



Manaaki Whenua  
Landcare Research

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# Statement of Corporate Intent 2020–2025



## He Kupu Whakamihi

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**Ki o tātou tini mate kua wheturangitia ki te pō, moe mai rā i te okiokinga roa. Ki a tātou e mahue mai nei ki te ao tūroa hei manaaki tonu, hei tiaki tonu i te whenua me ngā momo koiora kanorau katoa o runga, tēnā tātou katoa. Anei e whai ake nei te Tauākī Whakamaunga Atu a Manaaki Whenua mo ngā tau e haere ake nei (2020–2025).**

*To those who have gone before us and who now adorn the night sky as stars, we acknowledge you and trust you rest easily in the long sleep. To those of us who still reside here in the world of the living and who continue to nurture and care for the whenua and the many and varied life forms upon it, we acknowledge and greet you also. We present here the Statement of Corporate Intent for Manaaki Whenua for the years 2020–2025.*

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Cover: Dr Jessica Rivera-Perez (sitting) and Dr Janet Wilmshurst, from Manaaki Whenua's Ecosystems & Conservation research team, at Walter Peak Station, near Lake Wakatipu.

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Statement of Corporate Intent 2020–2025

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# Chair and CEO overview

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We are pleased to present the 2020 Statement of Corporate Intent (SCI) for Manaaki Whenua – Landcare Research, which sets out our priorities for the coming 1 to 5 years. We will continue to execute our 5-year Strategy-22, now in its third year, while refreshing it during 2020. We will implement the expectations set out by our shareholder, the Minister of Research, Science and Innovation, and we will seek to play a leadership role in our sector to deliver our vision and four ambitions for Aotearoa New Zealand.

This SCI is written at a time of ongoing vigilance and economic recovery in New Zealand from the effects of the global COVID-19 pandemic. This coincides with several climate extremes being experienced around the world, with record floods, droughts, and forest fires. Worldwide, society is asking with increased urgency how to be resilient, manage risk and adapt to these changes. Aotearoa New Zealand is not exempt from such chronic risk. The need for the understanding and guidance provided by Manaaki Whenua’s work has never been greater. The value of our approach to strategic goals, integration and collaboration has never been more timely.

We see acute need to manage biological security risk and risk to our soils, land and communities from climate change. Manaaki Whenua will be proactive in working with the CRIs and key stakeholders to develop national strategy and clarify roles in these areas. With those partners we will mobilise resources and where there are gaps in capability and infrastructure, we will seek to fill those gaps with urgency. We will promote research thinking and outcomes that enable society to “build back better” in response to the shock of the pandemic. This has implications for our management of natural capital, ecosystem services and risk.

Like most organisations, we have been adversely affected by the pandemic. We appreciate the financial support given by Government to mitigate those impacts and we thank the people of Manaaki Whenua for their dedication and adaptability during the national lockdown.

Manaaki Whenua has benefited from 3 years of growing research revenue, enabling us to invest in additional talent, relationships, innovation, and infrastructure. In 2019 our staff engagement score was the highest recorded (88%), which reflects our commitment to our people and to the direction and culture of the organisation. Our sustained financial performance has enabled us to finance our own capital programme, which includes a new \$15M-building at our Lincoln site, due for completion in January 2021.

Strategy-22, our 5-year strategy to 2022, focuses on three pillars: our culture, ways of working, and science for impact. We have made good progress. In 2020 we will refresh our strategy, looking to 2025 and beyond. We will strengthen innovation and integration, setting challenging goals for our impacts. We will grow partnerships in New Zealand and overseas as we seek enduring impacts and increased well-being in society.

We will enhance our efforts in partnering with Māori entities, supporting Māori innovation and bringing more Māori and Pasifika scientists into Manaaki Whenua. We are stepping up our efforts on diversity, equity and inclusion. These priorities are in line with the actions indicated in the CRI Joint Reports to the Minister in December 2018.

With the CRIs and wider science sector we will drive down our carbon footprint as we shift to online meetings rather than people travelling by air. This initiative will be designed to have co-benefits in personal well-being and cost savings. We will bring forward our focus on the Future of Work, given that the pandemic response has enabled us to successfully trial new working styles – remote working, greater use of online staff and stakeholder engagement.

