BIOSECURITY 2025

Protecting to Grow New Zealand

Discussion document on proposals for a Direction Statement for biosecurity in New Zealand

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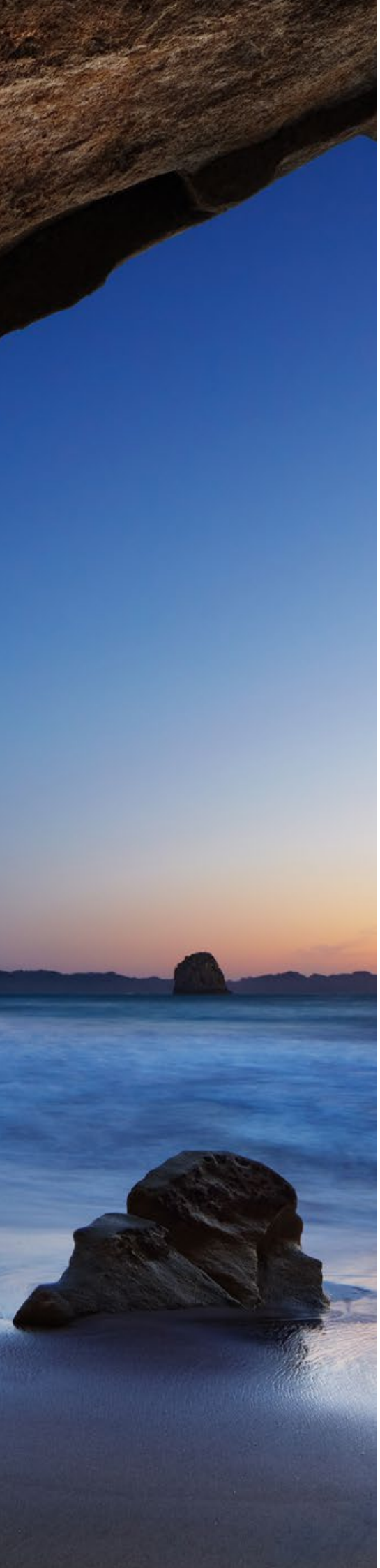

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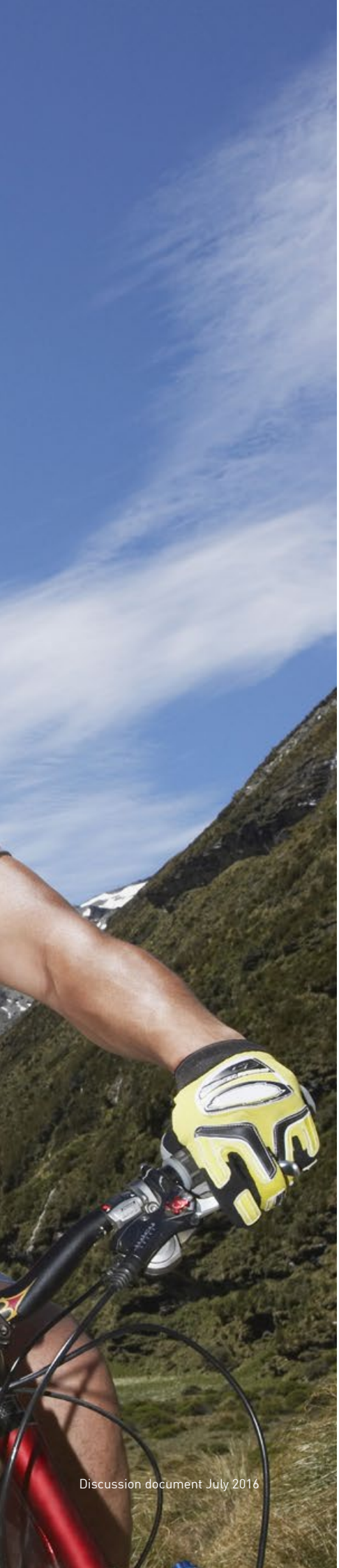
Mihi

Tihei mauri ora! Tēnā koutou katoa. Ka mōhiotia whānuitia e tātou o Aotearoa te mahi nui whakaharahara ki te tiaki pai i ō tātou whenua, mai i ngā maunga, heke iho rā ki ngā awa, rere iho rā ki te moana. Ka tutuki pai tēnā whāinga i a tātou katoa, inā kē tō te taiao oranga, tō te ōhanga tōnuitanga, tō tātou whanaketanga. Tēnā, pānuihia tēnei tuhinga, ka mutu, tukuna mai ō koutou nei whakaaro hei painga mō tātou katoa. Tēnā anō koutou katoa.

Behold the breath of life. Greetings to you all. All of us as New Zealanders know the importance of protecting our lands, from the mountains, descending to the waterways and flowing through to the marine environment. All of us succeeding in this pursuit is a cornerstone to environmental wellbeing, economic prosperity, and our development. Therefore, please read and provide your feedback for all of our mutual benefit. Again, greetings.



How to use this document

This document outlines proposals for a Biosecurity Direction Statement for New Zealand, to replace *Tiakina Aotearoa: Protect New Zealand*, the current Biosecurity Strategy.

Finding your way around the document

Part 1 – Introduction

Outlines the role of biosecurity in New Zealand and the reasons for the Biosecurity 2025 project.

Part 2 – Proposals for a Biosecurity Direction Statement for New Zealand

Sets out proposals for a Biosecurity 2025 Direction Statement, including:

- **A Mission Statement and Guiding Principles.**
- **Five Strategic Directions,** each designed to play a part in meeting the significant challenges facing New Zealand's biosecurity system in the years ahead.
- **Some first steps,** actions being proposed by the Ministry for Primary Industries that it could undertake, alone and with others, to start working towards the proposed direction.
- **Consultation questions,** to guide your feedback on key aspects of the proposals.

Part 3 – What happens next?

Contains information about the upcoming consultation meetings and hui, and details the process for developing, finalising and implementing the Biosecurity 2025 Direction Statement.

Questions/feedback

You are invited to provide feedback on the proposals for a Biosecurity Direction Statement for New Zealand. Consultation questions are included in the text throughout Part 2 of this document, and for your convenience these questions are repeated in the submission form at the back of this document. You are not limited to answering only the questions that appear in the document/submission form. There is space in the submission form for additional comments. You can also attach additional pages to the form.

Submissions must be lodged by 5pm on Friday 9 September 2016.

Submissions can be:

- completed online at **www.mpi.govt.nz/biosecurity2025**
- emailed to **biosecurity2025@mpi.govt.nz**
- posted to
  Biosecurity 2025 Consultation
  Ministry for Primary Industries
  PO Box 2526
  Wellington 6140

For more information

- View the Biosecurity 2025 webpages at **www.mpi.govt.nz/biosecurity2025**
- Ask the Biosecurity 2025 team at **biosecurity2025@mpi.govt.nz**
- Attend one of the public meetings/hui being held around the country.

Introduction

Minister for Primary Industries, Hon Nathan Guy

Last year I announced Biosecurity 2025, a forward-focused project to look at how we can strengthen New Zealand's biosecurity system in light of increasing pressures.

Biosecurity is a vital part of growing and protecting New Zealand's primary sector, tourism, and our everyday way of life. We already have a strong and effective biosecurity system which is widely regarded as one of the world's best.

However, we are facing a number of growing pressures from increasing trade, more complex markets and supply chains, and rising passenger numbers. The time is now right to look ahead to future challenges and how we can respond.

Biosecurity has always been my number one priority as Minister. If we are to double the value of our primary sector exports by 2025, we must protect our producers from harmful pests and diseases and grow value from our premium biosecurity status.

A lot of important work has been done in recent years. In Budget 2015, I announced a $27 million boost in biosecurity funding to further strengthen our borders with additional MPI frontline staff, detector dog teams and x-ray units. This funding also helped increase MPI's offshore audit capability to manage biosecurity risks before goods arrive in New Zealand. Overall, biosecurity funding is now the highest ever at $223 million.

Response simulation exercises with other government agencies and industry have helped equip our people with the skills needed in a response. Our new $87 million national biocontainment lab in Wallaceville will further help us protect public and animal health, and give international assurances about New Zealand's disease status.

The Government Industry Agreement (GIA) involves MPI partnering with industry on readiness and response activities. We currently have nine industry groups on board, working together to deliver better biosecurity outcomes through shared responsibility and decision-making.

We are also working with our international trading partners to align biosecurity outcomes. The recent Trans-Tasman Foot-and-Mouth Disease Action Plan which includes capability training in Nepal is a good example of this.

MPI's progress in biosecurity responses and preparedness was confirmed last year by the Office of the Auditor-General whose review acknowledged continued improvement and had no follow-up recommendations.

None of this means we can rest on our laurels though. We want to look ahead and consider both challenges and opportunities, such as the increasing use of technology and risk analysis.

Biosecurity is a shared responsibility, and we need the awareness and input of all New Zealanders. Please read this document and provide your feedback so we can establish Biosecurity 2025 as an important living document for the sector.

Foreword from the Project Peer Reviewers

Dr John Hellstrom, Professor Mick Clout, Glenice Paine

Since the biosecurity strategy for New Zealand, *Tiakina Aotearoa*, was released in 2003, our country's biosecurity system has been faced with its greatest challenges ever. The system has largely protected us from those challenges. However, as the rate and range of biosecurity threats and new technological opportunities to meet them continue to grow, it is time for a fresh look at how best to respond.

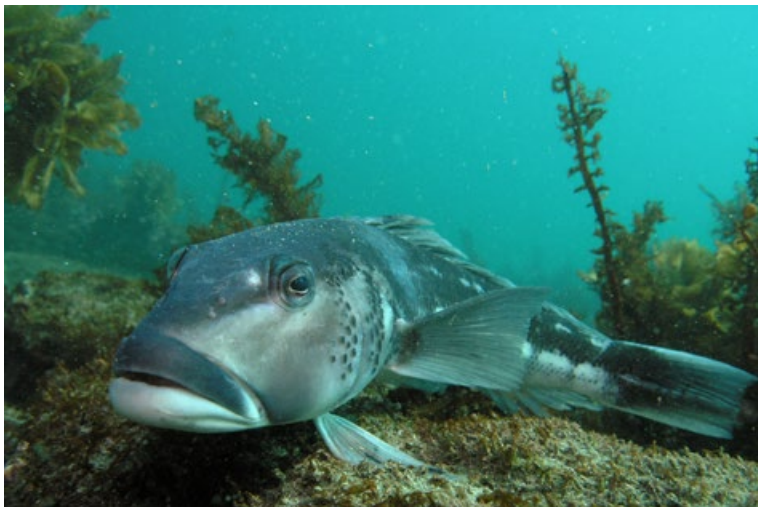
As peer reviewers we consider that the five strategic themes identified in this discussion document are the right ones. The challenge of inspiring and supporting all New Zealanders to become kaitiaki, actively keeping ourselves and our unique natural resources safe and secure from harmful pests and diseases, will require the other four themes to be fully addressed.

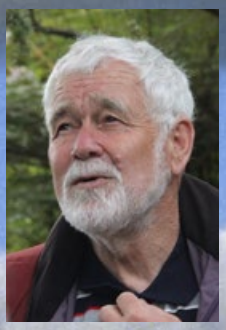
Biosecurity cannot be delegated, nor can it be left as the sole responsibility of government. The discussion generated by this document must identify the best ways for the whole system to be structured, coordinated and governed.

Meeting the challenges that biological threats pose to our prosperity, well-being and national identity requires wise and inclusive leadership that encourages broad and informed participation by all of us.

We strongly encourage your involvement in this process to identify how the total system can best be organised, resourced and governed to provide an ongoing effective and efficient biosecurity system that meets the needs of all New Zealanders.

It is very important that we hear your experiences, ideas and insights about our biosecurity system to help us advise the Minister on the content of the final direction statement that emerges from this process.





Recent achievements in the biosecurity system

PRE-BORDER

- The Emerging Risks System allows risk organisms to be proactively identified before they reach New Zealand and is crucial in making timely decisions on measures to keep them out of the country.
- We are involved in many international forums, including international standard setting bodies, the Foot-and-Mouth Disease Action Group, and Plant Health and Animal Health Quad networks.
- Increased offshore audit capability within MPI provides greater assurance that import requirements are being met by trading partners and risks are mitigated prior to arriving at New Zealand's border.
- New Zealand is at the forefront of developing electronic exchange of official assurances, which will reduce fraud and better enable automated risk profiling and targeting of high-risk goods.

