MAKING DAIRY FARMING WORK FOR EVERYONE
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>3</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>4</td>
</tr>
<tr>
<td>Introduction: Setting the agenda for dairy farming</td>
<td>8</td>
</tr>
<tr>
<td>The Vision: Making dairy farming work for everyone</td>
<td>12</td>
</tr>
<tr>
<td>The Context: Being competitive and responsible</td>
<td>20</td>
</tr>
<tr>
<td>Strategic Objectives</td>
<td></td>
</tr>
<tr>
<td>Farm Profit</td>
<td>30</td>
</tr>
<tr>
<td>Environmental Stewardship</td>
<td>33</td>
</tr>
<tr>
<td>Research and Development</td>
<td>36</td>
</tr>
<tr>
<td>Animal Welfare</td>
<td>39</td>
</tr>
<tr>
<td>Talented People</td>
<td>42</td>
</tr>
<tr>
<td>Work Environment</td>
<td>45</td>
</tr>
<tr>
<td>Biosecurity and Product Integrity</td>
<td>48</td>
</tr>
<tr>
<td>Local Communities</td>
<td>51</td>
</tr>
<tr>
<td>Industry Information Systems</td>
<td>54</td>
</tr>
<tr>
<td>National Prosperity</td>
<td>57</td>
</tr>
<tr>
<td>Partners and the next steps</td>
<td>62</td>
</tr>
</tbody>
</table>
The time is right for our new strategy, *Making Dairy Farming Work for Everyone*. Dairy farming has a great opportunity over the next decade as markets and economic power shifts to our advantage. New Zealand is well positioned currently as the biggest supplier of traded dairy products to the large, rapidly growing economies of Asia whose populations are increasing their consumption of dairy. Our key challenge is making the most of this global opportunity and capturing the benefits for dairy farming and for New Zealand.

The most vital player in this paddock to plate challenge is the farmer. Behind the farm gate is where competitiveness and responsibility begins in our dairy industry. It doesn’t end there, of course – but it certainly starts on the farm.

To achieve our ambitions as farmers and our aspirations for the industry, we all need to step up and commit to making dairying work for everyone. That is the single most important concept behind this strategy.

Now is the time to have a vision for showing everyone how world-class we can be as dairy farmers and caring custodians of the land. We are responsible at a catchment and community level for building sustainable businesses, delivering local and national prosperity.

We also need a plan for showing others how we will reach our goals. How will we make dairy farming work for New Zealanders – today and tomorrow? How will we stay at the top of our competitive local and global game?

Our commitment to this plan is real. In partnership with the dairy farmers of New Zealand and the wider industry, we can achieve all ten objectives in this strategy. There is work for everyone here – and we all have to work together. That will be the key to our success.
Dairy farmers are highly motivated to strengthen their own businesses and help build a better future for New Zealand. Global dairy markets offer significant growth and value creation opportunities over the next decades. Individual farmer action and industry initiatives are already doing some of what needs to be done to capture these opportunities, but more can be done particularly in working for the benefit of all New Zealanders.

The strategic vision is ‘dairy farming working for everyone’. To achieve this vision, dairy farming must be competitive and responsible. Defending and enhancing New Zealand dairy farming’s competitive advantage is a continued effort, building on previous strategies and focussing on the key areas that make a difference to the economic performance of dairy farming. Dairy farming must also address its responsibilities inside and outside the farm gate. A responsible dairy farming industry is one which demonstrates good stewardship of resources, acknowledges its duty of care to people and animals, and which builds a better New Zealand through the contributions of farmers and the wider industry to New Zealand society.

These competitive and responsible themes are complementary and reinforce each other. An internationally competitive business underpins the outcomes necessary to benefit New Zealand, and building a reputation as a responsible industry underpins New Zealand dairy farming’s competitive advantage on the world stage. To achieve these ambitions, dairy farmers and their organisations must work collaboratively together and with others.

This document outlines ten strategic objectives aligned to being competitive and responsible.

Meeting these objectives will create a more sustainable future for dairy farming in New Zealand.
Making Dairy Farming Work for Everyone

**Competitive**

- Farm Profit
  Increase on-farm profit and resilience through greater efficiency

- Research and Development
  Research and develop innovative technologies and solutions to meet the future needs of dairy farms

- Talented People
  Attract, develop and retain highly skilled and motivated people throughout the industry

- Biosecurity and Product Integrity
  Enhance the assurance levels of New Zealand’s biosecurity and product integrity

- Industry Information Systems
  Create and maintain industry-wide systems and structures to serve the needs of dairy farmers

**Responsible**

- Environmental Stewardship
  Proactive environmental stewardship and wise use of natural resources

- Animal Welfare
  Farm to high standards of animal health, welfare and well-being

- Work Environment
  Provide a world-class work environment on-farm

- Local Communities
  Enhance the communities we live in

- National Prosperity
  Grow dairying’s contribution to the prosperity and well-being of New Zealand

Sustainable Dairy Farming
The introduction
Setting the agenda for dairy farming
Setting the agenda for dairy farming

*Making Dairy Farming Work for Everyone*, the Strategy for Sustainable Dairy Farming 2013–2020 refreshes earlier industry strategies launched in 2004 and 2009. It builds on their success in providing leadership and a plan of action for dairy industry stakeholders. It provides government and public organisations with a clear view of industry objectives and commitments, and the role that the industry will play in achieving these.

**Why is it important?**

The past four years have brought important changes and imperatives that affect our dairy industry. New Zealand has weathered the global financial crisis, but not without adjustments. The need for environmentally sustainable farming practices has gained momentum. Other factors such as animal welfare are also emerging.

**Who has developed the strategy?**

This revised strategy has been developed through wide consultation both within the dairy industry, and also with public figures and industry leaders from other sectors. The significance of the dairy industry to New Zealand demands this broader engagement. The working group comprised members from DairyNZ, Federated Farmers, the Dairy Companies Association of New Zealand (DCANZ) and Dairy Women’s Network.

**Who is it for?**

The strategy is first and foremost a document for New Zealand dairy
farmers. At the same time, it outlines objectives for the whole industry, in which many parties have an important role. It builds on previous strategies and provides a roadmap and priorities for the industry such that all parties can engage in building a sustainable future for dairy farming in New Zealand.

**What does it contain?**

This document provides a summary of the industry context and highlights those areas which have emerged as having special significance to the dairy industry. It describes the new strategic framework with the vision of making dairy farming work for everyone, and the 10 objectives to achieve this through being both competitive and responsible. Each objective includes the context for why we are doing it, the approach, and how progress will be measured. Notable achievements towards these objectives, undertaken in line with the 2009 strategy, are highlighted.
The vision

Making dairy farming work for everyone
The idea that dairy farming can work for everyone is the single most important concept behind this strategy. It is the starting point for all the ideas and actions that follow.

The New Zealand dairy industry is a world leader, and dairy farming is an important mainstay of New Zealand’s economy. This national success story is highlighted in the following statistics:

- Produces enough milk to provide dairy products for 165 million people
- Over $13 billion in dairy exports in 2012, the largest of any goods sector and more than a quarter of New Zealand’s total goods exports
- $5 billion contribution to national Gross Domestic Product (GDP), more than a third of the entire primary sector
- Employing approximately 45,000 people including those who are self-employed

A bright future

Dairy farming globally has a very positive future. World demand for dairy products is expected to grow faster than supply, and this will drive higher prices. New Zealand is well positioned as the biggest supplier of traded dairy products to the large, rapidly growing economies of Asia. These populations are increasing their consumption of dairy products faster than they can increase milk production. The key question is how much of this global opportunity will be captured by New Zealand, and how much dairy farming and the wider economy benefits.