Anticipating the outcomes of the current CRI Review, the final Research Science and Innovation Strategy from Government, and MBIE’s review of collections and databases, we expect to see sustained



and coordinated investment across government, science, private sector, and Māori to meet the country's strategic needs. Our research is conducted across the spectrum from frontier innovation to the uptake of research for impact at scale. We develop partnerships across that spectrum but need to be able to play our own role consistently and efficiently through sustained investment. Piecemeal and uncertain investment is a barrier to impact.

Our strategic science investment will grow in the areas of climate change mitigation and adaptation; in the dynamics of societal change (for example, towards a zero carbon economy); in the accessibility and added value of national collections and databases (including the online soils map, S-Map); in Māori-led research (for example, options for Māori-owned land use); in novel approaches to predator control; and in ensuring New Zealand has the necessary biological security research capabilities (in particular our concept of a national biosecurity facility in Auckland). With MFAT and international partners, we are also increasing our work to support Pacific Island countries as they develop sustainable land-based activities while facing the impact of climate change.

As host of the New Zealand Biological Heritage National Science Challenge we strongly support its drive to align and increase scientific investments in strategic and tactical goals with the Treaty Partner. The Challenge is in the second 5-year tranche of investment and expects to achieve a set of 2024 goals that will create significant impact and benefit for Aotearoa. We are also pleased to partner with Predator-Free 2050 Limited, the NEXT Foundation, the Department of Conservation, and many community-based predator-free, sanctuary and wetland restoration initiatives to protect and restore our native biota and treasured habitats. We will engage with the Department of Conservation and Ministry for the Environment as government invests in jobs in conservation and freshwater initiatives.

As owner of Toitū Envirocare (renamed from Enviro-Mark Solutions in November 2019) we strongly support its work to provide leadership, practical strategy, and tools to hundreds of clients seeking to make a difference to their carbon and wider environmental footprint. Our investment in 2019–20 will enable Toitū to extend its impact, including in the food and fibre sector, as a lead provider both to State Sector entities and to smaller businesses starting on their zero-carbon journey.

Our people's well-being is at the heart of our culture (manaaki tangata) and, as New Zealand and the wider world tackle the COVID-19 pandemic, we will be proactive in managing their well-being while securing the continuity and future health of Manaaki Whenua as an organisation. We are motivated by the need for our work to achieve impact – tangible goals for the well-being of society. Along with our fellow CRIs, we will be proactive in supporting national crisis preparedness and response. We greatly appreciate our shareholders' ongoing support for the work summarised in this SCI.



**Jane Taylor**  
Chairman



**Dr Richard Gordon**  
Chief Executive

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# COVID-19 Response and Impacts

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This Statement of Corporate Intent is unusual in attempting to anticipate the impacts of the COVID-19 pandemic on our business. The pandemic does not change our vision and purpose, or our focus on achieving impact for the benefit of New Zealand and the world. But it creates uncertainty in a changed operating environment. This chapter concentrates in one place our overview of the likely impacts of the pandemic on our strategy, planning and financial scenarios.

## Context

Around the world, a common view is that this pandemic changes everything. No country will be unscathed by the effects of the disease on economies and societies, and by countries' attempts to protect their people. However, environmental challenges will continue, as shown by the recent Australian bushfires and the lengthy drought affecting the primary sector and urban water supplies in New Zealand. Assisting New Zealand to accelerate its response to climate change remains a high priority for Manaaki Whenua through the provision of credible science-backed advice and solutions.

Significant context for Manaaki Whenua will be the government's focus on economic recovery while protecting and enhancing our natural capital. The government is investing significantly in both, which is relevant to our work – from environmental enhancements to economic impacts and the resilience of communities. Our work in partnership with Māori will be especially important, given that economic impacts of the pandemic will be unevenly distributed across regions and sectors in society.

New Zealand depends on its food and fibre sector to underpin economic recovery, and any new outbreak of a major crop, livestock or human disease could be crippling. Biosecurity must therefore be a top priority, with lessons learned from the COVID-19 experience. Manaaki Whenua contributed scientists to the COVID-19 modelling effort to support policy decisions by government. We consider it critical that a national biological security science infrastructure and capability plan is developed and enacted to enhance national preparedness.

