly, they must not confuse the market in respect of the activities of the commercial companies. It is often difficult to assess the return on investment these activities generate. As levy payers become more focused on measuring the return every levy dollar generates, we expect that many sectors will wind back or even cease marketing and promotional activities.











RECOVERING FROM A LOST LEVY VOTE

The Meat Goat sector presents an opportunity for pastoral farmers to increase farm earnings without impacting on their current operating models – yet the sector is currently highly fragmented and lacking in scale. As markets for goat meat expand in China, Malaysia and the Middle East; there are significant opportunities to leverage the feral goat population, as well as work with the growing and successful Dairy Goat sector. The meat goat levy vote was lost

at the last Beef+Lamb New Zealand vote – however, farmers are beginning to recognise the need for a collective approach to re-establishing the industry. It has been recognised that any industry good body needs to have sharp focus on the areas of greatest common interest between goat farmers (extension, genetics, promotion of goat farming, and information sharing and support), rather than establishing an organisation that tries to be all things to all people.

Does the levy structure provide the certainty of funding required for long-term projects?

The loss of the wool and goat meat levies in 2009 highlighted the inherent challenge in the levy voting process. Under the Commodity Levy Act, a 'no' vote can have an impact on activities that are often taken for granted. Nobody disputes the need for levy payers to have a periodic opportunity to hold the organisation accountable for how it is spending levy funds and the value it is creating. (Or as it was put to us on a number of occasions, "no one is entitled to an open cheque book"). Yet this does create an inherent tension for an organisation when it looks to commit to a research project or initiative that runs beyond the end of its current levy term. The structure is more challenging in the horticulture sector, where many growers pay a Horticulture NZ levy and a product group levy. This makes it very important to clearly define the focus of the investment each organisation undertakes, and to minimise the potential overlap.

The lost wool vote fired a warning shot across the bows of the industry good sector. The impression gained from our conversations is that the organisations are very aware of the need to show immediate returns to their levy funders. This inherently drives a focus into short-term, rapid return projects rather than investing in long-term, less certain, more transformational projects. There are those who would like to see the wool levy reintroduced, along with the meat goat levy; and a process is well underway to establish a commodity levy in the forestry sector.

The two tier voting system (50 percent of production by volume and 50 percent of the farmers voting) is a real challenge for many sectors, particularly achieving the 50 percent of farmers' target. The voting system requires organisations to focus on creating value for both the large and the average producers when designing their programmes. This is despite the reality that the larger producers contribute the majority of the levy funding. The view was expressed that the levy vote system should be weighted in favour of the large producers who have the most to gain from the industry good organisation and the most to lose should the levy vote fail. This makes sense to us. One option might be that the levy is passed if, say, 75 percent of product by volume is voted in favour (and the eligible farmer vote is only considered if the volume vote is between 50 percent and 75 percent).

It is interesting that many industry organisations do not currently collect the full amount of the approved levy. This is an important discipline for the organisations - recognising that the money should only be collected if there are sufficient projects of suitable quality to meet a cost benefit return to the levy payer. Organisations appear to be resisting the need to do projects for the sake of doing a project. However with the outlook for many sectors being less positive in the coming year, it's possible that levy rates may need to rise just to maintain current levels of activity.

Currently, an organisation is only able to propose a single levy to its members to vote on. One interesting suggestion raised was a revision to the Act to allow organisations to raise streamed levies for different purposes and different lengths. For instance, an organisation may choose to have a shorter term levy (say three years) for marketing initiatives (enabling more regular review of the value of the spend); a regular term levy for normal operating costs and projects; and a longer term levy (say 10 years) for an identified long-term research project. This would enable the organisations to take a long-term focus when supported by the levy payers; as well as give the levy payers greater control over the more discretionary spending the organisations undertake.

The voluntary membership organisations are also faced with the need to demonstrate value from their investment annually – or members will not renew their subscriptions. From our conversations, this tends to result in the organisations being far more consultative with their members. They need to ensure that their work programme is aligned with their needs. The voluntary membership sectors are aware of the risk of non-members 'freeloading' on the collaborative investment, but believe the issue is best managed by working with their members to deliver them value. This strategy will both retain the current members, and attract non-members to join.

What does KPMG think about the future of industry good?

Overall, industry good has made a regular and important contribution to the primary sector over the years – and it has the potential to continue to deliver significant value to levy payers into the future. However the role of the industry good organisations is likely to continue to evolve. The precise nature of the evolution is dependent on a range of factors – not least the development of a panindustry strategy.

We would expect to see some or all of the following areas moving up the agenda of industry good organisations in the coming years:

- » Industry good organisations should be taking a more active role in developing the skills and leadership ability of people working in the industry. This includes programmes that equip producers with the necessary skills to make appropriate business and operational decisions – and deal with anything their business may throw up at any time. It should move away from the attempts to 'systemise' all aspects of production activity that have been common in recent years. We also expect to see the development of a professional farm leadership qualification and certification scheme; and industry good organisations have an important role in encouraging people to engage with such a programme.
- » Technology is resulting in more information being collected and becoming available for analysis and integration into business decision making. The need to integrate data for a range of sources creates an important potential role for industry good organisations; namely developing the technology to create an open access platform for sharing data. This is particularly critical if commercial organisations are unwilling to share data that producers require due to commercial sensitivity.
- » A clear view was expressed in many conversations: industry good organisations have an important role to play in protecting and enhancing the key attributes of New Zealand products. Such initiatives are important to maintain the domestic license to

- operate, as well as developing existing and new customer relationships. Initiatives might include funding programmes designed to reduce the environmental footprint of production; or requiring levy funders to meet ethical production standards before they can access industry resources. For instance, the industry good organisation in the fishing sector could take a lead in lobbying the government to make the quota management system demonstrably independent.
- » The industry good model in New Zealand has always followed sector lines. Given the breadth of common issues across sectors, industry good activities may be better served by issue-aligned organisations, similar in nature to Irrigation New Zealand. This would ensure that key issues such as the development of water infrastructure or biosecurity, or animal health were being handled on a consistent basis across the industry.

••••••

The primary sector is an intergenerational business. Current business owners and operators have benefited significantly from the investment of past generations in future-focused, visionary projects. That is why industry good organisations should always focus on the initiatives that need to be started now, so they are ready for future farmers when needed. This means investing in long-term projects that do not have a short or even medium term payback. It requires the organisation to lead and educate the industry about why an issue is important, and why it is an appropriate time for industry good to commence the initiative.



