



New Zealand Food Safety Science & Research Centre

Strategic Plan 2025- 2027

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1. Purpose

This document presents the Strategic Plan for the New Zealand Food Safety Science and Research Centre (NZFSSRC, or 'the Centre') for three calendar years from January 2025 – December 2027. This Strategic Plan underpins the NZFSSRC's annual Business Plans. Together, these documents set the strategic and operational direction of the NZFSSRC's work and how this will support Aotearoa/New Zealand to be a world-leading producer of safe food.

The NZFSSRC was established in 2016 as a partnership between the food industry, Government, Māori and research providers¹. Since then, the Centre has become a key piece of the national infrastructure informing the government and food industry's approach to understanding, managing and reducing food safety risks across the whole supply chain.

The Centre's Vision is to ensure Aotearoa New Zealand remains a global leader in safe food production through science and innovation, enriched by mātauranga Māori.

2. Context

In December 2024 the Centre's contract with the Ministry for Innovation, Business & Employment (MBIE) ends. To support the Aotearoa/New Zealand food industry to continue to produce safe food, from January 2025 dedicated funding for food safety research in Aotearoa/New Zealand has been made available by Massey University Te Kunenga Ki Pūrehuroa and the Ministry for Primary Industries (MPI) New Zealand Food Safety Mō Haumarū Kai Aotearoa. This document sets out the strategic direction under this new funding arrangement. The period 01 January 2025 – 31 December 2027 is referred to throughout this plan as 'Phase 2' of the Centre.

Food safety continues to be a priority for all Aotearoa/New Zealand food companies. In addition to traditional food safety challenges, companies are working in resource-constrained environments and under expectations imposed by environmental and social pressures. Examples include transitioning to holistically sustainable production, changing consumer preferences for packaging and end products, consumer and customer desires for traceability and provenance, concerns about the proximity of horticultural operations to livestock, the impacts of climate change, extreme weather events, emerging zoonotic diseases and population growth (particularly on water safety and security), the development of novel foods, and food safety culture among the workforce. These pan-industry issues have the potential to impact the safety of a variety of foods.

The Government has signalled its commitment to the reform of science, innovation and technology. This reform together with reduced public spending has impacted the science sector and resulted in significant uncertainty for Aotearoa/New Zealand research institutions, including the NZFSSRC.

During September 2024 three strategic planning sessions were held with the NZFSSRC Governance Board and Te Tira Whakamana; Industry, and the Science Leadership Team. The sessions focused on reviewing the Centre's Charter (Mission, Values, Principles); discussing the scope of the Centre; opportunities and risks; industry membership and science service provision; measures of success; and the Centre's legacy. The rich conversations during these sessions have informed this plan.

The 2025 – 2027 Strategic Plan has been developed to deliver on these discussions.

¹ Massey University, AgResearch, Plant and Food Research, Cawthron Institute, Institute of Environmental Science and Research, The University of Auckland, and University of Otago. Lincoln University joined the research provider organisations in 2021.

3. Mission, Value Proposition, Scope & Key Services

3.1 Mission

The Mission for the NZFSSRC is to be a highly collaborative partnership of researchers, industry, Māori, and government, committed to advancing knowledge, delivering science-based solutions, and providing independent advice, education and training to assure the safety of Aotearoa/New Zealand's food.

3.2 Value Proposition for NZFSSRC

The New Zealand Food Safety Science and Research Centre will build on its national and international reputation, as:

- A community with knowledge and expertise, providing advice and conducting research to ensure the safety of Aotearoa/New Zealand food products for all consumers.
- A trusted source of knowledge which facilitates networking and collaboration between Industry, Māori, Researchers and Government.

