

# Opinion

## Transforming the dairy value chain

The dairy industry is searching for the 'sweet spot' where cutting-edge science meets commercial vision, writes **Rob Mitchell**.

A revolution is underway. On our farms, in our universities, research labs and factories, the country's dairy industry is undergoing a transformation that rivals the introduction of refrigerated shipping more than 130 years ago and New Zealand's first bold steps into the global marketplace.

Kiwi innovation is once again being harnessed to enable a massive, fundamental shift; moving our nation from a respected global trader in bulk milk and powders to a world leader in targeted dairy products, ingredients and high-value foods, beverages and infant formula.

And there's plenty of value to be had – for company and country. Despite a tough financial year, Fonterra, the nation's largest business, raised its net profit by 183 per cent in its most recent annual result. Fuelling that success were extraordinary jumps in its consumer and food service (216 per cent) and ingredients (43 per cent) businesses.

As Fonterra's acting manager, global brands and nutrition, Rene Dedoncker, points out, that kind of accelerated change doesn't just happen.

"It is part of a collective and ongoing effort over many years of study and innovation to find that magic 'sweet spot' at the zenith of cutting-edge science and

commercial vision."

And change we must. New Zealand is still a force in global dairying but other nations have made great strides and we remain a David among global corporate Goliaths such as Nestle, Danone and Unilever.

Just as Fonterra has harnessed the hard work and momentum of many in its world-leading cooperative, this "collective effort" has involved vital partnerships between government and industry – farmers joining forces with

**At lifting our industry's ability to deliver regional and national economic gains at a faster pace.**

**DR TIM MACKLE**

scientists, product developers and salespeople; the Ministry for Primary Industries working with DairyNZ and commercial partners Fonterra, Synlait, LIC and Zespri, among others.

These are unprecedented partnerships to accelerate thought and deed towards realising the government's huge challenge of doubling primary exports by 2025, while maintaining New Zealand's strong pastoral identity and limiting the impact on the environment.

DairyNZ chief executive Tim Mackle says his organisation's work with MPI, Fonterra and others, as part of the Transforming the Dairy Value Chain Primary Growth Partnership, is a key plank in a campaign to drive change and reach the programme goal of adding at least \$2.7 billion each year to the national economy by 2025.

"Transformation is all about innovation – and that needs to happen behind the farm gate as well as in our products if we are to boost our export competitiveness. For example, our PGP programme has significantly improved on-farm nutrient and effluent management. All the work we do is aimed at lifting our industry's ability to deliver regional and national economic gains at a faster pace," says Mackle.

This \$170 million, seven-year PGP is one of 21 the Government is involved in.

The revolution taking place from farm gate to factory floor is also harnessing and transforming the minds of some of this country's best and brightest, with dozens of our top scientists and students working on PGP-funded dairy industry projects that are boosting the national economy and intellectual property while promoting the excellence of New Zealand's agricultural research.



People like Auckland's Mel Hayr, who is studying animal breeding and genetics at Iowa State University in the US.

Her research is helping to increase the accuracy of selecting bulls for mating, a field where just a tiny improvement can mean millions of dollars to the dairy industry and economy.

"It's very exciting to be part of

the group exploring this wealth of data and finding ways to use it that will benefit New Zealand and advance our scientific knowledge," she says.

Cameron Mitchell is part of a team at the University of Auckland studying the impact of dairy products on muscle metabolism. Their work could lead to new foods and beverages

for a growing premium-value product supporting healthy lifestyles.

They are just a small part of a dynamic, overarching campaign of enterprise and innovation.

On farms around the country, PGP-funded science and smart thinking are advancing our farmers' capabilities and capacity for change, driving massive improvement in management of not only nutrients and effluent, but also people, pasture, stock and environmental impacts.

DairyNZ, LIC and others are supporting projects to transform attitudes towards and use of technology and data, while also investing in programmes highlighting the path to healthier farms, farmers and animals.

Together, they are all making a difference – the farmer, the scientist, the government official.

Benefits include world-leading PGP-funded research that has enabled the creation of a mozzarella cheese that can be ready in hours rather than weeks, with \$72 million spent on new plant so far and dozens of jobs created in a global market worth \$36 billion.

The award-winning milk-fingerprinting innovation has helped strengthen New Zealand's food safety and quality reputation abroad, especially in countries with variable supply chains and infrastructure.

And there is much, much more to come ... the revolution is underway and ongoing.

■ Rob Mitchell is communications manager of the Transforming the Dairy Value PGP.