Communities, businesses, and business sectors need resilience to survive in the coming years. Again, our scientists will pivot their focus to resilience in the current environment. The farming community will be facing different demands and challenges in its markets – for example, demands for evidence of safe and healthy food that is sustainably produced – and will need new approaches and credentials for its regenerative approach to production. The opportunity exists to “build back better” in ways that protect and restore natural and social capital.

Whereas greenhouse gas emissions have decreased during the global lockdown, the evidence shows that climate change is well-established and will throw renewed challenges at our environments and economies. Our researchers will continue their efforts to understand, mitigate, and adapt to climate change through high quality and impactful science.

Organisations (in both government and business) will make strategic decisions in the COVID-19 world that will impact on environmental quality and risk. Those decisions should be informed by the best science that can assess intended and unintended consequences. An unusual opportunity exists for multiple benefit to be achieved across economic, social and environmental outcomes.

We anticipate the 5 years of this SCI planning period will be a turning point for the global community, economy, and natural environment. Our research and science will play a valuable role through our international collaborations in assisting the world to turn in the more sustainable direction.

## Intent

Our vision and strategic purpose are unchanged by the COVID-19 pandemic. They define an organisation that is steadily growing its capacity to make a positive difference for New Zealand and the wider world. Our vision argues that Our Land is our Future, and this has never been truer in New Zealand. Not only will the food and fibre sector underpin economic recovery, but many people in New Zealand under lockdown have discovered (or re-discovered) the value of clean air and biodiversity in their local environment. Helping the public engage with healthy Nature in the outdoors is widely considered to improve public health and mental well-being. A major plank of our strategic purpose is helping build that connection. Government's large investment in jobs to enhance the natural environment and its initiatives to improve freshwater quality will build on that public engagement. Our science will help to ensure long-term goals are achieved through these initiatives.

## Strategy-22

In 2020 we are halfway through the 5-year period of Strategy-22 and were starting a strategy refresh process at the time the pandemic broke out. The need for national recovery now adds impetus to that work from the perspectives of our three strategic pillars:

### *Irresistible culture – our people at the centre*

- Support staff (Manaaki Tangata) to sustain their welfare and engagement with Manaaki Whenua while they face challenges in other aspects of their life because of the pandemic.
- Attention to diversity, inclusion and equity as different cultures and individuals experience the pandemic differently and need different understanding and opportunities.
- Increase flexibility of working styles and locations, turning the experience of lockdown into positive changes and benefits.
- Management talent at a time of reduced recruitment and pressure on training budgets.
- Find new ways to engage closely with our Treaty Partner to support development and resilience.
- Support for our Pacific neighbours and building our Pasifika staff number and capability.

### *Better ways of working – the future of work*

- Be flexible in remote ways of working, reducing our travel carbon footprint, and using our physical assets efficiently.
- Make greater use of the internet and online communication opportunities to add value for our partners, including convening stakeholder groups.
- Be agile in recognising, leading, and following changes in Government, client, and public needs for the role of research and science in their work.
- Focus on business models that are fit-for-purpose in a COVID-19 world characterised by pressure on investment, revenue, and cashflow.

### *Science for impact – building depth, breadth, and integration*

- Sustain focus on critical environmental issues for New Zealand with the potential to compound COVID-19 and climate challenges, e.g. drought and floods, new biosecurity threats.
- Support our Treaty Partner with Māori land development options that enhance community resilience and restore natural capital.
- Support New Zealand food, fibre and beverage exporters in responding to market demands for clean, healthy, low-carbon, environmentally sustainable and safe products.
- Emphasize diversity and the integration of disciplines in finding solutions and achieving impact.

- Understand social behaviour that can capitalise on gains made during the lockdown period, for example willingness to change practice and lock-in reduction of carbon emissions from transport.
- Support training and job opportunities for graduates to create a new generation skilled in activities related to the land and science. This may include predator-control, soil mapping, remote sensing analysis, ecological restoration, and science education.

## Financial scenarios

National and global responses to the COVID-19 pandemic create high levels of uncertainty about the future state of the economy. Therefore, our budget reflects cost restraint and a conservative view of the next five years' revenue. We acknowledge that the government has sent strong signals about the role of research, science and innovation in the recovery, and its intention to provide stable investment both for jobs and impact.