3.3 Scope

The following areas are considered **within scope** for the NZFSSRC in carrying out its role:

- Studies that concern the safety of all foods consumed in NZ, including food grown in NZ and food imported by NZ companies.
- Studies that concern foods produced in NZ for our overseas markets across the whole food supply chain, from production to consumption.
- Horizon scanning to identify emerging food safety risks and determine their relevance to the Aotearoa/New Zealand food industry.
- Investigation into and mitigation of microbiological, physical, and chemical hazards that may arise in the food supply chain, including studies on antimicrobial resistance and the development of new detection methods or approaches to reduce risks to acceptable levels.
- Research to inform risk assessments (include toxicological studies) and mitigations, risk management options and risk communication.
- Food safety research to support Māori businesses and communities to fulfil their food safety goals including studies on water quality; rongoā (medicinal plants); and wild food harvest.
- Studies on food safety outcomes from improvements to sustainable practices in food production and processing, including food safety issues that may:
 - Arise out of initiatives to reduce food wastage; food spoilage; or food rescue.
 - Be associated with packaging (including recycled and recyclable packaging).
 - Impact food preservation and storage, eg extending shelf life.
- Providing advice and conducting research in response to acute and long-term impacts of climate change on food safety; eg adverse weather events; changes in baseline information such as soil quality; emerging hazards, etc.
- Research related to technical food safety-related market access issues.
- Conducting research into traceability, authentication, adulteration and provenance relating to food safety.
- Studies to determine food safety risks associated with food production innovations/emerging food technologies new/novel foods/ingredients including precision fermentation; plant-based foods; algae; insects; cellular culture.
- Exploring the use of data and digital developments for the enhancement of food safety including:
 - artificial intelligence (AI); machine learning (ML); large language models;
 - adoption;
 - developing approaches;
 - data management.
- Expanding the Centre's expertise in the areas of food safety culture; consumer trends and expectations; food integrity; market insights; behavioural insights.
- Studies on the safety of water used in food production or processing
- Studies on animal feed that relate to a human risk, eg aflatoxin.
- Investigations into the safety of workers exposed to food or animal-borne pathogens, eg leptospirosis.

- Ensuring the safety of humans coming into contact with pet food eg Hepatitis A & E, Norovirus, *E.coli*.
- Education on the risks posed by food additives eg sodium nitrate.

Research that is **outside the scope** of the Centre includes:

- Carrying out commercial risk assessments; risk management; or risk communication
- Lobbying unless related to providing the science-based evidence
- Regulatory response/development of regulations
- Commercial diagnostic testing
- Public health research unless directly related to foodborne illness or contaminants
- Economic or trade policy development except where food safety intersects with global trade (e.g., import/export safety standards)
- Non-scientific food advocacy that is not evidence-based or unrelated to its scientific mission, eg promoting dietary trends
- Non-safety-related nutrition research eg calorie counting or promoting dietary regimens

In developing the scope of Phase 2 of the NZFSSRC it was acknowledged that some 'grey' areas exist in relation to food safety science research, for example, 'sustainability' in its broadest sense; food security; the safety of pet food and water quality. Some clarification regarding scientific boundaries for the NZFSSRC is provided above, however for these types of issues, the Centre will adopt a case-by-case approach in consultation with the Centre's Governance Board.

4. Key services

The Centre's key services, agreed by industry partners, researchers, the Board and Te Tira Whakamana in June 2024 during the development of the Phase 2 investment and membership model are to provide:

- Access to co-funding for eligible food safety research.
- Access to scientific expertise, consultancy services and multi-disciplinary research teams across multiple research organisations.
- Horizon-scanning for emerging food safety risk identification, assessment, and options for management – the Emerging Risks Identification System (ERIS).
- Networking opportunities, providing a safe space for independent, transparent, free, and frank discussion.
- Capacity and capability building for the next generation of food-safety scientists, quality, and regulatory managers.
- Facilitation, coordination, and co-design of multi-disciplinary food-safety research; ensuring efficiency (no duplication) and effective use of resources to achieve the best outcomes for the Aotearoa/New Zealand food industry.
- An independent credible voice for food safety research and advice, connecting all industries and parties involved in the food sector.
- Efficient and effective communication through meetings, workshops, conferences, newsletters, webinars, interviews, the Centre's website, media releases and the Centre's website.

