Mooving on Methane

OUR OPPORTUNITY FOR TECHNOLOGY, CLIMATE AND TRADE

Post-event Report

venture TARANAKI
Te Puna Umanga

Executive summary

Imagine if we had a country where our dairy farmers were able to reduce their on-farm methane emissions by over 30% before 2030 (surpassing our national target of 10%; and transforming our GHG emission profile) while still maintaining, or even improving, their farming productivity and profits.

Not only is this potentially possible with the help of emerging tools and technologies, but it's also critical that Aotearoa New Zealand supports our farmers and dairy industry to achieve this to meet the growing expectations of our global customers and retain our international competitiveness.

However, this will require urgency and action.

Mooving On Methane was a one-day event, held 28th May 2024, New Plymouth, hosted by regional development agency, Te Puna Umanga Venture Taranaki, to catalyse momentum in methane reduction/mitigation in dairy farming in Aotearoa New Zealand.

The objective was to build awareness of:

1. The emerging tools and technological solutions which would lead to significant methane mitigation/reduction on New Zealand's dairy farms.
2. The pathway/timetable for their implementation.
3. Roadblocks/barriers and enablers to their successful implementation.

Briefings were provided from dairy companies, farmers, a major global customer and key agencies. 'Solution providers' at the forefront of new methane reducing tools and technologies, both nationally and internationally, gave the latest updates and their responses to points 1-3 above.

Key learnings were that:

- The dairy industry can't just work to Government targets on methane reduction – The market and our key global customers have even more ambitious targets.
- As good as we are at dairy, we are at real risk of being competitively overtaken – or 'leap frogged'.
- Our farmers are working hard to reduce their on-farm GHG emissions, but they are working within the limits of the tools they have now – and these won't be enough for their future success.
- The 'solution providers' indicated there were more advanced options in the pipeline, but near-term solutions seemed limited within Aotearoa. However, there were ways to accelerate progress and momentum. There were also market-ready solutions becoming increasingly available internationally which were not available here.

Taking on board the discoveries and feedback from the day, Te Puna Umanga Venture Taranaki suggests a Five Point action plan to create a 'Moove on Methane':

1. Adopt a much greater urgency to act. Establish a goal of accelerating the rollout of methane reducing technologies, to ensure we achieve a 30% reduction in on-farm methane emission in dairy by 2030. Committing to a 'solution' pathway plan which will enable this – ensuring an attractive environment for technology introduction, implementation and adoption.
2. Review the current regulatory processes for methane inhibitors in Aotearoa New Zealand – to ensure they are streamlined and enabling, and take on board learnings from other jurisdictions/countries, and the work already done by overseas regulators.
3. Review/act on the list of barriers/enablers provided by solution providers at the event.
4. Instigate some quick wins, tangible options and greater support for farmers now to ensure momentum continues.
5. Retain positivity and pride in our dairy industry and our farmers.

Contents

What was the Mooving on Methane event?

Mooving On Methane was a one-day event, held 28th May 2024, New Plymouth, hosted by regional development agency, Te Puna Umanga Venture Taranaki, to catalyse momentum in methane reduction/mitigation in dairy farming in Aotearoa New Zealand

The event sought clarity on the following:

- Who and what is at the forefront of methane mitigation/ reduction initiatives and tools in Aotearoa New Zealand and around the world?
- What are the tools that could work on New Zealand's dairy farms pasture-based farms and grass-fed animals?
- What does the pathway and timetable look like for Aotearoa New Zealand? And how well are we going?
- How could the development of methane reduction solutions/ tools/technologies be better supported, advanced, commercialised, scaled up and rolled out in Aotearoa New Zealand?
- What are the roadblocks/barriers and enablers being experienced by the solution providers?
- What can we do to make a 'moove' on methane?

The impetus for prioritising methane reduction is the significant upside it offers for trade, climate and technology, given dairy is our largest export earner and a critical part of our national and regional economy.

Conversely failure to reduce methane levels, or in a timely manner, risks climate-related financial penalties, loss of major our global dairy customers, flow on impacts to our food value and supply chains, on-farm revenue, and reputationally as an agriculturally based leader and progressive entrepreneurial country.

Regional Development Agency, Te Puna Umanga Venture Taranaki, initiated the event, given the importance of the dairy industry to the Taranaki economy, and how a response and action on methane reduction can be a critical element in the fortunes and future of this industry.

Why Moove on Methane?