AT THE BORDER

- Greater investment in border biosecurity, such as improved screening tools and more x-ray machines and detector dogs, ensures more tools are available to deal with increased volumes of passengers and goods crossing the border.
- Risk-profiling has been developed to allow biosecurity interventions to be targeted at the areas of highest risk.
- New Zealand was ranked 4th overall (out of 138 countries) in the World Economic Forum's *2014 Enabling Trade Report*, and 6th in the border administration category, reflecting the efficiency and transparency of our border processes.
- Recovering costs from many biosecurity activities enables funding to be linked to the volume of passengers and goods crossing the border.

WHOLE-OF-SYSTEM

• The Biological Heritage National Science Challenge brings together biodiversity and biosecurity researchers and aligns funding to deliver science that will reduce incursion and establishment of invasive species and improve efficacy of pest management.

• Businesses collaborate with Māori, community groups, and government to more effectively manage biosecurity risk; for example, the Fiordland Marine Guardians.

• The industry organisation Kiwifruit Vine Health provides online resources about biosecurity in more than 10 languages.

• The New Zealand Organisms Register, an authoritative catalogue of all organisms relevant to New Zealand, provides free, online, continually updated information to researchers and practitioners across the system.

POST-BORDER

Surveillance, readiness and response

• Response simulation exercises involving multiple government agencies and industry are run regularly to improve our readiness for biosecurity incursions.

• The Government Industry Agreement for Readiness and Response is a partnership approach between industry and the government to prepare for and respond to biosecurity risks.

• The National Biosecurity Capability Network, the only system of its kind in the world, has 144 signatory organisations available to mobilise in a biosecurity response event.

Pest management

• Pest ecology research has dramatically improved how we apply pest management tools; for example, we now use less than 50 percent of the amount of 1080 (a poison used to control mammalian pests) than we used in 2003.

• We have developed the National Pest Pet Biosecurity Accord to reduce the risks of the domestic trade in pets leading to new pests.

• Plant and Food Research is sharing the genome sequence of the kiwifruit pest Psa online in the hope that crowd knowledge will help with control of the disease.

• Greater investment in wilding conifer management through an additional $16 million of new operating funding over four years was announced in the 2016 Budget.

Executive summary

Protecting New Zealand's lands and waters from harmful pests and diseases safeguards our unique environment and taonga (treasures), and creates a platform for economic growth. A successful biosecurity system is critical to maintaining the New Zealand way of life.

The Ministry for Primary Industries (MPI) has been working with Māori, industry and government and non-government groups to develop proposals for a Direction Statement that will provide a clear pathway to future proof the biosecurity system.

Our biosecurity system does an outstanding job, but it is coming under pressure. Growth and diversity in trade and tourism, and other influences such as established pests and climate change, all put stress on the system. A forward-looking direction for the biosecurity system is needed to ensure that the system will remain resilient in the face of future challenges.

The protection afforded by the biosecurity system enables us to grow our economy, through tourism, primary production and trade, and to enhance our lifestyle and wealth as a nation. By ensuring that the biosecurity system remains strong and resilient into the future, biosecurity will continue to enable our growth.

This document sets out proposals for a mission statement, guiding principles and strategic directions for the biosecurity system. The five strategic directions identify key areas for focus to ensure the biosecurity system will meet the challenges of the future.

The five proposed strategic directions are:

1. A BIOSECURITY TEAM OF 4.7 MILLION – This is partnership on a grand scale. Every New Zealander and every New Zealand business becomes part of the team.
2. A TOOLBOX FOR TOMORROW – Science and technology have the potential to revolutionise the way we do biosecurity. Innovation must be prioritised, sought out, adapted and applied.
3. FREE-FLOWING INFORMATION HIGHWAYS – Information underpins biosecurity decision-making. We must use the vast array of data across the system better to inform risk management in real time.
4. EFFECTIVE LEADERSHIP AND GOVERNANCE – System-wide leadership and inclusive governance support all participants in their roles.
5. TOMORROW'S SKILLS AND ASSETS – A capable and sustainable workforce and world-class infrastructure provide the foundation for an effective system.

The first part of this document introduces biosecurity in New Zealand. Part 2 outlines our proposals for a Direction Statement and asks for your feedback.

A public consultation and submission process will be run until 9 September 2016. Information about how you can have your say is provided at the end of the document.

Part 1: Introduction

Our place, our taonga

Our unique land, waters, and the life they sustain are New Zealand's taonga (treasures).

The country's prosperity and sustainability depend on its premium biosecurity status and the relatively unspoiled state of its natural environment. Free from many of the pests and diseases that afflict other places, these assets are New Zealand's great enablers – helping grow our economy, enhancing our lifestyle and strengthening our sense of national identity. They enable us to create products the world wants to buy and to attract visitors from all over the globe.

What are they worth to us, these taonga?

On every level – economic, environmental, cultural and social – they are priceless.

Few, if any, developed countries are as reliant on their natural assets for sustaining their lifestyle and livelihoods as New Zealand is. Maintaining the integrity of our biosecurity status and our natural environment is something we have to do, and not by half measures, if we are to ensure our key strengths and assets have the protection they need.

Without that protection, we cannot continue to grow our national income or make improvements to our lifestyle.

Biosecurity – it's what we do

Biosecurity has been part of our national agenda for a very long time.

Respecting and protecting the environment and taonga has been inherent in Māori cultural practices for centuries through tikanga and kaitiakitanga.

From the mid-19th century, we've had laws aimed at preventing harmful pests and diseases from entering the country.

Over the years since, a sophisticated biosecurity system has evolved and grown to protect New Zealand from threats to our plants, our animals, our health and our way of life.

Since the arrival of humans in New Zealand, we have had to deal with new species, whether introduced through natural, intentional or unintentional means; and their impact on our native and productive ecosystems, health, and cultural and social wellbeing.

Our biosecurity system operates in New Zealand and is also part of a global system that works to reduce the risks of movement of pests and diseases while facilitating safe international trade.

Our first Biosecurity Strategy, *Tiakina Aotearoa – Protect New Zealand,* has ably guided our biosecurity system since 2003.

What does the biosecurity system protect?

The biosecurity system is often described as contributing to the protection of four values:

Economic – including primary industries, trade and tourism.

Environmental – including our unique indigenous species, ecosystems and landscapes, taonga species, and valued exotic species.

Cultural – including Māori cultural and spiritual values.

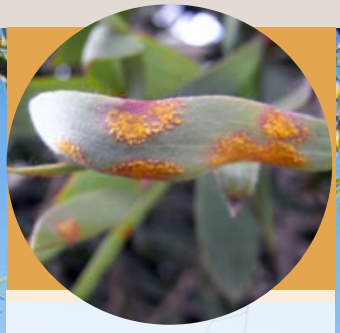
Social – including New Zealanders' lifestyles, health and wellbeing, our national identity, and recreational and historical values.

These values are inextricably linked. It is rare for a pest or disease to threaten only one of these values. Much more common are pests that present risks to multiple values. All values must be considered when making biosecurity decisions.

Southern saltmarsh mosquito

The southern saltmarsh mosquito is an Australian native that can carry the debilitating human illness Ross River virus. The health and lifestyle impacts of this species establishing would be considerable and direct health costs are estimated at over $120 million.

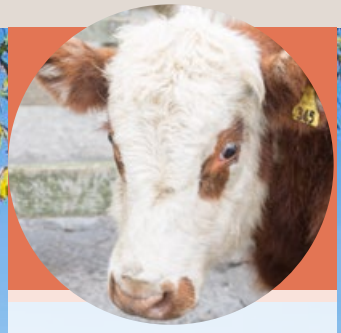
In 1998, southern saltmarsh mosquitoes were found in Hawke's Bay and further investigation showed that they had spread to other locations around the country. An eradication programme commenced and in 2010 the species was eradicated. The Ministry of Health and MPI now undertake a surveillance programme, including annual sampling of saltwater mosquitoes and larvae from ports and saltmarsh habitats around the country.



Myrtle rust

Myrtle rust is a serious fungal disease that affects plants in the myrtle *(Myrtaceae)* family. If myrtle rust reaches New Zealand it will likely have serious impacts on many of our iconic native species, such as pōhutukawa, rātā, and mānuka. It will also have economic impacts on eucalyptus forestry, feijoa orchards, mānuka honey production and nurseries.

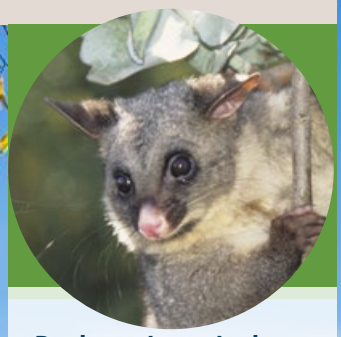
To reduce the likelihood of this disease reaching New Zealand, restrictions have been placed on the import of nursery stock, cut flowers and other material. A multi-agency working group is undertaking preparedness planning and monitoring of high-risk sites is underway.



Foot-and-mouth disease

Foot-and-mouth disease is a highly contagious animal disease. An outbreak in New Zealand would cause serious production losses and devastate trade. It is estimated that an outbreak of foot-and-mouth disease could cost New Zealand up to $16 billion – that's a cost of more than $3000 for every New Zealander.

New Zealand has strict border controls in place to ensure that the likelihood of the disease entering the country is low. A comprehensive readiness programme is also in place, so that in the unlikely event of an outbreak we are well prepared to respond effectively and minimise the impacts of the disease.



Bovine tuberculosis

Bovine tuberculosis is a disease that affects cattle and deer, and is also found in wild animals such as possums. The national pest management plan for bovine Tb has succeeded in reducing the number of infected herds in New Zealand from over 1700 in the mid-1990s to less than 40 today. The plan is now focused on the ultimate eradication of bovine Tb from New Zealand.

The benefits of controlling bovine Tb include reduced costs for our livestock industries, protection of New Zealand's trade reputation in overseas markets, and improved biodiversity protection through the control of possums and other pests.

A house in good order: Our biosecurity system today

A world leader

New Zealanders have every reason to be proud of their biosecurity system. It is widely acknowledged as being one of the world's best.

This reputation has been earned on a number of fronts. One is the passing of laws such as the 1993 Biosecurity Act. As a piece of legislation specifically designed to protect valued biological systems from the effects of pests and diseases, it was a world-first.

Another has been an outstanding record of achievement, especially in the eradication of pest species. These have included the painted apple moth, the southern saltmarsh mosquito, Mediterranean fruit fly, and the red imported fire ant. We are also world leaders in eradicating rats and stoats from offshore islands.

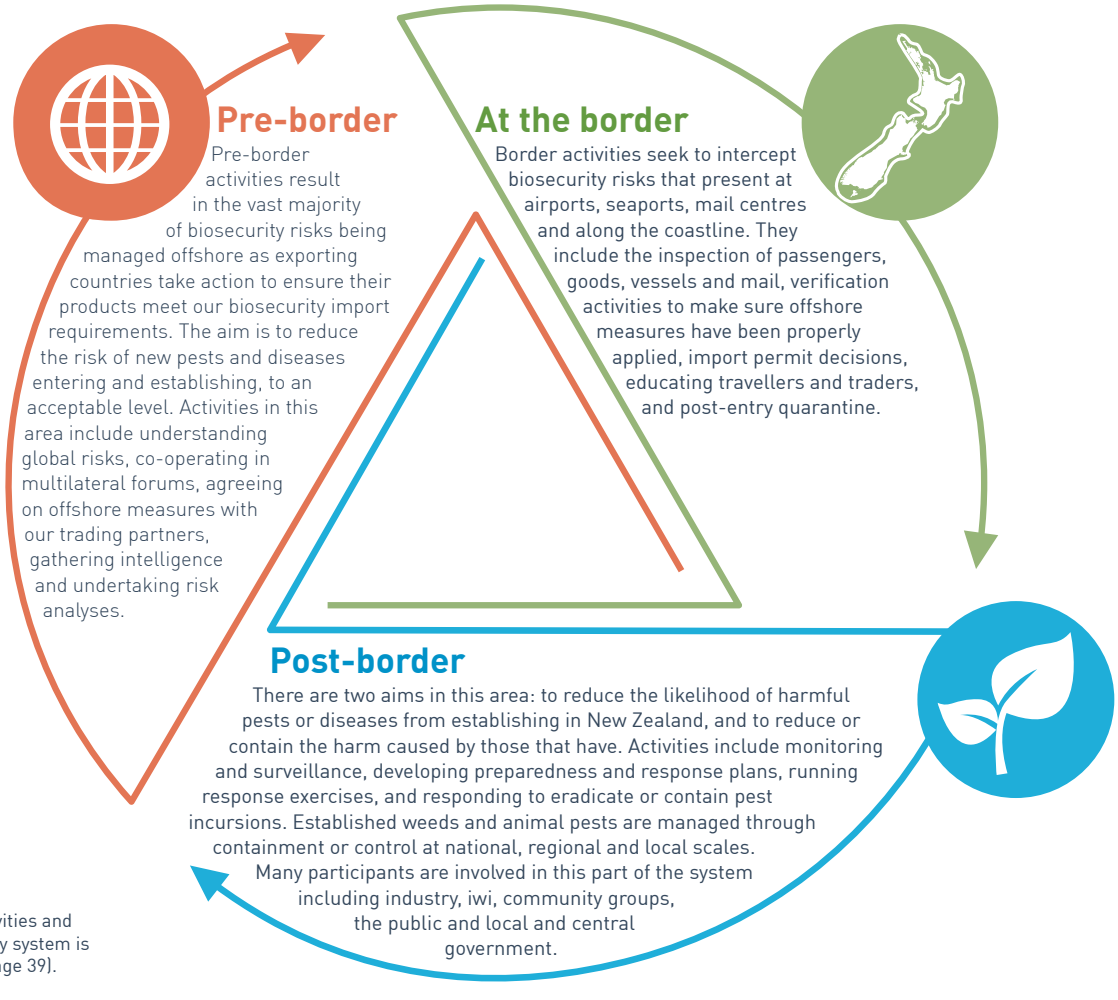
New Zealand plays a key role in many international standard setting bodies, which help to set the rules for safe trade under the World Trade Organization framework.