5. Strategic Goals

Eight strategic goals underpin the Centre's Mission (Section 3):

1. Be a trusted, independent and credible provider of food safety knowledge and research.
2. Develop practices, technologies and knowledge that will contribute to a reduction in foodborne illness.
3. Identify, prioritise and respond to research needs for emerging food safety risks.
4. Support and contribute to the food safety science and research needs, aspirations and interests of Māori businesses and communities.
5. Enhance Aotearoa/New Zealand's international reputation as a leader in food safety research by:
 - a. Conducting research of international quality and standing;
 - b. Effectively communicating research outcomes; and

- c. Providing science input to government to support national and international food safety policy setting processes (such as those led through FSANZ, Codex and FAO).
6. Ensure that food safety research activities in Aotearoa/New Zealand are well coordinated through the national food safety research plan.
7. Enhance, build and develop national capability, collaborations and capacity to undertake high quality food safety research.
8. Work closely with research organisations receiving government funds that support 'stretch' science to ensure the Centre and partners can leverage off proven ideas and align funding accordingly to ensure maximum return on investment.

6. NZFSSRC Research

The research programme is comprised of:

1. The Emerging Risk Identification System,
2. Research projects to address current food safety issues,
3. Research to support Māori businesses and communities to address food safety challenges.

The Centre will continue to support fora that bring industry, Māori, government and scientists together to provide an open, transparent process to identify and prioritise research. This includes the facilitation of the NZFSSRC Industry Leadership Group which aims to identify cross-sectoral food safety needs, and the sector-based taskforces which focus on identifying common research needs within a primary sector and prioritising them.

Research carried out by the Centre will focus on areas where there is genuine industry or Māori need for the project, and funder(s) have committed to providing co-funding (in cash). To be eligible for co-funding, projects must be within the scope of the Centre's research remit (Section 3.3).

The Chief Scientist and Director, in the first stage of a project application will determine whether it is in scope.

Where there is doubt over a project's eligibility and a strong industry need, or the level of risk of a given project is high, the Director will seek a review of eligibility by the Governance Board. Technical aspects of eligible projects are reviewed by the Chief Scientist (projects <\$100K), or by up to four experts comprising the NZFSSRC Research Adoption Committee (RAC) (projects >\$100K). The Centre has a policy in place to guide the project approvals process which includes the functions of the RAC.

7. NZFSSRC Funding

From January 2025 to December 2027 the NZFSSRC has dedicated funding from the Host Institution, Massey University and MPI NZFS, and a funding commitment from industry partners.

8. NZFSSRC Partners

The NZFSSRC's key partners are industry, researchers, Māori and government.

8.1 Industry Partners

The NZFSSRC will focus on its industry partners in identifying the food safety risks and needs of companies and associations and, where possible, identifying commonalities between stakeholders and promotion of collaborative research. The Centre's ambition is to grow the membership of the NZFSSRC. This is essential to expanding the Centre's impact and reaching more sectors of the food industry, including Māori businesses and communities. By increasing membership, the Centre can better disseminate and communicate its research, offer tailored support to a wider range of industry stakeholders, and enhance its role as a leader in food safety.

A larger membership base will enable the Centre to undertake more diverse and impactful research, including areas currently underfunded or outside traditional commercial scopes, such as food safety culture, consumer perceptions, and quality-related work. Expanding the membership would also provide the resources needed to engage with non-commercial entities, such as Māori and other communities, aligning with the Centre's strategic goal to contribute meaningfully to all businesses and communities in the realm of food safety

research. A larger membership will lead to increased visibility and awareness of food safety. Members will attend regular meetings, events and workshops. Information resulting from research projects and food safety science will be shared through networking and strategic partnerships.

- **Membership Growth Strategy:** We will actively seek out new industry members with an ambitious, stretch goal to grow the Centre's industry membership by 40% from 25 to 35 by the end of the current funding period; January 2025 to December 2027.
- We will work with current members to enhance our retention rates with a target to not lose any of our current members; zero membership turnover.
- We will update our promotional and marketing material on the Centre's website.
- We will identify and prioritise industries or industry bodies to approach first using a stakeholder mapping approach.

The 2025 annual business plan will focus on the 'how'; the specific steps the Centre will take to implement this strategy.