GLOBAL LEADER IN HALAL

New Zealand is a world leader in creating safe, auditable food production systems. This is a competitive advantage that New Zealand processors could leverage more in international markets. A good example is those countries that require Halal processed meat products for religious reasons. Government and industry have worked closely together to codify New Zealand's compliance systems for Halal processing; providing customers

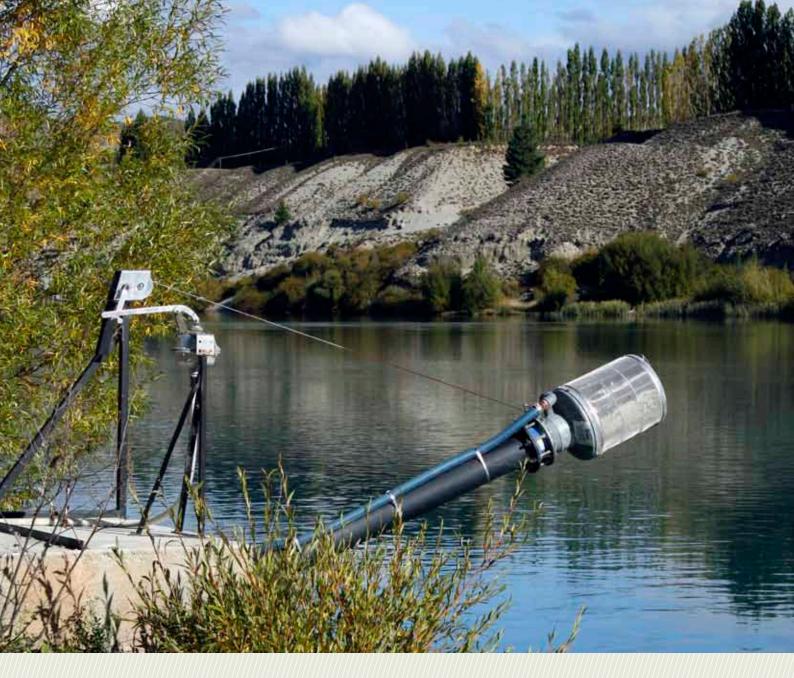
with certainty that our product is handled to meet their stringent requirements. Processing companies should view Halal markets as an opportunity to leverage a competitive advantage they have helped to create, and secure long-term customer relationships that are based on more than lowest price. The attributes of New Zealand production align superbly with Halal, and we should aim to be the world leader in this market.

DELIVERING AN INNOVATIVE FUTURE FOR NEW ZEALAND

New Zealand is one the few developed countries that relies on primary products to generate the majority of its export earnings. It is therefore critical that our food, fibre and timber products are not only equal to what's produced by the rest of the world – they must be more innovative, of better quality and safer. If we are to maintain the standard of living we have in New Zealand, this will require continuous innovation.

There is a widely held perception that the innovation system in New Zealand is failing to deliver the step changes that the primary sector needs to maintain its position on the cutting edge of global markets. This has been a regular topic of conversation since we published the first KPMG Agribusiness Agenda. There are some encouraging signs that the long-term decline in agricultural science may have bottomed out. Graduate numbers are growing; the Crown Research Institutes (CRIs) are adapting to a new policy framework; and there is increasing collaboration between Lincoln and Massey Universities.

We canvassed the views of industry leaders on the relevance of current innovation activities in New Zealand, and the steps that the industry and government should consider to ensure New Zealand secures a leading position in the global primary sector.



AGENDA RECOMMENDATIONS

- The Government to explore opportunities to create non-financial assistance programmes to encourage and support innovation by New Zealand companies.
- Establish a national primary sector innovation award scheme to recognise the importance of innovation and continuous process improvement to success in global markets.
- 3. Explore greater levels of trans-Tasman co-investment in primary sector innovation, to better leverage the combined investment of the two countries.
- 4. Investigate the consolidation of all government investment in primary sector innovation under a single structure, facilitated by the Ministry of Primary Industries.
- 5. The Ministry of Primary Industries and the fishing sector to explore opportunities to reform the Quota Management System to increase its independence and relevance to the needs of international customers.

- More active monitoring of global innovation by the CRIs to deliver opportunities to New Zealand companies.
- 7. Explore mechanisms to encourage greater investment in early stage agritech innovation.
- 8. Commercial organisations to commit to higher levels of investment in innovation programmes, reflecting other developed countries with a large investment in the primary sector.
- **9.** Create a **network of in-market incubators** focused on identifying opportunities in our key markets that can utilise New Zealand-based innovation.
- 10. Ensure the innovation programmes of industry good organisations are continuously tested with groups of producers, so they are addressing their most relevant business issues.
- All political parties to commit to supporting the long-term future of the Primary Growth Partnership.

Raw numbers – how do we perform against comparative countries?

Earlier in this Agenda, we noted a surprising fall in the priority that industry leaders attached to R&D activity. We floated the idea that given the amount a dairy farmer is investing in innovation via their levies, co-operative investment and taxes - it is not the primary sector that is under-investing in R&D but the remainder of the economy. That argument aside, the cold hard facts show that New Zealand is significantly under-investing in innovation. The chart shows our performance in comparison to New Zealand's peer group in the OECD (i.e developed economies with a strong agricultural sector focused on exports).

What did industry leaders have to say on the topic? The conclusion we drew from our conversations was that, while it is considered important, innovation is not the critical driver it should be for the primary sector in New Zealand. Industry leaders do recognise that the long-term success of the industry is dependent on the ability of people to understand and meet the challenges that their customers face, be that staying warm and dry on a ski field, constructing more sustainable buildings or delivering the freshest fish to Shanghai daily.