The Government's Budget 2020 investment in CRIs (\$45m in 2019/2020 and \$72m in 2020/2021) is greatly appreciated. Manaaki Whenua received \$2.37m from this fund in 2019/2020 and a larger amount is included in our budget for 2020/2021, although not yet confirmed. Manaaki Whenua also received a \$1.29m increase in SSIF investment in Nationally Significant Databases & Collections in 2020/2021 and 2021/2022.

Revenue risk is high in 2021/2022 and 2022/2023 when several MBIE Endeavour research investments come to an end. The increasing focus of Endeavour investment on 'frontier/novelty' is not well aligned with the CRIs' focus on strategic research, which spans the frontier-to-applied spectrum with a strong focus on achieving impact for the benefit of New Zealand. Therefore, we have moderated our expectations of continuing this level of investment. Our emphasis on finding alternative investment from non-MBIE sources is moderated by the expectation that those sources will still be influenced by post-pandemic cost restraint.

We will control costs through tight restriction on new recruitment, reduction of travel and related costs, and restricting non-essential expenditure. Cashflow will be managed by heavily restricting capital purchases. This also means deferring a necessary laboratory refurbishment and our plan for moving our Auckland site from Tāmaki to Mt Albert to create a hub for biosecurity and Pacific capability.

Our Toitū Envirocare subsidiary has moderated its financial forecast based on expectations that its customers will cut back on expenditure during the economic recovery. New products and cost control will contribute to maintaining a flat profit line during the period.



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# About this document

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Our Statement of Corporate Intent for the period 2020–2025 provides information for the reader using the same layout as last year but limited to content that outlines changes or new initiatives. This was done deliberately to avoid unnecessary repetition and keep the document as short and impactful as possible. As with last year’s report, it is organised into three key sections.

## Context



To provide the reader with a wider perspective, in this section we explore the strategic and operating environment within which Manaaki Whenua exists. We consider the priorities of our shareholder (the New Zealand Government), a changing workforce, trends in scientific research and technology, our role within the broader science ecosystem, and indicators for future investment.

## Intent



We present our commitment to New Zealand through our strategic priorities outlined in our 5-year strategy, Strategy-22, our four ambitions for New Zealand and the aligned science priorities, and several key areas that all Crown Research Institutes consider important for the future of research in New Zealand to ensure our research benefits all New Zealanders.

## Performance



Finally, we explain how we will measure our performance against our strategic intent, which includes review panels and advisory groups to provide guidance and to ensure we are producing high-quality impact for New Zealand. We also describe our framework for performance monitoring and reporting, and financial reporting, which we report against in our Annual Report.



# Context

## Shareholder priorities

### Government priorities (signalled pre-COVID-19)

Manaaki Whenua will support the government's commitment to an inclusive, sustainable, and productive New Zealand by

- contributing to and helping realise the government's RSI Strategy Kei Mua Te Ao
- helping implement findings from the CRI Review
- supporting diversity throughout our organisation by further implementing an embedded Māori culture and realising Vision Mātauranga
- contributing to the future science workforce by working with universities to foster upcoming talent.

### Ministerial expectations for Manaaki Whenua

Manaaki Whenua will take into consideration and contribute to relevant government-wide initiatives and sector science strategies, in collaboration with appropriate organisations, iwi, agencies, and departments.

*Specific priorities for Manaaki Whenua*

**Auckland redevelopment:** We will further explore the potential for a Biosecurity Hub at Mt Albert, discussing options with relevant CRIs and government departments that support effective collaboration and partnerships.

**Biosecurity:** We will continue to be fully compliant with the requirements of the Hazardous Substances and New Organisms Act at our containment facilities.

**Transparency and access to data:** We will continue to make the data from our collections and databases accessible and available.

**Connectedness:** We will support pan-sector initiatives including those from the Primary Sector Council and the Aotearoa Circle, helping coordinate collective action towards New Zealand's goals of sustainability and ecosystem regeneration.

## Science, technology and investment trends

- A need to build more enduring, partnership-based relationships with iwi to jointly identify science and research that will benefit all New Zealanders.
- To fix the complex environmental problems facing New Zealand, we must engage with stakeholders to understand the problem and find solutions that will deliver win-win scenarios through integrated research.
- Solving complex problems by harnessing big data and capitalising on the opportunities afforded by emerging technologies such as machine learning and AI applications.