8.2 Māori Partners

The NZFSSRC is committed to Te Tiriti o Waitangi and upholds the principle of partnership in working with Māori. In 2018, the value of the Māori economy was estimated at around \$68.7 billion per annum, with close to a third of that owned by Māori primary industry collectives. Māori-owned businesses continue to be driven not only by financial outcomes but also by principles such as kaitiakitanga (responsibility), manaakitanga (supporting people) and taonga tuku iho mō ngā uri whakatipu (guardianship of resources for future generations). Undoubtedly, the production of safe kai is of utmost importance to Māori. An area of focus for the NZFSSRC will be communally owned Māori businesses that have complex decision-making structures with a diverse mix of enterprises. The NZFSSRC has dedicated a fixed amount of funding per annum to work with Māori to help achieve their food safety ambitions through the appointment of a Pou Ruruku role overseen by Te Tira Whakamana, the Centre's Māori Advisory Group. Building enduring partnerships with key organisations and groups in the Māori sector and becoming a trusted science advisor to these entities will be a critical focus.

8.3 Government Partners

The NZFSSRC will continue to work closely with other funding entities to support aligned research into food safety, including with MPI in its role in administering the Government's operational food safety research budget. Other relevant funding initiatives with which the NZFSSRC will align its activities include the MBIE funded SSIF programmes (or any successive funding mechanism), the Health Research Council programmes and MBIE contestable funds subject to the sector reviews currently underway outlined in Section 2: Context. International research funding opportunities may also be pursued.

8.4 Research Partners

The Science Leadership Team is comprised of one representative from each research organisation engaged in the NZFSSRC and provides a platform for the NZFSSRC management team to discuss project allocation with the research organisations and foster collaboration and capability building.

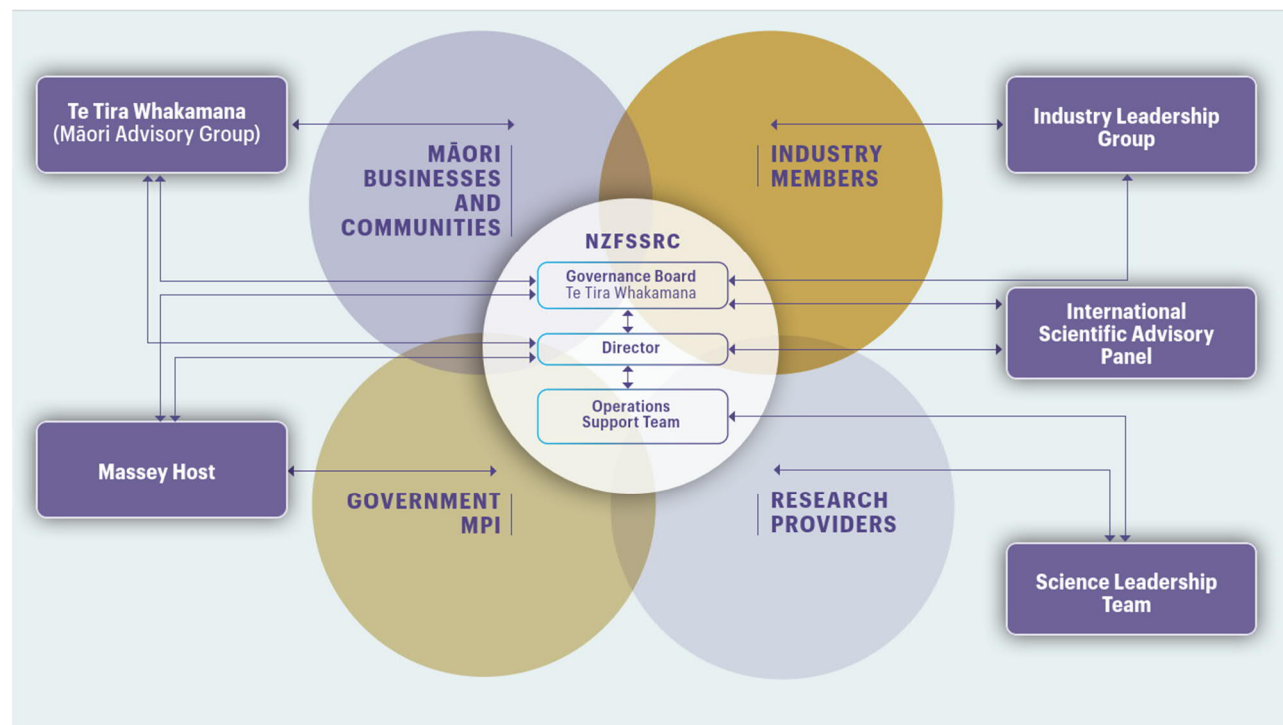
The Centre will continue to build relationships with researchers at home and abroad, including international standard setting and advisory groups focused on food safety, such as Food Standards Australia New Zealand (FSANZ) the World Health Organisation (WHO), the Food and Agricultural Organisation (FAO), Codex Alimentarius and the International Commission on Microbiological Safety of Foods (ICMSF).