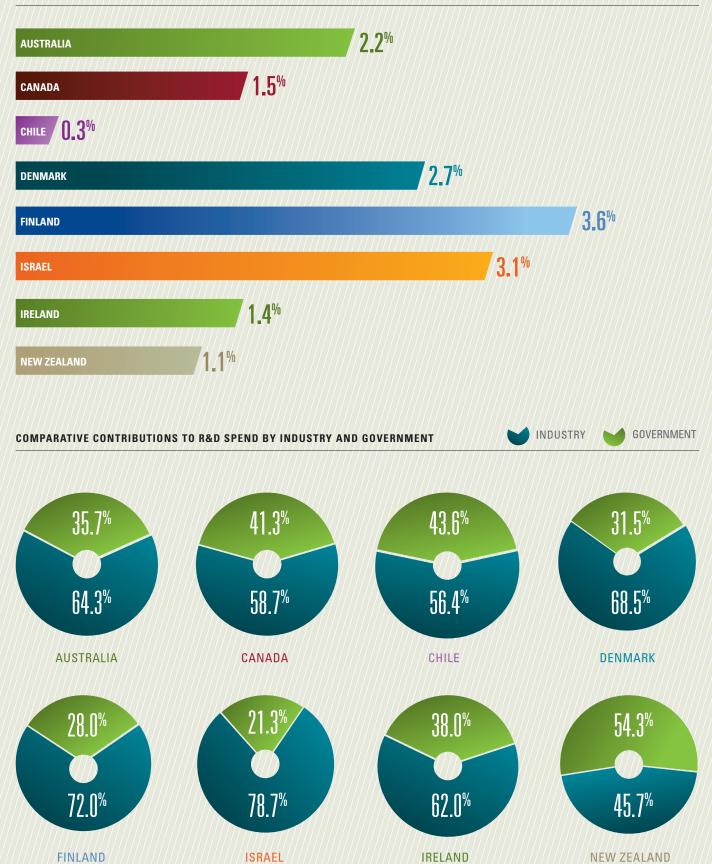
It's acknowledged that the full impact of the Government's reforms of the state innovation sector, implemented over the last two years, have yet to become apparent. There is a widely held view that current state of the primary sector innovation system in New Zealand reflects decades of under-investment

Limitations of the system highlighted during our conversations include:

- » Slow response to tactical market opportunities with appropriate innovative solutions
- » Shallow science infrastructure, with an ageing population of scientists placing a human constraint on our ability to deliver successful innovation.
- » A lack of commercialisation experience means that ideas with commercial potential are either left in the laboratory or not exploited to their full potential.

- » Investment in innovation has been piecemeal and fragmented. There is a lack of co-ordination between the efforts of companies, industry good organisations and the government. This results in sub-optimal value being generated from the spending that is occurring.
- » Recent innovation has generally been short-term in focus; making evolutionary change to existing technology processes and products, rather than pushing the frontiers back in the search for solutions that could deliver a step change.
- significantly from inter-generational investment made in the past, but insufficient innovation is currently being performed for the long-term benefit of the sector. This is mainly due to industry good priorities, a focus on short payback periods for investments, and the three year electoral cycle.
- » Companies that have the potential to be leading innovators often run their R&D functions on a hand-to-mouth basis. This makes it difficult to retain talent against competition from offshore companies, or commit to long-term projects with transformational potential.

PERCENTAGE OF GDP SPENT ON R&D IN COUNTRY IN TOTAL





ENCOURAGING TRANS-TASMAN CO-INVESTMENT

Our Australian colleagues and clients in the agribusiness sector are interested in how things are done in New Zealand. Their interest stems from the way the New Zealand primary sector has adapted to operating in an unfettered market. Yet during our discussions, we've found few primary sectors in New Zealand that are exploring opportunities to work on combined innovation with their Australian counterparts. Some noted it had been too difficult to get traction due to scale. However NZ Pork reflected

on a very successful long-term research partnership with the pork industry Co-operative Research Centre (CRC). The CRC programme provides government support to end-user driven research collaborations to address major challenges - covering innovations from new vaccines for pork and poultry, beef genetics to biosecurity. We believe it makes sense to pool resources with Australia when we face similar issues, to leverage their scale and offer them the benefit of our experience.

The view was expressed that many sectors appear to have lost the ability to recreate themselves in response to a change in their circumstances. In one conversation, the ability of Portugal's cork industry to reinvent itself was highlighted as an example of how New Zealand's primary sectors should be able to react to a significant disruptive event.

The Portuguese Cork industry experienced a significant decline when the global wine industry rapidly started to adopt screw caps closures. With government support, the industry has embarked on a programme to recreate and reposition itself as a producer of a high-quality, sustainable product. They are using high technology production processes; science to reduce the risk of cork taint; genetics to seek faster tree growth; and marketing innovation to reinforce the role of cork as the stopper of choice for super premium wines.

New Zealand not only invests less in R&D than other comparative OECD companies – it is also the only country where the government accounts for more than 50 percent of the total spend. The ability of a company to innovate is dependent on having sufficient balance sheet capacity to make the investment, particularly an ability to borrow or the availability of cash resources. These factors are lacking across much of the primary sector for a variety of reasons. Notably, co-operatives that have struggled to make the case for retentions and have a focus on investing in stainless steel production assets.

Investment in innovation projects form the largest component of direct support that the government provides to the primary industry in New Zealand.

A view was expressed that many of the projects the government funds are lower risk, short-term initiatives, rather than more radical, long-term projects. This reflects the government's caution towards higher risk projects with more chance of failure but greater potential to be transformational. It was also noted the government seeks to achieve winwin outcomes with its investments, delivering both commercial outcomes and wider social benefits. For instance, the investment in greenhouse gas research is about identifying solutions that increase industry productivity, while benefiting the environment through reducing emissions. The social focus of government innovation expenditure means that significant projects with purely commercial objectives may find it more difficult to get government support.

The country with the lowest government share of investment in innovation among our peer countries is Israel. It is also a country recognised as having the world-class innovation system, driven by extensive access to venture capital funding and clear protocols around intellectual property ownership. In Israel, and many other countries, the government has found ways to support innovation activity without direct financial intervention.

A good example of this is the Wood First Act that was passed by the British Columbia provincial government in Canada. The BC economy is highly dependent on the timber sector, so the government passed a Bill requiring wood products to be the predominant building material in new provincially constructed buildings. This encourages significant innovation in wood construction techniques and the

creation of new business opportunities. The New Zealand Government could give our forest wood sector a similar innovation boost, by introducing legislation requiring a high timber content in the reconstruction of public buildings in Christchurch.

Another interesting observation was made about the lifecycle of New Zealand companies. The small scale of our domestic market forces many New Zealand companies looking for growth to explore export markets far earlier in their lifecycle. Their international peers have greater potential in their local markets to exploit before seeking export opportunities. As a consequence, many New Zealand companies are underdeveloped and unprepared to succeed in export markets when they start to explore international opportunities. They may lack the scale to fund the necessary R&D to adapt their products to international customers. Securing government support for their innovation programme would help them grow, without having to seek external capital with the associated dilution of ownership.

Do we spend enough time thinking about what we will need in the future?

The most effective innovation is not reactionary. Rather it forms part of a long-term strategy; based on a robust analysis of customer and market requirements, and a clear vision of the opportunities with the best potential to deliver incremental value to investors.