Most New Zealanders understand the economic contribution of the dairy industry, but many do not connect
that success with their own day-to-day lives. They are also concerned that dairy farming might be using the nation’s resources without due regard to others and the future. This strategy signals the intent of dairy farming to be part of New Zealand’s future for the long term.

**Sustainability is vital**

Dairy farming in New Zealand aspires to sustainable development, meaning “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”\(^2\). This requires “three pillars of sustainability”, those being the reconciliation of environmental, social and economic aspirations.

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**Dairying must be competitive**

It is vital that the dairy industry and other stakeholders do not lose sight of the imperative to remain competitive on the world stage. The last five years have been characterised by highly volatile export markets and a punishingly strong New Zealand currency. These trends are set to continue.Yet the strength of world dairy commodity markets has still delivered higher-than-average returns to the farm gate.

While this has directly benefited New Zealand dairy farming, it has created some complacency and at the same time provided incentives for other nations to re-focus on export markets.

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\(^1\) Dairy’s role in sustaining New Zealand, NZIER, December 2010  
\(^2\) Brundtland Commission of the United Nations on March 20, 1987
**Staying competitive**

Sustainable dairy farming in New Zealand depends on dairy farming remaining competitive in global markets, as well as compared with other land-use in New Zealand. Only a globally competitive dairy farm sector can remain profitable over the long-term. This strategy addresses the imperative for being competitive within the theme of competitive dairy farming.

Sustainable dairy farming also requires the maintenance of natural resources including soil and water. There is an important third dimension which involves social aspirations. In the case of dairy farming, this is relevant both to employment on-farm and also the relationship with wider New Zealand society.

Dairy farming must address these issues in part because it has been so phenomenally successful, and has consequently grown to become a major land-use in New Zealand. This in turn has increased its public profile, its visibility in the rural landscape, and its impact on the environment. The table opposite outlines how dairy farming has grown to become a significant land-use in New Zealand, and a major sector of the economy.

As an industry of national significance, dairy farming is under increasing scrutiny. This coincides with greater community demands and anxiety over food security. Greater scrutiny of agricultural production systems is part of a global trend, and is particularly relevant to New Zealand as a major exporter of dairy products. Protecting
the environment (particularly the integrity of waterways) and the welfare of farmed animals along with managing global environmental issues such as climate change and greenhouse gas emissions are key concerns for the industry.

**Table 1: Growth of dairy farming and its economic contribution to New Zealand**

<table>
<thead>
<tr>
<th>Industry Statistics³</th>
<th>1992</th>
<th>2002</th>
<th>2012</th>
<th>10 year growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total effective hectares (mil ha)</td>
<td>1.05</td>
<td>1.4</td>
<td>1.64</td>
<td>17%</td>
</tr>
<tr>
<td>Dairy farms as % of grasslands</td>
<td>11%</td>
<td>17%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Dairy cows (mil)</td>
<td>2.44</td>
<td>3.69</td>
<td>4.63</td>
<td>25%</td>
</tr>
<tr>
<td>Dairy cows as % of stock units⁴</td>
<td>23%</td>
<td>35%</td>
<td>46%</td>
<td></td>
</tr>
<tr>
<td>Milk Collected (mil kgs of milksolids)</td>
<td>637</td>
<td>1,152</td>
<td>1,685</td>
<td>46%</td>
</tr>
<tr>
<td>Dairy Export Value (NZ$ mil)⁵</td>
<td>2,904</td>
<td>7,453</td>
<td>13,659</td>
<td>83%</td>
</tr>
<tr>
<td>Dairy Percent of Merchandise Exports⁶</td>
<td>16%</td>
<td>23%</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>

³New Zealand Dairy Statistics 2011-2012; NZ Statistics (Infoshare); dairy cows in milk only; Livestock includes only cattle, sheep and deer
⁴DairyNZ Economics Group, stock units provide a fair comparison across species
⁵Dairy products only, excludes live animal and meat exports
⁶Total Merchandise Exports Plus Re-Exports
Stewards of the land

Dairy farmers are stewards of the land, with most already doing a great deal to protect the environment they operate in. They are spending their own time and money directly on riparian planting, fencing off waterways, investing in effluent management systems, protecting native bush and wetlands through QEII covenants and contributing to pest control through the TBfree programme. Through their dairy levy farmers are also funding research into new farming techniques to reduce adverse environmental effects.

Community and customer expectations of dairy farmers are constantly increasing. Informing the public of what the industry is doing, and how it is keeping pace with its environmental, animal welfare, people and community responsibilities is a constant challenge. Often, the public’s perception of dairy farming does not match the reality today. A few bad performers can unfairly shape a community’s view of the majority, and undermine the industry’s reputation.

The dairy industry must show more leadership. It must also become better at explaining the steps taken to address issues and the results being achieved. This means focusing on actions to ensure dairy farming remains competitive and responsible, as well as explaining what is being done to achieve sustainable dairy farming objectives.

This is necessary to gain the acceptance and support of the wider New
Zealand community. Dairy farming must become more responsible and trustworthy in a tangible and public way. While there will still be issues to be managed as there are with all industries, dairy farmers must promptly deal with unacceptable behaviour and performance. This strategy for sustainable dairy farming addresses these requirements within the theme of responsible dairy farming.

Dairy farmers are stewards of the land, with most already doing a great deal to protect the environment.
The context

Being competitive and responsible
For New Zealand dairy farming to be more sustainable, it must be both competitive and responsible. The relevant questions to be addressed are:

- How competitive is New Zealand dairy farming, and how is this changing?
- What are the responsibilities of New Zealand dairy farming?
New Zealand dairy farming enjoys a competitive advantage in global dairy markets. However, this advantage is at risk of being undermined by changes on and off farm.

New Zealand’s competitive advantage in dairy farming is evident in its growth to become New Zealand’s largest export sector with over $13 billion in exports per annum. New Zealand’s dairy industry is globally significant with over a third of the world’s traded dairy market. New Zealand’s competitive advantage arises from a number of important factors both on and off farm:

- Resilient, low-cost dairy farming systems
- Skilled and motivated farm managers and staff
- Plentiful access to fresh water resources
- Export orientation
- Reputation for product integrity and reliability
- Growth and capital renewal

New Zealand’s competitive advantage is not a static quality. It is enhanced, or eroded, by changes at local and global levels. The table following highlights the key aspects of New Zealand’s competitive position, and the drivers behind these.
### Historical competitive advantage

