



The Future of NZ Inc | What will Aotearoa New Zealand be known for in 2050?

Growing our advantage in agritech

OCTOBER, 2025



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He Kupu Whakataki

Nā te kukune, te pūpuke,
Nā te pūpuke, te hīhiri,
Nā te hīhiri, te mahara,
Nā te mahara, te manako,
Nā te manako, te wānanga,
Nā te wānanga, te matau,
Haumi ē, hui ē, tāiki ē.

This kupu whakataki acknowledges the process of conception, expansion, ideation, deliberation and understanding in the writing of this report.

Introduction

Tēnā tatou.

He rau ringa e oti ai, BCG would like to pass our sincere thanks to the business community and contributors for their input on this report.

Earlier this year, we published ‘The Future of NZ Inc: What will New Zealand be known for in 2050?’. The report highlighted the importance of ecosystems in addressing Aotearoa New Zealand’s challenges related to productivity and economic growth. We made a strong case that NZ Inc – the players across government and industry who promote and enhance New Zealand’s economic interests globally – need to make choices and place strategic bets. Instead of spreading finite investment across a broad range of industries as it does today, NZ Inc needs to focus on a small number of high-potential industries that will offer the best chance of being globally competitive and lifting national productivity.

We suggested five ecosystems that New Zealand could be known for: Agriculture 4.0 (Agritech), Space and Satellites, GreenTech, Creative Industries and the Future of Medicine. This report looks at Agriculture 4.0, specifically agritech – the technology that improves the way we grow, farm, harvest, produce and package food and fibre. We believe it’s the most mature and immediate opportunity for NZ Inc. We provide an assessment of the current ecosystem and identify actions to support it to thrive in the future.

Since our first report, we have updated the ecosystem framework and industry selection criteria to incorporate the Māori perspective; notably, reflecting the concepts of kaitiakitanga (guardianship of the natural world) and whakapapa (interconnectedness of all life across generations) when selecting industries that New Zealand could perform strongly in. We have also added Māori organisations, including iwi commercial arms, PSGEs, Māori SMEs and collective trusts, as a critical ecosystem component – acknowledging their role as anchor investors, long-term asset holders and cultural innovators.

Agriculture runs deep in the history of Aotearoa New Zealand and continues to comprise over 10% of the nation’s gross domestic product (GDP). But the industry is changing. In many cases, agriculture used to be a career for people who left school early; now, with increasing use of technology, it’s attracting engineers, biologists, chemists, and data and food scientists – this is Agriculture 4.0.

I look forward to hearing your thoughts on the ideas we have shared in this report and welcome your collaboration to drive this exciting ecosystem forward.

Ngā mihi nui,



Kelly Newton

Managing Director and Partner



1. Summary of recommendations

This report works towards a vision that, by 2050, Aotearoa New Zealand will be a global powerhouse in agritech – a living laboratory and vibrant ecosystem where world-leading research, innovative talent, cultural values and investment converge. Our spirit of ingenuity will power technologies that lead global markets, our start-ups will scale across continents, and our economy will grow through innovation grounded in respect for the whenua (land).

To realise this vision, we need to place a strategic bet on agritech. We also need near-term goals to make it real. Over the next five years, New Zealand needs to start the flywheel – once in motion, it will keep turning; gaining momentum and putting other flywheels into motion.

By 2030, New Zealand's agritech ecosystem will:

- Double (or more) foreign and domestic investment in agritech – creating a clear, connected entry point for investors seeking to engage with New Zealand's agritech opportunities.
- Scale homegrown ventures beyond New Zealand – supporting more start-ups to bridge the gap between innovation and international markets.
- Unlock innovation from our universities – turning research excellence into real-world solutions through strong commercialisation pathways and partnerships.
- Cultivate the next generation of talent – specialising our universities and strengthening STEM education so students can grow their agritech futures in New Zealand.
- Embed Māori cultural values – integrating kaitiakitanga and long-term stewardship into the fabric of New Zealand's agritech value proposition, setting us apart as a nation that innovates with purpose and enhances the role of kaitiaki who maintain the enduring vitality of the whenua.

We identified 15 actions to close the most material gaps in New Zealand's agritech ecosystem and enable it to thrive. They are prioritised by expected impact and ease of implementation, and address capital and investment barriers, Māori-specific structural constraints, talent development, and retention and regulatory complexity.





Quick wins (high impact/easier to execute)

- Expand agritech-focused co-investment programmes, such as the Elevate NZ Venture Fund and Sustainable Food and Fibre Futures initiative with dedicated agritech mandates to bridge Series A-C funding gaps.
- Target agritech foreign direct investment (FDI) by using an orchestrator to facilitate roadshows and structured co-investment offers.
- Encourage commercialisation of university ventures by removing the mandatory university ownership stake and establishing a near-term funding mechanism for university technology transfer offices.
- Provide tailored capital for Māori agritech ventures, including blended finance and co-investment aligned to whenua governance and kaupapa Māori.
- Enable iwi-led partnership ventures on whenua; for example, structured joint ventures with agritech firms (e.g. precision land use, vertical farming and bioactives).



Bold bets (high impact/ harder to execute)

- Bolster agritech-specific STEM pathways, by embedding agritech in schooling, expanding micro-credentials and scaling work-integrated learning.
- Establish agritech regulatory sandboxes and policy co-design pilots, such as safe zones to trial new technologies and safe-harbour zones to test frontier technologies like gene editing and biostimulants in real farm settings.
- Fast-track an agritech regulatory pathway to market for emerging agritech fields and establish a virtual clinic to connect startups with the Ministry for Primary Industries, the EPA and regional authorities for pre-consent guidance.



Low-hanging fruit (straightforward/ incremental impact)

- Fund regional innovation hubs that bring together researchers, startups, growers and Māori organisations to design and test agritech solutions and provide ‘innovation-as-a-service’ for global partners.
- Require secondary school STEM education to build a stronger pipeline of talent for New Zealand’s agritech sector and other industries and guide students to fill emerging talent gaps.
- Accelerate digital agritech training pathways and micro-credentials to rapidly upskill talent in data, AI and robotics and increase Māori participation with kaupapa-aligned pathways.
- Institutionalise an agritech orchestrator to coach startups – a neutral national hub that supports startups to become investor-ready and provides a mentor network, regulatory clinic and public venture map.



Strategic long shots (harder/ longer-dated impact)

- Embed Māori culture and traditional knowledge systems in agritech intellectual property (IP) and design with co-governed protocols that integrate the Māori world view into R&D, product design and IP systems.
- Broker collective investment in shared agritech infrastructure by supporting business owners and Māori landowners to pool capital and demand for shared assets (e.g. IoT networks, pilot plants and bioactives testing).
- Launch agritech returnee fellowships for New Zealand diaspora, offering relocation support, matched startup finding and pathway visas to back returnee founders and leaders.

2. Recap on ecosystems

Ecosystems are interconnected networks of businesses, institutions, investors and communities developing innovative industries at scale. They focus investment and effort to drive innovation, investment, talent and strategy towards industries where countries already have a comparative advantage.