The funds available to invest in innovation in New Zealand are limited. That is why the effectiveness of an innovation project is highly dependent on the quality of the strategic insight and breadth of thought underlying the decision-making process. Many of our conversations highlighted that the decision-making processes surrounding innovation in New Zealand often lacks the required rigour of thought.

The reasons for this include:

- thinking about day-to-day operations rather than exploring future opportunities. Companies have often found themselves having to react to a shift in the market or new technology rather than being the initiators of the shift.
- » There was also a strong view that the future thinking being done is not sufficiently focused on customers and markets. Our innovation has always had a strong focus on producing more products at lower cost, rather than creating the products customers will want in 20 or 30 years time.
- » A significant capital asset base requires thought processes to be focused on ways to maximise the return on investment, thus limiting the range of potential options open to companies. Consequently, organisations with less capital invested have a greater ability to be more disruptive in their thinking. They can consider an opportunity from a range of angles, as their options are not restricted to those their capital investment permits them to take.

- » There is a growing recognition that innovation needs to become part of the day-to-day job of everybody in every organisation. The primary sector would benefit from having more people with the vision to challenge what they are doing to create better outcomes.
- by The competitive mechanisms used to fund innovation in New Zealand impact the breadth of thought, as projects need to be focused towards clearly defined outcomes to secure funding. This allows limited scope for lateral or tangential thinking. The comment was made that success is too often seen as securing the funding for a project, rather than outcomes the project delivers.
- » The prevalent 'tall poppy' culture in New Zealand can impact on the willingness of individuals to think freely. The country needs more people who are prepared to think more about what it would be great to achieve, rather than what can be achieved within the confines of current systems and processes.
- » Individuals run the risk of ridicule and attack from vocal minority interest groups if they float future thinking that sits beyond the bounds of current social acceptability. The 'debate' around genetic technologies is a good example of this. Yet we need to think about what will be acceptable 20 or 50 years ahead if we are to develop strategy and undertake innovation which has the best environmental, social and economic outcomes for the New Zealand of the future.

FACT ZESPRI Gold generated an orchard gate return of **\$83,785** per hectare compared to the return of \$32,234 per hectare for ZESPRI Green in the 2010/11 season **NEW GENERATION KIWIFRUIT** long-term programme to develop new cultivars, and The kiwifruit industry has experienced some of its darkest days in the last year, as the Psa-V disease has ravaged orchards. The premium Hort has begun commercialising three new varieties. The new gold (G3) has demonstrated greater resistance 16A ZESPRI Gold kiwifruit has exhibited a limited to Psa-V and will be made available to growers for tolerance to Psa-V and has been assessed as no next season, enabling markets for ZESPRI Gold longer commercial to grow in New Zealand. The to be supplied. Innovating ahead of the curve has provided the kiwifruit sector with breathing space, but is also impacted by the disease. This means the while research continues to find long-term solutions future of the kiwifruit industry in New Zealand is to maintain New Zealand kiwifruit as part of the premium global fruit basket. Source: ZESPRI Annual Report, www.zespri.com

Is the Primary Growth Partnership (PGP) leading a step change in innovation?

Government spending on the PGP programme has increased significantly over the last year. The initial projects that received a commitment for coinvestment have moved from their establishment period into an operational phase. There is acknowledgement that PGP represents a significant commitment from government into the primary sector, and does mitigate some of the risk associated with large-scale innovation projects. There is also a view that the programme is starting to create a greater culture of collaboration among industry participants - such as the broad groups involved in the dairy industry initiative, FarmIQ, or the seafood sector projects. This creates some confidence that the organisations will naturally find further opportunities for commercial collaboration as the PGP projects run their course and beyond.

But are the PGP projects the right vehicle to deliver a step change in innovation? This was a recurring question raised in our discussions. We heard the view more than once that the projects that have received coinvestment are essentially projects that the companies involved 'should have been working on for years'. And that they are only doing them now because the opportunity to secure a government subsidy has arisen. Yet it's worth noting that these projects, which have gone through a rigorous assessment process, have been proven to have significant benefits to the sectors involved and the New Zealand economy if they achieve their goals. We believe it is undoubtedly preferable that the projects are happening, regardless of whether they should have been funded in the past.

The lengthy application process for projects was highlighted as a deterrent for some to get involved. Another deterrent was the lack of clarity over the criteria that the Investment Advisory Panel (IAP) is using to select the projects they recommend the government invests in. The overarching strategy underlying investment decisions is not immediately apparent from a review of the approved projects. However the Government has been clear it will support projects having transformational potential for a particular sector and for New Zealand's exports. Consequently, the projects tend to come from the minds of entrepreneurs rather than the laboratory. This is giving PGP a very different focus to other government-funded innovation projects. The successful projects are first and foremost about enabling companies to make more money through supporting the implementation of entrepreneurial ideas.

This creates a tension as the Government cannot support projects that provide solely private good without some trickle-down generic benefits to the wider sector and economy. For the private companies involved, it is critical that the project structure allows adequate time to capture sufficient reward for the investment they make. The challenge for the Government is to ensure that the generic benefits of its funding can be accessed by the wider sector in a timeframe that enables the economy to receive a dividend on the taxpayer's investment. It was noted in a number of conversations that projects approved have been more proprietary in nature than originally expected.

The requirement for a PGP scheme to deliver a commercial outcome has created some uncertainty over the potential role that industry good organisations can play in the programmes. The Commodity Levy Act does not permit the involvement of industry good organisations in commercial activities - which makes it difficult for an industry body to join a PGP scheme. However, the industry organisations are finding ways to involve themselves in the programmes. They can use their skills and experience in managing large innovation projects, and their understanding of how to improve the 'back office', so the producer is able to supply product that creates greater value in export markets. The involvement of industry good organisations in PGP programmes is certainly desirable. It creates opportunities for schemes to address the full value chain and develop the customer-focused outcomes that have the potential to transform the sector.

There is also a concern that PGP will not last the next change in government. The opposition's continued support for R&D tax credits is not widely supported. The general opinion is that it encourages people to re-badge their spending to claim deductions. Credits may make more money available but what they do not do is create the collaborative conversations between organisations across the sector. PGP is credited with being a facilitator of 'what if' conversations, with an ability to put some real investment behind good ideas. The loss of this mechanism would be considered a major step backwards by many of the leaders we talked to. In fact there is a level of support for consolidating all government innovation investment in the primary sector (including that managed by the Ministry of Science and Innovation and through the CRIs) under the PGP scheme. This would ensure a consistent investment focus in supporting innovation with the potential to be transformational.