<table>
<thead>
<tr>
<th>Historical competitive advantage</th>
<th>Key changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilient, low-cost dairy farming systems</td>
<td>• Structural increases in both farm operating costs and also farm debt</td>
</tr>
<tr>
<td></td>
<td>• Strong New Zealand currency eroding international competitiveness</td>
</tr>
<tr>
<td>Progression system that developed experienced, motivated dairy farmers</td>
<td>• Farming system diversification</td>
</tr>
<tr>
<td></td>
<td>• Virtual loss of sharemilking career pathway for new entrants</td>
</tr>
<tr>
<td></td>
<td>• Insufficient agricultural graduates</td>
</tr>
<tr>
<td></td>
<td>• Poor functional literacy and numeracy</td>
</tr>
<tr>
<td>Plentiful access to fresh water resources</td>
<td>• Restrictions on water use for irrigation and the dairy shed</td>
</tr>
<tr>
<td></td>
<td>• Competition with other water users</td>
</tr>
<tr>
<td></td>
<td>• Key eastern agricultural regions forecast to spend more time in drought$^5$</td>
</tr>
<tr>
<td>Export orientation</td>
<td>• Emergence of other nations targeting New Zealand export markets, where demand is outstripping supply</td>
</tr>
<tr>
<td>Historical competitive advantage</td>
<td>Key changes</td>
</tr>
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</tbody>
</table>
| Reputation for product integrity and reliability | • Heightened sensitivity in export markets  
• Exposure to risks of tampering or adulteration of product in-market  
• Exposure to risks of pest and disease threats entering New Zealand  
• Co-ordination challenges as a consequence of industry fragmentation |
| Growth and capital renewal | • Slower industry growth, leading to less new investment across the value chain |

Further detail behind these areas of competitive advantage is provided in the accompanying background scan to this strategy. Clearly there is no justification for complacency in the competitiveness of New Zealand’s dairy industry.

However, dairy farming has a strong tradition of co-operation and resilience in the face of adversity, and is capable of meeting these challenges.

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5Scenarios of Regional Drought under Climate Change, NIWA 2011
Dairy farmers have significant responsibilities to manage across a number of areas. In many cases, dairy farmers are having to change and adapt to meet new expectations and requirements.

Rising expectations

There is a fundamental shift in the expectations of farming which places greater responsibility on farmers for outcomes beyond the farm. This shifting of goal posts is partly a consequence of dairy farming’s own success and growth. It is also due to a growing public awareness of the long-term consequences of unsustainable behaviour.

Taking responsibility for the wider outcomes of dairy farming implies more than simply meeting some minimum standard of behaviour specified in regulation. Acting more responsibly requires dairy farmers to make deliberate choices that provide greater benefits even where that is not required by regulation. Dairy farmers must lead the way, working with officials and stakeholders to enable positive change.

The following table identifies the four key areas of responsibility close to the farm, and lists issues that dairy farming acknowledges and must deal with. These issues are outlined in greater depth in the supplement to this strategy.
<table>
<thead>
<tr>
<th>Areas of responsibility</th>
<th>Key issues / challenges</th>
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| A duty of care to manage natural resources sustainably, particularly water | • Environmental impact of dairy farming  
• Catchment capacity to absorb nutrients entering waterways and ground-water  
• Attribution of water quality to land-use  
• Allocation of resources to competing uses, and under different value systems |
| A duty of care for farmed animals | • Increased awareness of welfare of farmed animals  
• Changing perceptions of welfare  
• Less tolerance for animals bearing the consequences of human failures |
| A duty of care for people employed on and around dairy farms | • Highly demanding farm work environment and long hours, particularly during calving  
• Health and safety issues arising from physical nature of the work  
• Farming attitudes and work culture |
| Role in local communities | • A highly mobile workforce, with individuals changing farms and districts on a regular basis  
• Pressure on rural community resources and infrastructure |
Recognising the value of dairy farming

It is important for New Zealand that the significance of the dairy industry is recognised in policy making and investment decisions. Equally it is important that these decisions are informed by an understanding of both the farm-level economics and also catchment-level implications of dairy farming. Industry and government are responsible for ensuring these considerations are taken into account.

Further, the Government’s Business Growth Agenda.
Growth Agenda calls for doubling agricultural sector exports by 2025. This growth is necessary to achieve the standard of living to which New Zealand aspires. Clearly the dairy industry is a key part of this strategy. This increased export value will not be achieved simply through increased farm production. More value must be created within and beyond the dairy farm gate, potentially through recognising the provenance of New-Zealand-produced milk and differentiating its value in world markets.

Participants in the New Zealand dairy industry are challenged to find solutions that benefit not only the industry, but the nation as a whole. Individually, dairy farmers are constrained in their ability to respond to this challenge. However, collectively, dairy farming has a powerful voice through its industry good initiatives and co-operative ownership of dairy companies comprising more than 90 percent of dairy processing and export business. It is important that dairy farmers engage at this level, not only to benefit New Zealand but also as it has a direct bearing on sustaining the returns they receive from the value of milk.
The strategic objectives

How we will achieve the vision
How we will achieve the vision

**Definition**
Farm Profit means farm operating profit. Resilience is the capacity to deal with volatility and adverse events. Efficiency means increasing the farm output relative to farm inputs, and is a key factor in both the profitability and resilience of New Zealand dairy farms.

**Context**
Profitable dairy farming is the basis of individual farming success. Being profitable, and financially resilient to the volatility of both markets and climate, is fundamental to sustainable dairy farming. Collectively, profitable dairy farming is closely aligned with the cost-competitiveness of New Zealand dairy farming internationally, and drives industry growth over the long-term.

Sustained profits for dairy farming over previous decades fuelled industry growth, especially expansion into new regions and conversion of other land-use. It has also lead to structural shifts, especially as dairy markets have climbed to higher average price levels. Capitalisation of profits into higher land values, diversification and intensification of farm systems with greater use of supplements, and higher
farm debt are all direct consequences. Regional council pressures to adopt systems to better handle effluent and winter leaching or runoff are now adding to the impetus for more infrastructure and consequently intensification.

However, dairy farm profitability is under pressure. Increases in farm input costs plus a significantly higher industry debt burden have eroded the profit gains from productivity. In the context of a more turbulent business environment, many dairy farms are exposed to significant risk. Internationally, the effect of these changes combined with a strong New Zealand dollar exposes the whole industry to the risk of no longer being competitive with other major dairy exporting nations.

There is a wide variance in profitability observed across New Zealand dairy farms, including between those using similar systems. The differences are primarily associated with management skill, rather than the system itself. The most profitable and resilient dairy farms are those with the highest efficiency. This presents a crucially important opportunity for individual farmers and the whole industry.

The aim of this objective is to improve the profitability and resilience of dairy farming through efficiency gains on-farm.

**Strategic approach**

The strategic focus is on increasing the efficiency of individual farms, particularly in terms of the management and investment decisions that drive efficiency. It applies to all farm systems, as there are opportunities across the spectrum. The key to this is greater engagement with all farmers and their professional advisors to understand the opportunity, and support improved practices and decision-making.

Achieving on-farm change is highly dependent on motivation, access to information, and the transfer of knowledge through direct support. DairyNZ will invest more in engaging directly with farmers to support them in identifying options for change. Rural professionals can then play a key role, especially in partnership with industry good providing aligned messages and working one-on-one with farmers. Hence industry good will form partnerships with rural professionals in each region to facilitate change on-farm, and link these with farmer groups, regional demonstration activities and national expertise, and provide further support through training and development.