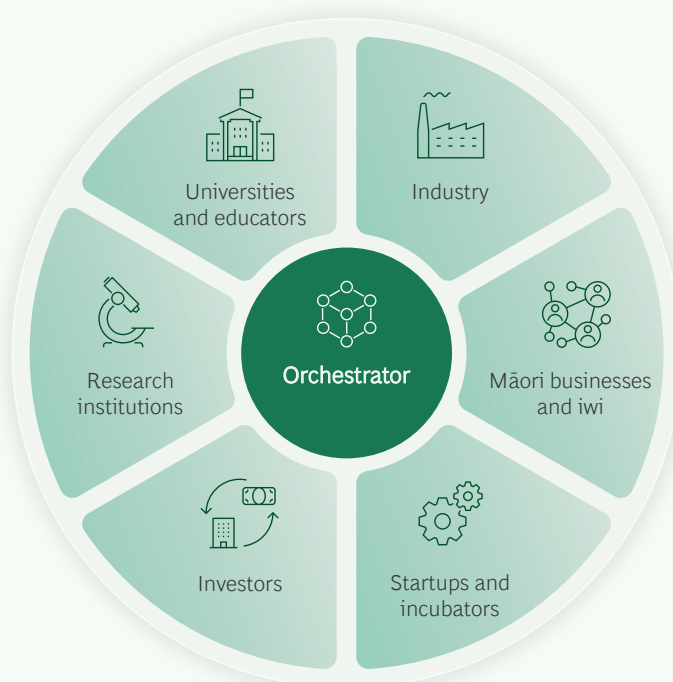
2.1 What makes a successful ecosystem in New Zealand

To recap [our first report](#), ecosystems rely on the active collaboration of six components:

1. Industry, to scale up innovations and create anchor demand
2. Startups and incubators, to create breakout opportunities and to commercialise innovation
3. Investors, to provide funding and cross-venture expertise to support new ventures
4. Research institutions to generate IP and experienced talent
5. Education providers, to prepare talent to support the ecosystem
6. Orchestrators, to connect ecosystem players and promote the ecosystem globally

In Aotearoa New Zealand, Māori business and iwi are also foundational to the long-term resilience, credibility and effectiveness of ecosystems. Māori organisations, including iwi commercial arms, PSGEs, Māori SMEs and collective trusts, play a critical role as anchor investors, long-term asset holders and cultural co-innovators. They help New Zealand create a unique market proposition when promoting industries overseas – attracting investors looking for sustainable, culturally authentic or global impact opportunities. They also provide an intergenerational outlook – investing in, and creating, industries to create lasting impact – and can support stability, trust and resilience in local and regional development with their deep community ties and regional roots ([see Exhibit 1](#)).

Exhibit 1: The seven key components of New Zealand's ecosystems



Sources: BCG analysis



While New Zealand has many of these components working in similar industries, they are most often not working together, limiting their ability to drive progress at scale.

2.2 How we prioritised industries for New Zealand ecosystems

To prioritise industries for New Zealand's ecosystems in this report, we used four criteria:

1. Global market size: The industry's economic potential in absolute terms
2. Global growth rate: The opportunity to capture share of the industry (vs. displacing other participants)
3. New Zealand's right to win: How New Zealand's natural advantages and existing infrastructure support the industry
4. Te Ao Māori alignment: The industry's ability to integrate values such as whakapapa and kaitiakitanga.

This holistic view ensures that New Zealand builds ecosystems that offer long-term competitive advantage in markets large enough to move the needle on economic growth. It also ensures that ecosystems reflect community and cultural values and strengthen New Zealand's international brand.

Following the first NZ Inc report, there was clear interest to dive deeper into each of the potential areas of focus. Agritech is a natural starting point given the proven global market size and growth, historical comparative advantage in agriculture, and the cultural connection to the land.

3. Why Agriculture 4.0 for New Zealand

3.1 New Zealand agritech is already making an impact

The Agriculture 4.0 ecosystem is powered by agritech – solutions that improve the way we grow, farm, fish, harvest, produce and package food and fibre. Typically, solutions fall under four categories – products, services, intellectual property (IP), value chain solutions – and several companies across New Zealand are already making an impact.

Products are tangible innovations like machinery, sensors, automated systems or biotech inputs. They are often a result of R&D and are commercialised to solve a specific problem in the food and fibre value chain. For example, Robotics Plus in Tauranga developed the Āporo Fruit Packer which improves reliability and accuracy in fruit packing. Halter, a company that originated in Matamata, developed cow collars that provide virtual fencing. And Wakatū Incorporation's AuOra business, based in Nelson, is developing food products and bioactives from native species like kūmara, karengo and horopito, combining mātauranga (Māori knowledge systems) and science.

Services include data analytics, remote crop monitoring, advisory platforms and on-farm implementation of tech. These often complement products and help end users interpret and apply the technology. For example, Levno (Manawatū) provides real-time monitoring systems and mobile alerts for fuel, milk, water and temperature, and Whenua Kura, based in Canterbury, provides education and training to grow Māori agritech capability on Māori-owned farms.

IP includes proprietary technologies, processes or innovations like patented software, genetic strains or bioactive formulations. IP is crucial for commercialisation, especially in biotech and digital tech. In Auckland, Pastoral Robotics has developed Spikey® technology to reduce nitrate leaching and grow more pasture. And Viktual+ is commercialising nutraceuticals based on rongoā (Māori traditional medicinal practices) using botanicals like kākara and horopito, working with certified labs to validate health claims and ensuring IP protection for mātauranga-derived formulations.

Value chain solutions are system-wide improvements that optimise the supply chain – from production, to processing, to export. They might involve logistics software, product traceability systems or sensor networks that align suppliers, producers and consumers. Oritain, from Dunedin, offers product origin verification and traceability using forensic science and data – which is especially crucial for exports like honey, meat and wine. And Miraka – a Māori-owned dairy company based in Taupō, is using geothermal energy for milk processing, reducing carbon emissions and offering premium dairy products with a strong provenance story that appeals to international markets.

Across these examples, we see the meaningful ways agritech is addressing challenges in food, water, emissions, rural development and land use. Agritech's impact extends beyond defined boundaries of the traditional agriculture and technology sectors – fostering innovation where these sectors, and others, meet and overlap.

3.2 Agritech is a highly attractive market

The global agritech market is experiencing robust growth, reflecting its critical role in addressing rising demand for sustainable food production and agricultural productivity. The market was valued at around US\$24.2 billion in 2023 and is projected to reach US\$54 billion by 2029, reflecting a compound annual growth rate (CAGR) of 14%.¹

Within this dynamic market, New Zealand's agritech industry, with its estimated annual revenue of NZ\$2–3 billion in 2023, already punches above its weight.² The industry demonstrates outsized performance relative to New Zealand's economic scale: New Zealand's share of global GDP is below 0.5%, while its agritech industry makes up 5–8% of the global market. Key companies such as Gallagher, LIC and TOMRA Fresh are achieving significant global reach. In 2023, the Ministry of Business, Innovation and Employment (MBIE) set a goal to scale the industry to NZ\$8 billion by 2030.³ This signalled confidence in sustained double-digit growth ahead of global market growth (18% CAGR for NZ compared to 14% CAGR globally) and therefore the industry's ability to capture a more substantial share of this expanding global market (see Exhibit 2).

