

TUIA GROUP

# AGRITECH MAORI SECTOR OVERVIEW REPORT

Prepared for AgriTech New Zealand

May 2024

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# Part One: Background



# **Introduction and Scope of Engagement**

AgriTech New Zealand (AgriTechNZ) is a non-government organisation established by the New Zealand Technology Industry Association Incorporated, as a community of organisations and individuals across the agritech space. AgriTechNZ is a membership funded organisation, exploring the opportunities that agritech can generate, both domestically and internationally, for the benefit of famers and growers, agritech exporters and businesses.

In June 2023, the Ministry for Primary Industries (MPI) and the Ministry for Business, Innovation and Employment (MBIE), in partnership with AgriTechNZ, produced additional funding including a refreshed Agritech Industry Transformation Plan (MBIE funding). See Appendix One for further detail.

Following release of the MBIE funding, AgriTechNZ has commenced work on an agritech sector growth project, which facilitates Māori industry engagement in further sector strategic planning. As part of this project, AgriTechNZ would like to better understand Māori in agritech and the primary sector, and how any developments could best support the aspirations of the Māori economy.

Tuia Group (we), a commercial law and business consulting firm, has been engaged by AgriTechNZ to support the project by undertaking the following work:

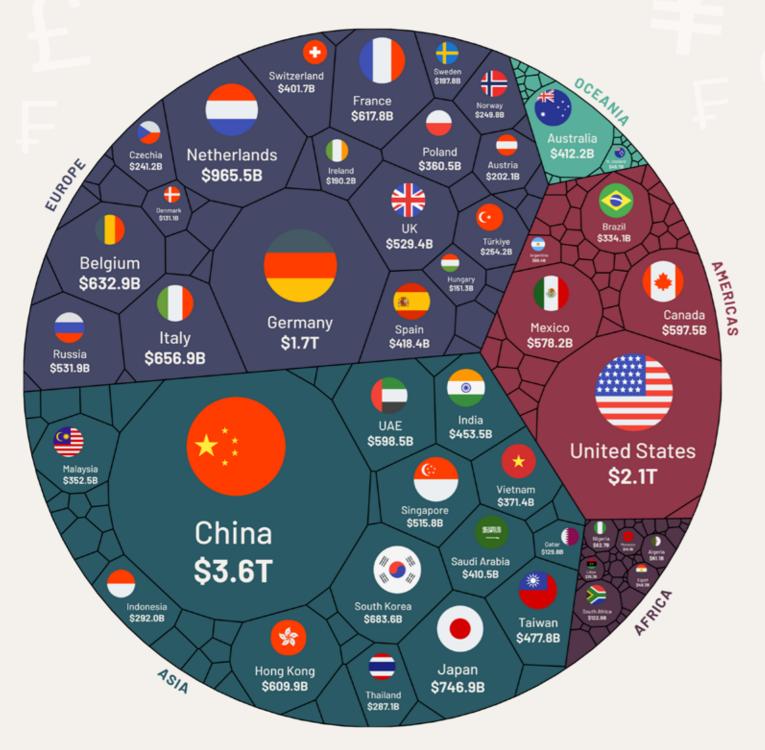
- Stakeholder Engagement: Identifying and speaking with Māori stakeholders from the agritech and wider agricultural sector to gain insight into the challenges and aspirations for agritech activities across Māori businesses, and the effectiveness, challenges, and aspirations of the agritech sector and other initiatives;
- Synthesise results of engagement:
  Consolidating the findings from stakeholder engagement to identify core themes, objectives and priorities; and
- Develop statement of Māori aspirations: Develop a statement of Māori aspirations for agritech and leading activities, and provide recommendations for operational adjustments, potential collaborations, and areas of the focus for the agritech sector.

This Report includes data from various public sources and documents provided by AgriTechNZ referenced throughout the Report.

This Report also includes information and comments gathered from sector engagement with several individuals and organisations. Conversations were held with various people over the months between October 2023 and March 2024 to ascertain their views on innovation, agritech and the Māori Economy. The findings in this Report are also heavily influenced by these discussions.

# Global export leaders 2022

Based on total merchandise exported



Top 11 countries export more than the rest of the world combined

Top 11: \$12.8T Rest of world: \$12.1T

**NZ:** US\$45.7B

#### **Definition of Agritech**

In this Report we use the term "agritech" broadly. For the purposes of this Report, the 'agritech' sector refers to:

manufacturing, biotech, and digital-based technology companies

that are creating product, service, intellectual property and value chain solutions

for the agriculture, horticulture, aquaculture, forestry, apiculture, and seafood sectors

with the aim of:

improving one or more of yield, efficiency, profitability, sustainability, reliability, quality,

adding any other kind of value.

In the Māori sector this definition is widened to include a large number of business products and services that might arguably be seen as simply product iteration e.g. beverages or supplement products with a number of them utilising native botancials. However, given the sector focus of this Report we consider these to be sufficiently adding value and innovation to the primary assets of the Māori economy.



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# Focus of Report - Sector Not Entrepreneurs

The reality is that it is almost possible to count all of the Māori agritech entrepreneurs on two hands. It is a nascent and small group with a couple of clear high performers who are serial entrepreneurs (eg Steve Saunders of Robotics Plus, Logan Williams of Shear Edge etc). Accordingly, the stakeholders we engaged with to prepare this Report were from the Māori sector generally and/or bodies who might be strategic partners with AgritechNZ to grow this sector for Māori.