Our people are recognised globally for their expertise in areas such as pest management and eradication and regularly supply advice and support to other nations. Many of our techniques and initiatives have been taken up by other countries. Our highly successful "Check Clean Dry" campaign has been adopted by the UK, Chile, and parts of Australia and the US.

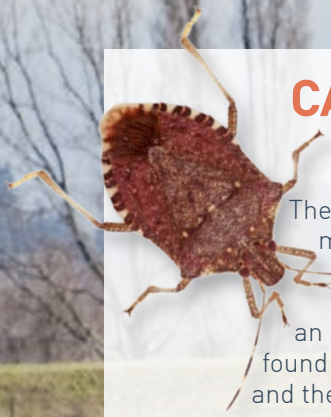
Despite our successes we should not underestimate the magnitude of the challenge. As an internationally connected trading nation New Zealand has vast quantities of products, craft and passengers crossing our borders in both directions, all with the potential to carry biosecurity threats.

A layered defence

New Zealand's biosecurity system is made up of three broad areas of activity: pre-border, at the border and post-border.



More detail about the activities and structure of the biosecurity system is available in Appendix 1 (page 39).



CASE STUDY:
Brown marmorated stink bug

The brown marmorated stink bug (BMSB) is an agricultural pest found in Asia, Europe and the US that could successfully establish in New Zealand. This insect feeds on more than 300 different host plants, primarily fruit trees and woody ornamentals but also field crops. BMSB has the potential to become a significant nuisance pest – it aggregates inside buildings in large numbers and when disturbed or crushed it emits a characteristic, unpleasant and long-lasting odour. The potential environmental impacts for New Zealand are unknown.

Considerable work is underway to prevent the arrival and establishment of BMSB in New Zealand and to ensure early detection and readiness for an effective response if it does arrive. BMSB is a hitchhiker pest, which means it is difficult to predict the goods and pathways that it is likely to enter on.

The work being undertaken to protect our country from BMSB demonstrates the responsive and integrated nature of New Zealand's biosecurity system – activities are underway across all areas of the system; many participants, including government agencies, industry, researchers and importers are working together; and feedback loops ensure that interventions occur quickly at the best point in the system.

Our biosecurity system focuses on managing risks as much as possible overseas to reduce the likelihood of pests reaching New Zealand, while at the same time ensuring that we are as prepared as possible for fighting pests that do reach our shores. This can be seen through the breadth of activities underway to protect New Zealand from BMSB.

To ensure early detection we are…

- Analysing interception data to better understand pathways of entry. This has resulted in increasing the level of inspection for specific high-risk goods and pathways.
- Undertaking a coordinated programme of research in conjunction with external partners and agencies such as the Better Border Biosecurity (B3) collaboration. This includes researching the use of dogs for BMSB detection, developing cost-effective traps, and investigating lures. Some of this work is being undertaken in countries where BMSB is currently established.
- Collaborating with industry to raise awareness and knowledge among key people (e.g. port workers) and running targeted public awareness campaigns to encourage reporting and early detection.

To prevent entry we are…

- Amending Import Health Standards when evidence supports new measures. For example, new requirements for vehicles, machinery and tyres from the US were recently put in place.
- Working with importers and exporters to implement appropriate controls and inspect overseas treatment facilities.
- Tracking the distribution of BMSB worldwide.
- Working closely with Australian and US colleagues, and raising awareness of BMSB with trading partners; for example, at quad and bilateral meetings.

To improve our ability to respond to and manage this pest effectively we are…

- Running exercises, such as Exercise Rāwaho in 2015, to collaboratively assess the risks associated with the range of different response options.
- Undertaking economic analyses to aid decision-making.
- Developing response plans to ensure we are ready to act in the event of an incursion.
- Working across government to develop and gain approvals for chemical treatment agents that may be required in the event of a response.
- Undertaking host-range testing of potential biocontrol agents to see if parasitic wasps could be used to manage BMSB within New Zealand without harming native or valued species.
- Planning for and analysing potential options for long-term management.

SUPERDIVERSITY

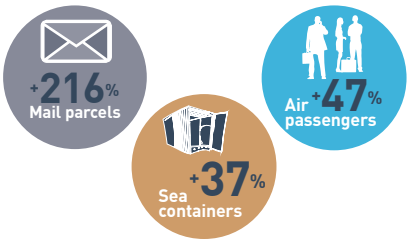
NEW ZEALAND IS HOME TO:

213 ETHNICITIES

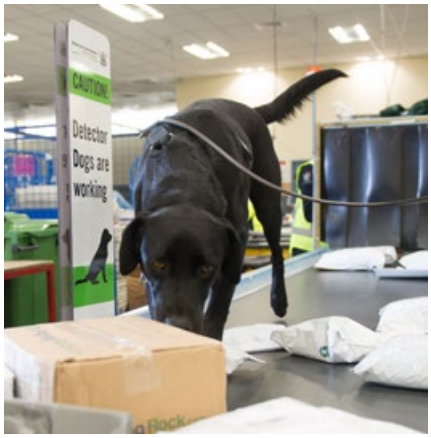
160 LANGUAGES

2013 census

% VOLUME CHANGE 2003–2014



Herb Christophers, DoC



Escalating pressure

We have a world-class biosecurity system that predicts and responds to risk. But the demands on the system never stop growing – pressures continually increase and risks become more diverse and complex. Following are some examples of the growing pressure on New Zealand's biosecurity system.

Trade and tourism

In recent years, there has been huge growth in the volume of goods crossing our border. The origin of these imported goods is changing too. At the same time, tourism numbers have soared. While these are New Zealand's successes, part of the price we pay is added pressure on the biosecurity system.

Parcel post

The volume of mail parcels entering the country increased by 216 percent between 2003 and 2014. All parcels from overseas must be scrutinised for biosecurity risks.

Complexity of pests and diseases

We do not know the potential of many species to become pests or pathogens. Many organisms will only become pests when taken from their natural environment or when conditions, such as climate or other nearby species, change. For example, new weeds arise as introduced plant species that are already in New Zealand naturalise (become established in the wild). Often, the more we understand about the complex nature of pests and diseases, the more we realise what we still don't know.

Climate change

A changing climate will influence organisms' ability to survive in different parts of the world. In this way it will alter the biosecurity risks of many of our trading partners and will affect the risks we face here.

Established pests

Established pests cost New Zealand millions of dollars each year. Influences such as climate change, social licence and loss of tools will increase the challenges of managing these pests.

Social changes

Increasing ethnic diversity in New Zealand, shifting public attitudes and expectations, and modern communication all have implications for the way we will manage biosecurity in the future.

Opportunities to seize

The challenges may be formidable, but so are the counter-measures available to us.

Innovation and technology

Emerging technologies have the potential to revolutionise how we detect and manage biosecurity risks. We cannot know what new technologies will be developed over the next 10 years, but we can be sure they will change the way we do biosecurity.

We'll be able to achieve faster and more accurate risk management, free up people from manual tasks, communicate with each other in different ways, and manage greater volumes of information faster and more accurately.

An emerging technology that is likely to change the way we do biosecurity is the Internet of Things. This is a network of physical objects – such as buildings, vehicles, shipping containers and other items – that are embedded with software and sensors that enable these objects to collect and exchange data. The objects can then be tracked, controlled and analysed remotely and automatically. This will have benefit for biosecurity in ways we're only beginning to understand.

Social media and online tools

Social media and its capacity to enable mass mobilisation and real-time information sharing will transform the way we participate in biosecurity. Online tools make it possible for everyone to contribute to collaborative decision-making, give widely dispersed groups of people immediate access to critical information, and can be used to mobilise people in their thousands.

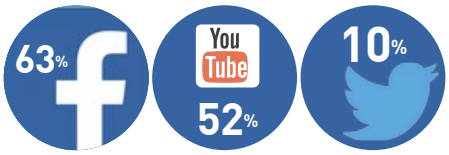
Citizen science

The biosecurity system can tap into the rising popularity of citizen science – this is where the public participates in scientific research, often by collecting or categorising data. Through citizen science, every New Zealander could become a biosecurity surveillance officer.

Broadening social responsibility

Increasingly in New Zealand, and around the world, businesses and the public share responsibility for activities that in the past were seen to be the province of government. This is reflected in the rise of public–private partnerships, corporate social and environmental responsibility, philanthropy and an increasing public expectation to be involved. This is an energy we can harness for the benefit of the biosecurity system.

% OF NEW ZEALANDERS USING SOCIAL MEDIA



Nielsen Online Ratings 2012

Smart hives

The MiteNot project, based in the US, uses smart beehives designed to monitor the internal temperature and 32 other aspects of remote hives in which it is installed. When pre-set thresholds are met that indicate the status of the brood and the mites' reproductive cycle, it elevates heat levels to kill the *Varroa* mite, but at levels safe for the bees.

> Introduced pests are the greatest threat by far to New Zealand's native plants and animals.
>
> Jan Wright, Parliamentary Commissioner for the Environment
> *Evaluating the use of 1080*, 2011

E-Noses

Electronic noses that can sniff out risk goods in the same way as detector dogs are now a reality. These electronic sensors could be installed in airport luggage areas to detect odours from risk goods from a remote distance even when they are very faint.

> World-class biosecurity is consistently ranked as the number 1 priority for New Zealand's primary sector by industry leaders.
>
> KPMG Agribusiness Agenda (2011–2016)

The time to act is now

The biosecurity story in New Zealand has always been one of evolution and adaptation. We have constantly had to rethink and refit our biosecurity programme.

However, with the mounting pressures that are facing the system, we need more than incremental change. We cannot simply invest increasing resources into the system and continue to do things the same way.