Regional demonstration farms will provide dairy farmers with evidence and ‘how to’ knowledge that they can transfer
into their own operations and decision-making. A network of demonstration farms will provide an appropriate breadth of systems and solutions. These will be connected with local rural professionals and farmer networks, as well as with research and development.

National expertise from industry good and key institutions will be applied to developing appropriate benchmarking information, to inspire and motivate as well as providing realistic goals. This national expertise will also evaluate tools to aid farmers, and deliver insights into achieving profitability and resilience through efficiency. There will be a specific focus on providing better advice around farm-system change.

**Measures**

- The primary measure is “Profit from Productivity” which describes how much of a farm’s profit in any given year is due to production efficiency gains made on that farm over a period of time. This is measured across the whole of New Zealand dairy farming, as well as at farm level.

- Related key measures are the components of efficiency including technical (e.g. Pasture Eaten) and financial efficiency (e.g. Return on Assets).

- Practice change measures such as the adoption of farm planning are also included.

**Achievements**

- Annual gains in Profit from Productivity of approximately $50 per hectare per year over the period 1999 to 2012 (and the development of the Profit from Productivity measure itself).

- Development of a network of demonstration and focus farms in all regions.

- DairyPush and Body Condition Score programmes, which demonstrated the value of 1:1 engagement with farmers to motivate management changes. This success is the basis of greater investment in farmer engagement.

- Increased engagement with DairyNZ groups through:
  - Whole Farm Assessment: process for discussion groups used with host farmers to identify and determine action plans
  - Mark and Measure: inclusion of governance for large organisations.
**Definition**

Environmental stewardship means responsible use and protection of the natural environment through sustainable practices and conservation. Wise use of resources means using them sustainably for the greatest good.

**Context**

The majority of dairy farmers work hard to leave the farm they own in better condition than when they took it on. There is a strong sense of pride in their land and the improvements they have made to its natural capital. New Zealand dairy farmers have contributed greatly to the conservation and use of New Zealand’s natural environment. Many scenic parks, reserves and recreational trails throughout the country have been developed with dairy farmers’ assistance and because of their passion for conservation. Many dairy farms have extensively planted less productive parts of their farms in native vegetation and/or enhanced planting to protect sensitive waterways and wetlands.

Like most New Zealanders, dairy farmers are becoming increasingly aware of the cumulative effects of changes in land use. What is ‘good practice’ for a few farms in a catchment may not be sufficient to address catchment issues when many more farms are developed. The need to think and act as a whole across all land uses then becomes essential. The duty of individual farmers and land-owners is to operate efficiently and responsibly, thereby having the optimal environmental footprint. The wider role of the dairy industry and other land users is to act collectively in planning the overall activity in a catchment to meet the demands of environmental stewardship at scales much larger than a privately owned block. When this occurs, the power of land owners to enhance the conservation and biodiversity of New Zealand will be immense.

The aim of this objective is to provide dairy farmers with the tools, insights and knowledge to take leadership in...
environmental stewardship on their farm, in their community and beyond, and to demonstrate their progress.

**Strategic approach**

The approach involves working collaboratively with stakeholders, and using good science, to provide dairy farmers with a clear description of the practices necessary for environmentally sustainable dairy farming. Dairy farmers will be supported in adopting these practices. Dairy companies will share responsibility for the universal adoption of these practices through supply agreements.

A core initiative in environmental stewardship is the Sustainable Dairying: Water Accord. The Accord is a proactive commitment by the dairy industry to New Zealand to enhance the overall performance of dairy farming as it affects freshwater through continuous improvement and partnership. Dairy farmers and the companies they supply have agreed to improve on-farm practices nationwide. The Accord also includes comprehensive standards for all new dairy farms.

Farmers will be supported in their efforts by industry advisors, research programmes and demonstration farms dedicated to increasing resource use efficiency and reducing environmental effects. Guidance tools will be developed to help farmers better understand how their farm performs in relation to others. The skill of farm advisors will be enhanced through training and accreditation programmes focused on nutrient and effluent management. Riparian planting guidelines will be developed in collaboration with regional councils. Local and national progress in environmental stewardship will be monitored by an auditable self-management system operated by the dairy companies.

On a broader level, the New Zealand dairy industry will continue to invest in research and development to find solutions for reducing greenhouse gas emissions from dairy farming.

**Measures**

Measures of environmental stewardship will be aligned with achievement of the targets in the Sustainable Dairying: Water Accord, and the auditable self-management systems operated by dairy companies.

In addition, the dairy industry will set targets for achievement of reduced
environmental effects in research and demonstration studies to create and test new options for farmers.

Milestones for development and delivery of supporting programmes and tools will also be monitored.

**Achievements**

- In accordance with the original Clean Streams Accord, dairy cattle are now excluded from 87 percent of streams, rivers and lakes. Ninety-nine percent of race crossings now have bridges or culverts.

- Ninety-nine percent of dairy farms have Nutrient Budgets in place, and 56 percent have Nutrient Management Plans.

- A warrant-of-fitness system for dairy effluent management systems has been developed, with training and accreditation systems for rural professionals to support farmers management of dairy effluent.

- Dairy farm effluent non-compliance is less than 10 percent nationally.

- Research for reducing greenhouse gas emissions from housed wintering systems has been completed as the basis for a good practice guide, and this guide is being produced.

- Dairy companies are implementing supplier agreements aligned with achieving sustainable dairying (e.g. Fonterra’s *Supply Fonterra* and Synlait’s *Lead with Pride* internationally accredited dairy farm assurance system).
Competitive

Research and Development: research and develop innovative technologies and solutions to meet the future needs of dairy farms

Definition

Research and development involves generating new knowledge, and carrying out the research that tests the application of this knowledge in the context of New Zealand dairy farms systems.

Context

New Zealand dairy farming’s competitive and responsible ambitions are underpinned by a combination of scientific, commercial and farmer innovation.

NZ dairy farming is largely based on highly efficient extensive pastoral grazing systems. This is a competitive advantage, but also a potential liability insofar as New Zealand is small on a global scale. The much larger dairy industries of the northern hemisphere, which are typically based around housed systems, command far greater investment in areas such as genetically engineered feed crops and dairy automation to suit those systems. There is potential for disruptive advances in these technologies to significantly change the playing field, and challenge New Zealand dairy farming’s competitiveness.

While striving to remain highly competitive, New Zealand dairy farming is also challenged to meet increasingly stringent environmental outcomes. This is opening up new avenues for research and innovation around New Zealand systems.

Although small on a global scale, dairy farming is significant in New Zealand. This is a key factor in the co-ordination between research investment from government, commercial companies and industry good within New Zealand. World-class dairy farm-related research capability resides in industry good organisations, Crown research institutes, universities and commercial companies. This capability is connected with global expertise and global
research efforts. Research outcomes are made accessible to the New Zealand industry through commercial development and a world-class industry good extension service. Public funding partnerships recognise the importance of this research connection with practical application on-farm.

This objective is aimed at generating or capturing new knowledge to push out the boundaries of what is technically achievable on farms, and making these innovations accessible to dairy farmers.

**Strategic approach**

The industry approach places farm systems at the core of research and development. This system approach is critical in evaluating different options for dairy farming, and providing clear guidelines for farmers to adapt or customise them for their farms. The results are also built into decision support tools and industry standards.