# Partnering for impact

## National Science Challenges

Manaaki Whenua is proud to host one of New Zealand's 11 National Science Challenges, New Zealand's Biological Heritage (BH-NSC). We share common goals with the BH-NSC and seek to maximise the impact of our research through alignment with the Challenge and the opportunities this brings.

We also contribute to Our Land & Water, Deep South, Resilience to Nature's Challenges, Science for Technological Innovation, Building Better Homes, Towns and Cities, and Sustainable Seas. National Science Challenges are an important part of Manaaki Whenua's work to achieve our ambitions, and the involvement of our social researchers across several challenges is increasing.

## Toitū Envirocare

*Fit with Manaaki Whenua strategy*

Toitū Envirocare (previously Enviro-Mark Solutions) contributes to Manaaki Whenua's ambition 'Our Environment' by growing the number of organisations and sectors mitigating greenhouse gas emissions and implementing systems to operate within environmental limits. This year we will continue work with Toitū Envirocare to explore how the United Nations' Sustainable Development Goals can be used for reporting on sustainability across our operations and research activities.

## Science and private sector partnerships

Partnerships are key to Manaaki Whenua's approach in many areas of its business, from our emerging international research partnerships, through to our relationships with key government Ministries (e.g. MFE, MFAT, and DOC), and commercial entities that will be critical in helping our research lead to impacts for New Zealand. An area of increased focus will be further developing our "social licence to operate" model and exploring how this can be used by our partners to increase the impact of research for New Zealand's long-term outcomes.

We have put in place a commercial partnership strategy to capture industry needs, identifying key partners within the Soils and Land Use Suitability (LUS) arena. Focus will be placed on furthering partnerships where good strategic alignment and intent exist, and on increasing our profile in climate change and mitigation.

Areas of emerging focus for partnerships are:

- *New horizons for our data science*: Significantly develop our informatics capabilities, so we are not just an enabler of research but also able to push data science boundaries through strategic relationships that unlock the potential to make transformational change.
- *Big data*: Take a big data approach to assist future policy development where disparate data sets can be coupled for improved decision making.
- *Capability and capacity*: Increase our capacity and skills to utilise machine learning and artificial intelligence to achieve Manaaki Whenua and New Zealand's environmental ambitions. We also aim to provide researchers with the capability needed to develop new insights.
- *Community connections*: Improve connections with communities and iwi through data science approaches.



## We will enable New Zealand to:

reverse the decline of native species habitats, and ecosystems

makuru ana ngā mahinga kai [gather food from abundant and flourishing areas]

increase the resilience of natural ecosystems

kia tiakina ngā taonga tuku iho [better protect taonga species]

better respond to biosecurity threats

reduce pest, weed & disease impacts

use land more sustainably

he whenua koiora [better utilise resources for intergenerational well-being]

better protect & restore land and soil resources

reduce the impact of land use on fresh water resources

kia tautokohia te kaupapa kaitiakitanga [better enable kaitiakitanga to be practiced]

be more inclusive & effective in environmental policy, planning, governance and decision making

better adapt to climate change and mitigate its impact

transition to a low carbon economy

be a more resilient society and economy

## We will deliver New Zealand the knowledge and tools to:

conserve and restore native terrestrial species, habitats & ecosystems

identify & characterise biota and ecosystems, and measure changes to support evidence-based responses

detect, identify, characterise, monitor & control invasive species

use new and improved biosecurity tools and approaches

monitor, manage & mitigate key risks to land, soils and water

develop sustainable economic value from land resources

identify & characterise soil and land resources and related ecosystem services, and measure changes to support evidence-based responses

account for people's values, attitudes & behaviours in managing environments

mitigate the factors contributing to climate change & improve adaptation to its impact

operate businesses in a more sustainable, restorative way

understand our whenua and engage people in its care and protection

understand, value and use Te Ao Māori and Treaty-informed approaches

access accurate and integrated data, information and knowledge

make robust and integrated longer-term natural resource policy, planning & investment decisions

take action at local to national scale

adapt and adopt smart tools and be a trusted partner internationally

## Priority research areas



# Our purpose and vision

## Science for our land and our future

*Ko te pūtaiao mō tō tātou whenua, mō āpōpō*

Our Statement of Core Purpose (SCP) is to drive innovation in New Zealand's management of terrestrial biodiversity and land resources to protect and enhance the terrestrial environment and grow New Zealand's prosperity. Under the Crown's SCP for Manaaki Whenua, we are mandated to:

- improve the measurement, management, and protection of New Zealand's terrestrial ecosystems and biodiversity, including those in the conservation estate
- achieve the sustainable use of land resources and their ecosystem services across catchments and sectors
- improve the measurement and mitigation of greenhouse gases in the terrestrial biosphere
- increase the ability of New Zealand industries and organisations to develop within environmental limits and meet market and community requirements.