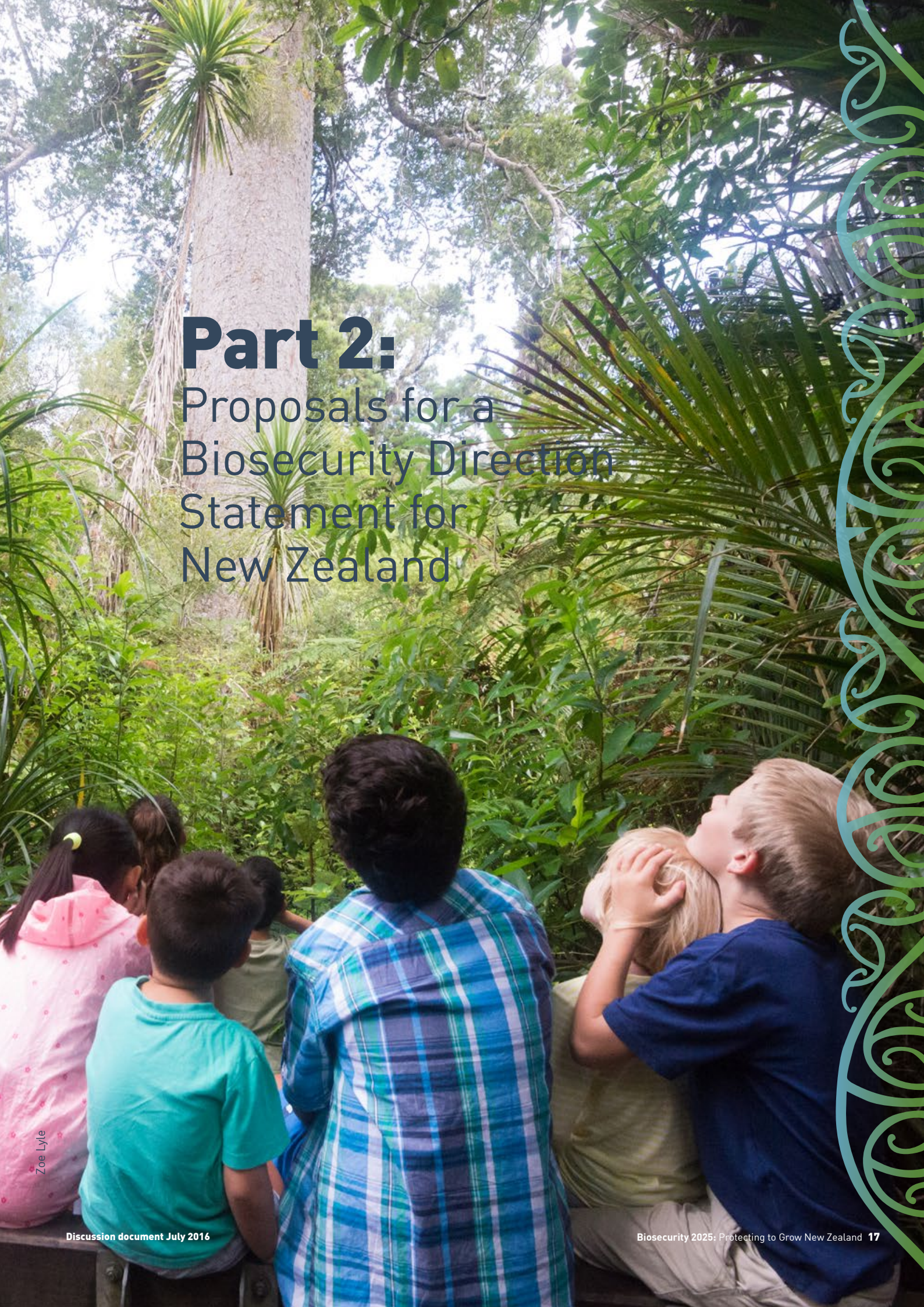
We must set a new course and take bold action to ensure we are ready for what the future holds.

We need to harness the contributions of all New Zealanders, capitalise on opportunities to transform the way we work, and make more effective use of our assets – our people, tools, information, science and infrastructure – throughout the system.

The price is too high not to take action. Our lifestyles, our livelihoods, our environment, and the growth of our nation depend on it.

Rohan Wells, NIWA

Part 2:
Proposals for a Biosecurity Direction Statement for New Zealand



Zoe Lyle

Biosecurity by the numbers

New Zealand ranked 4th in the World Economic Forum's Enabling Trade assessment of 138 countries, reflecting the efficiency of our border, ease of market access and infrastructure availability

200,000 cruise passengers entered New Zealand in 2015

$87 million cost of the state-of-the-art Biocontainment Laboratory under construction

$40 million+ of research funding across New Zealand contributes to biosecurity science outcomes

Almost **$100 billion** of goods crossed New Zealand's borders in 2014/15, **up 50%** over the last decade

99% compliance rate for passengers crossing the border

Less than 40 cattle herds infected with bovine TB compared to 1700 cattle herds affected in the mid-1990s

300+ weeds of conservation concern in NZ

9 industry signatories to the Government Industry Agreement for Biosecurity Readiness and Response

60,000+ surveillance traps to detect new pests across the country

216% increase in mail parcels between 2003 and 2014, mainly due to internet commerce

144 organisations ready to mobilise in the event of a biosecurity response as part of the National Biosecurity Capability Network

25 million native birds killed by pests a year

$1 billion cost of vertebrate pests to the primary sector per year

A direction for the future

In its capacity as leader of the biosecurity system, MPI has been charged by the Minister for Primary Industries with developing a Biosecurity 2025 Direction Statement, in collaboration with other system participants.

This will drive change where it is needed, enabling the system to take advantage of opportunities and ensure it remains effective and resilient to cope with changing risks and pressures.

The Direction Statement will update and replace the 2003 Biosecurity Strategy *Tiakina Aotearoa: Protect New Zealand.*

We are proposing three elements for inclusion in a Biosecurity 2025 Direction Statement.

These are:

- **A Mission for Biosecurity** – to ensure we are all working towards a common goal.
- **Guiding Principles** – to guide the way we will work.
- **Five Strategic Directions** – to drive change across the system, enabling us to address challenges and take advantage of transformative opportunities.

What do you think?

- How strongly do you agree or disagree that the discussion document addresses the challenges, risks and opportunities facing the biosecurity system?
- What's good about what is being proposed?
- What's missing from what is being proposed?

See Submission Form page 43

A shared vision

1. Starting the conversation

As part of the research for the Biosecurity 2025 project, the project team spoke with a large range of biosecurity stakeholders. A Māori focus group was convened to provide advice and ensure a Māori perspective was reflected in the project.

These dialogues have helped shape the proposals set out in this discussion document.

Now we want to know what you think.

2. Listening to the country

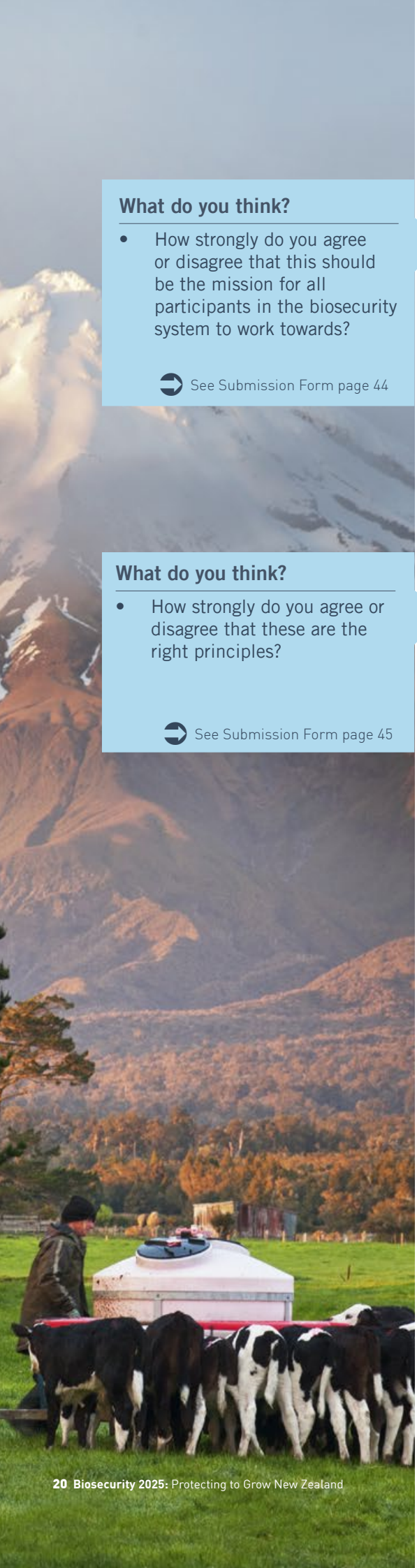
There will be public meetings and hui around the country in August to discuss the proposals for a Biosecurity 2025 Direction Statement and there will be a public submissions process to formally capture your views.

The questions highlighted in the blue boxes in this document are repeated in the submission form at the back of the document and at **www.mpi.govt.nz/biosecurity2025**.

We encourage you to complete your submission online.

The questions are intended to stimulate discussion and to prompt written submissions.

See **page 36** to find out more about the consultation and submission process and how you can make sure your views are heard.



What do you think?

- How strongly do you agree or disagree that this should be the mission for all participants in the biosecurity system to work towards?

See Submission Form page 44

Proposed mission for biosecurity

The below mission statement is based on the vision in the 2003 Biosecurity Strategy, *Tiakina Aotearoa: Protect New Zealand.*

New Zealanders, our plants and animals, and our unique natural resources are kept safe and secure from harmful pests and diseases.

Since 2003 the context in which we do biosecurity has changed; collaboration is changing the way we operate, the benefits of biosecurity for primary production and trade are clearer, and we have a better understanding of the values we seek to protect. Should these be reflected in our mission for biosecurity?

What do you think?

- How strongly do you agree or disagree that these are the right principles?

See Submission Form page 45

Proposed guiding principles for the system

In order to work towards the mission, all participants in the biosecurity system need to have a shared understanding of how we will work and the values that will guide our activities. The principles below are intended to guide all system participants and underpin implementation of the Biosecurity 2025 Direction Statement and any subsequent strategies and plans.

1. Biosecurity is everyone's responsibility.
2. Decisions take into consideration economic, environmental, cultural and social values.
3. Risk-based decision-making is informed by the best available science and information.
4. Decisions are transparent, taking into account the integrated nature of the system, and ensure resources are prioritised to achieve greatest benefit for biosecurity outcomes.
5. Biosecurity operates in an environment of continuous learning and system improvement.
6. Collaborative approaches and wide participation are enabled and encouraged.
7. The role of tāngata whenua as kaitiaki, and mātauranga Māori are recognised and provided for.
8. Biosecurity takes account of our trade and travel context, including the need to facilitate safe imports, support assured exports and meet international obligations.

Proposed strategic directions for the biosecurity system

Five strategic directions have been identified to address the challenges facing the biosecurity system (see right).

The first three strategic directions are game-changers. By focusing our efforts and investment in these areas, there is the potential to usher in transformative change and for our biosecurity system to make big leaps forward. We will be able to take advantage of opportunities and address the challenges faced by the system in new, more efficient and effective ways.

The other two strategic directions crucially underpin the effectiveness of the whole system. Maintaining and building strength in these areas will provide a foundation for change in other areas.

Over the next few pages of this document each of the proposed strategic directions are explained in more detail. These sections supply a rationale for each strategic direction, what needs to happen for it to take shape and a vision for what we can expect to see when it does.

Making it happen: The first steps

At the end of the description of each of the five strategic directions are a number of proposed "first steps" that could be taken to initiate action in that area. It is envisaged that these actions will be completed in the first few years after the launch of the Biosecurity 2025 Direction Statement.

The first steps set out in this document are merely a starting point; they are all actions that MPI can take, either alone or in collaboration with others. Through the consultation process it is envisaged that other system participants will come forward with other actions they have identified and are willing to take. This will mean that when the final Biosecurity 2025 Direction Statement is launched, it will contain a more comprehensive suite of "first steps" to be implemented by participants from across the biosecurity system.

More detailed implementation planning, involving all biosecurity system participants, will map out the full suite of actions required after the Biosecurity 2025 Direction Statement is launched.

Five strategic directions

1. A BIOSECURITY TEAM OF 4.7 MILLION

A partnership that covers the country: every New Zealander becomes a biosecurity risk manager and every business manages their own biosecurity risk.

2. A TOOLBOX FOR TOMORROW

Harnessing science and the technology revolution to transform our systems.

3. FREE-FLOWING INFORMATION HIGHWAYS

Tapping into the wealth of data available, building intelligence and using powerful data analysis to underpin risk management.

4. EFFECTIVE LEADERSHIP AND GOVERNANCE

System-wide leadership and inclusive governance arrangements support all system participants in their roles.

5. TOMORROW'S SKILLS AND ASSETS

A capable and sustainable workforce and world-class infrastructure provides the foundation for an effective system.

What would success in 2025 look like?

By 2025, we will see that...

Biosecurity is part of the **New Zealand story.**

New Zealanders **automatically** and intuitively think about and **participate in biosecurity** – just like putting on a seatbelt.

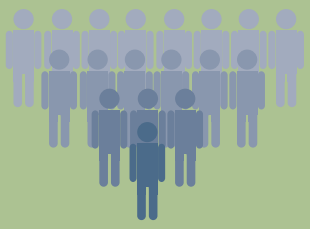
Businesses from across the primary sector leverage **more growth** from our premium biosecurity status.

All our key trading partners have **effective systems** in place to stop harmful pests being exported to New Zealand.

Working in partnership, we know of all incursions when they occur, and have the **tools and technology** to eradicate quickly and efficiently.

Māori/iwi participate as **partners and kaitiaki** across the entire biosecurity system.