As we have already alluded to, the natural conservatism of government will prevent the higher risk projects with the greatest potential outcomes from being supported. The individuals that form the IAP therefore have an important role in identifying the projects that have real transformational potential, and working with those organisations to make the project into an investable scheme for government. If the panel fail to assess a project through the widest possible lens, and support the development of a compelling vision that the government can buy into, the natural conservatism of government will take over. This will stifle the likelihood of a truly transformational project coming out of a PGP scheme.



Innovation: taking stock



Innovation should be driven by the market aspirations that an industry sector holds for the future.

A sector that sees its future servicing commodity markets, for example, is likely to be targeting its innovation on areas such as addressing supply constraints, maintaining a low-cost production position, and developing responses to minimise the inherent cost challenges of doing business in New Zealand.

By contrast, a sector with a vision for a value-added future is likely to focus its innovation investment into projects that develop a sustainable differentiation for New Zealand-produced products. The challenge for many sectors is the uncertainty about its predominant strategy, which results in a piecemeal approach to innovation investment.

Industry leaders shared a variety of perspectives on innovation levels across the primary sector. They indicated areas where there is a need for a greater focus on collaborative initiatives. The following stocktake highlights the effectiveness of the primary sector in delivering value to potential users of the innovation.

PRODUCERS: ON-FARM, ORCHARD, VINEYARD

Exposure to clear market signals has driven a culture of innovation among New Zealand's primary sector producers. This is something which is not immediately apparent in countries where market signals are distorted through subsidies and price support arrangements. The market signals have encouraged the majority of producers to undertake some innovation in their business, and the cumulative effect has seen New Zealand globally recognised as one of the most effective producers of agricultural products.

However, there is a growing variance of performance among producers. Those highly engaged with new developments, and prepared to consistently adopt new innovation in their systems, are achieving significantly better profit results than the majority of farmers. Many and varied reasons were provided as to why producers are not adopting innovation, despite the obvious benefits. These include:

- » Information on innovation not being sufficiently compelling or easy to use. It is not possible to provide one-on-one advice to every producer. Extension must be done well to inspire people to make a change to their system.
- » A lack of business profitability, and the level of debt carried, constrains the ability of a producer to innovate.
- » The balance for many producers between 'lifestyle aspirations' and the effort required to change a production systems can impact adoption of major innovation (although the comment was made that if succession planning is done comprehensively, this should not be an impediment to innovation).

- » If the benefits and payback on investment of a particular innovation are not readily apparent, producers are less likely to invest.
- » User interfaces on new innovation not being sufficiently intuitive and easyto-use in operational situations.
- » The structure of the tax system was seen as an impediment to investment in innovation in many sectors (for many producers, the tax free status of capital gains means the gain from land prices delivers the tax-free return they require, removing the need to invest the time or effort in innovation).

Innovation for production systems has historically used a 'technology push model', with decisions on the innovation to be performed being made by researchers, rather than linked to real issues concerning producers. As it becomes increasingly difficult to find innovation that will drive a step change in productivity, it is important that work is directed to finding solutions to the real issues producers face.

There was a strongly held view that researchers need to take more time to understand the issues producers face, and think more widely about how an innovation interacts with the whole production system. However it was also recognised that productising solutions was becoming increasingly complex as systems, and the owners business objectives, become more diverse.



FISHING

The potential of New Zealand's seafood industries is significant as global demand for high-quality, sustainable fish grows. Yet the sector in New Zealand has made limited progress over the last decade with innovation to enable it to capture new market opportunities. There was a view that New Zealand has been less rigorous in implementing developments in fisheries science in the industry, compared with equivalent advances in agricultural science in the pastoral sectors. There is concern that the recent focus of governmentsupported fisheries innovation appears to have been on developing new fin fish varieties, before a commercialisation strategy had been tested by the potential investors.

The wild harvest fishing industry is at the sharp end of the global sustainability debate. International customers are very focused on ensuring the product they sell has been harvested in a sustainable way. The Quota Management System (QMS) was introduced in 1986 to manage the catch levels of commercially harvested fish in New Zealand's Exclusive Economic Zone, and this has been recognised as an effective system around the world. However, little innovation has been done to ensure the system maintains its relevance to customers. The industry incurs significant cost operating the system, but gets little credit for it. Customers consider it is subject to political interference, as the Minister of Fisheries makes the final decisions on the total allowable commercial catch (TACC). The innovative step of establishing an independent commission to set the TACC (which

we proposed in the 2011 Agribusiness Agenda), would place New Zealand companies ahead of the curve on sustainability and turn a cost into a competitive advantage.

The fishing sector maximises the value of its product by getting it to market as quickly and as undamaged as possible. The technology to catch more precisely, and transport the fish so it arrives fresher to market, gives rise to a number of technical challenges. The industry has created a PGP to explore this issue collectively, together with a project focused on improving the genetics of greenshell mussels. The use of the PGP funding to collaboratively address fundamental issues facing the industry represents a step forward in developing relevant technology that has the potential to contribute significant value.



IRRIGATION

As we noted earlier in the Agenda, irrigation has the potential to transform the productivity of land across the country. Consequently, we expected to identify an extensive and co-ordinated innovation programme focused on methodologies to build irrigation infrastructure more cost effectively, and developing scaleable technical solutions for the use of water on farm. While work is being done to explore the opportunities in precision agriculture, the perspective we received is that innovation in the irrigation sector is happening in a piecemeal fashion. There appears to be little direct linkage to strategies that will maximise the level of investment in irrigation.

Some innovation is happening in the irrigation sector, and technologies that are available internationally are being introduced into New Zealand. But the various initiatives underway lack co-ordination and, in some cases, there is the potential for duplication of innovation effort. The key challenge for the sector is to understand the range of irrigation effort that is already in progress, and seek out the opportunities for synergy to be generated from organisations pooling their efforts.



AGRITECH

The potential market opportunities for agritech innovations may be greater outside of New Zealand than within. A view was expressed that research effort and activity in the sector should be built as much around an understanding of the needs of customers in international markets as requirements of customers in the domestic market.

The sector is built on a large number of small and medium sized enterprises. They are often lack the depth of financial resources to fund their innovation efforts. The lack of knowledgeable investors prepared to invest in companies undertaking agritech innovation is a significant constraint on these companies delivering to their potential. Organisations such as Innovation Waikato are creating environments for agritech companies to cluster. By exploring opportunities to combine their technologies into bundled offerings for potential customers, this makes the approach to international markets far easier. However, clustering does not address two fundamental issues. Firstly, that the products have been created for use in a New Zealand environment and secondly, that the companies lack the capital to undertake innovation and trials to tailor their products to the specific needs of international customers.