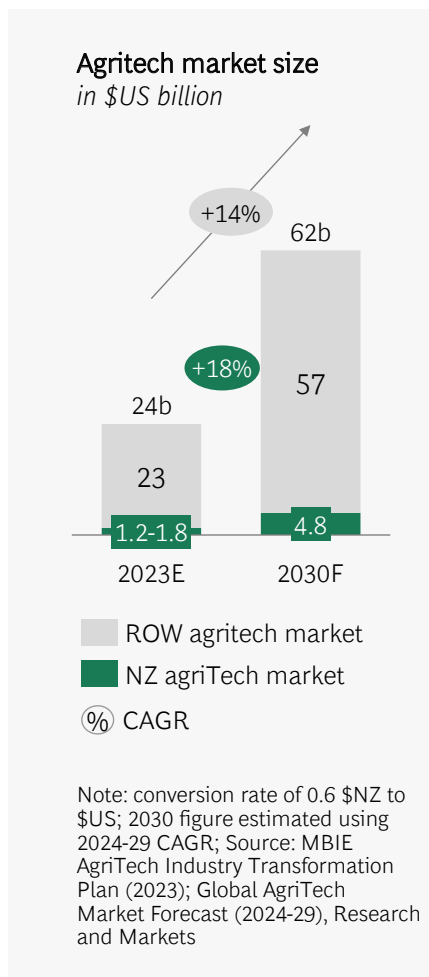
1. [Business Wire, Global Agritech Market Report, 2024 \(accessed 3 April 2025\)](#)

2. [AgriTech Industry Transformation Plan, Ministry of Business, Innovation and Employment, 2023 \(Note: NZ\\$2.5b/US\\$1.5b used for CAGR calculation\)](#)

3. [AgriTech Industry Transformation Plan, Ministry of Business, Innovation and Employment, 2023](#)

It is important to note that data on the agritech industry is limited – both globally and domestically – and the data that is available is conservative. The data is often based on a subset of the industry or limited to publicly available data on specific companies.

Exhibit 2: Rest of world (ROW) vs. New Zealand agritech market size and global trends



- **Manufacturing:** design and production of physical tools, equipment and machinery for agriculture
- **Biotech:** biological innovation, such as genetic modification, plant breeding, biofertilisers and microbial solutions
- **Digital-based technology:** software, platforms, and data systems, including AI/ML, IoT sensors, remote sensing, satellite mapping, blockchain for traceability and farm management software



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The industry's growth is being shaped by powerful global forces, technological change and industry-specific challenges, such as:

- Innovations to achieve higher yields, reduce costs and improve efficiency and crop resilience can help farmers meet increasing food and resource demand in the face of climate unpredictability, drought and resource scarcity.
- The ability to develop products that target specific nutritional benefits such as alternative plant-based proteins can help the industry meet growing consumer preferences and sustainability concerns.
- Solutions that increase transparency, enhance sustainability and reduce waste in agriculture can help the industry meet growing consumer preferences for transparency and take advantage of increasing global ESG and climate-focused investments.
- The integration of IoT, AI, robotics and remote sensing can attract younger, tech-oriented workers into agriculture and provide significant export and innovation opportunities. It also helps deliver solutions for food safety, traceability, automation and efficiency throughout the supply chain, and using data for personalised health and nutrition.

3.3 New Zealand has a clear comparative advantage in agritech

New Zealand has natural advantages and existing infrastructure that provide a distinct comparative advantage in agritech.

- Strong agricultural brand: New Zealand has a global reputation for quality and safety in dairy, meat and horticulture, and large agricultural businesses and co-ops like Fonterra, Rockit Apples, Synlait, Silver Fern Farms and Zespri can help agritech ventures gain market traction.
- Diverse topographies and climate: From subtropical to alpine, the country's diverse microclimates enable year-round piloting of agritech innovations across different farming conditions. This diversity could be formalised as a strategic offering – positioning New Zealand as the world's testbed for agritech.

- Cultural capital: Māori knowledge systems, which emphasise holistic land stewardship, resilience and wellbeing, offer a values framework for innovative ventures that position New Zealand for the long-term. Values such as kaitiakitanga (guardianship) and manaakitanga (uplifting others) help build social licence and resonate with conscious investors and consumers. These values also position Aotearoa New Zealand for impact partnerships and market development in Asia-Pacific where consumers increasingly look for trusted and sustainable food products. Enterprises such as Wakatū Incorporation (bioactives), Miraka (low-emissions dairy) and Whenua Kura (land-based education) are a few early examples of innovation grounded in Te Ao Māori principles.
- Existing foundation of ecosystem components: New Zealand is recognised as a leading agritech hub relative to its size – supported by a foundation in research, innovation, industry plans and initiatives.⁴ Massey and Lincoln universities are in the global top 100 and top 150 respectively for agricultural sciences, while Canterbury, Auckland and Otago universities have strong engineering and biotech departments. Innovation hubs in Canterbury and Manawātū encourage collaboration between researchers, industry and startups. And prior to 2020, agritech was also supported by industry transformation plans (ITPs) such as MBIE's first Agritech ITP, investments in R&D tax credits and grants, high-impact projects (e.g. Robotics Academy, Farm2050 Nutrient Initiative), and established incubators and research centres with labs and testing facilities (e.g. Sprout Agritech, Ruakura, AgResearch). While the ITPs were disestablished, the thinking and initial components have been instrumental in seeding the ecosystem.

⁴ [Global Startup Ecosystem Report, Startup Genome and Global Entrepreneurship Network, 2019](#)