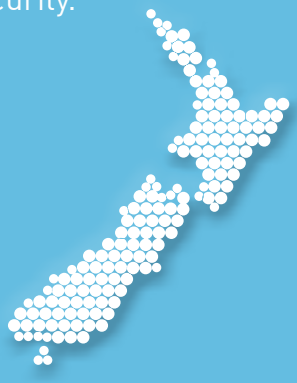
Everyone in New Zealand and coming into New Zealand fully **understands the risks** posed by people and goods entering our country, and most people and goods arrive via specially authorised trusted trader and traveller arrangements.



Partnerships provide the capability and capacity to win the war against pests that have managed to become established.

Public confidence in biosecurity is strong based on published performance information and **effectively communicated scientific evidence**.

New Zealand continues to be recognised internationally as a **world leader** in biosecurity.



STRATEGIC DIRECTION 1

A BIOSECURITY TEAM OF 4.7 MILLION

OUR VISION 2025:

- New Zealanders and visitors are aware and knowledgeable about biosecurity.
- Biosecurity is a reflex action – thinking about and participating in biosecurity has become fundamental to what we do as New Zealanders.
- The unique knowledge and perspective of Māori is recognised and Māori actively participate as kaitiaki at all levels of the system.
- Partnerships and other collaborations enable us to work more effectively towards a collective vision for biosecurity.
- Tools, rules and processes make it easy to do the right thing.

Big task, big solution

The challenges our biosecurity system faces are growing all the time. The enormity of the biosecurity task means that we need all New Zealanders to pitch in.

Every New Zealander has a stake in the success of the nation's biosecurity system – the lifestyle, livelihood, and heritage of each of us is inextricably tied to it. We are proud of our unique natural environment and as a nation we have a strong collective ethos when a situation demands it.

The system has become increasingly collaborative over recent years. There are a growing number of signatories to the Government Industry Agreement – a core partnership between industry and government to prepare for and respond to biosecurity incursions. There are also numerous community partnerships battling pests, for example, the joint agency, tāngata whenua and community programme to stop the spread of kauri dieback disease.

The next step is to create the biggest collaboration yet, one that involves the entire country and beyond. Our businesses need to understand and manage the biosecurity risks related to their activities, all New Zealanders must be the eyes and ears of the biosecurity system and we need our key trading partners to have effective systems that keep harmful pests from reaching our shores.

Empowering biosecurity's Team New Zealand

There is already widespread appreciation for why we need biosecurity and there are many people who contribute in some way toward the biosecurity goal. For example, there are hundreds of community groups that undertake pest management in their local areas across the country and the National Biosecurity Capability Network is made up of more than 140 organisations ready to mobilise in the event of a biosecurity response. However, much more can be done to empower the public, Māori, businesses and travellers to enable full participation from everyone.

GIA
Biosecurity through Partnership

Government Industry Agreement for Biosecurity Readiness and Response

Government Industry Agreement (GIA) is a partnership between government and industry for improving New Zealand's biosecurity.

The partnership covers engagement across the end-to-end biosecurity system, and joint decision-making and sharing of costs for agreed readiness and response activities.

There are currently nine industry signatories to the GIA and other industry bodies are working towards joining the agreement.

The ways that industry and the Crown are learning to work collaboratively to manage biosecurity risk are expected to provide a model for the development of other partnerships and collaboration between other participants across the biosecurity system.

What would participation look like?

Members of the public could...

Routinely unpack online purchases carefully in case any hitchhiker pests are inside.

Promote New Zealand's biosecurity rules to overseas family before they come to visit.

Take a photo of an unusual bug in the garden, get instant feedback on whether it might be a risk and send it to MPI for identification via a mobile app if it is.

Set up traps for pests, such as stoats and rats, in their backyard.

Keep garden weeds under control to ensure they don't spread into nearby parks or natural areas.

Join or form a community group to control environmental pests such as possums and stoats in a nearby area of native bush.

Thoroughly check, clean and dry their boat before moving it to another waterway.

Māori could...

Have biosecurity sections in their hapū and iwi environmental management plans.

Be providing marae-based training in cultural competencies to agencies with biosecurity responsibilities.

Operate biosecurity management hubs at the takiwā (tribal district) level to work with government to manage biosecurity risk.

Businesses could...

Build biosecurity requirements into their purchasing and supply contracts.

Establish a "pest of the month" campaign to educate staff about potential risk species.

Include biosecurity as a standard item on their board agenda.

Partner with other businesses to reduce biosecurity risks collectively across an industry.

Partnerships for prosperity

Building on the GIA, sustainable, long-term relationships and partnerships will be built between participants across the system, including with businesses, to work towards a shared vision for biosecurity. By working collectively we can strengthen our ability to protect New Zealand. Businesses have a key role to play in reducing biosecurity risk, and stand to benefit considerably by stepping up their participation in biosecurity.

Embedding kaitiakitanga at all levels of biosecurity

Māori are already a key part of the biosecurity system – as partners with the Crown through Te Tiriti o Waitangi, as kaitiaki (guardians) of New Zealand's taonga, as landowners, and as significant contributors to the primary sector. Māori are heavily invested in the primary sector, making up 40 percent of forestry ownership, 30 percent of lamb production and owning 38 percent of the fishing quota. There is much more to be done to ensure the valuable knowledge and perspective Māori offer is utilised across the biosecurity system.

Building and integrating mātauranga Māori and the unique perspective Māori bring, developing relationships based on partnership, and focusing on two-way capability building, will support Māori to participate more fully and contribute more effectively in biosecurity.

Everyone is a biosecurity officer

Opportunities to engage everyone will come from transforming the way we work. Empowering the population to become guardians of their future will require that the information, tools, systems, and skills they need to participate are easily accessible. We must also understand how people want to participate and what support they want.

A flow of information and stories across multiple platforms, including digital and social media, will set out to build awareness that biosecurity is not only a critical issue, it's also everybody's business. We need to develop a national conversation, to embed biosecurity as a part of the New Zealand story.

To build this team of 4.7 million, we can make use of global trends towards greater public participation and mobilisation, ensure greater opportunity for participation, and learn how to better support, coordinate and strengthen the many motivated and enterprising groups and individuals that already exist across the system.

Global protection, global growth

Beyond New Zealand, we need to work with overseas authorities and exporters, to ensure that there are effective systems and processes in place to reduce the risk of pests and diseases entering New Zealand. In turn, by maintaining our premium biosecurity status we can provide our trading partners with safe, assured exports that allow access to markets and growth opportunities.

Getting things started: some first steps

These first steps are actions MPI can do, alone or in collaboration with others, to get things started. It is important that you and other system participants identify additional steps so the Direction Statement can set out actions to be undertaken by all of us across the system.

1. Communication

- Undertake regular surveys of public attitudes, awareness and understanding of biosecurity. Results will be shared across the biosecurity system to inform the development of communication and engagement activities.
- Establish a network or community of practice for all those involved in biosecurity communication to develop relationships, coordinate communication activities, and share knowledge and skills.
- Prepare a communications strategy for the biosecurity system in collaboration with system participants with the aim of increasing public understanding of and participation in biosecurity.

2. Māori participation

- Develop two-way capability building – the capability of agencies and Māori to work together – through professional development and opportunities for on-the-job experience.
- Establish enduring, trusted relationships between tāngata whenua and other system participants to facilitate engagement and participation in biosecurity programmes.

3. Harnessing the power of collaboration

- Create partnerships between organisations that have a particular ability to reduce or manage biosecurity risk (e.g. mana whenua authorities, port and airport companies, shipping and airline companies, e-commerce businesses, importers, and marina operators).
- Work with the New Zealand Institute of Directors to build corporate awareness of biosecurity and the role that businesses can play.
- Develop best practice models for community partnership in pest management, in collaboration with the Department of Conservation and regional councils.

What do you think?

- How strongly do you agree or disagree that this is an appropriate Strategic Direction?
- How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 1?
- What additional first steps could you or others take to usefully advance Strategic Direction 1?

See Submission Form pages 46–47

STRATEGIC DIRECTION 2
A TOOLBOX FOR TOMORROW

OUR VISION 2025:

- The best science underpins biosecurity through effective coordination and processes that allow the full value of science to be realised.
- Continuous improvement ensures we get the very best value from biosecurity tools and technologies.
- We capitalise on innovation and technology by proactively seeking out and adopting new tools to transform the way we do things.

Sharpening our toolkit

Having access to the right tools for the job is crucial for effective biosecurity. Science and technology provide us with the tools we need to keep our biosecurity system adaptable, resilient and flexible, ready and able to take on whatever the future throws at us.

However, if we continue to work within the same research and innovation environment, we risk making only incremental improvements – and these are not enough to keep our system, and the livelihoods that depend on it, safe in a fast-changing world.

We cannot know in 2016 what future scientific and technological solutions will look like. But we can be prepared and alert, enquiring and proactive. We can ensure our science is well coordinated and prioritised and that research outputs are implemented quickly. We can ensure we are well positioned to see and grasp opportunities when they arise and poised to create new solutions whenever possible.

Front-footing science and technology

Better science prioritisation, delivery and uptake

High-quality science provides the foundation for New Zealand's evidence-based approach to biosecurity risk management. There are many entities and programmes that contribute to biosecurity science, notably the Biological Heritage National Science Challenge, Vision Mātauranga, and the Better Border Biosecurity (B3) collaboration. However, there is an opportunity to better align structures and processes for prioritisation, delivery and uptake of biosecurity science across the system.

Improving coordination and prioritisation across biosecurity science will reduce duplication and fragmentation of effort and provide a cohesive strategic direction for biosecurity science as a whole. Better alignment, and strong and early links between researchers and practitioners, will ensure that research is delivering to the needs of those on the ground and that outputs can be applied quickly to the biosecurity frontline.

There are also huge gains to be made from integrating a wider range of science and technology disciplines into biosecurity, beyond those traditionally involved. Social science research will enable understanding of attitudes, behaviour change and social licence, and better incorporating mātauranga Māori will allow Māori knowledge and values to inform biosecurity activities.

Capability in critical scientific areas underpins essential biosecurity system functions. For example, taxonomy (the science of classifying organisms) is crucial for identifying pests and pathogens and understanding their potential impacts. System-level planning and investment is needed to ensure this vital expertise can continue to support biosecurity into the future.

Transforming risk management through innovation

The biosecurity system can stay ahead of the game by capitalising on the benefits offered by emerging technologies and innovation wherever they occur. This will allow us to transform the way risks are managed and free up precious resources. We will invest in technology development, proactively seek out and adopt emerging technologies, and create new processes to enable better distribution of tools across all parts of the system.

The use of innovative technology will also enhance participation in biosecurity by providing the information and tools that individuals and businesses need to take action for biosecurity. When everyone working in and for biosecurity has smart biological and digital tools at their fingertips, they will be able to identify and manage risk quickly, efficiently and knowledgeably.

Working with what we've got

While we must harness the power of innovative new tools for biosecurity, we cannot forget about our current toolbox of detection and control methods. These include physical detection and control tools such as traps and poisons, mātauranga Māori tools, and skills such as diagnostics and licences for chemical application. There are opportunities to drive increased efficiency and effectiveness by augmenting existing tools with new technologies (e.g. retrofitting current pest traps with wireless technology), adopting approaches from wider science and engineering disciplines, and ensuring we maintain social licence for the tools we use.

What innovations might science and technology deliver?

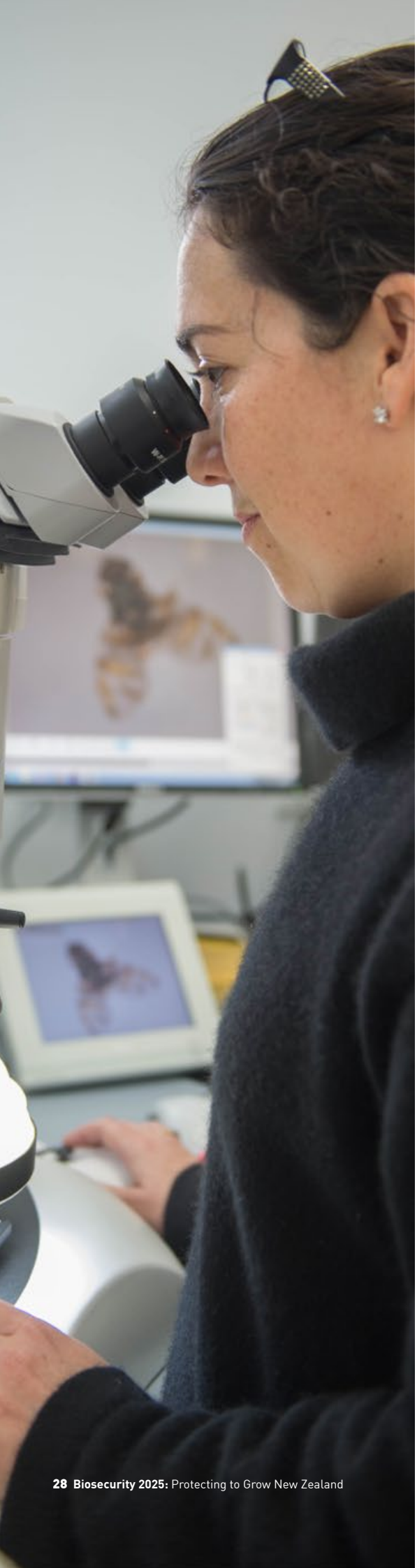
Airport luggage and passenger areas are patrolled by electronic "noses" as well as sniffer dogs.