BENEFITS OF ACTION

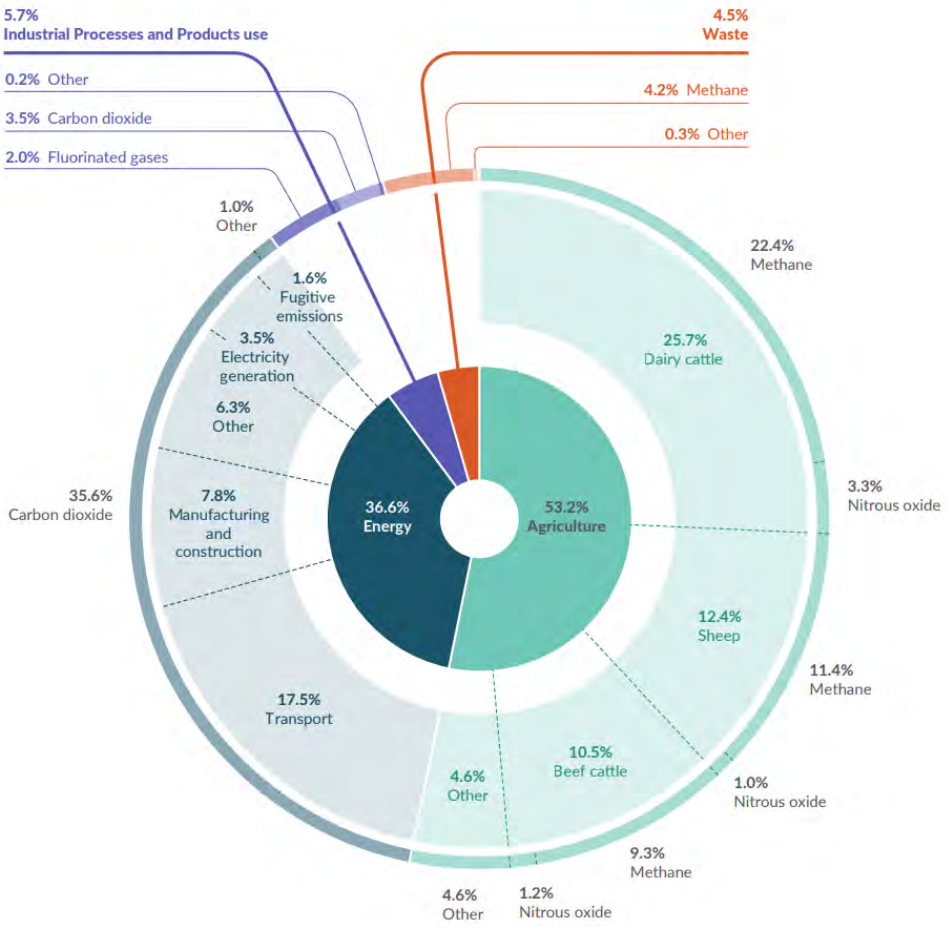
- Transformation of our GHG emission profile and ability to meet our climate goals. On-farm methane emissions naturally occurring from livestock comprise 43% of our total greenhouse gas emissions; dairy alone comprises 22%.
- Critical for:
  - On-going trade access and market entry for our largest export product.
  - Meeting our international customer needs and targets.
  - Maintaining global competitiveness in food industry.
  - Enhancing our sustainability credentials and social licence.
  - Underpinning future success for our farming industry and their livelihoods.
  - The potential for premiumisation.
  - Reaffirming the ingenuity of our country in terms of developing and attracting solutions and providing a progressive location where new technologies can be piloted/implemented.
  - Pioneering and securing financial gains from commercialising technology in New Zealand that will have broad impact globally in other pasture and grazing regions.

RISKS OF NON-ACTION

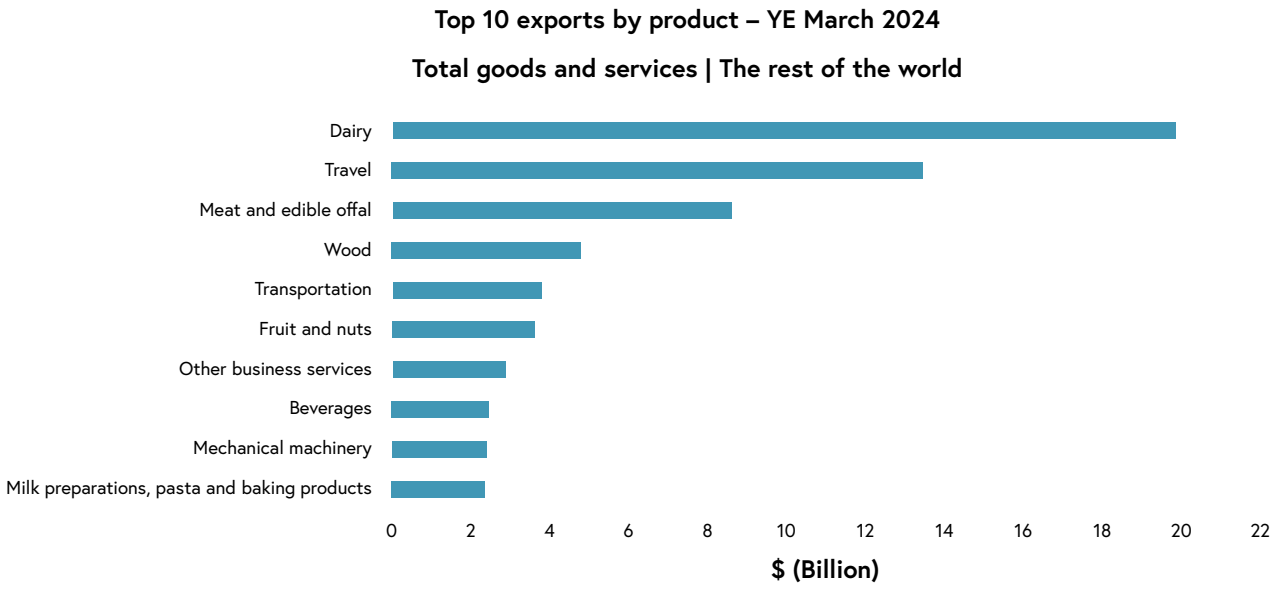
- Risks to environmental reputation and climate action – continuing to defend our GHG footprint.
- Financial cost/penalties of failure to meet our international climate obligations i.e. Nationally Determined Contributions[1].
- Economy/Exports – risk to ongoing returns from dairy, our major export product; unlikely to achieve export growth targets or premiumisation, future risks of carbon border adjustment mechanisms (CBAM), the EU NZ FTA has sanctionable commitments to the Paris Agreement.
- Risks to customer supply arrangements, targets and market access.
- Loss of global competitiveness or ability to stay in the game to same competitive level.
- Risk to farming incomes, regional communities and industry future prospects.
- Risk to sustainability credentials and social licence.
- Reputational risk – Aotearoa New Zealand lacking tech savviness – an industry 'left behind' – with risks not only internationally-focused, but also within country including social licence.