## Kia matomato te tupu a Tāne, a Rongo, a Haumia-Tiketike

*Let it be that the land and all its fruits may flourish*

Acknowledging the unique and special relationship Māori have with Aotearoa, their land, and the environment, we draw on a uniquely Māori perspective of the world around us.

Tāne, Rongo, and Haumia-Tiketike are tamariki (children) of Rangi, our sky father, and Papa, our earth mother. Together they hold dominion over the forests, cultivated and uncultivated food, and the land-based realms within which they exist. If we use the land wisely, while also acknowledging the special connection between manawhenua and the land, then the domains of Tāne, Rongo, and Haumia-Tiketike will be in balance and support the well-being of all people. This concept of wise land use forms the vision of Manaaki Whenua and is inherent in kaitiakitanga – custodianship of our natural taonga and resources for future generations.



## Strategy-22

### 01 AN IRRESISTIBLE CULTURE

#### Our people

Our culture of empowerment comes from diverse talents, great leadership and communication. We bring together best teams and provide staff with career development. Everyone is 100% committed to health, safety and wellbeing.

#### Science working with mātauranga Māori

Our work and impacts are enriched when we build understanding between scientific and Māori worldviews. Mātauranga Māori stands alongside our science in providing insights into our land and our future for all New Zealanders.

STRATEGY 22

### 02 A BETTER WAY OF WORKING

#### Our infrastructure

Our Collections and ICT support excellent research. Our sites provide great working environments, support our partnerships and are a base of interaction with New Zealanders.

#### Our sustainability

We invest wisely to deliver our strategy including financial resilience. We set challenging Sustainable Development Goals that reflect our vision.

#### Our partners

Our partnerships are enduring and are based on trust and mutual support. Through long term partnership we increase our capacity and achieve our ambitions.

### 03 SCIENCE FOR IMPACT

#### Innovative & Challenging

We are tackling greater science challenges with greater rewards for New Zealand. We actively seek and support innovation.

#### Strategic & integrated

We work on longer and larger scales and more complex problems, integrating across disciplines & stakeholders.

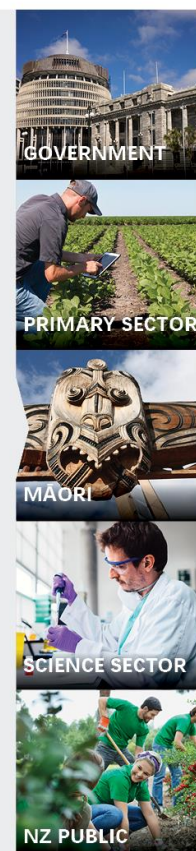
#### Valued & trusted

We are responsive to the needs of our clients and partners. We produce whole solutions with and for them. Our advice is trusted.

#### Engaged with all New Zealanders

We have a strong identity and we engage citizens in our research and speak with authority.

### DELIVERING FOR OUR PARTNERS



## Key initiatives for 2020/2021

- *Our people* will strengthen our Diversity and Inclusion (D&I) culture through the D&I group, developing strategies to address areas of under-representation such as women in leadership roles, and Māori and Pasifika capability. Through a series of workshops, we will seek to better understand the impact the Future of Work will have on our people and organisation.
- *Innovative and challenging* will build on earlier initiatives such as the Science Den (an internal innovation fund), and Outside Thinking & Brilliant Writing (national and international engagement to develop novel research agendas).
- *Strategic and Integrated* will focus on external integration with partner research organisations, especially in Canterbury. We will also be consolidating our Climate Change Adaptation and Mitigation research portfolio, which has a wholly integrated approach.
- *Our Sustainability* will develop a project leadership and delivery support model that will contribute to Manaaki Whenua's financial sustainability. We will continue our focus on Sustainable Development Performance reporting by completing the Toitū Sustainable Development Goals (SDG) certification process and develop a reporting framework.
- *Valued and Trusted* will work with our partners and Outcome Advisory Panel to improve understanding of the COVID-19 response and how we can assist in providing research direction and value. We will continue work on our information management and engagement frameworks to underpin an improved trust model. Our co-innovation workshops will continue to ensure we codesign our future research directions with our end-users and stakeholders.
- *Our Partners*. We will seek greater collaboration and partnership with local government as a sector and individually; continue to grow our primary sector partnerships both in number and strength; build on new international science partnerships, including those with other CRIs (e.g. with INRAE in France and Wageningen in the Netherlands).