Starting in October 2023, we undertook interviews with stakeholders across the identified categories, seeking feedback on the following questions:

- How can we go faster in the agritech sector?
- Are there any growth strategies you recommend we focus on?
- What initiatives would you like to see done for your business/organisation in the agritech area?

The purpose of these interviews was to get a broader view of what Māori in the sector were looking for and understand how the sector could fully contribute to the Māori economy.

In addition to the formal interviews over forty conversations were held with various people in the Māori economic sector over the months between October 2023 and March 2024 to ascertain their views on innovation, agritech and the Māori Economy. The findings in this Report are also heavily influenced by these discussions.

# **Stakeholder Engagement Overview and Themes**

The stakeholders engaged with, for the purposes of preparing this report, broadly fall into four categories:



Māori individuals or Māori businesses directly participating in agritech (for example, founders, owners and workers in agritech businesses).



Potential or active agritech investors from the Māori business sector.



Potential or active agritech customers, being Māori participants in the primary sector who, while not having a tech element in their own business, use or could benefit from the use of agritech products or knowledge.



Owners of assets, particularly whenua, such as whanau trusts, post-settlement governance entities, and Māori incorporations, affected by the development of the agritech sector.

# Māori Economy and Agritech

The Māori economy is heavily focused in the primary sector, even more so than the wider New Zealand economy which benefits from a more diverse set of sectors including digital technology. This means the Māori economy has the potential to be significantly affected by the development of an agritech sector. Accordingly, increasing Māori interests and participation in the sector, to ensure Māori aspirations are realised is one of the six focus areas in MBIE funding.

The Māori Advisory Group involved in working on MBIE funding for Agritech identified the following as potential areas for further exploration:

- Increasing opportunities for partnership between Māori agribusinesses and agritech businesses, and indigenous-to-indigenous ventures
- Identifying future-focused Māori agribusinesses and collectives interested in utilising technology to build the knowledge base of Māori in the primary sector
- Supporting Māori skills development through technology to encourage workforce opportunities and increase subject matter expertise across Māori trusts and agribusinesses; and
- Promoting Māori excellence in the agritech sector.

Specific outcomes identified for measuring the success of the aspirations in this focus area are:

 Higher levels of Māori participation in the agritech sector e.g. founders, owners, workers, investors; and  Benefits for Māori land through the use of agritech, for example through unlocking otherwise unproductive land, by increasing overall productivity, or increased resilience in the face of climate change.

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• The focus of this Report is the future of Maori in the agritech sector and what role could AgriTechNZ play in growing both Māori participation in agritech as well as the Māori economy generally through improving productivity, returns and resilience of Māori primary sector assets.

# Quick facts on the Māori Economy

#### **Concentration of Assets**

Māori investment & assets are traditionally tied to the primary and property sectors.

#### **Low GDP**

Māori economy is worth circa \$70bn but we contribute only 6.5% of total NZ GDP.

#### Māori Entrepreneurship

**80%** of the Māori **\$70bn** economy is held in SME's which we need to scale.

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# **Aotearoa New Zealand Global Position**

Low Export Receipts: Research by Genuine Impact – a research arm of New Horizon Global Advisory Limited –produced an overview of leading global exporters. New Zealand's total global exports in 2022 are shown to sit at US\$45.7 billion; a proportionately low figure when compared with other countries of a similar population such as Ireland (5m popn - US\$191bn) or Denmark (6m pops - US\$131bn). The leader in maximising export returns and value from a small population and resource base is Singapore (5.5m - US\$515.8bn). Even adjusting for other factors it is clear New Zealand lags behind by a factor of 3 or 4 against other similar sized first world economies.

**Limited Technology Ecosystem**: Currently New Zealand does not exhibit the characteristics of three countries who represent global best practice in agritech: Israel, Netherlands and Singapore.

Israel produces leading research in agritech with a high level of commercialisation and investment, and effective incubators, accelerators and multinational involvement.

The Netherlands is the second largest food exporter in the world and a major exporter of agritech, with strong cross-industry collaboration and a high level of agritech adoption.

Singapore is a growing leader in agritech and is pursuing an aggressive public agenda to increase and strengthen local food safety and supply.

This global perspective allowed us to position what might be possible for Aotearoa New Zealand through technology and outside global returns for sale of our goods and services to other markets.



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# Part Two: Findings

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#### **General Commentary**

The Māori economy is heavily concentrated in primary industries. As of 2020, Statistics New Zealand notes that approximately one quarter of Māori authorities were in the primary sector. Developments and changes in the sector therefore have a significant impact on the Māori economy as a whole, so it is important to stakeholders that the industry recognise and understand the diverse Māori needs, aspirations, and drivers within the sector.

In addition to many of the same motivators that drive other primary sector players, Māori primary sector business often have to consider other drivers too. Examples include strong cultural and historical ties to land (particularly land obtained in Treaty settlements) leading to reluctance to dispose of that land, and tikanga Māori considerations like kaitiakitanga and mana whenua informing decision making alongside economic and operational considerations.



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# Systemic concerns identified by Participants

There are some large systemic concerns about the Māori economy developing agritech as a visible and viable sector which were raised time and time again. Key recurring themes shown in the infographic (see below).

We have summarised the main themes and any comments of particular significance on these themes. More generally, we note that a number of these themes will have some degree of overlap. For example, business as usual impediments to innovation can be the reason an entity or individual does not have the resources to become more connected into the industry or invest the time needed to understand how the different public sector agencies may be of use.