3.4 Te Ao Māori can differentiate New Zealand agritech

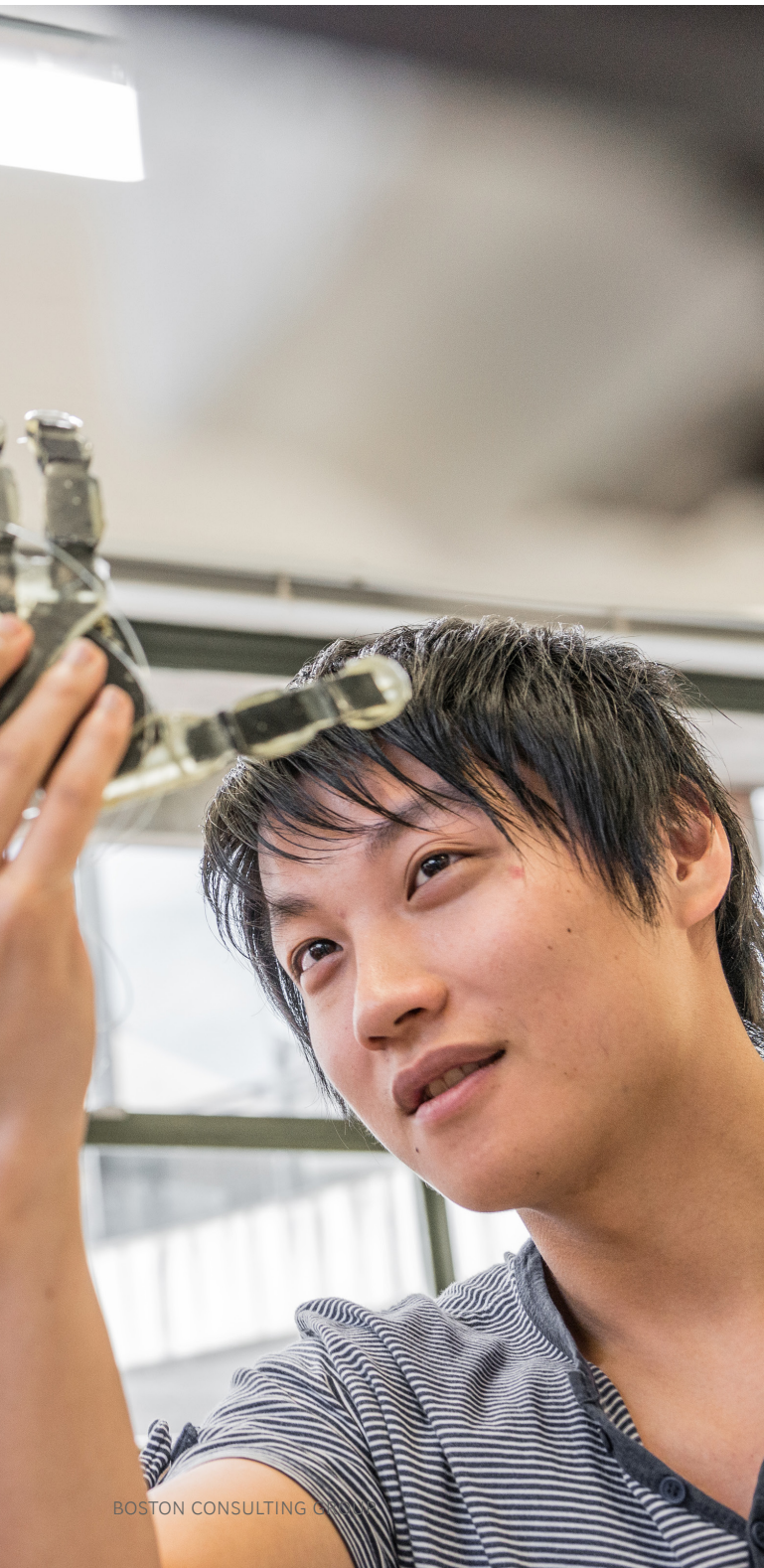
Agritech is perhaps the most closely aligned of the proposed industries to uphold our tikanga: protecting what we inherit (whakapapa) and what we must care for (kaitiakitanga). Technology can enhance how we care for land, water and people – aligning naturally with Māori principles.

- Kaitiakitanga (guardianship of the natural world): Agritech can reduce environmental harm by enabling precision farming, low-emission practices and efficient water use. It contributes to climate resilience and sustainability, upholding our duty to protect Papatūānuku (Earth Mother) for future generations.
- Whakapapa (interconnectedness of all life): Agritech can help strengthen Māori food systems and whenua (land)-based enterprises, maintaining links between people, land and taonga species (native Aotearoa plants and animals with cultural significance). It also enables rangatahi (young people) and iwi to innovate while grounded in cultural identity and intergenerational responsibility.
- Mana Motuhake (self-determination and Māori authority): Agritech has the potential to enable Māori to lead innovation on their own terms (e.g. by designing, owning and governing technology, data and enterprise connected to whenua and wai (water)). Participation in the broader ecosystem, paired with enduring legal and policy mechanisms which uphold Māori rights to govern land, water and knowledge – such as Te Ture Whenua Māori Act, PSGEs, and freshwater co-governance frameworks – strengthen the ability to maximise the potential of these assets.



4. Insights from global leaders in agritech

The Netherlands and Singapore each showcase globally recognised strengths that have positioned them as leaders in agricultural innovation. Similar to New Zealand, their geographical and historical contexts have set the basis for comparative advantage in agritech.



The Netherlands



The Netherlands exemplifies a mature, integrated approach to agritech, driven by centuries of agricultural expertise, strong industry collaboration and globally recognised educational institutions. Its agricultural exports reached €123.8 billion in 2023.⁵ And to support this robust export market, it invests €1 billion, or 5% of its R&D expenditure, in the agricultural sector.⁶

The Netherlands has strong public and private partnerships committed to accelerating innovation and commercial success in agritech. Foodvalley, an independent non-profit, serves as the orchestrator to coordinate partners across key innovation themes: Protein Transition, Food and Health, Circular Agrifood, Ecosystem Development. Foodvalley's Fastlane programme provides hands-on expert support to agrifood innovators to help them overcome hurdles to scaling by explicitly prioritising scalability and investor readiness.⁷ It also maintains the Protein Transition Map – an interactive, public map of 500+ organisations leading the protein transition across the Netherlands.⁸ The map gives stakeholders a single portal into the ecosystem and enables policymakers to track the agritech industry's economic footprint across provinces and assess progress against objectives in the National Protein Strategy. Another example of the country's strong public and private partnerships is Dutch Fieldlabs, which tests and implements innovations for businesses and educational institutions, allowing farmers to pilot new solutions with government monitoring and funding.

5. [CBS Netherlands, 2024](#)

6. [iGrow News, 2025](#)

7. [Foodvalley website](#), [Invest NL](#) (accessed 9 September 2025)

8. [Foodvalley website](#) (accessed 9 September 2025)

The Netherlands also has a robust investor and regulatory landscape to support innovation. For example, the Future Food Fund, a venture capital fund, invests in innovative companies and business models along the agriculture value chain in northwestern Europe. The most recent fund, Future Food Fund II, raised €40 million for the sector. Aligned with EU regulations, Dutch agriculture is also incentivised to adopt sustainability solutions, such as precision farming and emissions reduction technologies. The Netherlands permitted controlled public tastings of cultivated meat in 2023, ahead of formal EU approvals, showcasing proactive governance in novel foods.⁹

Wageningen University and Research (WUR) consistently ranks as the top agricultural university by QS World University Rankings and anchors the Dutch agritech ecosystem. WUR supplies the Dutch agritech industry with cutting-edge research, extensive industry collaboration and an ongoing pipeline of highly skilled graduates, continually refreshing capabilities and reinforcing global competitiveness.¹⁰ Its specialised research centres, like the Dairy Campus and AlgaePARC, provide practical research and training on dairy production and algae-based bioeconomy, and the recently launched Postdoc Talent Program seeks to attract promising international talent to the university.

Singapore



Despite limited land and natural resources, Singapore has rapidly built a globally recognised agritech ecosystem, driven by strategic investment, regulatory leadership and talent development.

Singapore's ambitious '30 by 30' target aims to meet 30% of the nation's nutritional needs locally by 2030, backed by the S\$144 million Singapore Food Story R&D Programme. The initiative has helped attract global attention and private-sector participation, including investment platforms such as Temasek's Asia Sustainable Foods Platform.¹¹ Singapore was also the first country to approve the sale of cultivated meat, signalling a clear regulatory pathway for novel foods under the Singapore Food Agency.¹²

To accelerate scale-up and commercial readiness, Singapore operates economy-wide fast-track mechanisms that complement regulation. The Intellectual Property Office of Singapore's patent acceleration programme shortens time-to-grant for innovators.¹³ In parallel, Singapore's regulators use pre-defined sandboxes with fast-track approvals as a template for rapid, guard-railed testing (e.g. the Monetary Authority of Singapore's Sandbox Express).

Alongside capital and regulation, Singapore invests in shared infrastructure that helps firms bridge lab-to-pilot scale. FoodPlant – the nation's first shared small-batch pilot facility¹⁴ – provides pay-per-use access to equipment to pilot and scale food innovation, technical expertise and agency-licensed food production, enabling startups and SMEs to run market-test batches without heavy upfront capital expenditure.