1 treasury.govt.nz/sites/default/files/2023-04/cefa23.pdf

GROSS GREENHOUSE GAS EMISSIONS PERCENTAGES IN 2022, BY SECTOR, CATEGORY AND GAS TYPE[2]



AOTEAROA NEW ZEALAND: EXPORTS – YEAR ENDED MARCH[3]



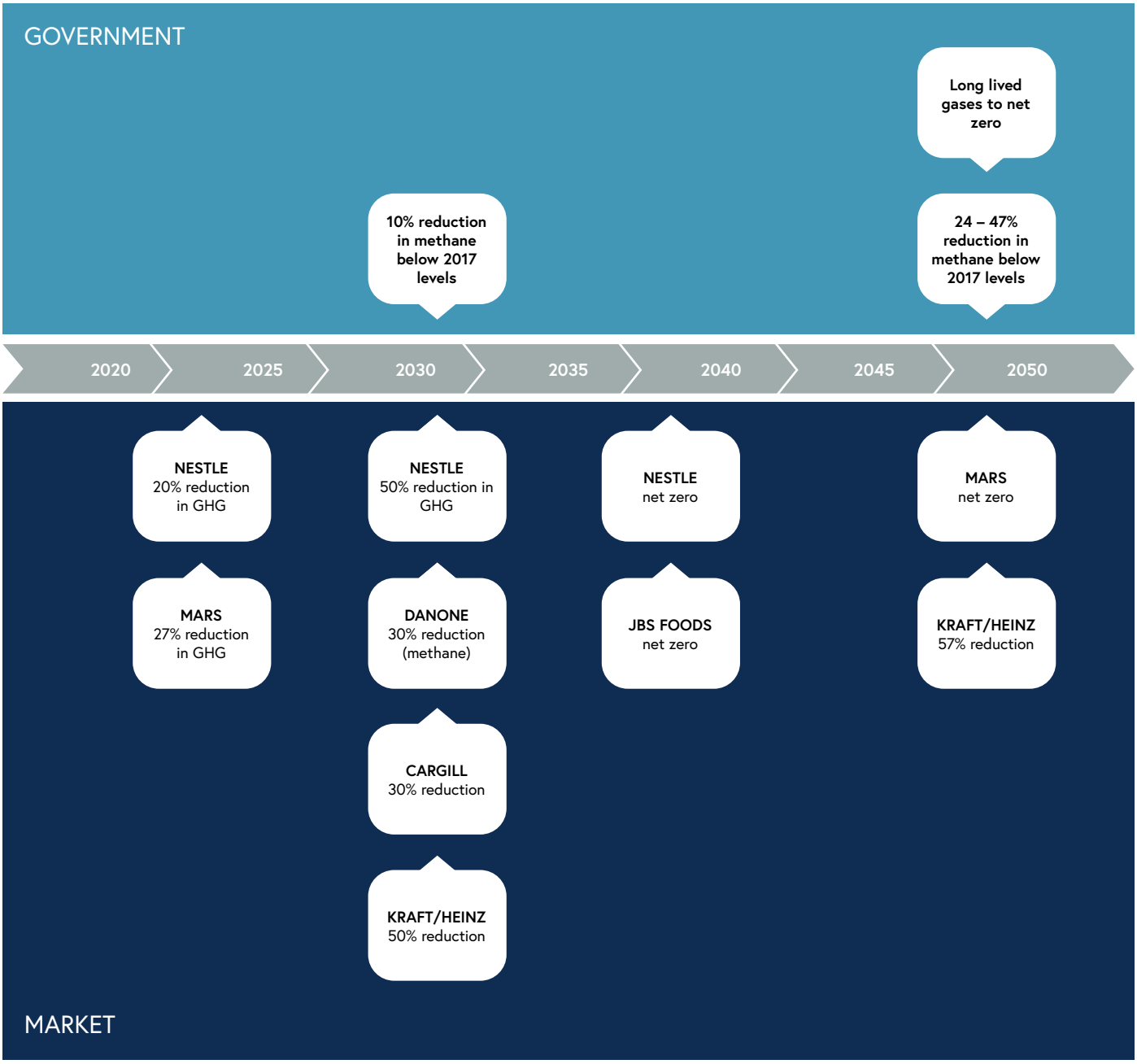
2 *NZ Greenhouse Gas Inventory 2022: environment.govt.nz/publications/new-zealands-greenhouse-gas-inventory-19902022-snapshot/*
3 *statisticsnz.shinyapps.io/trade_dashboard/*