On the positive side, there is a vision of the potential opportunity for New Zealand's agritech sector, and the companies are having some success in international markets. But there was wide agreement that the potential of the sector to generate benefits for New Zealand is much greater than its current performance. What is needed to achieve this potential is more access to capital for innovation and market development.



PROCESSING

There was a wide consensus that the companies involved in processing agricultural products in New Zealand have a strong culture of innovation, and will continue to adopt new innovation providing they have funds to do so.

The view was expressed that the companies are focused on finding better ways to deliver better products to their customers at lower costs – be this in the meat, dairy, poultry or horticulture sectors. It was noted that the small processors have no option but to innovate to survive. Lacking the benefits of scale available to the larger processors, they must use technology to do things more effectively, and at a lower cost, to retain their competitive edge in the market.

Most processing technology is sourced from overseas. Companies will search the world to find the best solution available to them. However, there is still innovation occurring in New Zealand. One significant project is the collaboration facilitated by the Meat Industry Association with Ovine Automation Limited – a joint venture that is looking to bring about a step change in sheep processing via a range of technologies. The collaborative venture has received funding from the Ministry of Science and Innovation.

There also appears to be a growing number of organisations that are recognising the value of 'in-house innovation'. They encourage their employees to identify ways to do things better in their day-to-day roles, and allow them to experiment with ways to create value. An example is the major wineries, who give their winemakers scope to constantly innovate with varietals and winemaking techniques to enhance the quality of their product and lower its cost.



MARKET FACING

In too many primary sector companies, the innovation teams are aligned to production with a primary focus on doing things better in the factory rather than in the market. Linking innovation teams to marketing, and making them client-facing, will help companies to build closer relationships with international clients and deliver solutions that are more closely aligned to the lifestyle trends of the ultimate consumers.

Products such as Icebreaker clothing and the Anlene specialist milks have been created to enable New Zealand companies to win in a defined niche market. There is a wide recognition that our companies need to create products that enable them to sell to higher value customers. However the view was expressed that it is too simplistic to think that it's just a matter of finding a niche and supplying it. Discovering the right niche requires a significant investment in understanding the cultures, trends, and preferences of our potential customers, before creating innovative products.

The nature of primary sector supply means that for every value-add product, there is also a range of commodity and by-products that need to be marketed to maximise their value. Few companies have developed whole-of-system plans to establish how maximum market value is obtained from every component of the production system. The initiatives by NZ Merino to develop the Silere brand of Alpine Merino meat and explore the opportunities with merino leather are an example of developing a whole-of-system approach to extracting value from primary production.



CROWN RESEARCH INSTITUTES (CRIs)

The view was expressed that while New Zealanders are becoming increasingly interested in food, we do not yet have a strong food culture. This is limiting the extent to which companies are innovating with food solutions and packaging to deliver exceptional food to our customers. It was also noted that the current economic environment means companies investing in food innovation are focusing on products that are variants of existing successful products in market, rather than investing in higher risk strategies to develop the next generation of nutritional food solutions. The latter products have much longer payback periods but significantly greater potential to transform a company.

As companies achieve success, it puts greater pressure on them to innovate harder and faster to retain a market leadership position. What quoted successful companies attribute their success to is design thinking – this is taking a customer orientated view and designing business sytems and processes around this.

Market innovation is extremely expensive in comparison to delivering a commodity business model. Having deep market understanding and insight is critical to ensuring that the investment is directed into the opportunities that will generate the best return on investment.

The role of the five CRIs was a subject of discussion in many of our conversations. It was noted that there is an inconsistency in the CRI model between the commercial governance structures and the long-term goal of delivering capacity to the economy. It is too early to assess whether the reform programme introduced in 2010 is delivering on its goal to better align the Institutes to the industry, and make them more outcome rather than output focused.

The question was raised whether more value would be created for the primary sector by having a single institute. Currently, there are five institutes focusing totally or to some extent on the primary sector (AgResearch, Plant and Food, Scion, NIWA and Landcare Research). The benefit of the current structure is that each institute has a different group of industry stakeholders and is focused on delivering value to that group. The concern was expressed that a single institute could restrict the attention some of the smaller sectors receive under the current arrangements. The size of the single institute would naturally draw its focus towards the larger sectors such as dairy, kiwifruit and forestry.

Some organisations noted a preference to retain innovation work in-house rather than contracting it to the CRIs, due to the challenges of managing the contract. Contracting out innovation requires companies to implement systems, give up some flexibility, and relinquish day-to-day control of the project. The comment was made that there can be tensions in any contracting relationship, particularly if the commercial goals of the organisations

are not aligned. This tension can apply to contracting with the CRIs, as their commercial objectives differ from those of many for-profit companies.

There were comments made around the proper role of the CRIs. It was noted that CRIs should have a greater role in monitoring what is happening in science around the world, and bring ideas and opportunities to companies in New Zealand to assist them in shaping their innovation vision. Overall, it is the role of industry to set the direction for innovation and establish the strategies for implementing the results; while the CRIs exist to meet the needs of the industry.



The full potential of precision agriculture is clearly apparent. Massey University has taken a lead in developing technologies that enable farmers to maximise their yields while minimising waste – be that water, chemicals or fertiliser. New Zealand is taking a global lead in developing precision agriculture techniques for pastoral farming, with the C-Dax Pasturemetre an example of the innovation that Professor Ian Yule and his team at Massey have been involved in developing. The C-Dax Pasturemeter

enables farmers to accurately measure grass cover and use this to drive effective on-farm decision-making, such as adding nutrients to a pasture or the optimal grazing rotation. This type of innovation is an attractive commercial proposition to many farmers – one that delivers increases in production, reduces cost, and delivers improved environmental outcomes. Doing more with less makes further innovation investment in precision agriculture a proverbial 'no brainer'.

What is needed to create an innovation ecosystem in New Zealand?

The famous 'No.8 wire culture' has been widely celebrated by the New Zealand media for many years.

However in our recent discussions, we have increasingly come to see it as an impediment to the creation of a worldclass innovation system in this country. At the heart of our current innovation culture in New Zealand there is a degree of arrogance (that a solution will come along when we need it); a degree of complacency (that we don't need to spend at international levels because

we will have a higher rate of success); and a belief in luck rather than process.