New options will be developed by commercial organisations that have strong business drivers to innovate in the products and services they deliver to farmers. International investment in commercial innovation is far greater than New Zealand’s industry good or government investment.

The proposed approach is to work in a complementary fashion to these commercial innovations through:

- Industry-good investment in testing the value of new technologies within the farm systems research programme
- Pre-commercial research at a component level (e.g. cow fertility, pasture persistency, nutrition, nutrient cycling) that will lead to delivery of results to farmers through some combination of industry good and commercial channels
- Partnerships that support the development and application of industry-wide evaluation systems including Breeding Worth and Forage Value and the development of protocols for specific commercial products. The delivery of these evaluation systems is carried out under the objective, Industry Information Systems.

A majority of industry research projects are partnerships with government. Increasingly there is alignment of public funding, university investment and other industry good organisations (Beef and Lamb New Zealand, Foundation for Arable Research) with these industry good projects. This alignment of
capability and investment, building the best teams to move the pastoral industry forward, is necessary to shift away from the historical ‘competitive science’ model that was in place for many decades.

Harnessing on-farm innovation is difficult, yet it is important to capture and share such innovations with the wider industry. A co-development approach will be taken in this area. This involves farmers participating in the research projects and sharing their knowledge gained through testing the concepts on their farms.

Measures
Measures will be based on reaching milestones embedded in specific research and development programmes.

Stretch targets will be associated with farm trials to extend the limits of farm systems. These will include:
- Increased farm systems profitability
- Increased milksolids production from home-grown feed
- Increased resource-use efficiency and reduced nutrient losses
- Increased labour productivity

Achievements
- Discovery of genetic differences in residual feed intake (feed conversion efficiency) of Holstein-Friesian cattle and the identification of genetic markers for this trait.
- Identification of key features of successful management across a wide range of wintering options in Southland.
- Investment in trials to provide a conclusive data set on the effectiveness of dicyandiamide (DCD) on pasture growth, N-leaching and nitrous oxide emissions.
- Quantification of breeding values for Facial Eczema, and development of options for selection against Facial Eczema susceptibility.
- Pasture persistency problems addressed in North Island through on-farm research and industry co-ordination of messages on endophyte choices.
**Definition**

Animal welfare means the physical and psychological well-being of animals. It is measured by indicators including behaviour, physiology, longevity and reproduction.

**Context**

The welfare of dairy cattle is recognised as highly important, and New Zealand dairy farmers take great pride in their animals. The New Zealand Animal Welfare Code (2010) for dairy cattle details the minimum standards of care and provides guidance on ‘best practice’. Responsible dairy farmers routinely examine, and strive to improve, their animal husbandry. They rapidly take up new knowledge and promote sensible, farm-proven standards and practices. They ensure staff are well-skilled in working with, and caring for, their animals and demand a high standard of performance. They support other farmers and their animals during trying times. They seek to future-proof their business by understanding national and international trends in animal husbandry, the requirements of export markets, and responding in a proactive manner.

Good animal husbandry is constantly evolving in response to changes in farming systems as well as public expectation. Because dairy farming systems have adapted across a diverse range of New Zealand environments, there is scope to hone practices and develop new approaches. In addition, increasing concerns about the quality of New Zealand’s lakes and rivers are prompting many dairy farmers to re-think how they farm. Many are exploring the pros and cons of ‘off-pasture systems’. These systems can vary from the occasional use of a stand-off or feed pad to long-term housing of animals. As some of these approaches can be very costly, making sure they are well designed, straightforward to operate, and compliant with present...
and future regulations on animal welfare is essential.

The aim of this objective is to ensure that New Zealand dairy farmers have the tools and assistance necessary to improve their animal husbandry skills and practices appropriate to their farm system, and to demonstrate their progress.

**Strategic approach**

The strategic approach is to maintain leadership through being proactive in continually assessing and developing appropriate animal husbandry guidelines and welfare standards for dairy farm systems in New Zealand. This must anticipate domestic and export market requirements, reflecting that we trade in an international environment. Processes will be in place to provide the evidence necessary to promote and defend New Zealand dairy farming practices.

Dairy farmers will be supported in adopting appropriate practices. Dairy companies will share responsibility for the universal adoption of appropriate practices through supply agreements. Improved on-farm recording is a necessary component of these strategies.

Increasing effort will be put into gathering farmer knowledge and conducting research trials to ensure that animal husbandry standards for emerging systems and practices (e.g., ‘off-pasture systems’) are well formulated. A welfare assessment system is necessary as part of this to identify issues. This knowledge will also be used to ensure that farmers have the appropriate tools, insights and knowledge to ensure that these systems are designed and managed appropriately while being as cost-efficient as possible. An accreditation programme will be developed to ensure that farmers receive professional and consistent advice about the design and management of different ‘off-pasture’ approaches.

The strong core research programme that has supported farmers in developing sound animal husbandry practices and practical welfare standards will continue as will annual surveys of on-farm performance to guide where improvements can be made. New animal husbandry extension programmes will be developed and delivered in partnership with the Primary Industry Training Organisation to ensure farm staff are well-skilled in working with, and caring for, their
animals. DairyNZ’s Early Response Service which has assisted many farmers and their animals during trying times will continue.

**Measures**


**Achievements**

- Development of animal husbandry skills-based training programs.
- A National Body Condition Score training and assessment process has been established, with commitment from rural professionals to adopt this in their practices.
- Creation of an Early Response Service that has worked with over 100 farmers assisting them to deal with problems that were likely to otherwise manifest in animal welfare issues.
- The number and quality of veterinarian graduates has improved, aided by a scheme to assist with student loans.
Talented People: attract, develop and retain highly skilled and motivated people throughout the industry

Definition
Talented people have the skills and motivation to succeed in the dairy industry. Skills are developed through a combination of education and experience.

Context
The most profitable and sustainable dairy farms have good management practices appropriate to the farm system. Achieving good management practice requires a skilled and motivated workforce.

Dairy farming’s growth has stretched the availability of skilled people as dairy farm systems have diversified and expanded into new regions. Dairy farmers are confronted with increasing complexity and larger businesses. They also face limits on the use of nutrients, restricted access to water resources, and new animal welfare standards. More than ever, highly skilled and motivated people are essential in on-farm roles, as well as in advisory, education and science roles.

The historical system of progression through sharemilking is challenged by increasing land values and reduced prospects for farm ownership. The current status of the dairy workforce includes rapid staff-turnover, and education levels below the national average. Functional literacy and numeracy among farm staff is low. Farm management skills in areas such as financial management are low. There is also a deficit in the number of agricultural science graduates, especially those with a farm systems focus.

In terms of attracting people to dairy farming, a high proportion of those entering the dairy workforce come from rural backgrounds and this pool is insufficient to meet the growing demands of the industry. Few new entrants are attracted from New Zealand’s urban centres. Immigrant labour now makes up an increasing
component of the dairy farm workforce.

The aim of this objective is to attract talented and motivated people from a wider talent tool, provide excellent training and development opportunities, and retain them within the dairy industry.

**Strategic approach**

Stimulating demand for a career in the dairy industry starts in the school system, engaging at all levels but focusing particularly on students midway through their secondary schooling. This support is directed at students, teachers, principals and career advisers (public and private). Urban as well as rural schools are included.