What the event discovered

KEY TAKEAWAYS

The Climate Change Commission tabled our 2050 targets and advised that one of the significant changes that has emerged since their last round of advice, is the potential for methane reducing technologies to help us meet those 2050 emission targets.

The dairy industry can't just work to Government targets – The market and our key global customers have signaled even more ambitious targets. If we want to retain and attract new major global customers and build our market share in a highly competitive international dairy industry, we need to meet/exceed these market targets, including even more significant methane reduction levels by 2030.



Source: Dairy NZ slide: Mooving on Methane event.

KEY TAKEAWAYS

Our dairy companies have plans on how these targets can be met.

A portfolio of tools – some available now, some incremental changes over time (e.g. genetics and productivity improvements), but others based on the expectation that new technologies and solutions will become available in Aotearoa New Zealand, including before 2030, which will help our farmers and dairy industry make further necessary methane reducing gains, and hit targets.

But as good as we are, we are at real risk of being 'leap-frogged'.

The competition our dairy industry faces on the global stage is intense. Aotearoa New Zealand currently has a strong leadership role, but this advantage is slim, and the risk of being overtaken by other major international companies and countries is real. It could happen soon if we fail to keep pace, especially with the new technologies they are embracing with significant potential for methane reduction.

If we want to continue to sell to overseas customers, at similar or heightened levels (or values) in dairy in the future, we need to act, with focus and urgency.

Our dairy farmers are working hard to reduce GHG emissions, but they are working within the limits of the tools they have now – and these won't be enough for their future success.

Genetic improvements, productivity and efficiency gains, and adjustments to pasture, crops and feed management, farming practices and systems are amongst their current tool kit. The presenters emphasized the value of consistent support and a 'carrots not sticks' approach. Farmers were keen to hear about the new tech and solutions in the pipeline. They require options which are effective, practical and affordable, and where the value-proposition of use stacks up.

Bridging the latest research with practical delivery is the Net Zero Pilot farm in South Taranaki, a collaboration between Fonterra/Nestle and Dairy Trust Taranaki. Attendees visited the farm and at the event received an update on progress, learnings and challenges.

'Solution providers' at the forefront of new methane reducing tools and technologies provided updates on their developments. While there was a lot in the pipeline, near term options seemed limited, but there were opportunities to accelerate progress and momentum.

- A near term advancement is the 'eco pond' – already operating in some locations, including at the pilot farm, and can decrease methane emissions in effluent ponds by over 95%. However, it is yet to be proven economically viable – with the price-point currently unaffordable by our farmers. A lower price model is under development.
- Genetic research and advancements are underway by LIC. This is showing early promise but by nature, will take time.
- DairyNZ is focusing on farm practice systems, and has some potentially promising methane reducing compounds under investigation (e.g. seaweed, essential oils, kowbucha ,3-NOP, Bromoform etc), as well as GHG accounting/inventory.
- The R&D journey and some key projects are being funded/coordinated by the New Zealand Agriculture Research Centre (NZAGRC) who build the science and knowledge base which underpins methane reducing technologies.
- AgriZeroNZ, a new public-private partnership established between the New Zealand Government and major agribusiness companies, is dedicated to accelerating the availability of new solutions and technologies for our farmers by actively investing in ventures and emerging tools and technologies both within New Zealand and overseas. They have adopted a portfolio approach, focused on pasture-based farming, to ensure choice for farmers and to increase the likelihood of success. Some of their investment activity highlights include:
  - Ruminant Biotech - New Zealand startup developing a slow-release, biodegradable methane-inhibiting bolus for ruminant livestock.
  - Hoofprint Biome - US startup developing probiotics and natural enzymes aimed at reducing methane emissions by up to 80% while improving cow health.
  - Biolumic - an agriculture biotech company founded in New Zealand utilising ultraviolet (UV) light to develop a low-emissions farm pasture with increased productivity gains.
  - ArkeaBio - US company developing a methane vaccine.
  - Spinning out a venture from the New Zealand vaccine research.

