

Te Ara Paerangi - Future Pathways Green Paper

A submission on behalf of representatives of New Zealand's Food and Fibre Sector

Introduction

This submission is made collectively by the individuals and entities named below. The views expressed represent areas of common agreement around issues raised by the Te Ara Paerangi Future Pathways Green Paper. Businesses and individuals associated with this submission may also have other or wider views related to the Green Paper, and if so these will be represented in their individual submissions (if any).

The submitters welcome the Te Ara Paerangi Future Pathways initiative and the opportunity to discuss possible new futures for Aotearoa New Zealand's public science and innovation system. They concede that many of the issues raised in the Green Paper are better discussed by those people and entities actually working within the public sector system, hence this submission is deliberately tightly focused on select areas where submitters believe a viewpoint from business is highly relevant.

The submitters

INDUSTRY:

- ANZCO Foods - Andrew Macfarlane (Director) Peter Conley (CEO),
- Fonterra - Peter McBride (Chair), Miles Hurrell (CEO)
- Silver Fern Farms - Jane Taylor (Director), Simon Limmer (CEO), Kate Beddoe (Chief sustainability & risk Officer)
- T&G Global - Rob Hewett (Director, & Chair Silver Fern Farms), Gareth Edgecombe (CEO)
- Zespri - Bruce Cameron (Chair), Carol Ward (Chief Grower, Industry and Sustainability Officer)

CRI-SCIENCE:

- AgResearch Paul Reynolds (Chair), Sue Bidrose (CEO)
- Manaaki Whenua: John Rodwell (Director), Richard Gordon (CEO)
- Plant & Food Research: Nicola Shadbolt (Chair), David Hughes (CEO)

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John Rodwell. Privacy - 9(2)(a)

Key points:

1. This submission fully endorses the identification of key National Priorities where RS&I investment can most meaningfully and effectively help deliver progress against the major challenges facing Aotearoa New Zealand – economically, socially and environmentally. Progress against these major challenges could have global significance, and in certain industry sectors, Aotearoa New Zealand could become a global exemplar.
2. These National Priorities should be used to inform specific, time bound ‘Missions’ which target science and innovation specifically at key problems/opportunities.
3. Missions should be developed, governed, funded and delivered according to a genuine ‘Triple Helix’ approach – a partnership with industry, science and government.
4. The appetite for businesses to engage with Te Tiriti and Mātauranga Māori should not be underestimated.
5. Government R&D infrastructure investment should not be planned in isolation from private sector investment.

Whole-of-system research priorities

We support the broad notion of “Research Priorities” but believe a greater degree of focus will be needed for Aotearoa New Zealand to truly engage the full energy and capability of science.

A small number of genuine National Research Priorities should be identified, with selection criteria including the scale of challenge/opportunity faced by Aotearoa New Zealand and the ability of science and innovation to meaningfully ‘shift the dial’ on achieving the desired future state.

These Research Priorities should then rapidly inform investment into a wider set of well-defined Research Missions. These Missions should closely focus research resources on generating knowledge, systems and technologies which deliver specific, time-bound and measurable advances towards meeting each priority. This Mission focus on tangible impact is vital – Missions must not become mere holding entities attempting to co-ordinate broad domains of work.

The process for setting National Research Priorities and Missions needs to be inclusive, pragmatic and mandated. We strongly endorse the Dutch ‘Triple helix’ model - where industry, government and science work together in genuine partnership. The Triple Helix is the ideal way for Aotearoa New Zealand to define Priorities and enact Missions.

We recommend that National Research Priorities be established and promoted via a National Research, Development and Innovation Council, populated according to the Triple

Helix principle. Comprised of individuals with profound insight and unquestioned mana, the Council would serve a thought leadership role, but not itself be a direct investor/funder.

The role of designing and delivering specific Missions would be devolved by the Council to a dynamic and evolving set of specialist triple helix groups, each closely aligned with a key pathway to impact and benefit to Aotearoa New Zealand. The most obvious international example of this approach would be the Dutch ‘Top Sector’ model, which currently focuses their triple helix approach to research and innovation on nine segments of their economy, ranging from Agrifood to Energy.

We propose the title “Mission Strategy Teams” for the Aotearoa New Zealand ‘Top sector’ equivalent. This on the basis that Priorities and Missions will always be dynamic and changing. Pathways to impact may not always align well around traditionally applied ‘sector’ definitions and some sectors may well require the development and delivery of multiple “Missions”.