Singapore also fosters a skilled talent base through specialised diplomas and mid-career programmes, supported by a dense innovation network (ranked 4th most innovative nation in the world in 2024¹⁵) and clear pre-market guidance for novel foods. Collectively, these measures underpin a pro-innovation, pro-scale environment that continues to attract global agritech companies and investors.

9. [CBS Netherlands, 2024](#)

10. [Wageningen University and Research Rankings, 2024](#)

11. [Singapore Food Agency, 2020](#)

12. [Business Wire, 2020](#)

13. [Intellectual Property Office of Singapore website](#)

14. [SIT, ESG, JTC jointly launch FoodPlant, Singapore Institute of Technology, 2022](#)

15. [Global Innovation Index, World Intellectual Property Organisation, 2024](#)

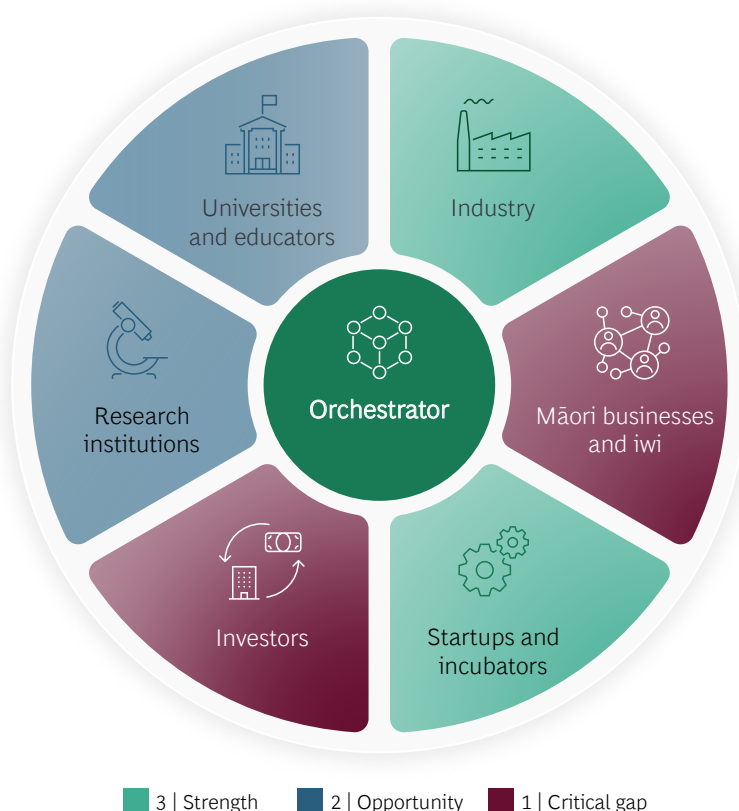


5. Assessment of New Zealand's current agritech ecosystem

To realise the full potential of Aotearoa New Zealand's agritech ecosystem, we first need to assess its current state – its strengths and critical gaps and where immediate action can unlock transformative growth. We have assessed New Zealand's agritech ecosystem's components and identified them as either a strength to build upon, an opportunity to do more, or a critical gap to address (see exhibit 3).

This detailed assessment allows ecosystem players, including government, investors and industry leaders, to prioritise actions and align their efforts to accelerate the growth and global competitiveness of Aotearoa New Zealand's agritech ecosystem.

Exhibit 3: Analysis of Aotearoa New Zealand's agritech ecosystem components



Sources: BCG analysis



Strength: Industry

New Zealand's agriculture sector generates NZ\$56.4 billion in exports (2024), accounting for 10.5% of GDP and employing 12.8% of the national workforce. It includes globally recognised leaders such as Fonterra, Zespri and Silver Fern Farms, dominating niche international markets and reinforcing Aotearoa's reputation for premium quality food and fibre. Despite economic pressures, the sector consistently demonstrates resilience and productivity, strongly supported by ongoing innovation, efficiency and robust global demand.

Specifically within the agritech industry, some companies, such as Halter, are graduating from startup to industry scale which will continue to anchor the ecosystem in New Zealand.



Strength: Startups and incubators

New Zealand has a vibrant pipeline of agritech startups, with 11.0% of startups (11.4% of revenue) attributed to agritech.¹⁶ The agritech industry, as of the latest publication in 2022, was dominated by startups in Animal and Crop Health, Data Solutions and Post-Harvest, building on the success of companies such as Gallagher Group, Livestock Improvement Corporation (LIC) and TOMRA Fresh. Together, these three Waikato-based companies were responsible for just over 50% of the TIN200 AgriTech revenue in 2021.

Today, even more agritech startups are making waves in New Zealand: AIMER, which uses data and AI for digital pasture management tools; Bovonic, which has developed an efficient way to test for cow mastitis at scale; and Leaft Foods, which has developed a process to extract a functional, plant-based protein are just a few examples.

Specialist incubators like Sprout Agritech provide critical support for early stage companies. Sprout Agritech runs a five-month accelerator which offers programming for science-heavy, field-testing companies – which can look quite different to a consumer tech startup. Sprout Agritech also offers up to NZ\$1 million in seed-stage investment for standout ventures and leverages its partnerships with the large industry players and investors to help these ventures make critical early connections. The domain expertise of farmers and agronomists also offer a unique opportunity for startups to access expertise locally through Sprout Agritech.

Until 2025, Callaghan Innovation, New Zealand's innovation agency for early-stage R&D and commercialisation, played a critical bridging role for startups, supporting 221 organisations in 2023–24, catalysing NZ\$8.5 million of private investment alongside NZ\$7.5 million in government grants via the Technology Incubator Programme, and administering NZ\$13.0 million in student grants. As part of the 2025 science-system reforms, Callaghan has been disestablished and its functions redistributed, creating near-term flux in founder support and early-stage grant pathways while new arrangements are embedded.

Most of New Zealand's startups remain small-scale with limited international presence. The step from early traction to repeatable, export-scale revenue remains difficult, with New Zealand Trade and Enterprise (NZTE) attributing persistent hurdles to investment gaps across the agritech industry and limited international connections. NZTE aims to tackle these areas with the Specialised Agritech Venture Capital Fund, a joint partnership between New Zealand Capital Growth Partners and US-based Finistere Ventures, and other initiatives.¹⁷

16. [TIN NZ AgriTech Insights Report, 2022](#)

17. [Agritech innovation takes another step forward, NZTE, 2023](#)



Opportunity: Research institutions

New Zealand's public research institutions generate approximately NZ\$1 billion each year and manage extensive agricultural R&D projects. Earlier this year, the Crown Research Institutes were restructured into more focused Public Research Organisations (PROs) to enhance coordination, clarify mandates and increase real-world impact.

One of these PROs is the Bioeconomy Science Institute (BSI), which merges the scale and expertise of AgResearch, Plant & Food Research, Landcare and Scion – the most significant consolidation of research capability in decades. Its combined resources in agricultural science, food production, environmental systems and biomaterials position it as a domestic research agency and as a globally relevant institute. This scale offers New Zealand a rare platform to engage with international partners on equal terms, collaborating on challenges such as climate resilience, food system transformation and circular bioeconomy solutions.