Some advanced methane reducing tools and technologies are already available on the international market – but have opted not to be established in Aotearoa New Zealand.

New Zealand-based Grasslanz and PGG Wrightson Seeds, are at the testing stage of a high condensed white tannin clover, which not only offers methane reducing benefits for our dairy pastures, but co-benefits such as enhanced animal health and productivity. However, testing and the rollout is occurring internationally, and not within New Zealand, due to our restrictions and regulations around genetically modified organism (GMO).

Bovaer, an international company, has a methane reducing product (15%-64%) which is now available in 58 countries. New Zealand is not one of those countries.

CH4 Global has developed and piloted a methane reducing animal feed supplement initiated within New Zealand utilising the unique natural properties of asparagopsis – a red seaweed native to our waters. They are presently scaling and selling their product in Australia and internationally – not here, citing our lengthy and expensive regulatory process and the lack of distinction in our assessment process e.g. between natural solutions and 'chemical' as the key reason.

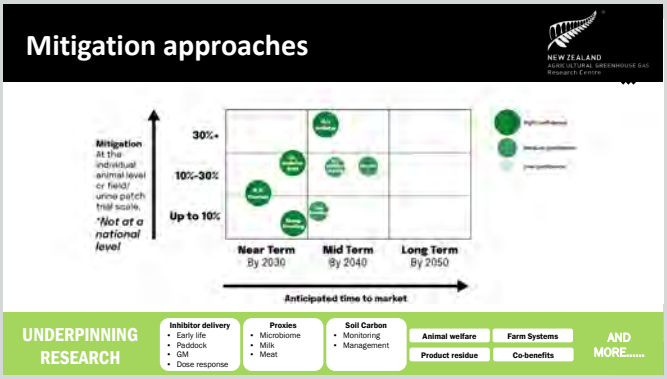
The rollout of advanced technologies within Aotearoa New Zealand requires new urgency and acceleration if we are to have technologies in the hands of our farmers by 2030, with results that meet our global consumer needs and targets and retain our international competitiveness.

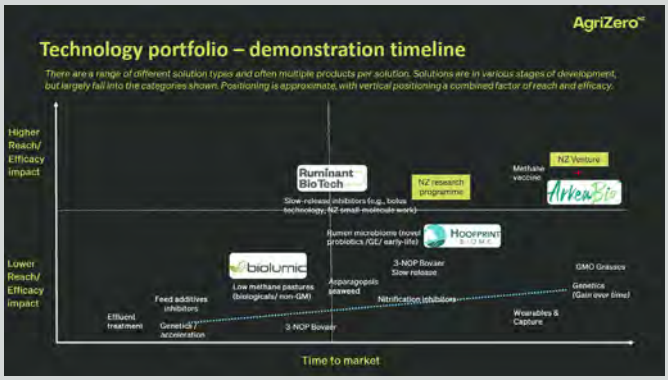
The ambition and aims of AgriZeroNZ reflects this urgency – however a single agency cannot carry this ambition alone. A more collective mission is required, and a commitment to a solution pathway that encompasses the entirety of the endeavour from inception, attraction, to implementation, and roll out.

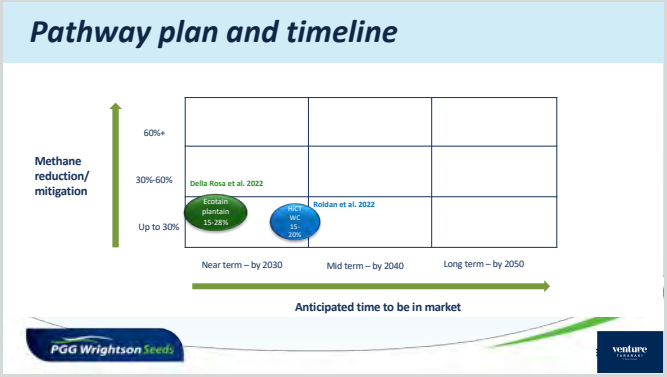
A standard slide provided to all solution providers at the event sought to clarify their emerging technology/tool rollout timings. Collating the list of options into a singular potential pathway plan for Aotearoa New Zealand, catalysed by the event, proved challenging but should be advanced.