A high performing education and training system aligned with clear career pathways will grow the talent attracted to the industry. Well-designed training is complemented with positive experience in the field to retain talented people and ensure they stay in the job. This links with the objective for quality work environments.

The supply of high quality education and training experiences will be achieved through the rationalisation of qualifications, simplification of career pathways and use of consistent quality standards across training courses and accreditation schemes. Industry investment will be co-ordinated with government investment to deliver relevant training in the workplace. This co-ordination will also ensure new graduates are grounded in knowledge of farming systems.

The retention of talented people depends on demonstrating the greater opportunity and value of a career in the dairy industry. This will be complemented by succession planning to ensure renewal of talent on farm, in research and in dairy training institutions.

**Measures of success**

A balanced scorecard approach will report how the labour market satisfies industry requirements. This provides regular tracking of supply and demand in terms of skills sets and availability of qualified people for the respective roles on farm and in the rural professional workforce.

The contribution of skilled people to the sustainable profitability of dairy businesses will be monitored using the methodology developed under the Valuing People Productivity programme.
Achievements

Programmes have focused on stimulating demand for careers in the industry and on the supply of outstanding education and training options for people in the industry.

Demand side

- An industry alliance has been established to co-ordinate strategies for engaging primary and secondary schools; promote competitions and events that showcase the primary industries; and to host clubs at schools, universities and for early career people.
- Get Ahead delivers resources and events to secondary schools, careers advisers and school principals in partnership with NZ Beef and Lamb. The industry scholarship programme operates through Get Ahead.
- An internship programme attracts excellent students graduating from New Zealand universities and integrates them into the DairyNZ and AgResearch staff development programmes.
- Certification and accreditation programmes have been introduced to ensure high professional standards and stimulate demand for professional development programmes.

Supply side

- Support for primary industry training provides apprenticeships, certificate training for farming operations ranging from milk harvesting through to business planning and staff management.
- Training for the Diploma in AgriBusiness is supported through a dedicated programme that aims to correct a skills shortage at the farm management level in the industry.
- A Centre for Farm Business Management has been established as a joint venture between Lincoln and Massey University to provide research outputs, professional development programmes and new tools for farm managers.
- Progression groups now operate throughout the country supporting progressive farmers with their career plans.
- Leadership programmes are supported by industry to provide farmers with options when they plan to take on greater responsibilities in industry or their communities.
**Definition**

The work environment includes the physical workplace, the employment conditions and the employment relationship. The quality of the work environment affects not only productivity, but also a wide range of outcomes for people working there.

**Context**

Responsible dairy employers engender a pride in our industry that enhances the industry’s public reputation and increases the chances of attracting and retaining talented people. High quality work environments are mutually rewarding to employers and employees. NZ dairy farmers also have a fundamental duty to their employees and themselves to provide working conditions that are safe, healthy and free of accidents.

Too many dairy farms still fall below an acceptable standard for employment relations and workplace practice. This is partly due to historic attitudes including a tacit acceptance of hardship and discomfort, often rationalised in the belief that long-term financial rewards (i.e. farm ownership) justify the sacrifices made early in a dairy career.

However, careers in dairy farming have changed. Herd sizes have increased, requiring more employed staff. Land values have increased to the point where farm ownership is out of reach for many new entrants, and increasingly owners are absent from the actual operation of the farm. Many new entrants do not have expectations of farm ownership.

Some of the larger dairy operations, particularly in new dairying areas, are at the forefront of creating quality workplace environments and adopting good management practices. This is partly due to the disciplines of a more corporatised system, but also a function of necessity in attracting and retaining staff. At the core of these operations is a focus on teamwork. It is vital to the long-term sustainability of dairy farming.
that this commitment to high quality work environments be more widely adopted.

The aim of this objective is to create work environments on farms that are safe and that use technologies and business practices that achieve continuous productivity improvements. These workplaces will be supported by a strong network of advisers and suppliers. The workforce will be appropriately trained and qualified, and supported by rurally aligned financial, environmental, social and health services that are fit for purpose.

**Strategic approach**

The strategic approach focuses primarily on changing the attitudes and beliefs of farm employers about the importance of quality work environments. This change will be achieved through a co-ordinated programme involving information campaigns, coaching and capability development, as well as tools for use on-farm.

Information campaigns will focus on the benefits of quality work environments, and provide standards and benchmarks. Remuneration and incentive programmes will link with Federated Farmers benchmarking of pay-scales. Leadership and coaching programmes for dairy work environments will support farm owners and managers in adopting new practices. Development programmes for farm operations will concentrate on the growth of high performance teams. Capability development programmes will also align with rural professionals’ accreditation requirements. There will be a focus on removing barriers to co-ordination and effective partnering as most elements of this programme already exist, but are hindered by a lack of co-ordination across programmes.

The strategy will be supported by improved access to tools. These include online interactive facilities to design roster systems, customise performance management systems or implement workplans and incentive programmes. A co-development approach will involve specialists in the industry to develop fit for purpose tools and resources.

**Measures of success**

The Investors in People audit is the internationally recognised gold standard for employment practices and the status of the workplace. Standards are organised on a plan-do-review cycle with evidence criteria in ten areas. This will be adapted for use in the New Zealand dairy work environment.
Achievements

- The DairyNZ PeopleSmart programme was launched to support farmers in adopting best employment practices. Tools and guidelines are specifically targeted at the different roles in the farm business.
- The DairyNZ Gap Analysis and BizPlan projects are developing tools and professional standards for a pool of rural professionals specialising in consulting services addressing people issues on farm.
- The farmer wellbeing programme includes the delivery of early warning health checks for people working on farms; research on factors responsible for stress in the workplace; and is exploring new workplace designs to improve productivity and worker motivation.
- The internationally proven LEAN Thinking tools are being piloted on dairy farms to develop improvements in workplace design using simple routines and involving the entire on-farm team.
- MilkSmart delivers a comprehensive package of tools and methods to lift performance and safety in the milking parlour where often over 50% of the labour input occurs on farm.
Biosecurity and Product Integrity: protect the integrity and production of New Zealand’s dairy products

**Definition**

Product integrity for New Zealand dairy products means not only food safety and assurance of quality, but also encompasses meeting customer and consumer expectations regarding composition and how the product is created.

**Context**

New Zealand has a reputation for excellence in dairy export markets. A unique export focus with over 95 percent of New Zealand dairy production being exported is fundamental to this reputation. As an island nation, New Zealand also benefits from natural barriers to damaging disease and pest incursions that could affect both product integrity and the productivity of farms.

New Zealand’s dependence on international markets means it is vital to maintain internationally credible product integrity criteria. ‘Integrity’ currently focuses on food safety but has scope to be expanded with other criteria such as the method of production and meeting animal welfare standards. This is inevitably concerned with meeting the expectations of international customers their interest in the food safety, environmental and animal welfare provenance of their food products.

The industry also makes considerable investments to manage existing diseases, and to avoid further biosecurity incursions that could cause massive financial and social harm to the industry. Even minor incursions can negatively impact profitability through production losses and cost imposts.