Mission Strategy Teams would be small (8-10 persons maximum) comprised of leaders from the key triple-helix entities/organisations needed to implement delivery of the Mission goal.

Mission Strategy Teams are not ‘think tanks’ or advisory bodies. Members must have a mandate from their entity to act and have appropriate resources at their control. They must be domain leaders who possess sufficient mana that they can bring their own wider stakeholder communities with them in committing to the Mission.

A vital feature of this model is that the mandate to join and deliver the Mission is determined by alignment to the Mission goal - not by contracts or funding. The Mission strategy is co-developed by the key parties who will implement the strategy. The parties come as willing participants, prepared to commit the resources they control to achieve the strategy.

Understanding and honouring Te Tiriti obligations and opportunities

We strongly endorse MBIE’s efforts to ensure that its review of the public science system is inclusive of Māori viewpoints, aspirations and interests.

A public science system that includes Māori as active participants, contributors and end-users is essential to the future of innovation in Aotearoa New Zealand.

We make the following statements with respect and in support of further growth in Māori participation in, and contribution to, Aotearoa New Zealand’s Research, Development and Innovation system.

- We understand CRIs have in recent years made significant progress in engaging with Māori and with Mātauranga Māori. We support any initiative which recognises and further enhances this engagement and mahi by CRIs
- We need to learn how our currently dominant scientific models can respectfully and effectively be integrated with Mātauranga Māori and the challenge and opportunity this presents. We are united in our belief that achieving this goal holds tremendous potential to add value to Aotearoa New Zealand and especially our Food & Fibre Sector.

- The growing desire by businesses to partner with Māori in all aspects of their operations, including research and innovation, should not be underestimated. Businesses across the agri-food landscape have their eyes wide open to the benefits for consumers, Māori and Aotearoa New Zealand if the unique knowledge and culture of Māori can be appropriately shared with the world through our exports of food, fibre, knowledge and technologies.
- As businesses, we intend to examine our own research investments and engagements with research providers to ensure these activities support this desired outcome.
- We expect that any future access we have to Public Sector Science will increasingly have this partnership with Māori capability and knowledge 'baked in'.
- We would like to engage as a partner in further discussion on the opportunities there may be to develop Māori research capability on both a regional and national level.

The funding system

We note the core assumption made by Green Paper authors that the appetite for research, development and innovation outcomes currently exceeds the capital available for investment in RD&I.

Our comments below focus on a range of factors that would assist commercial entities in the Food & Fibre Sector to invest more in RD&I, either through their own activities or via partnership with public sector research organisations, Ministries etc.

- All the CRIs with which the Food & Fibre Industry engages are in the process of developing, or deepening, their ability to provide 'fee for service' research for industry. This research delivers critical impact across our sector. In some cases this activity represents a major portion of CRI revenue. We would expect that the commercial settings, management capability and research design which have allowed this service offer to flourish should be explored and supported through any wider changes to funding of public sector research.
- There is substantial scope to examine models for greater risk/reward sharing between public sector research entities and commercial operators. We are aware that at least one CRI receives substantial revenue in the form of royalties from IP developed in conjunction with commercial partners. We would like to see greater exploration of this model in ongoing public/private R&D partnerships.

Many Food & Fibre industry participants are already successfully engaging public sector science on commercial terms with an expectation that they can recoup investment in the marketplace through competitive advantage. However, a significant amount of potential additional investment through this pathway is stymied by concern about 'free-loading' by competitors.

Properly developed and governed "Missions" can significantly improve these situations. Well-articulated "Missions" will become magnets for a much wider group of

industry participants. They will create transparency around the collective, pre-competitive aspects of Mission goals while developing a clear runway of opportunities where further investment can enable market-led innovation and proprietary gains that align with Mission delivery.

For example: A mission which sought to develop IP around a methane-reducing feedstock would clearly be desired and investable across the pastoral sector. Meanwhile only some businesses would be likely to enter into the commercialisation of that IP as an investor, while others could simply choose to benefit as a customer/end user.

- Our vision for a successful 'Mission-led' research and innovation agenda in Aotearoa New Zealand is based on the recognised 'Triple-Helix' approach (Led by Industry, Empowered by Science, and Supported by Government). For this approach to be successful all parties must genuinely be 'at the table' and able to make and deliver on commitments. Current funding models for CRIs are largely contestable and are therefore tactical and sporadic rather than strategic and consistent. We recommend that Institutional funding to CRIs and other public research entities is increased to a level where they are empowered and enabled to deliver on the commitments they make as part of "Mission Strategy Teams"

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