Delivery

MPI must have processes to ensure high quality relevant and usable science and science evidence whether produced internally or externally. Procurement and contracting systems must support effective relationships between research users and providers.

Key goals include:

- science informs strategic directions and priorities; science is supported by capability and infrastructure plans;
- Māori perspectives and mātauranga are included as appropriate in science advice and policy documents;
- high quality, fit-for-purpose science advice is available and science literature is accessible to support our work;
- research investment is prioritised through evidence plans and supported by a co-ordinated grants management system and provider relationship management plans.

Uptake

Achievement of our vision will be supported by the successful uptake of science and technology through effective extension strategies and high quality capability.

Key goals include:

- systems to ensure early involvement of partners and key stakeholders;
- MPI science publications policy;
- implementation of an extension framework.

Review

Continuous improvement across the science system will be supported by timely reviews.

Key goals include:

- the MPI investment programme identifies clear objectives and performance metrics upfront for all investments;
- active relationships with Māori and key stakeholders to obtain input before key decisions are made;
- an MPI-wide science quality assurance standard.

Capability and culture

Our science capability and culture are critical. We will undertake science and technology capability mapping and strengthen relevant career pathways. We will hold our staff to the highest standard of professional and scientific ethics and integrity.

We need to more actively engage with Māori perspectives and consider Māori capability in MPI science and technology positions.

Implementing the Science Strategy

The Science Strategy will be implemented through a separate action plan. This will provide detailed measures, indicators and milestones.

The Science Board will oversee routine monitoring and evaluation of the action plan and science outcomes to ensure that the strategy continues to provide relevant guidance for the performance of the science system.







...mo ngā taimihi tangata kawa nei i ngā mahi kaitiakitanga i te taiao ...for the science and discoveries and the people with the skills to protect our environment

Growing and Protecting New Zealand

Introduction

As a major funder, user and generator of science, MPI needs a robust, efficient, science system that is closely aligned with our strategic purpose - to grow and protect New Zealand.

The MPI Science Strategy provides guidance on how we're going to do this, including futureproofing our science capability and infrastructure, and building our capability and capacity for working with Māori perspectives.

Key aspects of the strategy involve: better aligning our investments with our work; being more strategic about how we prioritise investments; strengthening connectivity and partnerships; and improving our staff's access to and uptake of science and technology.

This document presents the strategy at a glance. To read the full strategy, go to www.mpi.govt.nz.

Mihi

Ka tuku whakawhetai ake mo Ranginui i runga nei me ngā mea katoa e ahu mai ana i a ia

mo Papatuanuku e takoto nei

mo ngā maunga whakahī mo nga ngāherehere mo ngā rere mo ngā puke korero mo ngã moana e hora nei mo ngā taimihi tangata e kawa nei i ngā mahi kaitiakitanga i te taiao

No reira, tēnā koutou katoa

We give thanks for Ranginui the sky father and everything that emanates from his realm for earth mother, Papatuanuku and her bounty for the mountains for the wild places and the bush for the rivers for the coast for the seas for the science and discoveries and the people with the skills to protect our environment.

From the Director-General

MPI's four major systems: Biosecurity, Food Safety, Primary Production and Trade all contribute to increasing the value of primary sector exports – and all are underpinned by science. Our policy advice, regulations and standards must all be firmly grounded in fit-for-purpose, science-based evidence that is guided by sound principles.

MPI's Science Strategy documents our commitment to continually improving the way we use science as evidence in all our areas of responsibility.



From the Departmental Science Adviser



Science is critical to MPI. The Science Strategy has been designed to provide guidance on how we access, commission, use, interpret and disseminate science across the range of our activities.

The strategy is important for our external stakeholders in Government, industry, the science community and internationally. It will help provide visibility nationally and internationally of the integrity of our processes and the integrity of our policies.

Strategic Direction

Our vision for the MPI science system is that:

MPI is known as a credible science-based organisation that uses and generates robust and relevant science to support and transform biosecurity, food safety, primary production and trade.

Our logic model, in Figure 1 below, shows how our strategic science outcomes align with MPI's overall strategy. It sets out the activities we will undertake, guided by our principles, to deliver on our strategic science outcomes.

Figure 1: Logic model for the MPI Science System





Current Science System

As an organisation, we rely on science and science evidence to:

- support government targets including the export growth targets under the Business Growth Agenda;
- inform decision-making across all our systems;
- identify and respond to risks, including through our investigation and diagnostic services;
- meet our international trade obligations and contribute to international standards;
- meet Treaty of Waitangi obligations;
- provide knowledge of our stakeholders' and clients' perceptions, values and attitudes.

Figure 2 illustrates the core components of the MPI science system. It highlights the internal processes of direction, delivery, uptake and review, and the importance of our external interactions. The system is underpinned by our capability and infrastructure.