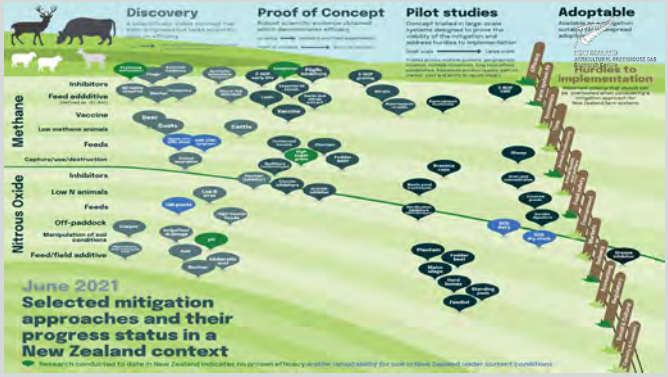
The process highlighted that while there were many solution options in the pipeline, near-term options that are 'market ready' appeared limited. Many are still at the development stage, thus have an uncertain outcome, and when the full process is considered (e.g. testing, regulatory process, scale up and commercialisation etc.) this would likely take many years. Addressing the immediate barriers being faced by companies with technologies already available internationally (but not available here), therefore becomes critical as they represent more timely and certain solutions which would be valuable to add to the portfolio in New Zealand.

ALL SOLUTION PROVIDERS SPEAKING AT THE EVENT WERE ASKED TO PRESENT A SNAPSHOT OF THEIR SOLUTION PATHWAY TIMELINES.









SUMMARY OF BARRIERS AND ENABLERS

Acceleration is also possible through addressing barriers and enablers.

The solution providers were asked about the barriers they were experiencing "what could remove these roadblocks" and "what enablers could accelerate their momentum in methane reduction." Their feedback has been consolidated in the following chart with results broadly themed in the following way:

Barriers	Enablers
On-farm capability and support	
• Green House Gas – Knowledge and understanding • Limited consistent support • Need for greater/new capability	• A toolbox of solutions for reductions in emissions • Consistent support • Projects and support e.g. The Fonterra Nestle project; Step Change (Dairy NZ) • People & infrastructure • More trained rural professionals
Farm-fit solutions	
• On farm solutions often take time and seasons change • Diversity of farm systems and approaches	• A user-friendly model for scenarios • Farm system fit • Outcomes over pathways; farmer led with understanding of options /impact; multiple options to achieve goals
On farm risk/return	
• Fear of cost if a system change fails • Value proposition for farmers • Disengagement • So many other regulatory requirements	• Support for farmers. • Carrot/not stick • Keep it real. Don't overcomplicate. Can't do everything at once; long term view
Research – technical	
• Cost and throughput of research in grazing systems • Lack of phenotypes (data) • Cost of phenotype collection • Difficulty in data collection • Lack of high throughput options • Availability of methane measurement equipment/facilities • Costs of doing research	• Greater understanding of emissions within pasture-based systems • Validation of alternative measurement techniques • Successful animal nutrition trials in Australia • Development and validation of proxies • Development of high throughput proxies • More measurement facilities/testing resources and infrastructure • Research partners & collaborators • Greater accuracy in inventory calculations
R&D/Innovation system	
• Lack of proven solutions • Economics • Time	• Comprehensive R&D portfolio • Partnership/Collaboration • Stability/certainty in the system • Science capability and wider Agtech innovation ecosystem
Commercialisation/Scaling	
• Proof that the results to date in containment are scalable to on-farm (e.g. persistence) • Funding – quantum of funding relative to requirements for commercialisation (scaling etc) • Opex/Capex costs too high • Where can we produce commercial seed?	• Innovation mindset • Receptive locations to build scalable production (although that's not needed for access to product) • Funding – private; public, impact, VC etc • Commercial product released
Customer/Market	
• Maturity of R&D pipeline - suitability for NZ farming system • The market does not exist today • Cost/benefit for farmers (needs to stack up) • No financial incentive for farmers to use the technology • Value proposition for farmers	• High interest to access commercial product from select groups in New Zealand • Pay farmers an incentive to use the technology
Regulatory	
• Regulatory constraints with methane-reducing compounds • Regulation (ACVM, HSNO, APA etc) - cost barriers to entry • NZ Current regulations for approval • GMO regulations in New Zealand and cost of deregulation	• Shift in regulatory settings • Fit for purpose streamlined regulation • Engagement with EPA (NZ) and OGTR (Aust)

Let's get Mooving – A Five Point Plan

Te Puna Umanga Venture Taranaki suggest that the discoveries and momentum from the Mooving on Methane event can be progressed through a five-point plan of actions:

1

Adopting an urgency to act. If, as a country, we don't, we will be 'leap frogged', lose global customers and international competitiveness.

In a practical sense this means:

- Establishing outcomes and goals of accelerating the rollout of methane reducing technologies which, in conjunction with the growing portfolio of other on-farm options, will ensure achievement of a 30% reduction in on-farm methane in dairy by 2030.
- Committing to a 'technology solution' pathway plan which achieves the above, benchmarked against our goals and international competitiveness and encompasses our timeline to market.
- Providing an environment which is attractive and supportive to the introduction, pioneering, development, scaling, implementation (and exporting of our technologies) as well as their on-farm adoption.

2

Reviewing the regulatory process for methane inhibitors in view of the goal above and to streamline and to ensure they are enabling, taking on board learnings from other jurisdictions/ countries.

A review is currently underway by the NZ Government with an opportunity for public submissions. Read more here as well as here.

3

Reviewing the list of barriers/enablers tabled at the event.