# Our future capability

## Workforce and the future of work

As part of the actions agreed by the CRIs in 2019, Manaaki Whenua will focus on implementing the following in 2020–2021:

- Fulfil the CRIs' role of maintaining New Zealand's strategic research and science capability and lead national action on workforce futures with our principal stakeholders.
- Seek to co-invest in at-risk and emergent skills areas to ensure capability is fit for the future.
- Engage with Universities New Zealand to influence the qualifications and volume of research students in the pipeline for future RS&T demands.
- Partner with major overseas organisations to create talent pipelines and career development opportunities for CRI staff.

## Science capability

Over the past 4 years, we increased our number of full-time equivalent (FTE) science staff from 224 to 258 to improve our ability to respond to the Government priorities of improved freshwater quality and predator control. Manaaki Whenua has expertise in soil characterisation, erosion processes, predator control techniques and management options for biodiversity outcomes, all of which apply directly to these priorities. With data science and modelling becoming increasingly important methods for providing management options, we have increased our capability to harness disparate data and provide practical solutions through enhanced informatics capabilities.

The focus for FY2021 is embedding these capabilities in existing client relationships and enhancing our ability to integrate across MWLR disciplines.

## Māori partnership

Increasingly, Manaaki Whenua recognises the importance of the principles of the Treaty in shaping how we engage with iwi and Māori interests. Moving forward we want to take a more principled approach to how we engage with iwi 'at place' and where our science is relevant to Māori. We will reach out and seek to connect *early on* during project design and we will approach our relationship with iwi in the spirit of partnership. Manaaki Whenua is committed to:

- Continue to grow our pool of Māori scientists & researchers who also hold equally strong ao Māori perspectives, connections and cultural skillsets across all our disciplines.
- Reach out to all post and pre-settlement iwi governance entities (PSGEs) to extend an invitation to them to connect with Manaaki Whenua in order to gain a better understanding of opportunities to collaborate with us to achieve their taiao (environmental) aspirations.
- Continue to strengthen our engagement with Māori land trusts and incorporations on projects that use science and research to help them overcome the barriers to realising their aspirations for their whenua.
- Embed programmes and project connections (through Vision Mātauranga projects and more broadly) that help expose our Pākehā colleagues to iwi/Māori organisations so that they gain experience and confidence in working in Māori settings to help achieve their taiao aspirations.
- Create or modify investment instruments to facilitate mātauranga Māori research and Māori leadership.
- Work with MBIE to reset the Vision Mātauranga funding mechanism to emphasise the unique innovation potential in science and mātauranga Māori working together.
- Collaborate with Te Puni Kōkiri and New Zealand Trade and Enterprise (NZTE) to profile science and tauranga Māori links in the New Zealand story.

# Our science and technology

## Research priorities by portfolio

### *Wildlife Management and Conservation Ecology*

- investigate outcomes of different management regimes for species and ecosystem conservation
- support biocultural approaches to biosecurity and biodiversity
- guide and evaluate effective landscape-scale predator eradication
- develop safe and cost-effective vertebrate predator control tools and technologies
- support TB freedom and wildlife disease management

### *Plant Biosecurity and Biodiversity*

- develop tools and methods to beat weeds
- increase understanding of ecosystem resilience and how to protect and improve it
- identify and apply weed biocontrol agents
- harness molecular ecology for biosecurity and biodiversity
- measure and understand biodiversity change and its implications

### *Biota*

- enhance and enable identification and understanding of plants, arthropods, fungi, and bacteria
- manage and improve the collections and databases that underpin New Zealand's biodiversity and biosecurity systems (including Ecogene)
- develop and promote environmental information management and computing technologies

### *Managing Land and Water*

- protect and improve soil and ecosystem health
- understand erosion processes and manage sediment
- integrate land and water management, including catchment policy implementation