Cost-effective drones hover over rural areas in a biosecurity surveillance capacity, detecting and monitoring plant pests, instantly transmitting data to risk managers and applying targeted herbicide where needed.

The network of pest traps covering the country is connected wirelessly, instantly notifying a biosecurity manager when a pest is caught, and enabling automatic modification of control techniques (e.g. lure type) depending on needs.

Long-life lures based on pheromones and other biological compounds are used in traps, effectively attracting pests even when they are at very low densities.

Real-time high-throughput gene sequencing allows rapid, sensitive, simultaneous detection of an array of harmful species in a sample and can be undertaken in the field using handheld devices.



Getting things started: some first steps

These first steps are actions MPI can do, alone or in collaboration with others, to get things started. It is important that you and other system participants identify additional steps so the Direction Statement can set out actions to be undertaken by all of us across the system.

1. Science

- Develop a whole-of-system approach to setting biosecurity science priorities, in collaboration with the Ministry of Business, Innovation and Employment (MBIE) and research providers. Early focus areas will be:
  - Develop a science and evidence plan for biosecurity as set out in the MPI Science Strategy.
  - Leverage MBIE's science programmes (e.g. The Biological Heritage National Science Challenge) to identify high-value research opportunities that can be readily applied and bring benefits for the biosecurity system.
  - Review the balance between land, freshwater and marine-focused biosecurity research, and between discovery science and applied research.
  - Better integrate social science and mātauranga Māori into biosecurity science.

2. New tools

- Establish a research, technology and innovation cell to rapidly assess and operationalise new technologies with application for biosecurity. An early focus will be on technologies to support border processes.
- Work collectively to trial and implement new tools throughout the biosecurity system.
- Develop tools that enhance and enable public participation in biosecurity. This will include exploring a new mobile application for the public to report suspected biosecurity incursions that incorporates electronic identification technology.

3. Current tools

- Quicken the pace of improving the Pest Management Toolbox which provides a one-stop-shop for access to information about tools and best practice.
- Explore how emerging technologies can be applied to current pest management tools.

What do you think?

- How strongly do you agree or disagree that this is an appropriate Strategic Direction?
- How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 2?
- What additional first steps could you or others take to usefully advance Strategic Direction 2?

See Submission Form pages 48–49

STRATEGIC DIRECTION 3

FREE-FLOWING INFORMATION HIGHWAYS

OUR VISION 2025:

- Information is shared and open wherever possible.
- We unlock the full value of information through the best data use and analysis.

Information is fundamental

Information is the life-blood of the biosecurity system. A flow of quality information is essential for evidence-based risk assessment, for anticipating and responding to risk, and for ensuring everyone across the system is on the same page. For the system to be forearmed, it must be forewarned in a swift, coordinated manner.

We need to learn how to make effective use of the massive amounts of data distributed across the system. Already huge amounts of data are collected – from overseas (e.g. information from overseas exporters to allow goods to be risk assessed before reaching New Zealand), at the border (e.g. through the Joint Border Management System used by MPI and the New Zealand Customs Service), in the field (e.g. by community groups and biosecurity field staff) and on-farm (e.g. the National Animal Identification and Tracing (NAIT) system that allows animal movements to be tracked in the event of a biosecurity incursion). The volume of this data and its potential value for biosecurity is expected to grow exponentially over the next ten years. We must tap into its potential to gain powerful insights of value for biosecurity.

Speed, access and smarter use

Data that's open, accessible and shared

There are huge amounts of data being generated across the biosecurity system, much of it is captured and stored by organisations for a sole purpose, but the potential use is far greater. The key to unlocking the full value of this data is to make it shared and open. Data must become a system-wide asset rather than something collected and used by one organisation for one purpose. This will support situational awareness, reduce duplication, enable coordinated effort and decision-making, and streamline processes.

Greater access to information through open data will encourage participation and provide the opportunity for creative and innovative data use. Increased transparency of information will also enable system participants to better understand and manage their own biosecurity risk, and will enhance the confidence of all New Zealanders in the biosecurity system.

Having timely access to trusted international data – for example, about changing pest distribution or about goods being exported to New Zealand – will enhance our ability to manage risks offshore and reduce the likelihood of pests and diseases reaching New Zealand.

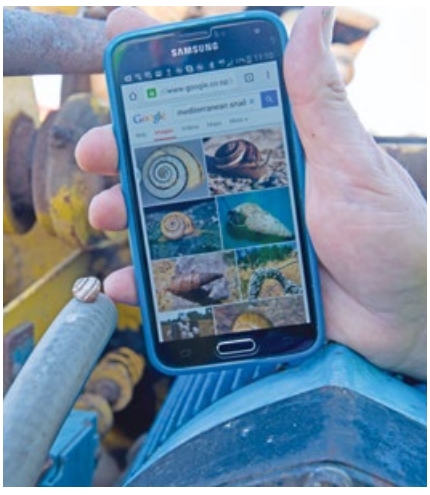
The future of information: remote, instantaneous and automatic

Robotic floats deployed in the oceans around New Zealand continuously undertake surveillance for invasive marine species, rapidly detecting harmful species using high-throughput DNA sequencing and transmitting data to risk managers via satellite.

Every pest trap across the country is wirelessly connected, with data stored and analysed centrally and available to all. Biosecurity managers know what pests are caught at neighbouring sites and spatial modelling takes place at a national level.

Livestock throughout the country are embedded with sensors that provide farmers with real-time data on production (e.g. weight, milk output) and animal health. Livestock movement data from sensors is automatically uploaded to a central system that allows animals to be tracked in the event of a biosecurity incursion.

Every consignment of goods coming into New Zealand is automatically risk assessed before it arrives using trusted information provided by overseas exporters. Shipping containers flagged as potentially containing biosecurity risk items are scanned using x-ray and ultrasound technology to pinpoint the exact location of goods for inspection.



Information technology creates efficiencies

Technology obviously has a key role to play in this transformation. Technology presents opportunities for better use of information – faster and more accurate risk management, reducing manual processes, and distributing information quickly to support all system participants in their role. Eliminating manual tasks will free up resources to explore other areas, realising the full value of information by transforming data into strategic and tactical intelligence products.

In addition to capitalising on new technologies, we must invest in our current key systems to ensure they are well maintained and deliver value for the system.

Unlocking the full value of data

Employing the very best analytics to turn data into information and intelligence will drive evidence-based risk assessment, ensure resources are allocated to the areas of highest need and allow proactive identification and management of risk.

Getting things started: some first steps

These first steps are actions MPI can do, alone or in collaboration with others, to get things started. It is important that you and other system participants identify additional steps so the Direction Statement can set out actions to be undertaken by all of us across the system.

1. Identify barriers, opportunities and potential mechanisms for enabling biosecurity data sharing. This includes investigating how data collected for one purpose by one agency or organisation can be opened up for use for other purposes by other organisations or the public.
2. Invest in improving current key systems, including:
   - automating MPI's Emerging Risks System;
   - investing in an authoritative and open source of organism information;
   - developing systems that gather and deliver intelligence information.
3. Support a mobile workforce by providing tools to capture and access information remotely.

What do you think?

- How strongly do you agree or disagree that this is an appropriate Strategic Direction?
- How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 3?
- What additional first steps could you or others take to usefully advance Strategic Direction 3?

See Submission Form pages 50–51

STRATEGIC DIRECTION 4

EFFECTIVE LEADERSHIP AND GOVERNANCE

OUR VISION 2025:

- System leadership supports everyone to contribute through an effective distributed leadership model.
- Everyone has confidence in the system and its continual improvement.
- Transparent, inclusive and accountable system governance delivers clear purpose, confidence in system performance and assurance to all system participants that their interests are reflected in decision-making.

The challenges ahead

With its multiple participants, diverse interests and varied activities, the biosecurity system is large and complex. This means that developing effective leadership and governance arrangements for the system is challenging, but it also makes it even more important that we get things right in these areas.

Leadership that guides and supports all participants across the system is crucial to enable a coordinated and effective system. There is an opportunity for MPI to clarify and strengthen its whole-of-system leadership role and to build and support a cohesive community of leaders distributed across the system.

As New Zealand's biosecurity system becomes more collaborative, the importance of inclusive and transparent governance becomes paramount. Accountable governance arrangements that provide Māori, stakeholders, and all participants with confidence, clarity of purpose and assurance about how their interests are being reflected in decision-making are crucial.

Building a confident community of participants

Leading from all sides

The performance of the system depends not only on the capability of each of its individual parts, but also on the strength of their interconnectedness. Distributed leadership builds a cohesive community with a common sense of purpose and requires each participant to take the lead in their sphere of influence.

As leader of the biosecurity system, MPI's role is to provide national direction to system participants and to support all participants to contribute effectively towards a common vision. MPI has a significant operational role in some areas of the biosecurity system, such as at the border, but in other areas, MPI's main role is to lead, coordinate and support others. To achieve effective, distributed leadership across the biosecurity system, MPI will need to facilitate communication, coordination and constructive engagement amongst system participants, and provide direction and support to ensure each system participant is able to provide leadership in their area.

National direction and leadership

MPI's leadership role involves coordinating, supporting and facilitating communication and alignment of all system participants. In practice, this role includes developing policy direction, best practice guidance, and tools and frameworks to support regional alignment and consistency.

A recent example is the development of the National Policy Direction for Pest Management. The National Policy Direction was prepared for regional councils and pest management agencies, and aims to improve the alignment and consistency of pest management plans and programmes across New Zealand.

A key aspect of MPI's leadership role is to monitor system performance and to communicate this to system participants. Monitoring and reporting on performance of the system will nurture a culture of continuous improvement and will help to better target investment across the system.

Inclusive and accountable governance

Visible, transparent and accountable system governance is essential to guide the efforts of all participants and ensure everyone has confidence in the system. It is timely to assess the current governance arrangements for the biosecurity system and consider options that can increase inclusiveness, collaboration and transparency.

Getting things started: some first steps

These first steps are actions MPI can do, alone or in collaboration with others, to get things started. It is important that you and other system participants identify additional steps so the Direction Statement can set out actions to be undertaken by all of us across the system.

1. Initiate a programme to develop best practice arrangements for distributed leadership. An early area of focus for this will be providing national leadership for the development of Pathway Management Plans, which allow for the management of pathways through which pests may spread.
2. Identify areas of the system where issues of roles and responsibilities have arisen and work with relevant system participants to ensure clarity and resolve issues in these areas.
3. Consider ways of increasing the transparency of biosecurity system performance.
4. Undertake a review of biosecurity system governance to ensure that governance arrangements provide effective system oversight and support all participants in the system.

What do you think?

- How strongly do you agree or disagree that this is an appropriate Strategic Direction?
- How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 4?
- What additional first steps could you or others take to usefully advance Strategic Direction 4?

See Submission Form pages 52–53

STRATEGIC DIRECTION 5
TOMORROW'S SKILLS AND ASSETS

OUR VISION 2025:

- The biosecurity workforce is made up of enough people, with the right knowledge and skills, to meet our current and future biosecurity challenges.
- World-class, sustainable infrastructure supports biosecurity system functions.

Great people, strong infrastructure

The smooth running of an operation as complex and specialised as New Zealand's biosecurity system is dependent on two things: skilled people and high-quality infrastructure.

People provide the driving force, and how successfully New Zealand manages biosecurity risk pivots to a large extent on their capabilities. Strong, high-quality infrastructure provides the platform to facilitate and support their efforts.

Maintaining these vital resources requires long-term planning and investment. This is particularly challenging for the biosecurity system due to the difficulty of predicting the skills and infrastructure needed in the future and the potential for sudden, large fluctuations in system requirements, such as during a response to a major biosecurity incursion. The need to plan for fluctuations in resource requirements is essential, so that urgent incursion response work does not come at the expense of less-urgent, though still important, work.