Despite this robust foundation, there are challenges in making research more accessible to smaller firms, startups and Māori enterprises. The success of ongoing reforms will depend heavily on positioning BSI as a partner of choice in sustainable agrifood and bioeconomy innovation and ensuring collaboration with industry and investors to deliver real-world outcomes.



Opportunity: Universities and education

Massey University, ranked 67th, and Lincoln University, ranked in the top 101–150, in the QS World University Rankings for Agriculture and Forestry, offer specialised programmes that integrate agriculture, technology and innovation. However, these programmes are dispersed around the country, with Massey in Palmerston North, Lincoln near Christchurch and Waikato's agriculture programme in Hamilton, presenting a barrier to reaching scale in collaboration across all agritech disciplines. Universities can overcome this barrier by specialising in the discipline that is most prevalent in their area (i.e. what other local ecosystem components, like research centres or orchestrators, are focusing on) to support a specialised ecosystem cluster.

Universities also have an opportunity to recruit and retain top agritech teaching and research talent to New Zealand, and importantly talent that contributes to the advancement of agricultural science and the commercialisation of technology. Universities typically have a technology transfer office responsible for managing the relationship between university resources (including professors and students, as well as physical assets used for research) and commercialisation of innovation. One challenge is that these offices are often required to be self-funding, leading to short-sighted policies which require the university be granted an ownership stake in any venture involving university resources (up to 15–30% at New Zealand universities). This policy limits the ability for these ventures to attract investor funding to scale and the ability to attract commercially minded talent, outside of academic staff.

New Zealand also faces a deficit of STEM talent development in primary and secondary schools. If robotics, AI and data science are necessary to meet the needs of future careers in agritech, then schools need to introduce and nurture the skills from an early age – similar to what we see in global agritech leaders. Today, STEM education is not required at secondary schools and STEM educators are often underqualified to teach core science such as physics. This gap is particularly pronounced within Māori communities.



Opportunity: Orchestrators

At certain points, New Zealand has built momentum in agritech through industry and government supported orchestrators. AgriTechNZ, established in 2018 by a consortium from industry to engage with government, was the first orchestrator to initiate momentum and lay the groundwork for the first Agritech Industry Transformation Plan (ITP). From 2020 to 2023, MBIE and the Ministry for Primary Industries jointly led the plan with Callaghan and NZTE as delivery partners. The ITP proved the value of orchestration to collectively achieve more than any one organisation could alone. It provided several benefits:

1. Solidified the identity of agritech by coordinating a previously fragmented sector and aligned agency capabilities (e.g. NZTE's market reach, Callaghan's R&D support, MBIE's policy levers) to create a multiplier effect that gave firms confidence and momentum.
2. Built both domestic and international networks across the ecosystem (e.g. farm advisors becoming investors, innovators working more closely with researchers) and catalysed international expansion for companies such as Robotics Plus, MilkTechNZ, Levno and Biolumic, accelerating international footprints.
3. Prepared companies for international expansion through the NZTE and Callaghan Innovation Scale for Global Growth programme which combined agency resources, sector insights, and peer leadership to coach firms with specific market goals.

The ITP also brought to light some limitations of the orchestration structure, primarily its overly broad scope and lack of clarity on the causal link between individual activities and long-term value creation of the sector.

With the dissolution of the Agritech ITP and Callaghan Innovation, there is a gap in the ecosystem. Invest New Zealand, PROs and the National IP Policy are intended to fill this gap but it is too early to tell whether these new entities will adequately meet the need. The model adopted by New Zealand Food Innovation Network (NZFIN) could be one model way to bridge the gap from innovation to commercialisation by connecting start-ups, growth companies and industry. Its network of regional hubs offers key capabilities and shared assets, purpose built for collaboration which is useful for founders. This model would need to extend beyond the focus on the primary sector (agriculture 1.0), to a technology and knowledge economy that changes how we produce food and fibre (agriculture 4.0).

To sustain this momentum amid shifting political and economic landscapes, New Zealand needs clear long-term mandates, consistent funding and agile industry-government collaboration.



Critical gap: Māori businesses and iwi

Māori businesses and iwi hold significant traditional agricultural assets, controlling around 30% of lamb and 10% of dairy production. Māori also represent a growing demographic and workforce, yet their participation in agritech is limited due to structural barriers such as fragmented landownership, limited access to capital and an underutilisation of Mātauranga Māori in mainstream agritech innovation. Significant opportunity exists for Māori to extend from the primary sector into value-added technology sectors that respect the whenua.



Critical gap: Investors

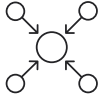
There is a severe shortage of growth-stage venture capital in New Zealand's agritech ecosystem. Based on latest official figures, New Zealand agritech companies attracted just NZ\$15.4 million across 11 deals in 2021.¹⁸ This is equivalent to around 0.1% of global agritech funding (US\$15.5 billion), highlighting the scale deficit New Zealand firms face when raising growth capital.¹⁹

NZTE's Specialised Agritech Venture Capital Fund and the R&D Tax Incentive, which is delivered by Inland Revenue and MBIE and provides a 15% credit on eligible R&D, are important complements of PRO reforms.

Attracting international capital – and achieving higher valuations – is particularly challenging due to small deal sizes, ownership structures (with university equity), difficulties forming investor syndicates, and a limited investment-ready startup base. The New Zealand Government has partnered with major agriculture businesses to establish AgriZero, which has been a leader in this space. It is pioneering the relationship between start-ups and investors to establish methane emissions reduction technologies to apply on-farm, primarily to protect the existing primary sector. New Zealand needs a similar effort dedicated to agritech innovation.

18. [Growing Innovative Industries in New Zealand, Agritech Industry Transformation Plan, 2023](#)

19. [AgriFoodTech Investment Report, AgFunder, 2021](#). Note: In this report, 'Agritech' follows AgFunder's upstream categorisation (on-farm/production), representing 30% of AgFunder's 'AgriFoodTech' total investment amount



Looking at these gaps, we see four themes:

1. **Capital and investment barriers:** A severe funding gap at the series A to C stages is limiting the ability of agritech startups to scale. Domestic growth capital is scarce, investor expertise is limited, and international investors are hesitant to invest due to distance, market size and limited validation mechanisms.
2. **Māori-specific structural constraints:** Māori businesses are underrepresented in agritech due to fragmented land and investment governance and misalignment with mainstream innovation systems which may not value mātauranga Māori and kaupapa-aligned innovation models.
3. **Talent development and retention:** New Zealand has long focused on traditional agriculture, rather than agritech, and its emphasis on STEM from early education to university level lags global peers. Cross-disciplinary talent, skilled in both tech and agriculture, is highly valued but often lured to other global markets that offer attractive incentives for commercial innovation.
4. **Regulatory complexity:** Agritech ventures face fragmented regulatory systems, with no agile approval pathways and testbeds for new technologies, slowing validation and commercialisation. There is also a narrow focus on the domestic benefits of agritech innovation, rather than its global potential, which restricts funding.

Addressing these gaps swiftly and decisively will enable New Zealand's agritech ecosystem to achieve global competitiveness, unlock inclusive economic growth and position Aotearoa New Zealand as a world-leading hub for sustainable agricultural innovation.