The delivery of the strategic objectives of the Centre (section 5) will be enhanced by a review of existing research collaborators undertaken in year one of the three-year programme. Acknowledging both the impending science sector reforms, and that expertise may be sourced from suitable providers that sit outside of the current research collaborators' agreement, should specific expertise be required on an ongoing basis the decision to identify and bring other research collaborators on board will be made consultatively.

9. Governance

The NZFSSRC is a national, virtual, food safety science network hosted by Massey University. The Centre is not a legal entity. All business is transacted using Massey University's corporate services such as HR, finance, legal and IT. Although the NZFSSRC will continue to have no legal status and Massey University is the legal entity responsible for day to day governance oversight of decision making is devolved by Massey University to a separate skills-based Governance Board, supported by stakeholder and science advisory groups (see Figure 1).

Figure 1: Governance structure for the NZFSSRC



The NZFSSRC Governance Board is a skills-based Board with representation from the funders that oversee the NZFSSRC's work. The Board has developed and regularly reviews a skills matrix which is used to fill vacancies when they arise. The host institution is responsible for Board appointments.

The Governance Board sets the strategic direction of the Centre and monitors performance against strategic and contracted goals, approves expenditure, ensures relevance of the NZFSSRC science and research programme to all partners, oversees financial performance, Human resource (HR) development and constraints, and provides Intellectual Property (IP) advice. It also actively monitors risks via the Centre's risk management framework. The NZFSSRC Director is employed by Massey University and jointly reports to the Chair of the Governance Board and the Provost

of Massey University. As the staff of the NZFSSRC are Massey University employees and the NZFSSRC operates as a business unit of Massey University, the NZFSSRC is also encompassed by the broader Massey University risk management framework. This is particularly important for areas such as financial viability, operational continuity and legal liability where Massey University implements processes to manage and mitigate risks.

The Governance Board receives independent advice from the ISAP and the ILG.

The International Science Advisory Panel (ISAP) provides strategic scientific advice on the relevance and quality of science and research being undertaken by the Centre and plays an important role in providing peer review of the Centre’s project applications and outputs and providing advice on new technologies and global research activity. The ISAP contributes to the Centre’s credibility and visibility as a world-leading food safety research Centre.

The Industry Leadership Group acts as the voice of industry members and provides a mechanism to support the NZFSSRC Board in achieving its strategic objectives and priorities. The ILG is designed to act as a forum for industry members to share sector intelligence including international and national food safety opportunities and threats; act as a source of insight between industry, the NZFSSRC Board, NZFSSRC Director, science organisations and key government agencies; share feedback on their experiences as members; encourage new organisations to become members of the NZFSSRC; and profile projects that they are developing to seek interest in collaboration from other sectors.

10. Measures of Success

By the end of the funding period for Phase 2 of the Centre (31 December 2027), measured against the Mission in Section 3, the NZFSSRC will have achieved success in a variety of ways. These are captured in Table 2, alongside each of the corresponding eight strategic goals (Section 5). Annual key performance indicators (KPIs) are proposed with a range offered as examples. A suite of KPIs will be developed and agreed with the Governance Board prior to the commencement of Phase 2 (01 January 2025).