Asset development

Skilled people underpin the biosecurity system

By 2025 the biosecurity system will be supported by enough people with the right knowledge, experience and skills at every level and across every activity in the system. To ensure this, we will invest in the development of the current workforce and plan for future needs and sustainability. We also need to ensure that the capability is in the right place, for example within industry organisations (e.g. the biosecurity manager role established by some current GIA partners).

Increasing the profile and attractiveness of biosecurity as a career by incorporating biosecurity into primary, secondary and tertiary education will also build general biosecurity awareness. There is an opportunity to develop a strong culture of interconnectedness between biosecurity organisations to facilitate the sharing of people, expertise and knowledge to enable people to develop system-wide biosecurity careers for the collective benefit of the biosecurity system.

Investing in core infrastructure

High-quality infrastructure – including laboratories, IT systems, and taxonomic collections – is crucial to effective biosecurity risk management. Investing in the development and maintenance of

Examples of biosecurity system assets

- Laboratories

The National Biocontainment Laboratory is an $87 million facility for containing and diagnosing serious veterinary diseases.

The Biotron is a purpose-built containment facility for plant, soil and microbe research based at the Bio-Protection Centre at Lincoln University.

- Collections

The Allan Herbarium is New Zealand's largest collection of plant specimens, providing identification services for plants seized at the border.

The Lincoln University Entomology Research Collection is a taxonomic collection of insect specimens, including New Zealand natives and pest species.

- IT and online infrastructure

The New Zealand Organism Register is a freely available online catalogue of all organisms relevant to New Zealand.

The Joint Border Management System provides a combined system for MPI and the New Zealand Customs Service to process information related to the movement of goods across the border.

NatureWatch is an online portal where citizen scientists can record observations and experts can assist with identifying the species observed.

- Policy Infrastructure

Legislation and other policy instruments are key assets for the biosecurity system and must be maintained through effective regulatory stewardship.

biosecurity infrastructure will ensure that it is fit for purpose, modern and available to everyone within the system that requires it.

Getting things started: some first steps

These first steps are actions MPI can do, alone or in collaboration with others, to get things started. It is important that you and other system participants identify additional steps so the Direction Statement can set out actions to be undertaken by all of us across the system.

1. Undertake a biosecurity system-wide capability assessment to understand the capabilities, skills and capacity required across the system, with a particular focus on critical areas. Develop a plan for addressing the capability challenges identified in this assessment.
2. Work with biosecurity system participants to promote biosecurity as a career option by:
   - promoting biosecurity as a career choice in schools through the Enterprising Primary Industries Careers (EPIC) challenge and the Ambassadors programme;
   - working with the schooling sector of the Ministry of Education to develop resources for teachers and learners to support understanding of biosecurity principles and concepts for learning contexts, as part of schools' implementation of the national curriculum at primary and/or secondary levels;
   - working with the secondary-tertiary sector of the Ministry of Education to connect with secondary-tertiary leads and the Primary Industry Training Organisations, who actively promote Vocational Pathways for all learners from school to further study, training or employment across primary industries, and to other economic sectors;
   - working with Careers NZ to develop career pathways for roles across the biosecurity system, and to promote these through careers education and advice at secondary schools and tertiary institutes;
   - working with tertiary institutes to improve formal training options to enable students to specialise in a range of biosecurity disciplines and to gain critical transferable and technical skills.
3. Work to implement initiatives that address the recommendations set out in the Royal Society of New Zealand's 2015 report on National Taxonomic Collections in New Zealand, in relation to taxonomic collections of relevance to biosecurity.

What do you think?

- How strongly do you agree or disagree that this is an appropriate Strategic Direction?
- How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 5?
- What additional first steps could you or others take to usefully advance Strategic Direction 5?

See Submission Form pages 54–55

Part 3: What happens next?

Having your say

Consultation meetings

Public consultation meetings, hui and workshops on proposals for the Biosecurity 2025 Direction Statement will take place in August 2016.

The meetings and hui are an opportunity to hear more about the proposals in this discussion document, and to put forward your views. Feedback from meetings and hui will be captured and analysed along with formal submissions.

Details for each meeting/hui can be found online at **www.mpi.govt.nz/biosecurity2025**. This discussion document, along with further supporting information, is available on this webpage.

Your feedback

Anyone who wishes to make a written submission on the Biosecurity 2025 proposals can.

Submissions must be lodged by 5pm on Friday 9 September 2016.

Questions are found in blue boxes throughout the document and are repeated in the submission form at the back of this document. The questions are intended to stimulate discussion and to prompt written submissions.

We encourage you to complete your submission online at **www.mpi.govt.nz/biosecurity2025**

Submissions can be:

- completed online at **www.mpi.govt.nz/biosecurity2025**
- emailed to **biosecurity2025@mpi.govt.nz**
- posted to
  Biosecurity 2025 Consultation
  Ministry for Primary Industries
  PO Box 2526
  Wellington 6140

Workshops

We will also be running workshops where stakeholders and subject-matter experts will be invited to delve into particular areas of the document in more depth. If you would like to hear more about what workshops are planned or register your interest in attending please email the project team at **biosecurity2025@mpi.govt.nz**

Next steps

Setting a course for 2025

MPI will consider all the feedback received via the consultation and submission process. This will then inform the development of a Direction Statement for the biosecurity system.

After Cabinet approval, the Direction Statement will be publicly released by the Minister for Primary Industries.

Making it happen

A large cast will be involved in implementing Biosecurity 2025. It will be made up of every entity that works in or interacts with the biosecurity system.

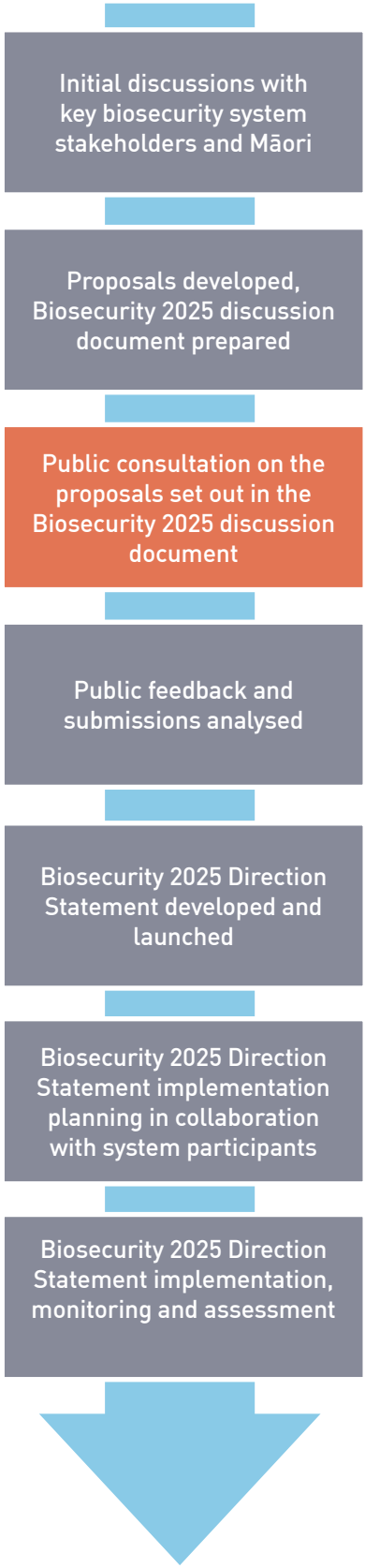
Following confirmation of the Biosecurity 2025 Direction Statement, MPI will work closely with participants across the biosecurity system to create a comprehensive implementation plan. This will build on the first steps and will establish a framework for action that will have the buy-in of all.

Exactly how implementation planning will take place is still to be determined, but it will be a collaborative process with wide involvement from central and regional government, Māori, industry and other biosecurity system participants.

Tracking progress

As part of implementation planning, a set of outcomes, milestones and deliverables will be developed. These will be regularly reported on, allowing all biosecurity system participants to track, monitor and be responsible for progress towards the Biosecurity 2025 Direction Statement.

Biosecurity 2025 process at a glance

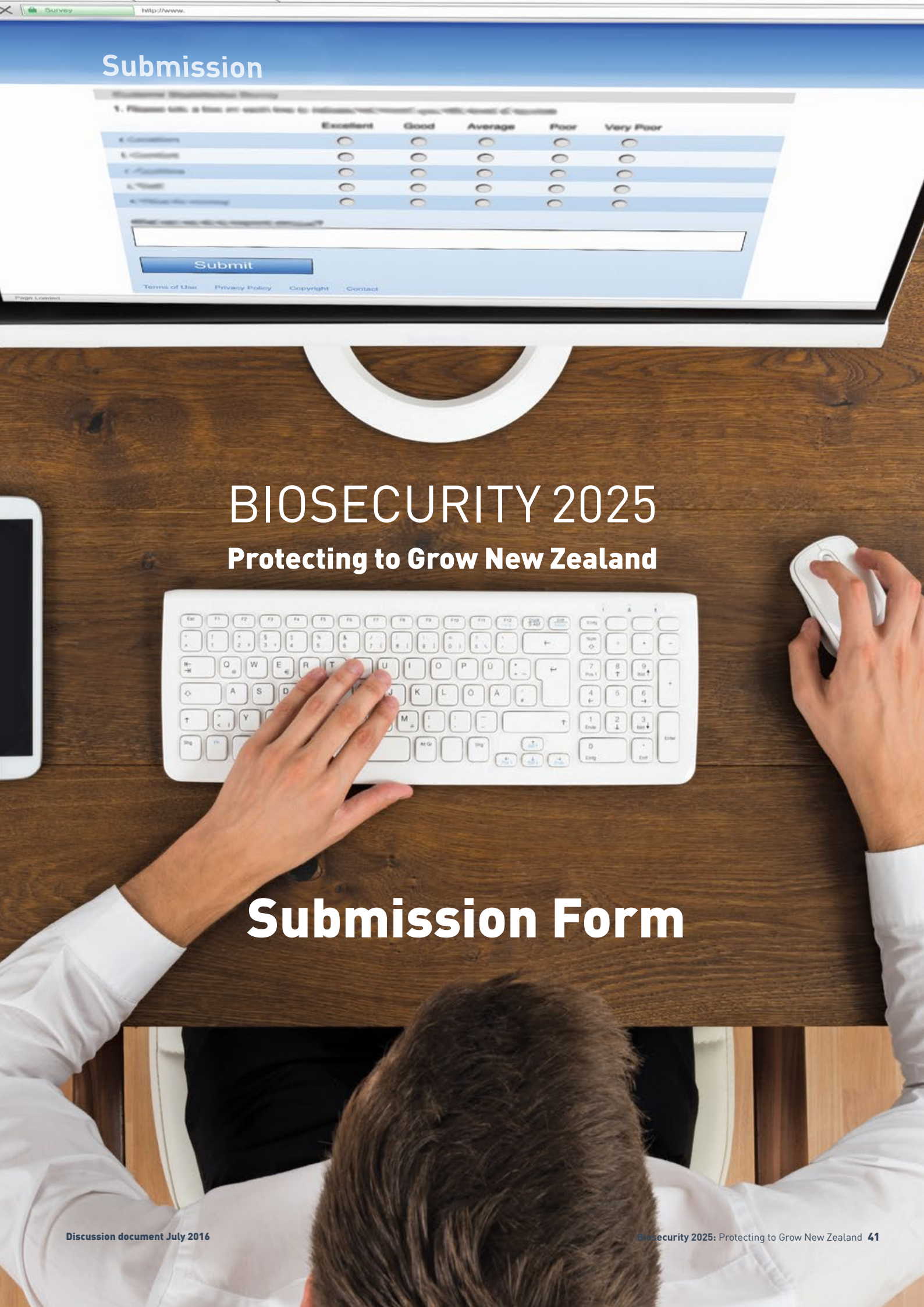


Appendix 1: New Zealand's biosecurity system

The biosecurity system involves government, industry, Māori and all New Zealanders working together to manage risks posed by pests and diseases to the economy, environment and human health.

The biosecurity system is based on risk management activities undertaken across a range of inter-related areas – pre-border, at the border and post-border. Some of the activities and outcomes in each layer are described below.