**Strategic approach**

Vigilance and a close co-ordination between all stakeholders in the industry are essential to protect and enhance New Zealand’s reputation for excellent dairy product integrity, while avoiding losses from biosecurity incursions.
The dairy industry must work collectively to ensure successive governments continue to prioritise and fund biosecurity protection for the pastoral industry, including border protection, incursion preparedness and response. This collective approach includes working in partnership with government and other sectors to strengthen outcomes and develop the appropriate tools and structures for cost-effective biosecurity. The scope of this partnership is not limited to the dairy industry, as it must encompass all risk species. Internally, the dairy industry must have appropriate structures and relationships to ensure the highest level of co-operation between dairy companies to respond to any food safety and market-access related issues that arise.

Vigilance also requires the dairy industry to identify, assess and respond to significant consumer preferences relating to on-farm practices. The structures and processes for product integrity must remain flexible and responsive to these demands.

**Measures**

This objective is best measured by the continued excellent international reputation of New Zealand’s dairy industry for product integrity, and the absence or containment of biosecurity incursions.

Tracking of progress on specific industry initiatives, and regular objective assessment of border security and industry preparedness for biosecurity incursions is also required.
Achievements

• Dairy industry investment in the National Bovine Tuberculosis Pest Management Plan and participation and investment in the Johnes Disease Research Consortium.

• Dairy animals included in National Animal Identification and Tracing (NAIT) from July 2012.

• Industry considering value proposition for Government Industry Agreements (GIA).

• Joint pastoral industry/government work on Foot and Mouth Disease (FMD) preparedness.

• Industry involved in and funding other ad hoc biosecurity responses including the national programme to control clover root weevil through the release of a parasitic wasp.

• Industry on-farm initiatives on milk quality, environmental management and animal welfare that underpin the product integrity of New Zealand dairy products.

• National average bulk milk somatic cell counts have dropped from a recent peak of 226,000 in 2008/09 to 186,000 in 2011/12 through the combined actions of farmers, milk processors and advisors.
Local Communities: enhancing the communities we live in

Definition

Enhancing local communities is all about dairy farmers’ contribution and involvement in their communities. This means the catchment we farm in, the communities and regions we reside in and the national community of which we are a part.

Context

Many farmers are already involved in their communities; from local volunteer fire brigades, school boards of trustees, district health boards and entities, regional councils, service clubs, sports clubs, conservation projects (eg Maungatautari, wetland recovery and possum and rat eradication for Kiwi recovery programmes) and the Farmy Army response to the Christchurch earthquake. This reflects the understanding that many farmers already have of how important local communities are.

Strong, vibrant and resilient rural communities are good for farmers because they make dairy farming a more attractive career option. They keep skilled and motivated people living and working in rural areas. Community involvement also leads to the development and maintenance of improved infrastructure, i.e. good local schools and local services, in local communities.

Few New Zealanders understand what dairy farmers are contributing socially, environmentally and financially to their communities. This is due to the fact that many contributions are made by individual dairy farmers who are not seeking any recognition for their actions. However, this lack of understanding represents a missed opportunity for dairy farmers to engage with other New Zealanders, and to build a greater public understanding and recognition of dairy farming people and their contributions.
Strategic approach

The approach to this objective is based on partnering with existing organisations including farmer groups and dairy companies to achieve greater reach and involvement in communities. Working together will make a significant difference both to the outcome, and a wider awareness of the contribution.

A broader cross-section of dairy farmers will be encouraged and assisted to become active members in their communities, understanding how they can contribute, and also why the industry needs to consciously enhance local communities. This broad engagement is a key role for existing national farmers’ organisations.

Dairy farmers will be properly equipped for taking on roles in their communities through education, training and support that is delivered and co-ordinated through national farmer organisations. This support for farmers to engage in local communities will also set appropriate expectations amongst the farming community.

Dairy companies will also continue to contribute through their respective corporate social responsibility programmes. The existing Westland Schools Initiative and Fonterra Milk for Schools programme are good examples.

In addition, public campaigns and communications initiatives will continue to raise awareness of the contribution that dairy farmers make and how the wider community benefits from this.

Measures

The measure of local community enhancement is mainly based on improvements in New Zealanders’ understanding of dairy farmers, the public’s connection with dairy farmers and their overall attitudes towards dairy farming. This will continue to be measured through a twice a year public survey.

Milestones will also be established and monitored for implementation of specific community enhancement programmes by the dairy industry.
Achievements

Many important contributions are quietly made by individual dairy farmers who contribute time and effort towards organising, funding and supporting their local communities.

The dairy industry also contributes to enhancing local communities and building public support in a number of visible ways, including:

- Corporate responsibility programmes such as the West Coast Schools Initiative and Fonterra Milk for Schools
- DairyNZ public media campaigns including the GoDairy recruitment and the “More Kiwis” advertising campaigns to raise awareness of the contribution that dairy farmers make and how the wider community benefits from this
- School programmes run by Young farmers and DairyNZ to provide teaching resources to primary school aged children to raise awareness of dairying including the Find a Farmer service
- DairyNZ’s Rosie the Cowbassador programme to engage and inform kids in a fun and entertaining way about dairy farming and how milk is produced
- Federated Farmers’ Farm Day which engages the public and gives them a hands-on view of how a farm works.
Industry Information Systems: create and maintain industry-wide systems and structures to serve the needs of all dairy farmers

Definition
Industry information systems broadly include the collation and use of data for on-farm and industry purposes, supported by setting industry standard approaches for the collection and exchange of data, and the development and maintenance of related infrastructure.

Context
Information collection and use is increasingly part of the tactical and strategic management of dairy farms. Farmers are able to make better decisions and obtain greater value from commercial products and services such as animal breeding, fertiliser, farm management consultants and accountants when accurate on-farm information is available. This provides motivation for on-farm data collection. As a result, dairy farms are becoming increasingly data-rich environments.

The industry has historically made good use of nationally collated data for applications such as animal improvement and financial benchmarking. These have proven a competitive advantage for New Zealand dairy farming. For example, the cow genetic improvement resulting from a national breeding objective combined with analysis of on-farm data for sire proving is estimated to have contributed $310 million per annum (compounding) to the national dairy industry. There is now potential to expand traditional industry information systems with new areas such as nutrient management and pasture improvement.

The opportunities for comprehensive industry data collection are expanding as new technologies are adopted on farms. This is linked to greater demand for information to support product integrity as well as for mandatory regulatory compliance. Farmers are interested in these opportunities, but frustrated by systems requiring multiple
entry of data, and conflicting data definitions.

The commercial sector has an important role to play in driving information collection and use. However, competitive pressures can easily lead to fragmentation of information and a confusing diversity of approaches to defining and using the information. These outcomes are not always in the industry's best interests.

**Strategic approach**

The key to this objective is to identify and develop mutual imperatives for farmers, commercial companies and industry organisations in creating common industry information systems. This means standardised approaches within a competitive commercial framework. Collective industry investment will be made where there is a clear case for achieving a greater good than would occur in its absence.

Industry investment will be made into developing industry controlled evaluation systems, industry standard calculators (e.g. fertility focus report), and industry-good databases (e.g. Dairy Industry Good Animal Database, DairyBase). Standard approaches to measurement and data exchange will provide the backbone for both industry good and commercial activity. The industry must promote the value of these investments to farmers, and support the adoption of tools which will often be delivered through commercial channels.