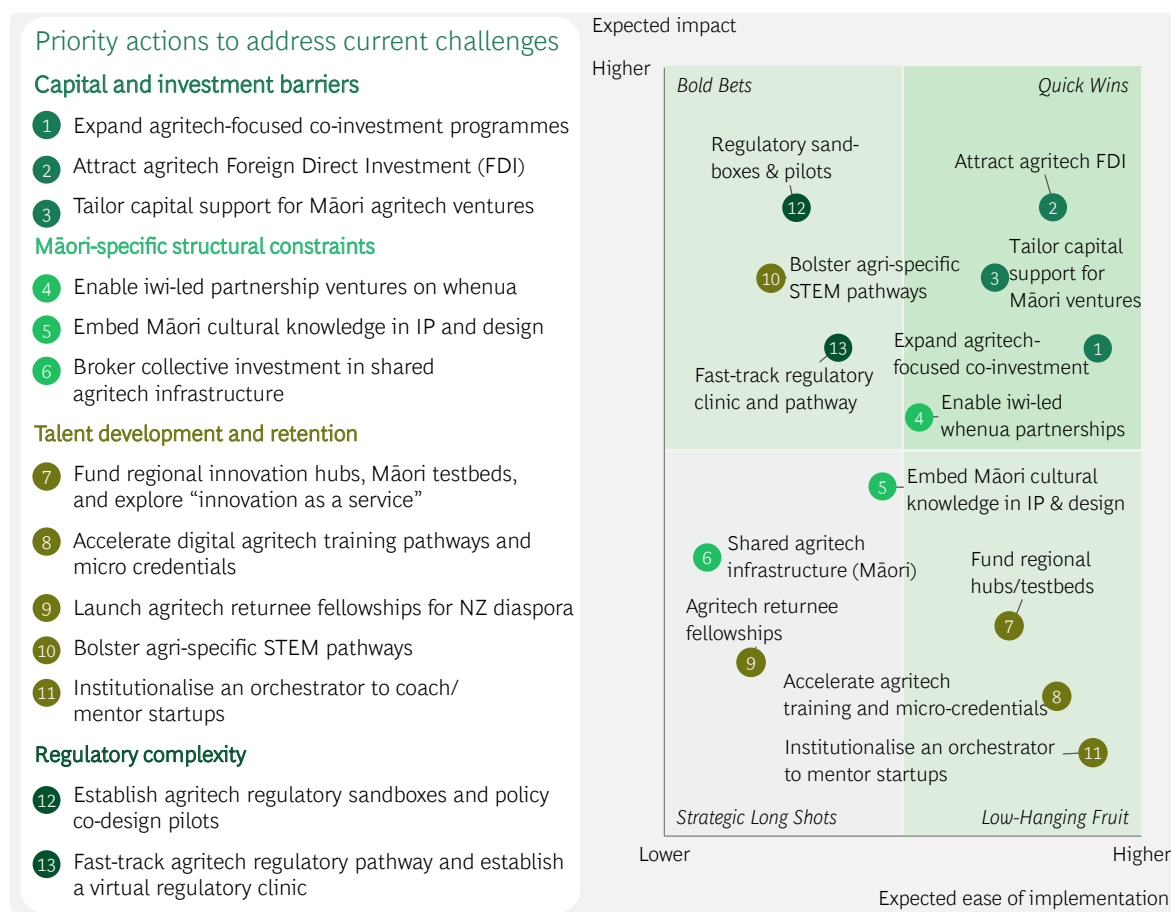
6. Recommendations to address critical gaps to scaling agritech in New Zealand

Across these themes, we have identified 15 actions for NZ Inc to address the majority of New Zealand's agritech sector's gaps, prioritised according to their expected impact and ease of implementation.

Ease of implementation reflects the relative simplicity of executing an action. It considers existing frameworks, stakeholder alignment and resource requirements. Expected impact assesses the transformative potential of the action on the agritech ecosystem.

Exhibit 4 shows how by assigning scores for expected impact and ease of implementation to each action, we can clearly differentiate between quick wins and more strategic, long-term initiatives to facilitate transparent policy prioritisation and investment decisions.

Exhibit 4: Actions ranked according to ease of implementation and expected impact





6.1 Quick wins

Actions with high expected impact and high ease of implementation, making them ideal for immediate prioritisation.



- **Expand agritech co-investment programmes:** Scale-up proven public-private investment mechanisms such as the Elevate NZ Venture and Specialised Agritech Venture Capital Funds (via NZGCP) and the Ministry for Primary Industries' Sustainable Food & Fibre Futures (SFFF) to include dedicated agritech mandates.

This action requires minimal adjustments to existing funding mechanisms and will bridge part of the critical gap in stages A to C funding, unlocking rapid growth opportunities for multiple startups.

- **Target agritech foreign direct investment (FDI):** Either an independent orchestrator or NZTE's newly created Invest New Zealand should position New Zealand as a global agritech investment destination. This includes showcasing New Zealand's success stories and scalable agritech ventures globally, facilitating deal roadshows, and expanding FDI tools such as the Active Investor Plus visa and the International Growth Fund to include structured agritech co-investment offerings.

The objective is productive foreign ownership, meaning the jobs and intellectual property remain a part of the New Zealand ecosystem, while also reaping the benefits of global scale and revenue.

Invest New Zealand has a platform that requires only moderate additional international coordination. It also has the potential to attract an influx of international capital and global market connections and push local agritech companies to focus on the international relevance of their solutions, elevating the quality and scale of startups in New Zealand.

Alternatively, the agritech innovation hubs could be living labs that work with global partners to co-develop solutions applicable beyond New Zealand. These hubs would then pivot from service provider to equity partners in ventures set up to scale.

- **Encourage commercialisation of university ventures:** Remove the mandatory university ownership stake in ventures and establish a near-term funding mechanism for university technology transfer offices. This could be funded by industry in the near term and successful university-founded ventures in the long-term, similar to systems in the US. Also review policies to support professors and students to pursue high potential ventures (e.g. allow an unpaid leave of absence with an option to return).
- **Provide tailored capital support for Māori ventures:** Unlock investment for Māori agritech innovation by developing co-investment funds with culturally appropriate governance, blended finance vehicles for multiply owned land and advisory services to structure investment-ready ventures around whenua. These mechanisms should align with intergenerational ownership models and the preservation mandates of Māori landowners.

This action requires established co-investment frameworks to be tailored with culturally appropriate financial models, making it relatively easy to implement. It has potential to generate very high impact, as it addresses a deep structural investment barrier for Māori ventures and creates incentives for these ventures to go beyond the traditional primary sector to higher value-add products and services which can unlock growth for the Māori agritech economy.

- **Enable iwi-led partnership ventures on whenua:** Support Māori businesses and iwi to co-develop whenua with structured investment partnerships with agritech firms. Focus on ventures that apply culturally aligned technologies – such as precision land management, vertical farming and bioactives. These partnerships should be designed to reflect collective governance, intergenerational value retention and economic scale.

This action is ranked slightly lower for its ease of implementation relative to other quick wins because it involves more intensive stakeholder negotiation and co-design. Its impact, though somewhat localised, remains significant, unlocking practical and scalable innovations on Māori land, and quickly generating economic and cultural benefits.

6.2 Bold bets

Actions that promise extremely high impact but are complex to implement. They require dedicated effort and strategic alignment.