**Broad but** ringfenced asset bases mpediments to innovation Lack of connectivity Unclear public sector relationships Structural impediments to innovation Sensitivity to risk ©AgriTech New Zealand Public Sector Relationships: A number of participants raised the problem of the often troublesome interface with Government agencies that are involved in supporting innovation. In essence, there is a lack of clarity of their respective roles and how to connect with them.

Most Māori commercial agriplayers find the Research and Development Government supported space confusing, with a multitude of Government agencies, and pathways for exploring opportunities not always transparent. Crown Research Institute's are often seen as not easy to access.

"Is it Callaghan or MPI or TPK or a CRI or MBIE or someone else [from Government]? How do we know who is the right one to help us develop our technology or find some technology?"

Although there are clearly some exceptions with some groups (e.g, Wakatū Incorporation building good research relationships with various CRI's and private research institutions), there is a general view that there is no well-treaded pathway for innovation support services between a critical mass of Māori entities and these institutions.

Business as Usual: For businesses under siege with Business-as-Usual activities, particularly under the current economic cloud, investing into, exploring, and understanding these pathways is a luxury few can afford. There is often a seemingly overwhelming obligation to optimise current business, stem cashflow issues, and to plan ahead the next 2-5 years to just survive. There is little to no capacity to work through innovation and technical solutions unless solving immediate issues.

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This seems a prevalent issue right across the board and, although we aren't sure exactly why, we suspect it could be a function of our smaller economy and low productivity. BAU is more than just a strategic issue but a real resource and capability drain on resource constrained Māori agri-entities.

A potential solution is to reframe the language around agritech from being a management tool or sector for overseas large agriplayers, to being a tool that can reduce bottom lines and lead to more immediate returns. This might mean a more focused connectivity of problem solving for Māori agri-sector parties. But until the agritech sector is able to demonstrate that it can provide these short-term wins, this is a real and fundamental constraint on innovation and the ability to grow more agritech businesses in the Māori sector.



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Lack of Connectivity to the Ecosystem: There is a lack of connectivity generally of the Māori sector to the technology ecosystem. Often Māori sector participants are unaware of the technology ecosystem particularly in the agritech space.

There is no clear pathway for Māori founders in agritech to connect with Māori agrisector players to determine if their product/solution is of use to them. The "build and test local for going global" approach seems to break down, with no clear pathway/conduit or process for allowing Māori agritech founders to build business relationships with Māori sector players. Although some incubators can do this, they don't tend to have sufficient connectivity to the Māori sector.

Based on our engagement, connecting players within the sector is a substantial gap, and one which individual businesses will often not have the resourcing to solve for themselves. Māui Toa Venture Capital proposal was one attempt to build a platform for connectivity between Māori (and other) tech founders and the Māori sector (see case study at Part Three). That hasn't been realised, and in the vacuum there could be another, less commercially structured, option focusing on just the connectivity aspect (capital and capability to come from elsewhere).

Structural Impediments: Land trusts and incorporations, and post-settlement governance entities have legal mechanisms and regulations governing them that result in inertia being built into their structures.

Examples of those legal mechanisms include the requirements for democratic (as opposed to skills-based) appointments, asset protection, and retention requirements (e.g. prohibition or highly restrictive provisions on the selling of land or other assets like fishing quota / marine space) etc.

These requirements can make it difficult for these types of entities to respond to quickly evolving markets like agritech.

Entrenched Mindset: For a variety of cultural and social reasons, the generally accepted investment philosophy in the Māori economy is to protect the asset and emphasise avoiding the risk of decreasing the asset base value. The shift to an entrepreneurial, transformational economy is an extremely difficult leap to make from a current conservative, protectionist perspective. Risky business models look to be the domain of individual businesses/ entrepreneurs and not of Māori entities as a whole.

Broad Asset Approach: Many Māori entities are focused broadly across a number of industries or assets (property, infrastructure, farming, forestry, fisheries etc). The broad-church approach is not the norm for most businesses in New Zealand and the market including the legal and tax models, financing approach etc. does not generally recognise or cater for this cross-sector approach.

However, this broad approach arguably does not allow for specialisation and intense focus on operations, which would potentially drive innovation and further technology solutions for the agri sector. Resource driven vs knowledge driven assets: The

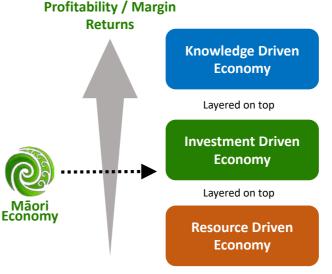
Māori economy is coming to an inflection point. It has managed to secure, over the last 30 or so years, an economy which reflects a traditional class of mainly land and marine derived assets, producing mainly commodities level returns. The Māori economy in New Zealand is currently valued at more than NZD \$70 billion. Estimates suggest that it will have assets worth \$100 billion by the year 2030 . In addition, over the last ten years, the Māori asset base has also grown at a significantly faster rate than the overall economy.

Having said that, a lot of the Māori economy does not have assets that reflect fast-moving capital able to flow into new and lucrative enterprises to maximise returns. Land and its marine equivalent – fishing quota – tend to be held as ring-fenced assets which have limited debt leverage capability as well as little to no liquidity ability for various reasons, mainly related to Treaty of Waitangi settlement sentiment.

A significant mind shift is required to generate the next level of agri tech Māori founders and businesses, along with a cultural shift reflecting an understanding of how, in mature markets, businesses built on the back of intellectual property and information produce transformative returns.