Data rich environments create opportunities for commercial organisations to exploit. The dairy industry will ensure that there are sufficient incentives such that commercial organisations contribute to, and comply with, common industry standards. Avoidance of duplicated investment is critical. This means anticipating industry requirements, and providing for restricted or qualified access to collated data such that the interests of separate commercial organisations are protected. Similar to farmers, the benefits of a collective approach must be promoted to stakeholders.

Industry organisations must have access to collated data for evaluation purposes (e.g. Breeding Worth, Forage Value), research, industry benchmarking (e.g. DairyBase) and to provide information to inform policy and public debate. Industry progress on important industry measures (e.g. farm profit per hectare) will also be measured and reported through these systems.
Government and market requirements (e.g. National Animal Identification and Traceability programme, consent reporting) are an important further consideration. One of the services provided by the commercial sector will be simplified reporting to these requirements. Industry good investment may be required to build the standard systems that all commercial organisations will use to minimise duplication of investment.

**Measures**

Success will be evident in measures of:

- Increasing rates of genetic gain in animals and forages supported by national evaluation systems
- DairyBase participation
- Connectivity of industry data.

Specific progress measures will be based on reaching milestones in the design, implementation and adoption of industry information systems.

**Achievements**

- New Zealand Animal Evaluation Ltd, a DairyNZ subsidiary, has worked with the industry in 2012 to review the National Breeding Objective, leading to increased emphasis on functional traits of fertility and longevity in Breeding Worth.

- Dairy Industry Good Animal Database (DIGAD): Livestock Improvement Corporation (LIC) shareholders voted to transfer the Core Database to DairyNZ in the first step to create DIGAD. Design phases completed by June 2013.

- DairyBase: a database capturing farm financial and physical data across more than 2,000 dairy farms and providing the basis for farm performance benchmarking across the industry

- DairyNZ and the New Zealand Plant Breeders and Research Association launched the Forage Value Index, an industry initiative to rank forages (seeds) according to their value in terms of potential milk production, in May 2012.

- The dairy industry has been instrumental in driving the National Animal Identification and Traceability (NAIT) programme.

- Merger of Animal Health Board and National Animal Traceability to form OSPRI, a new organisation bringing together New Zealand’s biosecurity and pest management strategies.
National Prosperity: enhance dairying’s contribution to the social, economic and environmental aspirations of New Zealanders

Definition
National Prosperity means both the wealth and wellbeing of the nation.

Context
New Zealand ranks as the fifth most prosperous nation in the world according to the Legatum Prosperity Index. For many years, dairy farming has been a key driver of the New Zealand economy contributing to more than 25 percent of export earnings. The importance of dairying to the national economy is widely recognised by New Zealanders, although many do not see how these export earnings directly benefit their day-to-day lives.

There is still considerable scope for dairying to contribute more to the economy through increased production, higher value milk, and value-added dairy processing. However, New Zealanders have made it clear in recent times that such growth must be achieved responsibly and not, for example, at the expense of the environment. Increasingly in New Zealand, local communities are becoming more involved in determining and achieving their social, economic and environmental aspirations. Implementation of the National Policy Statement on Freshwater Management is a prime example. The dairy industry is fully committed to participating openly and constructively in these proceedings and to ensuring it honours all obligations resulting from them.

This objective aims to produce new knowledge, skills, practices and partnerships that will help dairy farmers, and the companies they supply, develop responsibly and increase the industry’s contribution to the nation’s economy and general well-being.

Strategic approach
Dairy farming is committed to sustainable development of the dairy
industry to enhance New Zealand’s prosperity. This means development of the national dairy industry that meets the needs of the present without compromising the ability of future generations to meet their own needs. The future growth of the industry requires good processes to establish the way forward.

Sustainable development depends on partnerships. Understanding what key stakeholders, consumers, and trading partners think and want is essential in finding ways to move forward together. Considerable emphasis is given in this objective to developing ways to work constructively with others and finding creative solutions for optimising dairying’s contribution to the nation’s well-being. It also encompasses investment to increase the number and skill base of agricultural resource economists so that good economic approaches are implemented by highly talented people.

The approach includes developing new ways of assessing the ability of farmers to respond to different societal and market expectations. Standardised methods for assessing the economic impacts of different catchment and regional development scenarios will be established in partnership with central and local government. Work will continue on developing methods to assess community social, economic and environmental aspirations and in providing appropriate information so that communities (and farmers within them) can participate effectively in making wise decisions about local and regional development. Joint projects will be undertaken with regional councils to assist them in wisely implementing specific policies, such as the National Policy Statement on Freshwater Management.

Effort will also be put into investigating and promoting opportunities for producing higher value milk. This aims to improve the economic returns to New Zealand dairy farming, and create a sustainable advantage specific to New Zealand.

**Measures**

Dairying’s economic contribution to national prosperity has been established in a 2010 benchmark study by the New Zealand Institute of Economic Research (NZIER). These measures will continue to be tracked. More comprehensive measures of dairying’s contribution to the nations’ wellbeing will also be
developed aligned with the Legatum Prosperity Index. The attribution of national prosperity to the dairy industry will also be tracked in public perception surveys.

**Achievements**

Collectively, dairy farming contributes substantially to New Zealand’s economic prosperity. This is highlighted in the following statistics:

- Over $13 billion in dairy exports in 2012, the largest of any goods sector and more than a quarter of total goods exports
- $5 billion contribution to national Gross Domestic Product (GDP), more than a third of the entire primary sector
- Employs approximately 45,000 people including approximately 10,000 self-employed.
Our next steps

The path forward – targets to actions
Partnerships are crucial to the success of this strategy. Many industry partners and stakeholders gave their time and advice in developing the strategic framework and objectives. Their contribution throughout the process has been vital in challenging and refining the ideas. More importantly, the success of the strategy in achieving the objectives will depend on their ongoing support and contributions.

The strategic framework for sustainable dairy farming has been many months in the making and has involved a series of consultation steps. The strategy’s development has been overseen by a working group of representatives from the dairy sector.*

May 2012 – regional research planning

- DairyNZ talked to dairy farmers, farm advisors and researchers to develop regional research priorities in each of the major dairy regions.

August 2012 – key business and industry thinkers

- A series of three independently facilitated ‘think tank’ workshops with business leaders and influential thinkers exploring the opportunities and issues facing dairy farming.

- From these two workshops emerged the main themes of the dairy farming strategy - competitive and responsible.
December 2012 – farmer engagement

- Farmer workshops and an online feedback survey on the draft strategic framework objectives result in some revisions to the framework.

March – May 2013 – final round of consultation

- More than 50 joint Fonterra-DairyNZ meetings around the country with around 1500 farmers including discussions on the revised strategic framework and new Water Accord.

- On-line email feedback link.

- Five DairyNZ Farmers’ Forums throughout New Zealand including presentations and feedback on the proposed strategic framework.

- Briefings and feedback sessions with dairy companies, agribusinesses, banks, regional councils, universities and regional and central government staff and leaders.

July 2013 – Making Dairy Farming Work for Everyone launched

Next steps: developing targets and actions

Going forward, DairyNZ will take the lead in aligning its investment with this strategy, co-ordinating initiatives with partners, developing specific measurable targets for each objective, and reporting on the achievement of these targets.

*Acknowledgement: James Morrison Consulting assisted DairyNZ and the working group as project manager.
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