New Zealand urgently needs to invest in putting the infrastructure in place to support a world-class innovation ecosystem. A continued reliance on piecemeal innovation giving rise to an occasional 'eureka' moment will not deliver the future this country requires.

Let us consider the innovation ecosystem created in Israel. This provides an indication of the infrastructure that needs to be developed in our country to create a world leading innovation ecosystem. In particular:

- » Israel invests more of its GDP in R&D activities than any other country in the world. This provides an opportunity to create the world's deepest scientific community, who work in the best scientific research institutes in the world, and make the country's highly educated workforce its most significant economic resource.
- » Israel is ranked second in the world in access to venture capital investment, meaning there is a deep ability to turn innovative ideas into profitable businesses. The depth of access to venture capital is demonstrated by Israel having more of its companies listed on the NASDAQ market than any country outside the USA.

	NEW ZEALAND	ISRAEL	DENMARK
Quality of scientific research institutions	///////////////////////////////////////	//////1//////	14
Firm level technology absorption	//////////////////17///////////////////	6	///////9////
University and industry collaboration in R&D	24	/////7//////	15
Utility patents granted per million of population	24	4	12
Venture capital availability	26	/////2//////	24
Capacity for innovation	29	6	///////9///
Availability of latest technologies	29	13	///////////9////
Company spending on R&D	38	/////8////	///////////////////////////////////////
Availability of scientists and engineers	69	/////10	25
Government procurement of advanced technology products	///////////////////////////////////////	6	//////20
OVERALL INNOVATION RANK	27	/////6/////	10

Cereal yields in New Zealand have grown by 2.1% per annum compound over the period from 1980 to 2010





ADOPTING INNOVATION FOR PROFIT QUICKLY

Investment return on innovation is maximised when the technology developed is incorporated rapidly into production systems. The Foundation for Arable Research (FAR) was singled out in many conversations as an organisation that is creating value for its levy payers, through a focused innovation strategy targeted at growing better crops. The annual growing season for arable crops provides farmers with an ability to experiment with innovation on a portion of their crop almost immediately. If the

benefit justifies the cost, the farmer can roll out the innovation across their whole crop the following season. This suggests the period from laboratory to financial benefit could be as short as two years. FAR also excels in ensuring it fully understands the high priority issues that levy payers want solutions to. An annual residential workshop, attended by a cross-section of levy payers, tests their proposed work programme and keeps it closely aligned to the sector's needs.

Each year, the World Economic Forum ranks the global competitiveness of 142 countries on a wide range of economic drivers. It is interesting to compare the rankings New Zealand receives for its 'No. 8 wire' based innovation system to those given to systems in Israel and Denmark. They are two small developed economies that also have to innovate to overcome their inherent lack of scale and win in international markets.

There is not an overnight solution to addressing the obvious deficiencies of New Zealand's innovation system. The CRI reform process was an important start, as was the reform of the Ministry of Science and Innovation. However it is now time for commercial entities to step up and take a lead in building an innovation ecosystem in this country. What might that look like?

In our ideal future:

- » We will have a balanced portfolio of innovation projects at various stages of development in the pipeline, identified through rigorous application of detailed and deep market knowledge. The projects in development are based on a comprehensive understanding of the circumstances giving rise to the need for innovation. If it has not been possible to answer the question why the project is required by a customer, now or in the future, the idea will be shelved until the answer becomes apparent.
- The work programme will include an appropriate balance of structured innovation projects (developments with identified and achievable outcomes); and pure research, which looks to advance knowledge and create ideas to fill the development stages of the pipeline. With a clearly articulated

- strategy for the primary sector, pure research should not be thought of as 'blue sky'; as it is guided by where the industry wants to go and what it wants to achieve. The projects are complex, often involving many different strands of work, but they are not unfocused or lacking direction.
- » Commercial funding will represent a far greater percentage of the countries spending on R&D, with the overall investment level also increasing significantly. Funding structures need to be agile to respond quickly to tactical opportunities that arise, delivering greater value to our customers and responding to unexpected issues, such as biosecurity incursions. The ability to make decisions quickly is critical to ensure an innovation is able to gain first-mover benefit in a market and, potentially, lock in a longer term competitive advantage.
- We will have the right people working in the right roles. It is important to make a clear distinction between those people with worldclass capability in generating innovative ideas and solutions, and those with the entrepreneurial ability to commercialise ideas. It is rare that a single person has the ability to undertake both of these roles effectively. Those with the requisite skills to commercialise a project need to be involved from the outset. This requires the mechanisms linking the CRIs and universities to commercial organisations to be further developed.

>> We will have direct connectivity to our international markets, understanding how trends and preferences are developing on a real-time basis. In last year's Agenda, we proposed the idea of innovation incubators in key international markets. We continue to believe that such structures, funded by a mix of government, industry and overseas investor money, would provide access to insightful information about the real problems our customers seek answers to

Could we make more use of international technology?

As a small country with limited resources, we cannot afford to ignore the technology innovation that is taking place internationally. The reality is that New Zealand's innovation programmes will not convert more ideas into realisation than any other country and, as such, we need to make as much use as possible of international innovation to give ourselves the best chance of success. Therefore we need to be sourcing the best ideas – from any innovation pipeline and at any stage of development – that have the greatest potential to work in New Zealand, and invest in commercialising these ideas.

Many sectors are already sourcing product and processing technologies from overseas. For instance, the pork sector is exploring how internationally available technologies can be used to respond to changes in the animal welfare code for pigs around the use of sow stalls. The arable sector continuously sources technologies from overseas and has used them to achieve world best crop yields in Canterbury. The New Zealand poultry industry takes advantage of the genetic advances made in the US, enabling it to breed birds that produce more meat faster. The focus of innovation investment in these examples lies in understanding how the value of the innovation can be maximised in the New Zealand environment.

So why are more sectors not looking to leverage intellectual property and technology that can be sourced internationally? The most significant concerns expressed related to the commercial risk associated with not having ownership of the intellectual property that a business model is built upon. This is particularly so if a significant investment has been made to adapt the technology to the New Zealand environment. The main concern revolved around having the intellectual property the industry has adapted for use in New Zealand being controlled by a significant international competitor.

Adoption of global technology is also impacted by a lack of awareness of the potential opportunities to exploit these technologies. There is a real need to expand the horizons of people in the industry through travel, exchanges and reciprocal information sharing. Too often, the primary sector has relied on individuals to develop international connections through their own activities. Establishing means of access through structured programmes should be explored, as international connectivity can create significant paybacks for the primary sector.