Table 2: NZFSSRC Strategic Goals; Measures of Success and examples of Key Performance Indicators

Strategic Goal 2025 - 2027	Measures of Success by 31 December 2027	Sample Annual KPIs
1. Be a trusted, independent and credible provider of food safety knowledge and research	Secured funding to enable the Centre to operate on a sustainable footing Grown Industry membership by 40% Grown membership revenue by 40% Demonstrated the NZFSSRC’s return on investment to NZ Inc and Aotearoa/New Zealand food businesses NZFSSRC is seen as the one-stop-shop for food safety in Aotearoa/New Zealand Maintained a steady pipeline of research projects NZFSSRC’s operating model has gained universal endorsement	# projects # members \$ investment in research by Industry # successful research applications # requests for assistance from Industry partners Diversified income streams identified and pursued Funded Impact analysis completed by 31 March 2027 Annual survey of partners indicates > 85% satisfaction with the management, administration and research functions of the NZFSSRC
2. Develop practices, technologies and knowledge that will contribute to a reduction in foodborne illness.	Technologies or strategies developed to improve food safety have been widely adopted Foodborne illness and recalls in Aotearoa/New Zealand are trending down Food safety culture is embedded as a core research capability for the NZFSSRC	# projects focused on new technologies for food safety Case studies from industry, government and researchers Annual foodborne illness statistics
3. Identify, prioritise and respond to research needs for emerging food safety risks	The Emerging Risk Identification System is embedded into the core business of the Centre	# outputs from ERIS Case studies re value of ERIS

Strategic Goal 2025 - 2027	Measures of Success by 31 December 2027	Sample Annual KPIs
	NZFSSRC relationships with FSANZ and MPI who run complementary programmes is flourishing	
4. Support and contribute to the food safety science and research needs, aspirations and interests of Māori businesses and communities.	Te Tira Whakamana and the Pou Ruruku role are playing a significant role in helping define and resolve the food safety research needs of Māori-led businesses Funding to embed research for non-commercial Māori entities into the core business of the Centre has been secured	# projects # members \$ investment in research by Industry \$ investment in research by communities
5. Enhance Aotearoa/New Zealand's international reputation as a leader in food safety research	New Zealand's strong international reputation as a producer of safe food has increased NZFSSRC is contributing the research needed to help retain market access The NZFSSRC is viewed as New Zealand's food safety thought leader	# invitations to attend/present at international conferences Membership of international advisory bodies # approaches from international entities
a. Conducting research of international quality and standing	The work of the NZFSSRC has increased the knowledge and evidence base for food safety science	# publications Increase in H Index year-on-year Increase in I index year-on-year Increase in citations year-on-year # international collaborations
b. Effectively communicating research outcomes	Information on food safety concerns or risks, or new tools or technologies has been effectively communicated to all partners Demand for NZFSSRC Events (workshops/futures for annual symposia) has exceeded capacity	# Editions of consumed # workshops # News items # articles in FoodNZ # attendance at NZFSSRC events
c. Providing science input to government to support national and international food safety policy setting processes (such as those led through FSANZ, Codex and FAO)	The NZFSSRC has received requests for thought leadership/input into policy/regulatory development	# requests for NZFSSRC input # responses to opportunities
6. Ensure that food safety research activities in Aotearoa/New Zealand are well coordinated through the national food safety research plan.	The National Food Safety Plan has been reviewed and guides investment in food safety research nationally	\$ secured for the plan review process Narrative regarding the review process (Year 1) Revised plan disseminated # partners using the plan to guide food safety research investment
7. Enhance, build and develop national capability, collaboration and capacity to undertake high quality food safety research.	A pipeline of research capability and leadership has been built, including PhDs, early career researchers, a thriving NZFSSRC alumni, and industry and government secondments (two-way)	# PhD scholarships # secondments

Strategic Goal 2025 - 2027	Measures of Success by 31 December 2027	Sample Annual KPIs
8. Work closely with research organisations receiving government funds that support 'stretch' science to ensure the Centre and partners are able to leverage off proven ideas and align funding accordingly to ensure maximum return on investment.	Contingent on science sector reform, more efficient investment in food safety research has resulted	# leveraged opportunities Case studies from partners

Figure 2 summarises the Centre's Charter (Vision, Mission and Values); the inputs to the virtual entity that is the Centre; the strategic goals and the intended impacts of the NZFSSRC by 31 December 2027. As indicated above, Centre KPIs will be negotiated prior to the commencement of Phase 2 (01 January 2025).

Figure 2: NZFSSRC Strategy 2025 – 2027 Summary