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The diagram below demonstrates a model where a traditional resource-driven economy moves over time to provide for investment focus finally through to a knowledge or IP-driven economy where the businesses in that economy secure global revenues at greater margins of profitability. It should be noted that an economy can still do extremely well at the resourcedriven level, particularly if market demand for the resource is globally significant and supply is available in large volumes e.g. Saudia Arabia and crude oil. However, matured economies which have sectors with goods or services that enjoy extraordinary margins/profitability for every \$1 spent on input have transitioned part of their economy to the knowledge-driven economy. The difficulty facing the Māori economy is shifting to a position where it values the IP it generates (and associated higher margins) as opposed to the land and other traditional assets.



#### **Key Characteristics**

- · Focus on maximising global trade value
- Local development of technologies to enhance existing industry and service offshore markets
- Mainly IP focussed
- Utilisation of returns emphasis on reinvestment into existing key industries
- Wider differentiated sector investment including
- global listed markets / instruments
   Imported but upgraded technologies
- Main emphasis on utilisation of exisiting resources (land / forest / marine etc)
- · Primary sector export focus
- Utilise some imported technology for efficiencies
- Mainly commodities focussed

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# Specific concerns identified by participants

A number of specific issues for Māori agritech businesses were also raised by participants. We set out below key ones which reflect some commonality of concern.

Coordinated IP Platform: The identification and use of native bioactives, both plant-based and marine-based, has spawned a large number of businesses in various sectors, such as nutraceuticals, premium food and beverage development, cosmetics and beyond. Māori enterprises and entrepreneurs are represented strongly for obvious reasons. However, there seems to be no co-ordinated approach to core components of these businesses, such as commercial growing, species identification, research and development, efficacy trials, IP and geographical indication protection.

A New Zealand company producing supplements that include native bioactive ingredients, has observed they would derive real benefit from a more co-ordinated approach to laboratory testing. We anticipate this sentiment may be shared across industry participants.

"We need the science done on the efficacy of our bioactives to really differentiate ourselves in the marketplace." Market Feedback Loop: Aotearoa New Zealand faces some real challenges with its geographic isolation, limited scale, and small domestic market. An agri-tech founder in US/UK/Asia, which is seeking to develop its product or service with over a thousand potential corporate clients had direct access, compared to the typical New Zealand founder having maybe 50 to 100 such potential clients at most. There is no easy way around this.

Māori founders have lamented the inaccessibility of New Zealand (and particularly Māori) corporates to test and trial their product or service. Those who go overseas for that market feedback face extraordinary cost. This issue is in contrast to those challenges raised by Māori entities around the lack of connectivity to the innovation ecosystem. The same lack of connectivity exists for Māori founders looking for potential clients, research partners, investors etc from the Māori sector.

**Biotech development:** The ability to grow a bioscience entrepreneurial sector is severely hampered in New Zealand for a raft of reasons.

#### Two key ones are:

- Research laboratory testing for biotech companies is experiencing a 6-month turnaround for laboratory results. The ability to innovate quickly and develop/iterate products is severely hampered by the limited number of suitable laboratories that can be contracted for testing.
- New Zealand's regulatory environment is not conducive for science innovation in the biotech space. Anti-GMO legislation is one aspect, but there is generally not an appetite to utilise biotech science. New Zealand is not maximising recent developments like:
  - GMOs created by inserting foreign DNA sequences into crop genetics, resulting in desired traits such as increased yield or improved tolerance to environmental stresses; and
  - The rapid progress in researching and applying microbial fertilizers, biocontrol bacteria, and related agricultural microbial agents. Together these microbial technologies contribute to soil health, pest control, and sustainable agriculture practices.
  - The recent development of climate technolgies like methan inhibitors and the current regulatroy restrictions that place us at a disadvantage to competitor markets like Australia.

Although there are some parts of the Māori community that are reluctant to adopt these technologies, they represent an avenue for developing significant opportunities for the Māori primary sector, as well as potentially removing some of the environmentally detrimental aspects of current farming and horticulture practices.

"\$800,000 and 3 years of testing per ingredient for registration and approval makes it hard to innovate."



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# Part Three: Māori Sector Initiatives



#### Overview

In addition to providing feedback on gaps and concerns around the agricultural sector and its relationship with agritech, many stakeholders discussed initiatives that provide positive examples of innovation or growth opportunities.

This section provides an overview of some of the examples discussed with stakeholders, that may provide useful insights into filling gaps within the sector.

### Aspirations for Agritech – Existing Māori Sector Initiatives

There is growing interest from the Māori agrisector players, particularly the larger land incorporations, to drive technology and innovation into their operations and seek alternate use of their primary sector assets (land, forestry and marine assets). Some of them are developing specific Board committees who will lead their innovation and technology strategy (for example, Te Āti Hau Trust below). Considering how to support these initiatives and provide further education and insight around agritech to those who do not have the ability to establish dedicated resources, may be a useful avenue to explore.

There is also a thirst to participate in agritech development as potential customers, investors, and/or R & D partners by Māori primary sector players (particularly if there is a Māori founder or person involved in the agritech play).

Examples of previous and current approaches or initiatives for agritech in the Māori Sector include the following.



#### Te Ātihau-Whanganui Incorporation

Te Ātihau-Whanganui Incorporation is an incorporation representing over 9000 shareholders and whānau in the Whanganui and Ruapehu rohe. The group distributes grants to beneficiaries, ranging from education and sports to cultural grants.