What can we do to activate/address, and who can help?

4

Instigating some quick wins, tangible options and greater support for farmers now to ensure momentum continues.

For example, A simple one-pager to all dairy farmers on actionable methane reduction initiatives. The one-pager should be Farmer -led, voluntary, with a strong and clear value-proposition and include what they can do now, what could be available in the next 5 years, tangible practical solutions, benefits of action, and access to added support.

5

Retaining positivity and pride in our dairy industry and our farmers.

Continue to showcase the stories, people, progress, achievements, and great work underway, our unique farming systems and the values which underpin it. This is our unique selling point. Methane reduction is important, but ultimately it is a component only of our broader story and our future success.

Appendix A

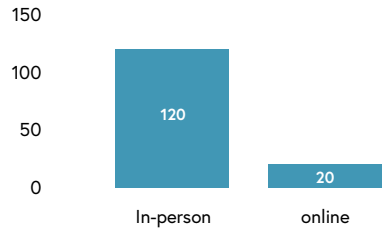
ATTENDEE SUMMARY

Total registrations = 140 people

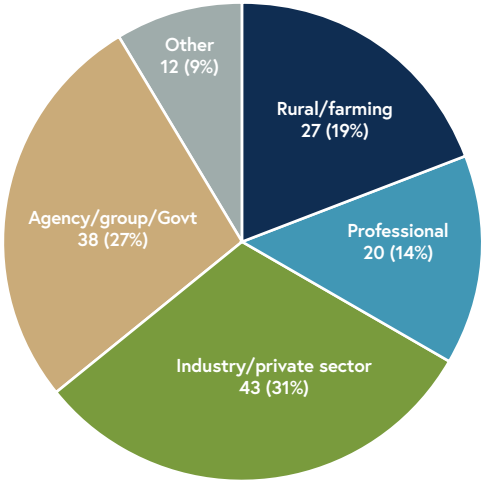
Pilot farm visit = 45

Attendance format = 120 in-person; 20 = online

Attendance format



Attendee composition



Post event survey question to all attendees:
How valuable was the event as a catalyst to advance discussions on methane reduction in dairy within Aotearoa New Zealand?

Source: Results of post event survey sent to all delegates

Appendix B

PROGRAMME

TUESDAY 28 MAY - 8AM - 5PM	
7:30 – 8am	Registration and coffee
Welcome, introduction, and Government perspective	
8 – 8:45am	Karakia mihi **Welcome, housekeeping and introduction:** MC | Trish Rankin **Host introduction:** Te Puna Umanga Venture Taranaki | Anne Probert **Government vision, targets, and progress:** MP for Taranaki-King Country | Barbara Kuriger
Session 1: Consumer and big picture perspective	
8.45 – 9:30am	Perspective of the customer | Margaret Stuart, Director, Corporate Affairs and Sustainability, Nestlé Oceania Our unique emissions profile | Barry Anderson, General Manager, Sector Analysis, Climate Change Commission
Session 2: Farmer perspective – what are we already doing? What support and tools are needed?	
9:30 – 10am	Dairy farmer and sustainability leader | George Moss Farmer, director, and Taranaki rural leader | Donna Cram
10 – 10:30am	Morning Tea
Session 3: Success in the future - company pathways to 2030 and beyond	
10:30 – 11:10am	Fonterra pathway ahead | Charlotte Van Der Lee, Sustainability Manager, Fonterra Miraka values, sustainability targets and initiatives | Brendan Haigh, Kaitiaki, Miraka
Session 4: Solution pathways from our lead groups, partners, and connectors	
11:10am – 12:25pm	The Less Methane Programme | Dr Jane Kay, Programme Lead, DairyNZ Progress and initiatives | Dr Sinead Leahy, Principal Scientist Lead, New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC) Delivering research, demonstration, and extension to the dairy farmers of Taranaki and New Zealand | Jason Rolfe, General Manager Operations, Dairy Trust Taranaki Ambition, partnerships, tools | Ruth Leary, Head of Strategy and Engagement, AgriZeroNZ
12:25 – 1:10pm	Lunch
Session 5: Solution pathways from our enterprises and entrepreneurs	
1:10 – 2:45pm	Bovaer short video | Maik Kindermann, Inventor & Head R&D Programme, Bovaer PGG Wrightson Seeds | Derek Woodfield, General Manager, Research & Development Ravensdown | Dr Ants Roberts, Chief Scientific Officer LIC | Dr Lorna McNaughton, Senior Scientist Ruminant Biotech | George Reeves, Head of Market Access CH4 Global | Dr Steve Meller, CEO, President & Co-Founder
Session 6: Pathway to commercialisation – the regulatory process	
2:45 – 3:00pm	Ministry for Primary Industries | Warren Hughes, Principal Adviser ACVM and Maggie Wuerz, Senior Adviser for Inhibitors
3 – 3:30pm	Afternoon Tea
Session 7: Making mooves - panel, action and next steps	
3:30 – 5pm	Panel discussion | How are we tracking on methane reduction? What is our near term (2030); mid-term (to 2040) and long-term pathway to 2050? What needs to be done? Panel includes: Julia McNab; Steve Meller; Jason Rolfe, Ruth Leary; Charlotte Van Der Lee; George Moss Summary and next steps Close of day
5pm	Networking drinks

Appendix C

POST EVENT FEEDBACK

In addition to ranking the value of the event, attendees provided feedback on their key learnings and suggested forward actions. These are below.