- **Establish agritech regulatory sandboxes and policy co-design pilots:** Establish safe zones or sandboxes to trial new technologies (e.g. biotech) and safe-harbour zones to test frontier technologies such as gene editing, biostimulants and data tools in real farm settings. This will fast-track the sector's learning, connect growers to research to technology, and signal to startups and companies that New Zealand is open for innovation.

This action is relatively complex to implement due to the multi-agency coordination and innovative regulatory approach it requires. Nevertheless, its potential to drive widespread innovation by dramatically reducing regulatory uncertainty justifies the investment.

- **Fast-track an agritech regulatory pathway and establish a virtual regulatory clinic:** Develop a clear, time-bound regulatory pathway for emerging agritech fields (e.g. gene editing, bioactives and autonomous systems), modelled on Singapore's fast-track frameworks. Alongside this, establish a monthly Virtual Agritech Clinic to connect startups with the Ministry for Primary Industries, the EPA and regional authorities, offering pre-consent advice, staged approvals and guidance.

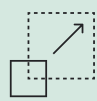
This action, although slightly easier to implement than regulatory sandboxes, will require substantial inter-agency alignment, but its impact rating is high – streamlining the path to market for emerging technologies and significantly improving investor confidence.

- **Bolster agritech-specific STEM pathways:** Create end-to-end pathways that connect STEM to whenua and kaitiakitanga – embedding agritech contexts in school curricula, expanding micro-credentials (e.g. data, AI, robotics, automation and bioprocessing) and scaling work-integrated learning with iwi, growers and processors (e.g. paid internships, farm and testbed projects). This also requires upskilling teachers, starting a national agritech challenge series to channel talent into priority areas, and offering targeted scholarships, including for Māori and regional learners.

This is non-trivial to implement, requiring curriculum changes, multi-agency coordination, teacher development and multi-year payback, but it offers high impact on New Zealand's long-term agritech talent pipeline and capability.

6.3 Low-hanging fruit

Actions that are straightforward to implement quickly but their impact is incremental or targeted.



- **Fund regional innovation hubs and explore innovation as a service:** Set up regional innovation hubs that bring together researchers, startups, growers and Māori organisations to design and test agritech solutions. The hubs should be both physical and virtual and support applied R&D, local product fit and whānau-led innovation using shared infrastructure. New Zealand can also leverage its regional strengths – such as a horticultural hub in the Bay of Plenty and a dairy hub in Waikato – to create a distributed agritech ecosystem that fosters specialisation, competition and distributed leadership, coordinated nationally through shared capital pathways. These regional hubs could also power an ‘innovation as a service’ model for New Zealand, where local accelerators and universities develop prototypes for global partners, combining place-based R&D and Māori design, and generating new IP, revenue and international partnerships while keeping long-term benefits in New Zealand.

This action leverages and expands existing regional infrastructure, with immediate opportunities to test and refine products. Its impact is modest and localised, improving product validation and regional innovation capacity incrementally rather than transforming the entire ecosystem.

- **Require secondary school STEM education:** Currently, students in Years 12 and 13 can opt out of STEM subjects, limiting their preparedness for university programs and future workplaces. To build a stronger pipeline of talent for New Zealand’s agritech ecosystem and other STEM industries, secondary students should be required to complete core STEM coursework, with flexible options ranging from statistics and personal finance to AI and digital tools. In parallel, career guidance should be realigned to reflect emerging talent gaps and help students navigate long-term career pathways in agritech and related fields.

- **Accelerate digital agritech training pathways and micro credentials:** Launch fast-track digital agritech training pathways in data science, robotics, and AI; embed commercialisation and entrepreneurship into existing agricultural curricula; and fast-track micro credentials co-designed with Workforce Development Councils (WDCs). To increase Māori participation and retention in the sector, develop kaupapa-aligned STEM pathways at secondary and post-secondary level.

This action can be implemented quickly because it leverages and adapts existing educational and vocational training programmes. It will strengthen New Zealand’s agritech ecosystem in the long term, rather than create immediate large-scale change.

- **Institutionalise an agritech orchestrator to mentor startups:** Stand up a neutral national hub, in coordination with AgriTech NZ, that provides startup founders with coaching and support to become investor-ready, a curated mentor network (operators, scientists, farmers), a regulatory ‘clinic’ to support startups to seek approvals, and a public venture map to showcase the pipeline and attract capital. The agritech orchestrator will operate as a network of existing actors (e.g. incubators such as Sprout Agritech, testbeds, regional hubs like Farmers2Founders) to provide playbooks, introductions and deal preparation, and help bridge the near-term support gap following Callaghan Innovation’s disestablishment.

6.4 Strategic long shots

Actions that are challenging to implement and have relatively narrower or longer-term impact horizons. They are essential to the success of New Zealand's agritech ecosystem but will take time and substantial coordination.



- **Embed Māori culture and traditional knowledge systems in agritech IP and design:** Integrate Māori knowledge systems into the earliest stages of R&D, product design and IP protection for agritech solutions. This includes establishing protocols for cultural IP use, building research ethics aligned with tikanga Māori and developing new product classes (e.g. native bioactives, whenua-based diagnostics). These practices will also need to be embedded in both the PROs and tertiary institutions, co-governed by Māori.

The implementation of this action is complex due to significant institutional shifts required in research and IP systems. Although it will be transformative, its benefits will be realised over an extended timeframe, making it a strategic rather than an immediate priority.

- **Broker collective investment in shared agritech infrastructure:** Support Māori landowners and businesses to co-invest in shared agritech infrastructure (e.g. IoT sensor networks, fertigation systems, lab fermenters and bioactives testing facilities). Inspired by Singapore's FoodPlant model, this action pools capital, demand and infrastructure to lower individual entry costs and support capability growth. This concept can be applied to many players across the ecosystem, but an initial focus on the Māori community ensures they are supported to overcome structural barriers with respect to capital access.

This action is expected to be challenging to implement, involving intricate negotiations among multiple Māori stakeholders. The impact is moderate and confined to specific projects, making it a lower priority.

- **Launch agritech returnee fellowships for New Zealand diaspora:** Establish a fellowship scheme to attract experienced Kiwi agritech talent from abroad, providing relocation support, matched startup funding and pathway visas. It is inspired by successful international models (e.g. California's CDFA). The scheme should support returnees to start ventures and bridge leadership gaps in R&D and commercial scale-up.

This action is challenging to implement due to the necessity of tailored incentives and coordination across government and diaspora networks. Its direct impact is limited to specific talent niches and specific ventures; it is valuable strategically but modest in ecosystem-wide transformation.

7. Conclusion

At the beginning of this series, we asked 'what will Aotearoa New Zealand be known for in 2050?' We are confident in agritech as one answer to that question. Agritech is New Zealand's opportunity to lead on the global stage and stimulate economic growth, but we will only capture this opportunity if we move together as one ecosystem, not a collection of isolated efforts.

Government has an enabling role, but enduring success must be ecosystem-led and industry-driven. What's needed now is collective action – alignment between entrepreneurs, investors, universities, researchers, iwi and industry. Where public support is needed, we will be clear and specific – but it is time for the private sector to lead with purpose, investment and confidence.

The green shoots are already here: we have a research capability with a global reputation, strong Māori enterprise, global credibility and a generation of innovators ready to lead. Now is the moment to come together – to grow the technologies, talent and trust that will make Aotearoa New Zealand the world's agritech leader. *Tihei mauri ora.*



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