The Board has elected to establish a technology and innovation sub-committee to stay appraised of key information and updates in the agritech space. This committee is tasked with reporting back to the Board, so they remain across the sector at a high level but avoid the need to upskill all members on this area.



#### **FOMA**

The Federation of Māori Authorities is a national peak agency representing Māori land entities. It has a national annual conference where there are often presentations on innovation and technology. FOMA also collaborates on programmes with Government agencies and others in the agritech ecosystem from time to time.



#### Viktual+ and native bioactives

Viktual+ is a Māori and Pasifika founded organisation, drawing on Pasifika and mātauranga Māori to create a range of locally manufactured supplements. Viktual+ uses native herbs and plants for their supplements wherever possible, in particular horopito, mānuka and kānuka sourced from the North Island and barley grass, wheat grass and kelp from the South Island.

The manufacturing process Viktual+ uses (via a New Zealand factory certified for pharmaceutical Good Manufacturing Practice) requires full validation of quality and label claims, conducted using local test date and international published scientific data. As a number of their ingredients are New Zealand native plants, the existing scientific data that is available can be limited, so arranging for this testing can be a significant expense and time investment for small businesses looking to grow in the bioactives space.

The brand potential of native bioactives as a source of innovation and value-add to products is of particular attraction to Māori. The use of native/indigenous botanicals resonates with Māori with industry positioning through te ao Māori, rongoā and mātauranga. The use of naturally derived balms and oils and other products is likely to get significant interest from Māori, particularly where this use aligns cultural narrative and traditional knowledge with science-based claims. There are wider opportunities to supply into the biopharmacy, biocosmetics and sports nutrition sectors and grow the utility of the underlying bioactives.

In the bioactives space, there is also the ability to leverage existing primary assets with alternate cropping models, to improve availability. Existing distribution chains in primary sector gives some weight to this proposition from a Māori land entity or Māori fishing/marine aquaculture operator perspective.

There is a growing but very small number of Māori perfumes and cosmetics by various collectives and individual businesses with varying levels of success. There is however a lot of interest in the supply biomass end of the sector, with a number of models (e.g. Hikurangi Bioactives with kanuka oil) who are keen to supply into a burgeoning demand for native botanicals and bioactives.

But there are some problems:

- A potential barrier to commercialisation is sorting through traditional knowledge / IP issues, including the Wai 262 Treaty of Waitangi report. Unless there are acceptable models or solutions, navigating these issues might cast a shadow on this sector for a long time, slowing rapid development and causing supply constraints of the native bioactives.
- There is no hero product/brand line as yet (other than arguably mānuka honey). The Māori operators in this space advise that one of their challenges is to secure a sufficient, reliable set of biomass for native botanicals, particular with plants like taramea, where the extraction process is quite intensive and difficult. There are very few commercial suppliers of the key botanicals that are utilised in the various chains.

Māori investors will need to be convinced that there is sufficient capability and other competitive advantage within the Māori agritech founders in this sector to drive a pool of companies which they would either supply into or potentially take stakes in. This is still an emerging sector and there would need to be further evidence of significant export potential to convince Māori investors and agriculture and marine businesses to move into this sector.



#### Tupu Accelerator

Tupu Accelerator: is a 10-week business accelerator programme for Māori startups, providing tools, mentorship, and resources to grow, as well as a \$5,000 start up grant for selected teams. The programme consists of four noho wānanga (residential workshops) in Tāmaki Makaurau, weekly online coaching and one-on-one sessions, and a final showcase with potential investors.



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#### Te Ara Potiki

Te Ara Pōtiki is a not-for-profit Charitable Trust, whose purpose is to increase the number of Māori experienced and connected to international start-ups in STEM. This is achieved through three-month internships, where young Māori leaders are placed into international start-ups, connecting them into a global network that provides real-world experience in sectors like food and agriculture. The programme includes pre-programme training, the internship itself, post-experience engagement to reflect on insights and learnings, and an alumni programme. Finistere Ventures is a key strategic partner and the programme intends to place interns with their portfolio companies in the US, Israel and Europe.



#### Pūhoro Partnership

Launched in 2016, Pūhoro STEMM Academy improves rangatahi engagement in STEMM (Science, Technology, Engineering, Mathematics and Mātauranga Māori).

Pūhoro helps rangatahi see the connection between mātauranga Māori in STEMM, improves their academic achievement in STEMM, and, through strategic partnerships, provides pathways into high value careers. Based in Palmerston North, there is a strong focus on agricultural science as a career pathway.



#### Tauhara North No. 2 Trust

Tauhara North No. 2 Trust is an ahu whenua trust, holding land on behalf of the descendants of the original owners. The Trust has a commercial arm that invests based on the Trust's vision of 'holding fast to the land', and 'making use of that land for future generations'. The Trust's investments span across six pou, with particular focus on geothermal, land, food and tourism.

In the food and land space, Tauhara North has partnered with Craigmore Sustainables to purchase 75% of the tahi orchard, a 10 hectare avocado orchard. They also invest significantly in farming, owning Maroa, Tokoroa and Te Wahiti/ Minginui farms, all currently operating as dairy farms with stock levels ranging from 600 to 1325.



#### Māui Toa

Māui Toa was an attempt to develop a venture capital firm formed by Māori investors, supported by NZ Government through NZGCP and other agencies. Its purpose was to:

- provide Māori investors with a 'by Māori, for Māori' platform to participate in high growth companies and tech sector returns to enhance their investment portfolio;
- expand and develop early stage, highgrowth tech businesses utilising Te Ao Māori perspectives/networks/assets to underpin impact and sustainability; and
- leverage Māori owned assets to ultimately improve Māori sector GDP contribution.