	Layer of the system	Outcomes
Pre-border	**International Plant and Animal Health Standards** Developing international standards and rules under the World Trade Organization Sanitary and Phytosanitary Agreements.	Science and risk-based standards lead to an easier environment to trade in while protecting our biosecurity.
	Trade Agreements and Bilateral Arrangements Negotiation, agreements and processes for future biosecurity cooperation and trade.	Biosecurity requirements for New Zealand businesses are reasonable and create commercial certainty when trading overseas.
	Risk Assessment and Import Health Standards Identification of risk and specification of requirements for people and goods coming into the country, including assessment of applications to import organisms new to New Zealand.	The majority of biosecurity risks are managed offshore so that compliant passengers and cargo arrive at our border. Biosecurity risks which arrive onshore are managed effectively.
Border	**Border Intervention** Educating and auditing to encourage compliance. Inspecting to verify compliance and taking action to manage non-compliance.	Trade and travel are facilitated for people and goods complying with New Zealand regulation. The accidental or illegal import of pests is prevented from creating biosecurity risk.
Post-border	**Surveillance** General and targeted programmes to detect harmful pests and diseases.	Harmful pests and diseases are detected promptly. New Zealand's pest freedom status is known. The spread of established pests into new areas, or changes in a pest's risk profile, are detected promptly.
	Readiness and Response Regular testing of the biosecurity system's capability to respond. Responding to detected harmful pests and diseases.	The biosecurity system is ready to respond to new organism incursions. Harm from detected new pests and diseases is minimised.
	Long-term Pest and Disease Management **National scale management** – eradication, containment or management of a pest across New Zealand. **Regional management** – primarily led by regional councils through regional pest management plans and pathway plans. **Local scale management** – to protect values in places. Pests within a site are managed to the extent necessary to protect the place's values.	Harm caused by established pests and diseases is reduced or contained, through exclusion, eradication, progressive containment, or sustained control at the most appropriate scale (national, regional or local).



BIOSECURITY 2025

Protecting to Grow New Zealand

Submission Form

Submission Form: Biosecurity 2025 Direction Statement

Submissions must be lodged by 5pm on Friday 9 September 2016.

Submissions can be:

- completed online at **www.mpi.govt.nz/biosecurity2025**
- emailed to **biosecurity2025@mpi.govt.nz**
- posted to **Biosecurity 2025 Consultation**
  Ministry for Primary Industries
  PO Box 2526
  Wellington 6140

Consultation Questions

The questions are designed to stimulate your thinking and help us report back clearly on people's feedback. There are also spaces after each question on the submission form for your additional comments.

The first page, "General Questions", asks you to comment overall on the proposals in the discussion document. The following pages of the submission form seek your comments on each of the proposals – the mission, principles and the five Strategic Directions.

This survey should take no longer than 45 minutes to complete and you're welcome to answer as little or as much of the form as you like.

If you would like further information regarding the submission process:

- View the Biosecurity 2025 webpages at **www.mpi.govt.nz/biosecurity2025**
- Ask the Biosecurity 2025 team at **biosecurity2025@mpi.govt.nz**
- Attend one of the public meetings/hui being held around the country.

Disclaimer

Any submission you make becomes public information. Anyone can ask for copies of all submissions under the Official Information Act 1982 (OIA). The OIA says we must make the information available unless we have a good reason for withholding it. You can find those grounds in sections 6 and 9 of the OIA.

Tell us if you think there are grounds to withhold specific information in your submission. Reasons might include it being commercially sensitive or personal information. However, any decision MPI makes to withhold information can be reviewed by the Ombudsman, who may require the information be released.

Please note that late submissions will not be considered but may be released publicly.

Contact Information

Q1. Please enter your contact information.

Name	
Organisation	
Address	
City/Town	
Email	
Phone	

General Questions

The three questions below relate to the overall proposals in the discussion document set out on pages 19–22.

For each question, please select the option that most closely reflects your opinion. You are welcome to explain your answer or provide additional information in the space provided.

Q2. How strongly do you agree or disagree that the discussion document addresses the challenges, risk and opportunities facing the biosecurity system?

○ Strongly disagree ○ Disagree ○ Neither ○ Agree ○ Strongly agree

Q3. What's good about what is being proposed?

Q4. What's missing from what is being proposed?

Questions from Part 2: Proposals for a Direction Statement for New Zealand

The mission and guiding principles below are described on pages 20–21 of the discussion document – please refer for full detail.

Proposed mission for biosecurity

- New Zealanders, our plants and animals, and our unique natural resources, are kept safe and secure from harmful pests and diseases.

Q5. How strongly do you agree or disagree that this should be the mission for all participants in the biosecurity system to work towards?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
◯	◯	◯	◯	◯

Q6. Would you like to comment?

Principles - please refer to pages 20–21 for full detail.

Proposed guiding principles for the system

- These principles are intended to guide all system participants and underpin implementation of the Biosecurity 2025 Direction Statement and any subsequent strategies and plans.

Q7. How strongly do you agree or disagree that these are the right principles?

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
Biosecurity is everyone's responsibility	○	○	○	○	○
Decisions take into consideration economic, environmental, cultural and social values	○	○	○	○	○
Risk-based decision-making is informed by the best available science and information	○	○	○	○	○
Decisions are transparent, taking into account the integrated nature of the system, and ensure resources are prioritised to achieve greatest benefit for biosecurity outcomes	○	○	○	○	○
Biosecurity operates in an environment of continuous learning and system improvement	○	○	○	○	○
Collaborative approaches and wide participation are enabled and encouraged	○	○	○	○	○
The role of tāngata whenua as kaitiaki, and mātauranga Māori are recognised and provided for	○	○	○	○	○
Biosecurity takes account of our trading context; including the need to facilitate safe imports, support assured exports and meet international obligations.	○	○	○	○	○

Q8. Would you like to comment?

Strategic Direction 1 – A biosecurity team of 4.7 million

Strategic Direction 1 is described on pages 23–24 of the discussion document. Reproduced below is a high level vision for 2025 for this Strategic Direction.

Strategic Direction 1 – Vision for 2025

- New Zealanders and visitors are aware and knowledgeable about biosecurity.
- Biosecurity is a reflex action – thinking about and participating in biosecurity has become fundamental to what we do as New Zealanders.
- The unique knowledge and perspective of Māori is recognised and Māori actively participate as kaitiaki at all levels of the system.
- Partnerships and other collaborations enable us to work more effectively towards a collective vision for biosecurity.
- Tools, rules and processes make it easy to do the right thing.

Q9. How strongly do you agree or disagree that this is an appropriate Strategic Direction?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
◯	◯	◯	◯	◯

Q10. Would you like to comment?

These first steps have been identified by MPI as actions it can do, alone or in collaboration with others, to get things started. See page 25 of the discussion document for more information.

Strategic Direction 1 – First steps [high level summary]

Communications

- Undertake surveys to understand public attitudes and understanding.
- Set up a biosecurity communications community of practice.
- Prepare a communications strategy for biosecurity.

Māori participation

- Develop agencies' and Māori capability to work together.
- Establish enduring trusted relationships.

Harnessing the power of collaboration

- Create partnerships between organisations to manage risk.
- Work with the New Zealand Institute of Directors to build corporate awareness.
- Develop models for community partnership in pest management.

Q11. How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 1?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
◯	◯	◯	◯	◯

Q12. Would you like to comment?

Q13. What additional first steps could you or others take to usefully advance Strategic Direction 1?

Strategic Direction 2 – A toolbox for tomorrow

Strategic Direction 2 is described on pages 26–27 of the discussion document. Reproduced below is a high level vision for 2025 for this Strategic Direction.

Strategic Direction 2 – Vision for 2025

- The best science underpins biosecurity risk management through effective coordination and processes that allow the full value of science to be realised.
- Continuous improvement ensures we get the very best value from biosecurity tools and technologies.
- Capitalising on innovation and technology, by proactively seeking out and adopting new tools, transforms the way we do things.

Q14. How strongly do you agree or disagree that this is an appropriate Strategic Direction?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
○	○	○	○	○

Q15. Would you like to comment?

These first steps have been identified by MPI as actions it can do, alone or in collaboration with others, to get things started. See page 28 of the discussion document for more information.

Strategic Direction 2 – First steps [high level summary]

Science

- Develop a whole of system approach to biosecurity science priorities. Early focus areas:
  - Develop a science and evidence plan for biosecurity.
  - Identify high-value research opportunities.
  - Review balances between land and freshwater/marine-focused research, and between discovery science and applied research.
  - Integrate social science and mātauranga Māori into biosecurity science.

New tools

- Establish a research, technology and innovation cell to operationalise new technologies. Early focus area: border processes.
- Trial and implement new tools.
- Develop tools that enhance and enable public participation in biosecurity.

Current tools

- Quicken the pace of improving the Pest Management Toolbox.
- Explore how emerging technologies can be applied to current pest management tools.

Q16. How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 2?

○ Strongly disagree ○ Disagree ○ Neither ○ Agree ○ Strongly agree

Q17. Would you like to comment?

Q18. What additional first steps could you or others take to usefully advance Strategic Direction 2?

Strategic Direction 3 – Free-flowing information highways

Strategic Direction 3 is described on pages 29–30 of the discussion document. Reproduced below is a high level vision for 2025 for this Strategic Direction.

Strategic Direction 3 – Vision for 2025

- Information is shared and open wherever possible.
- We unlock the full value of information through the best data use and analysis.

Q19. How strongly do you agree or disagree that this is an appropriate Strategic Direction?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
◯	◯	◯	◯	◯

Q20. Would you like to comment?

These first steps have been identified by MPI as actions it can do, alone or in collaboration with others, to get things started. See page 30 of the discussion document for more information.

Strategic Direction 3 – First steps [high level summary]

- Identify barriers, opportunities and potential mechanisms for enabling biosecurity data sharing.
- Invest in improving current key systems including for emerging risks, organism information, and intelligence.
- Provide tools to capture and access information remotely.

Q21. How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 3?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
○	○	○	○	○

Q22. Would you like to comment?

Q23. What additional first steps could you or others take to usefully advance Strategic Direction 3?

Strategic Direction 4 – Effective leadership and governance

Strategic Direction 4 is described on pages 31–32 of the discussion document. Reproduced below is a high level vision for 2025 for this Strategic Direction.

Strategic Direction 4 – Vision for 2025

- System leadership supports everyone to contribute through an effective distributed leadership model.
- Everyone has confidence in the system and its continual improvement.
- Transparent, inclusive and accountable system governance delivers clear purpose, confidence in system performance and assurance to all system participants that their interests are reflected in decision-making.

Q24. How strongly do you agree or disagree that this is an appropriate Strategic Direction?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
◯	◯	◯	◯	◯

Q25. Would you like to comment?

These first steps have been identified by MPI as actions it can do, alone or in collaboration with others, to get things started. See page 32 of the discussion document for more information.

Strategic Direction 4 – First steps [high level summary]

- Develop best practice arrangements for distributed leadership. Early focus area: Pathway Management Plans.
- Identify, clarify and resolve issues regarding system roles and responsibilities.
- Consider ways to increase transparency of biosecurity system performance reporting
- Review biosecurity system governance.

Q26. How strongly do you agree or disagree that these first steps are the right ones to advance Strategic Direction 4?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
○	○	○	○	○

Q27. Would you like to comment?

Q28. What additional first steps could you or others take to usefully advance Strategic Direction 4?

Strategic Direction 5 – Tomorrow's Skills and Assets

Strategic Direction 5 is described on pages 33–34 of the discussion document. Reproduced below is a high level vision for 2025 for this Strategic Direction.

Strategic Direction 5 – Vision for 2025

- The biosecurity workforce is made up of enough people, with the right knowledge and skills, to meet our current and future biosecurity challenges.
- World-class, sustainable infrastructure supports biosecurity system functions.

Q29. How strongly do you agree or disagree that this is an appropriate Strategic Direction?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
○	○	○	○	○

Q30. Would you like to comment?

These first steps have been identified by MPI as actions it can do, alone or in collaboration with others, to get things started. See page 34 of the discussion document for more information.

Strategic Direction 5 – First steps [high level summary]

- Undertake a system-wide capability assessment and develop a plan to address capability challenges.
- Promote biosecurity as a career option through:
  - the Enterprising Primary Industries Careers (EPIC) challenge and the Ambassadors programme.
  - incorporating biosecurity principles and concepts into the national curriculum at primary and/or secondary levels.
  - Careers NZ and careers education and advice at secondary schools and tertiary institutes.
  - tertiary institutes improving formal training options to enable students to specialise in biosecurity disciplines.
- Implement Royal Society of New Zealand's recommendations related to taxonomic collections of relevance to biosecurity.

Q31. How strongly do you agree or diagree that these first steps are the right ones to advance Strategic Direction 5?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
◯	◯	◯	◯	◯

Q32. Would you like to comment?

Q33. What additional first steps could you or others take to usefully advance Strategic Direction 5?

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