Figure 2: MPI Science System highlighting the core components internal and external to MPI



Activities: We engage in a range of science activities; for example we:

- commission, fund and manage research projects and programmes to inform policy and regulation;
- provide evidence-based advice and risk assessment, including to international bodies;
- undertake research and maintain laboratory facilities for plant, environment and animal health diagnostics;
- provide end-user input and co-funding to external R&D programmes and strategies;
- regulate science activities relating to our systems.

Future of the MPI Science System

Our Science Strategy targets the following Strategic Science Outcomes:

- improved science-informed policy, standards, regulations, investments and decision-making;
- strategic prioritisation of internal and external science investments;
- strengthened and enduring internal connectivity and external partnerships, and alignment of science;
- improved access and uptake of scientific knowledge and technology for greater impact across our systems;
- future-proofed science capability and infrastructure across our systems.

When we are successful in reaching these outcomes, we will see:

Optimised systems: Resulting in better strategic decisions on priorities and investment, a clear science investment profile, and evidence of uptake and outcomes from investments.

Recognition for quality and integrity: We will be recognised for our reliable and expert science advice, science evidence and data handling.

Effective external science engagement: We will sustain an enduring suite of science-based partnerships and collaborations.

Clear advice on priorities: MPI will be a leader in setting priorities for research in all our areas of responsibility.

Shared responsibility – Maori: We will have better capability and capacity for working with Maori perspectives, which will support iwi/Maori to use their matauranga and undertake kaitiakitanga to achieve better outcomes for all.

Governance: Our science activities are governed by the MPI Science Advisory Governance Board, which is chaired by the Departmental Science Adviser (DSA) and reports to the Senior Leadership Team. The DSA reports directly to the Director-General on science issues.

Capability: It is critical that there is adequate internal and external science capability and infrastructure to meet our strategic needs. This includes having high levels of expertise in certain parts of our business as well as all MPI staff having good general science literacy.

Research & development investment: MPI has an R&D budget of approximately \$130 million per annum. Our R&D investment comes from a variety of funds with different mandates, drivers and partnerships. Figure 3 illustrates the areas and types of research in which MPI invests.

New Zealand context: MPI has a number of roles in the New Zealand science environment and we work closely with other science investors, end-users, policy-makers and providers.

Te Ao Māori: Māori have a special relationship with the natural environment – culturally, scientifically and spiritually. We need to be open to incorporating matauranga Maori into our science programmes and build trusting relationships with iwi/Māori to ensure this knowledge is used appropriately.

Figure 3: Current MPI research and development investment



Strategic Approach

Our science activities will be aligned to a strategic framework of four critical areas of science output needs for MPI's areas of responsibility:

Sector priorities and interests	Cross-cutting issues including, e.g. environment and production economics, Māori socio-economic aspirations, skills and labour needs, risk perceptions, knowledge barriers and global trends
MPI priorities and interests	 Science outputs are needed to meet the legislative requirements of our key areas of responsibility: Food safety Biosecurity Sustainable production Fisheries (resource management)
Government goals	Optimising and adding value to production processes and value chains.
Emerging science issues	Long-term view of future science and technology needs and developments to ensure we are providing the most effective evidence in an evolving science world and are ready to handle the impacts of new developments.

Implementation will focus on four dimensions of activities within the MPI science system:

Fisheries Research stainable Land Management and Climate Change (SLMACC) New Zealand Agriculture Greenhouse Gas Research Centre Climate Change Global Research Alliance Sustainable Farming Fund Primary Growth Partnership Applied Development Extension Commercialisation



Direction | Delivery | Uptake | Review

Direction

Our science investments and activities must align with the strategic goals and priorities.

Key goals include:

- specific evidence plans for each of our science activities;
- clear forward plans for MPI science investment.

The table below shows how science supports the priorities outlined in Our Strategy 2030 -Growing and Protecting New Zealand:

Smart regulation	 High quality, robust science Partnerships such as Government Industry Agreements for joint approaches to biosecurity responses and readiness
Operational excellence	 Science infrastructure to support operational excellence Best practice procurement and evaluation of science evidence Public and stakeholder trust in MPI science and science evidence Tools for improved operations
International access	 Access regulations based on science evidence Science is applicable to different countries and cultures Science evidence is open, unbiased and trusted by trading partners
Provenance and traceability	 Evidence base to verify track and trace systems Customer confidence in our science and science evidence for track and trace certification
Precision production and investment	 Best use of MPI-funded IP to ensure full utilisation Robust decision support systems High priority in science activities for new technologies and innovation in precision production
Enduring relationships	 Relationship management plans in place with key science providers Establish and maintain key international science relationships Relationships with industry to understand their science needs and priorities Strong working relationships with iwi/Māori
Integrated information, insight and knowledge	 Understanding throughout MPI that fit-for-purpose information is critical to evidence-based decision-making Staff have direct access to latest published science to support decisions Staff have direct access to NZ and international science experts MPI-funded science is accessible to staff, industry and stakeholders