Māui Toa looked to bring a te ao Māori perspective to its approach to investments, helping founders in tech spaces to connect with investors looking to invest in the Māori sector and/or leverage the Māori asset base such as land, people and relationships. Māui Toa is currently in abeyance as it failed to attract Elevate support funding from NZGCP.



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# Part Four: Māori Agritech Sector Opportunities

We set out below a list of aspirations/ opportunities and ideas to progress Māori in the agritech space. These are heavily weighted towards the agri-players or consumers, as opposed to founders themselves, given the current state of agritech in the Māori economy and the key role the Māori agrisector will play in seeking to increase agritech businesses in this sector.

Some of these opportunities, AgriTechNZ can deliver or be a key partner in facilitating. Others are outside the remit or resources of AgriTechNZ, but still remain useful opportunities for the sector to be aware of as it develops.

- 1. Cultivate Māori Entrepreneurship
  Networks: Facilitate networking events,
  workshops, and mentorship programs
  specifically tailored for Māori entrepreneurs.
  By connecting aspiring founders with
  experienced industry professionals, they can
  gain insights, build relationships, and access
  resources necessary for launching and
  scaling their agritech ventures.
- 2. Promote Education and Training:
  Collaborate with educational institutions to develop targeted agritech courses or certifications that address the unique needs and perspectives of Māori entrepreneurs.
  Providing training in areas such as business development, technology, and sustainable practices will empower Māori founders to navigate the industry successfully.
- 3. Support investment in Māori-Led Innovation: Allocate funding and resources to support Māori-led agritech startups. This could involve grants, equity investment, or partnerships with existing organizations. By actively seeking out potential investors and

- promoting Māori-founded ventures, a more inclusive and vibrant agritech ecosystem could be established.
- 4. Governance Approach: Support Board Committees and specific Director Roles primarily focused on technology and innovation in governance of Māori entities. Some entities are already developing specific Board committees who will lead their innovation and technology strategy.

Board-established committees with a specific agritech focus are a useful target for ecosystem connectivity. Although only a few currently, they are likely to grow in numbers and be connected and potentially become the default structural approach to managing the Board response to technology and innovation.

#### 5. Promoting the Agritech Ecosystem:

Encourage the thirst to participate in agritech development as potential customers, investors, R&D partners by Māori agrisector players (particularly if there is a Māori founder involved). Finding the best way to encourage this interest will require recognition that most commercial agriplayers in the Māori space find the R&D Government supported space confusing, with a multitude of Govenrment agencies and pathways for exploring opportunites not always transparent. CRI's are often seen as not easy to access and liase with.

There is a potentially fertile audience for promoting agritech solutions to the Māori agrisector and effectively brokering those parties into the R&D space with Government agencies and others e.g. Gallaghers. We are still working on recommendations as to the best way to do this.

6. Connect Māori Founders to Māori Agri Sector: There is no clear pathway for Māori founders in the agritech space to connect with Māori agrisector players to determine if their product/solution is of use to them. The "build and test local for going global" approach seems to break down with no clear pathway/conduit or process for allowing Māori agritech founders to build business relationships with Māori sector players. Although some incubators can do this, they don't tend to have sufficient connectivity to the Māori sector.

Working with FOMA and other Māori sector groups that are connected into the Māori asset base to build pathways/conduits for agritech businesses could be a possible solution.

7. Establish Infrastructure for Bioactives
Sector: A signficant number of Māori
founders in the agritech space (in the
broader sense) are developing products off
the back of native bioactives. There seems to
be no co-ordinated approach to commercial
growing, species identification, research
and development, efficacy trials, IP and
geographical indication protection.

There is a clear growing founder industry utilising native botanicals in a variety of products and sectors e.g. Viktual+, Organic Bioactives etc. Sector wide collaboration on commercial supply, research-backed scientific claims and IP protection would help structure this sector and allow the founders to more properly focus on market and distribution components of their business to grow worldwide market demand.

- 8. Establish Innovation Wānanga with VC's: Establish an Innovation wananga for General Manager's / CEO's of Māori primary assets entities, which are led by specific experts and are connected to key agritech partners including New Zealand, Australia, Singapore and United States VC's. Connectivity to specialised VC's brings thinking/IP and networks. Promoting agritech solutions to the Māori agrisector and effectively brokering those VC parties as well as others involved in the R&D space e.g. Government agencies and private sector e.g. Gallaghers could be way to bring value to the sector. See Appendix Two for an (incomplete) ecosystem map identifying some potential investor participants.
- 9. Leverage Commercial Fishing and Marine Aquaculture Sector Platform: In the Māori sector there is a distinct ability to leverage off significant Māori interests and networks in commercial fishing and marine aquaculture. Unlike other industries Māori control significant parts of the entire industry through:
  - the direct ownership of quota;
  - the growing marine aquaculture expertise of lwi in regions like Bay of Plenty and Te Tau Ihu (the top of the South Island);
  - the ability to directly influence two of the largest players in the sector (Moana and Sealord); and
  - connections to other large participants like Sanford and industry processers like Maclab.

This means there is a potential for a strong Māori coordinated response, unlike many other industries. This coordinated response, driven by a need to increase returns, could provide fertile ground to foster Māori agritech expertise. A Māori collective investment platform could enable "scale" investment alongside expert coinvestors into this opportunity to attract a raft of innovation and technology breakthroughs.