We also need to ensure it is not too difficult and expensive for international companies to obtain certification to bring beneficial agri-chemicals and animal health products to the market in New Zealand. If the rules surrounding imports of products are too restrictive, the lack of scale in the New Zealand domestic market could potentially mean products will not be brought into New Zealand as the returns will be insufficient to justify the import costs.



Acknowledgements

KPMG would like to acknowledge the contribution of the following industry leaders in preparing this report. Alison Patterson
Andrew Curtis
Andrew Ferrier
Andy McFarlane
Ann Harper
Barbara Kuriger
Barry Foster
Ben Russell
Bill Falconer
Bill McLeod
Brian Richards
Bruce Wills
Prof Caroline Sauna

Prof Caroline Saunders
Chris Kelly
Colin Harvey
Collier Isaacs
Conor English
Craig Greenlees
Craig Norgate
Hon Damien O'Connor

Hon David Carter
David Handley
David Hemara
Dean Nikora
Derek Fairweather
Donovan Wearing
Doug Ducker
Eoin Garden
Gavin Sinclair
Geoff Taylor
Gerard Hickey

Sir Graeme Harrison

Graham Stuart

Prof Nicola Shadbolt
Owen Poole

Kevin Bryant

Lloyd Downing

Mark Clarkson

Mark Dewdney

Michael Brooks

Michael Dunbier

Michael Spaans

Mike Peterson

Nick Pyke

Mark Ward

Lain Jager

Grant Cuff Prof Hamish Gow Haylon Smith Howie Gardner Ian Palmer Prof Jacqueline Rowarth James Parsons Jane Arnott Jason Dale Jeff Grant Jeremy Flemming Joe Stanton John Brakenridge John Harrison John Loughlin Hon John Luxton Julie Hood Keith Cooper Prof Keith Woodford

Grant Abbott

Paul McGilvary Peter Chrisp Peter Ellis Peter Hendry Peter Landon Lane Peter Silcock Philip Gregan Richard Bowman Richard Fitzgerald Richard Green Rod Quin Rodney Green Ross Verry Sam Lewis Sam McIvor Sam Robinson Sarah Kennedy Sarah Speight Scott Champion Simon Couper

Prof Sir Peter Gluckman
Stephen MacAulay
Steven Smith
Stuart Chapman
Stuart Wright
Tim Mackle
Tim Ritchie
Tom Richardson
Tony Egan
Wayne Anderson
Wayne McNee

We would also like to acknowledge the creative talent of the KPMG staff that have contributed photographs to this report.

Andrew Gane

Bert McNalley

Steve Pettigrew

Elise Verwey

Helping New Zealand prosper

New Zealand can and should be achieving more with the talent, knowledge, natural resources and market reputation the generations before us have built.

We love agribusiness, and take great pride in how our roles as independent advisors, thought leaders, strategists and, in some cases, farm owners helps fuel prosperity for our great country.

Access KPMG thought leadership at: kpmg.com/nz/aa2012

PAN-INDUSTRY REPORTS







Fostering pathways to prosperity for our clients, communities and the country is something we at KPMG are deeply committed to. Our specialist Agribusiness team consists of over 70 advisors; each person is passionate about the sector. The contribution that we make with the professional advice we give and the success we create for our wide range of agribusiness clients is what drives us to do what we do.

We would like to thank our many clients for the opportunities they give us to help them overcome their challenges and contribute to their successes at home and around the world. Being proudly New Zealand owned, the investment we at KPMG make in producing free thought leadership for the industry, and our sponsorship initiatives across the agribusiness and food sectors, is our way of saying thank you to our clients for their business. We really appreciate it.

We provide services to more than half of the 100 largest global agribusiness companies, and we are trusted advisors to an extensive range of New Zealand agribusinesses.

KPMG's Agribusiness team can help you improve the efficiency and profitability of your business through our wide range of advisory services. Our national and international, cross functional agribusiness professionals focus solely on understanding the issues faced by agribusiness companies and developing tailored solutions to meet these challenges.

With our topical thought leadership we aim to remain at the leading edge of thinking in the agribusiness segment.

KPMG brings together over 800 staff across five offices to serve clients throughout New Zealand. Whether it be in the office, down at the milking shed, around the homestead kitchen table or the boardrooms of our processing and world-renowned export companies; wherever the difficult business decisions are being made, we feel right at home.

We can help you with:

- » Volatility in earnings due to exchange rates and commodity prices
- » Availability of capital, particularly in co-operative organisation structures
- » Addressing customs and quota issues and maximising the benefit of FTAs
- » Issues arising from climate change regulations, carbon trading and food
- » Obtaining R&D funding to support innovation in genetics, seed technology and nutrition
- » Cost management and control
- » Farming for profit
- » Valuation of brands on a local and international basis
- » Acquisition and transaction support to encourage growth in local and overseas markets
- » Advice on control and governance structures for all sizes of business
- » Mentoring and support for growing your business
- » Negotiating financing arrangements
- » Succession planning and future proofing your business strategy.

Contact us

Auckland – Audit

Ian Proudfoot

T: +64 (9) 367 5882 **M:** +64 (21) 656 815

E: iproudfoot@kpmg.co.nz

Auckland – Financial Advisory Services

Gary Ivory

T: +64 (9) 367 5943 **M**: +64 (21) 932 890 **E**: givory@kpmg.co.nz

Auckland - Sustainability Services

Jamie Sinclair

T: +64 (9) 363 3460 **M**: +64 (21) 475 735 **E**: jpsinclair@kpmg.co.nz

Hamilton – Tax

Rob Braithwaite

T: +64 (7) 858 6517 **M:** +64 (21) 586 517

E: rbraithwaite@kpmg.co.nz

Hamilton – Farm Advisory Services

Hamish McDonald

T: +64 (7) 858 6519 **M:** +64 (21) 586 519

E: hamishmcdonald@kpmg.co.nz

Tauranga

Robert Lee

T: +64 (7) 571 1773 **M:** +64 (25) 511 035 **E:** relee@kpmg.co.nz

Wellington

Michael Day

T: +64 (4) 816 4599 **M**: +64 (27) 293 8338 **E**: michaelday@kpmg.co.nz

South Island

Paul Kiesanowski

T: +64 (3) 371 4832 **M**: +64 (21) 272 7087

E: pmkiesanowski@kpmg.co.nz

kpmg.com/nz/aa2012













© 2012 KPMG, a New Zealand partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

This publication is printed on 9lives Ambassador, 55% recycled fibre, manufactured using process chlorine free (PCF), FSC certified virgin pulp from well managed and legally harvest forests.