KEY LEARNINGS:

Great that most providers of solutions see and understand the complexity of farming systems and how tools need to fit in and with those systems. Also great to see the processors and downstream customers getting in behind the investment and supporting farmers and tools.

Government regulations need changing to allow progress in GHG emission reduction otherwise we are going to fall behind overseas markets and lose our competitive advantage. Farmer education is also important, they need to understand the terminology/ expectations not fear it.

We will be overtaken, need to accept this and think further into the future but market it while we are the leaders. Lots of good ideas and technology out there but it's expensive and not viable for farmers to incorporate into their systems.

Once tools available farmers will need to take action. Some on farm tools currently available to help. Science will help us hit future targets. NZ can't rest on its laurels. Doing nothing isn't an option. The 2035 onwards GHG target for NZ will be a crucial decision.

New Zealand is likely to be leap-frogged by others producing food with a lower GHG footprint than us if we don't take action now.

Whilst it is always nice to hear Kiwis talk about getting on and doing it whether the government is going to help or not, the reality is, our government is throttling our ability to innovate and benefit from that innovation.

There were so many excellent ideas and technologies out there, but it was very obvious that policy & regulations (public sector) are not moving at the speed of innovation and NZ is starting to fall behind. Shocking to know that some of the innovations/products are exported to help other nation to reduce methane, but not able to use locally in NZ.

The problem isn't that the tool box is empty. It's that we need to have some of the tools verified and eased through regulation. But not recklessly.

Farmers can't rely on good practice alone. They need a "thing" novel tech to be used. Other countries pay or incentivise farmers to do this.

The need to accelerate progress on inhibitors but also to get the message out to farmers as to what they can work on now to improve efficiency and profitability.

There are a number of innovations in the pipeline, but in the meantime a number of good things that can be done to minimize GHG emissions and improve profitability e.g. initiatives undertaken on the pilot farms, George Moss's farms and Donna Cram's farm.

The increase in urgency due to high risk of NZ being leap frogged much sooner than thought.

The number one leading barrier, aside from investment, was regulation.

SUGGESTED FORWARD ACTIONS:

Start by addressing inefficiencies in your farm system - don't ignore the low hanging fruit. Utilise best practice farming strategies to make gains in animal health, repro/ genetics, soil nutrient management, pasture and crop management, effluent management etc.

More focus on tangible and practical solutions for farmers next time. Less of the similar high level science presentations - science is important but need to highlight KEY details or WHY this should matter to farms.

Need for 'incentives' to help farmers adopt new technology to reduce methane emissions on the farm.

Investment in technology for vaccine and/or bolus potentially provides the biggest opportunity for farmers to reduce methane with a low number of touch points.

We farmers need solutions, not trials. We need to be convinced that farming will be the future.

Have a one pager to all farmers. What is available now. What is available in the next 5 years.

Fix the regulatory roadblocks that are stopping new solutions from getting to market.

Accelerate options for mitigation to be in market at scale before 2030 otherwise risk not meeting emission goals for the country and losing export markets.

Recommendation for increased funding for cheaper methane measurement technology.

Recommendation for MPI to review the regulatory setting for inhibitors, in particular those 'natural' ones such as seaweed or plant extracts.

There needs to be urgency from everyone in the system. We are in the process of being overtaken in terms of emissions and if we don't start making meaningful gains now we will begin to fall behind the expectations of customers and trading partners who may look to competing suppliers.

Getting farmers even more willing and prepared to make changes that are currently available/possible and in the future.

The timing of upcoming targets, and solutions.

Speed up exploring how to streamlining regulations.

To support this there needs to be a willingness to put capital at risk from large players (Fonterra, Banks, etc.) because the individual farmers don't have the capacity to take those risks.

Summary of the barriers and enablers presented by the speakers.

Collaboration, faster action by regulators, the trade risk we face by inaction.

There is no silver bullet. There are tools that can potentially help, and there is a lot of willingness by people to do their part, but there needs to be a concerted effort to make the regulatory process work faster.

Help farmers understand their emissions. Prioritize a list of actionable change (now and near-future). Provide funding to encourage change.

Keen to see commentary/ follow up on the pathway forward for the mitigation tools to be released at soonest.

venture
TARANAKI
Te Puna Umanga

Taranaki Regional Development Agency

50 Devon Street West, PO Box 670
New Plymouth 4340, New Zealand

T+64 6 759 5150
E info@venture.org.nz

taranaki.co.nz

An initiative of

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council