New product development is a different type of skillset and expertise that the industry has not traditionally had. It is a large opex cost inside the larger seafood and aquaculture companies to create a product development team and invest in the R&D required to support that team. The huge cost, the level of risk and the potential lack of capability in Aotearoa New Zealand to build a consumer-facing brand in this sector might lead some to simply wait and adopt the 'Coca Cola approach' of acquiring the successful products and folding them into the portfolio. This strategy risks losing out to overseas acquirers who can write a bigger cheque.

To boost innovation and help manage the cost barrier, a similar approach to the New Zealand Food Innovation Network innovation hubs could be adopted with marine bioactives. This might enable innovation while seeking to manage costs of new product development.

- 10. Align with Agritech Businesses Regional Footprint: Identfiy and align agritech businesses with local Māori agrisector players through regional wānanga. The below is the map of the top agritech businesses (TIN 200) by location. A regional network model might develop significant connections and at the very least exposes Māori agriplayers to the agribusinesses that are closest to them. This could take the form of regional agritech wānanga which could be hosted and run by Māori enterprises in the region (Wakatu Inc do a similar role in the Nelson region driving economic planning wānanga).
- 11. Capacity Building Support: Looking to establish capability and capacity in the sector by increasing rangatahi participation, for example as seen with Te Ara Potiki intern programme or the Puhoro STEMM Academy could be another option to bridge the capability and capacity gap in this fairly technical sector.



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#### **TIN200 Companies By Location**

**AUCKLAND:** Argenta, BioStart, Datamars, Figured, Reese Group, Wildeye.

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**HAMILTON/WAIKATO**: Gallagher Group, Livestock Improvement Corporation, NDA Group, Rezare Systems, TOMRA Fresh Food, Waikato Milking Systems.

**CENTRAL NORTH ISLAND:** Bluelab, DSLK, Frost Fans, Robotics Plus, Trimax Mowing Systems.

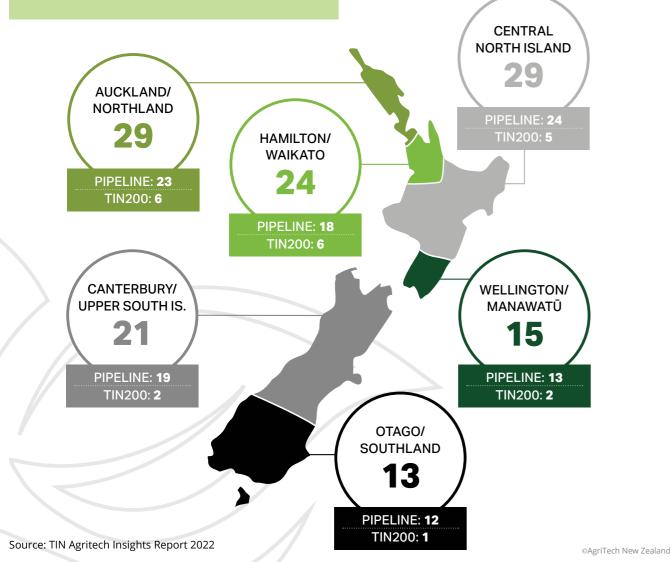
**WELLINGTON/MANAWATŪ:** Harvest Electronics, Levno.

**CANTERBURY/UPPER SOUTH ISLAND:** South Pacific Sera, Wyma Solutions.

OTAGO/SOUTHLAND: TracMap.

131 Companies

22 companies in TIN200 / 109 pipeline companies (Pipeline formerly called "early stage" and refers to those that don't make the TIN200 revenue threshold but are crucial to ensuring longevity and innovation in New Zealand's agritech economy).



#### Māori Agritech Potential Ecosystem (incomplete)

#### Māori Agritech Businesses





RoboticsPlus







#### **Māori Land and Marine Enterprises**

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#### **Potential Investors**



#### **Key Stakeholders**



NOTE: If you feel you are missing from this landscape map please get in touch with AgriTech New Zealand to be added – info@agritechnz.org.nz

# Our Recommendations - Next Steps

From Tuia Group's discussions with stakeholders and review of the outcomes of those discussions, we have identified several potential areas for improvement AgriTechNZ could focus on to improve the experience of its Māori business participants.

By and large these areas for improvement were not the result of support and resources not existing, but of unclear pathways to access existing support and resources. In our view, AgriTechNZ's most useful role in this space could be one of facilitating better relationships and accessibility within the sector, rather than requiring any drastic change or new initiatives.

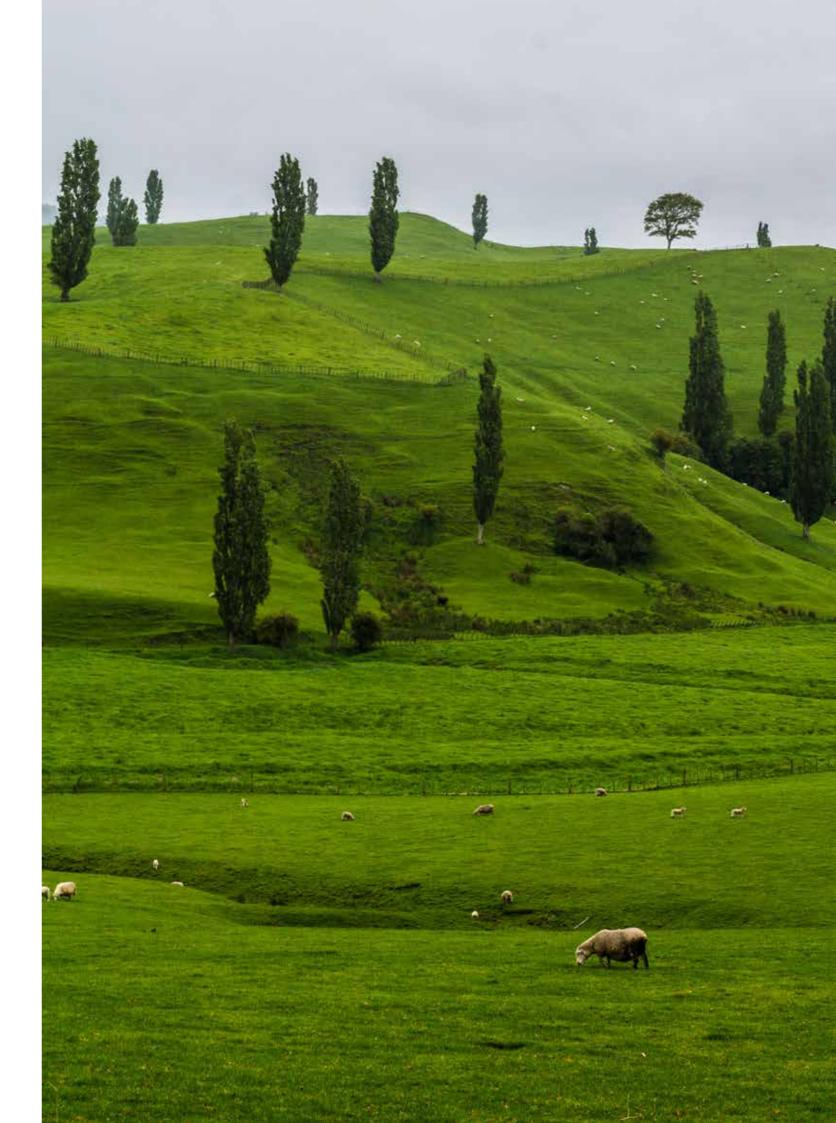
Increasing the number of Māori agritech founders should also become a focus for AgriTechNZ. It should have an ongoing engagement strategy, promote collaboration, and establish a commitment to amplifying Māori voices within the industry. And it should do this for two key reasons:

- As a matter of equity, it is crucial for fostering diversity and innovation in the agritech industry. As an industry body, AgriTechNZ ought to be the champion to ensure the industry properly represents all of Aotearoa New Zealand.
- 2. The Māori economy is a smaller sector that can be mobilised to act in a cohesive direction.

#### We **recommend** AgriTechNZ:

- 1. Read and note the findings in this Report.
- 2. Review the Statement of Māori Agritech Sector Opportunities set out in Part Four.
- 3. Assess each of the opportunities identified in the Statement of Māori Agritech Sector Opportunities and determine its response. In our view, a number of these opportunities can be realised by AgriTechNZ through facilitating better relationships and accessibility within the sector.
- 4. Determine a priority list of key partners or stakeholders with which it would seek to collaborate with. We are happy to assist AgriTechNZ in that exercise.

Ngā mihi TUIA GROUP March 2024



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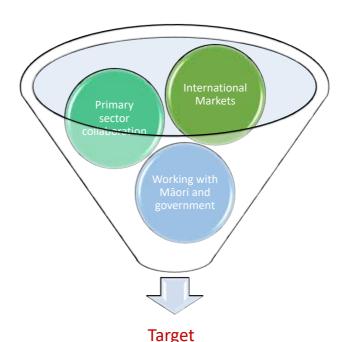
#### Appendix:

# MBIE Funding and Agritech Industry Transformation Plan

In June 2023, the Ministry for Primary Industries (MPI) and the Ministry for Business, Innovation and Employment (MBIE), in partnership with AgriTechNZ, produced additional funding including a refreshed Agritech Industry Transformation Plan (ITP). The ITP was a refreshed take on the steps government and the industry would take to accelerate growth in the agritech space, with a specific goal of agritech contributing \$8 billion to the New Zealand economy by 2030.

# The Refreshed ITP - ITP purpose and strategic goals

The ITP is a refreshed Agritech ITP from the version released in 2020, laying out a new vision, purpose, action plan and \$8 billion by 2030 (against the current estimates of a \$2 billion sector). Collaboration with international markets, the primary sector, government and Māori are all identified as avenues to growth.



\$8 billion agritech sector by 2030

#### **Current status of the ITP**

The ITP is primarily focused on identifying and understanding issues and opportunities facing the sector and starting to pilot and explore solutions. In particular, the ITP identifies six focus areas to explore and develop:

- Enabling company growth by ensuring business capability services are provided consistently and well.
- Building skills for diversity and growth and ensuring effective coordination between industry and the education sector.
- Enabling a smart innovation ecosystem through collaboration that attracts international interest.
- Increased Māori interests and participation that ensure Māori aspirations are realised.
- Building a supporting and patient investment environment suited for agritech.
- Increasing global connections for growth to build a globally connected sector.

As part of the new Government's 100-day plan, stop work notices were issued on all Industry Transformation Plans, including the Agritech ITP to allow for the plans to be reassessed. In light of this, the future of the ITP is not entirely clear at this stage. This said, we understand that ArgiTechNZ wishes to continue working towards the goals and purposes contemplated in the ITP, until such time as any new direction for the industry is set and our comments in this report are made with that in mind.