### *Characterising Land Resources*

- characterise soil attributes and their spatial variability (e.g. S-map)
- generate credible spatiotemporal land-cover and land-use data (e.g. LCDB)
- map and characterise ecosystem services, and enable scenario analysis
- integrated modelling of land resource information, including uncertainty and its implications
- deliver online multi-platform access for stakeholders to NZ land resource data

### *Climate Change Adaptation and Mitigation*

- integrate the management of carbon, water and nutrients
- develop accurate quantification of and changes in terrestrial GHGs and carbon stocks
- develop and evaluate cost-effective technologies to mitigate terrestrial GHG emissions
- determine the biophysical and socio-economic consequences of climate change
- develop and evaluate climate change responses and options

### *Society, Culture and Policy*

- enable integrated policy and management across landscapes and people
- rangahau mō te kaitaki (research for the kaitaki)
- understand environmental preferences, attitudes, and behaviour
- enable better informed and more transparent resource management decisions to enhance system resilience
- inform and improve environmental policy and governance
- understand and harness dynamic interrelations between people and the environment



New Zealand's environmental, economic, and cultural prosperity are heavily dependent on our biological heritage, elements of which are in decline or at risk from exotic threats. The Challenge's mission is to reverse this decline through national partnerships that bring together researchers from across institutions and disciplines to transform the way we manage biodiversity, improve biosecurity, and enhance resilience to harmful organisms.

Manaaki Whenua is the host for the BH-NSC, which has a total of 18 collaborating parties. Challenge Parties and a wider network of partners span the research & innovation sector, communities, government agencies, non-government organisations, business & industry, Māori, and the public. Manaaki Whenua is contracted by MBIE to deliver the Challenge's work programme.

With Tranche 2 funding (\$37.8M), and an additional \$33.4M for kauri dieback and myrtle rust research through the SSIF Platform Ngā Rākau

Taketake approved, the Challenge is implementing its strategy. It will continue to clarify critical investment gaps and roll out investments in seven priority Tranche 2 funding areas and seven priority Ngā Rākau Taketake areas. Manaaki Whenua continues to support and work closely with the Challenge to deliver its Strategic Outcomes through key roles on the leadership team, general management and administrative support, and strategic alignment of our SSIF and other investments. This will be an important year as the Challenge works across the science and innovation sector to complete its portfolio of research investments, shape the direction of research aligned with the BH-NSC mission, and build towards additionality, a key concept for this Challenge (<https://bioheritage.nz/>)



Along with the appointment of a new CEO in November 2019, Enviro-Mark Solutions was rebranded to Toitū Envirocare to better reflect the purpose and vision of the organisation. The current growth in uptake of Toitū Envirocare's certifications and related technical services reflects recognition of the urgency for climate

action by the business community in New Zealand and overseas.

Toitū Envirocare plays a pivotal role in supporting New Zealand businesses as they respond to the Climate Change Response (Zero Carbon) Amendment Bill (passed in November 2019), and the demands of consumer and supply chain for carbon footprint information, Science Based Targets, and offsetting.

Marketing, partnerships, and technology are integral to Toitū Envirocare's response to these rapidly developing market demands, and we are actively developing relationships to extend the range and value of customers and sectors using our services. These include partners in overseas markets where governments and businesses are responding to compliance and voluntary developments arising from the 2015 Paris Climate Change Agreement.

Through international engagement, we are actively developing and enhancing our alignment with global standards and initiatives, including the ISO GHG standards, CDP, and Science Based Targets.

We are developing new tools for the primary sector and small businesses, extending our environmental management system programmes to encompass the Agenda 30 Sustainable Development Goals to further support organisations to meet their social licence to operate.

In its own operations, Toitū Envirocare uses the B-Corp process to improve the way the business operates and measures profitability and the impact of its services.



# Performance

## External review and input

### Science Advisory Panel

In 2020/2021, our Science Advisory Panel, supported by additional specific domain expertise, will review Our Land and Our Environment ambitions as the second round of this review programme. The review will have two parts: a written submission outlining the context, strategic direction and achievements of the research over the last 3 years; followed by an online meeting to discuss the future direction and opportunities for the research. After each review, the Science Advisory Panel will present their findings to the senior management and the Board.

### Outcome Advisory Panel

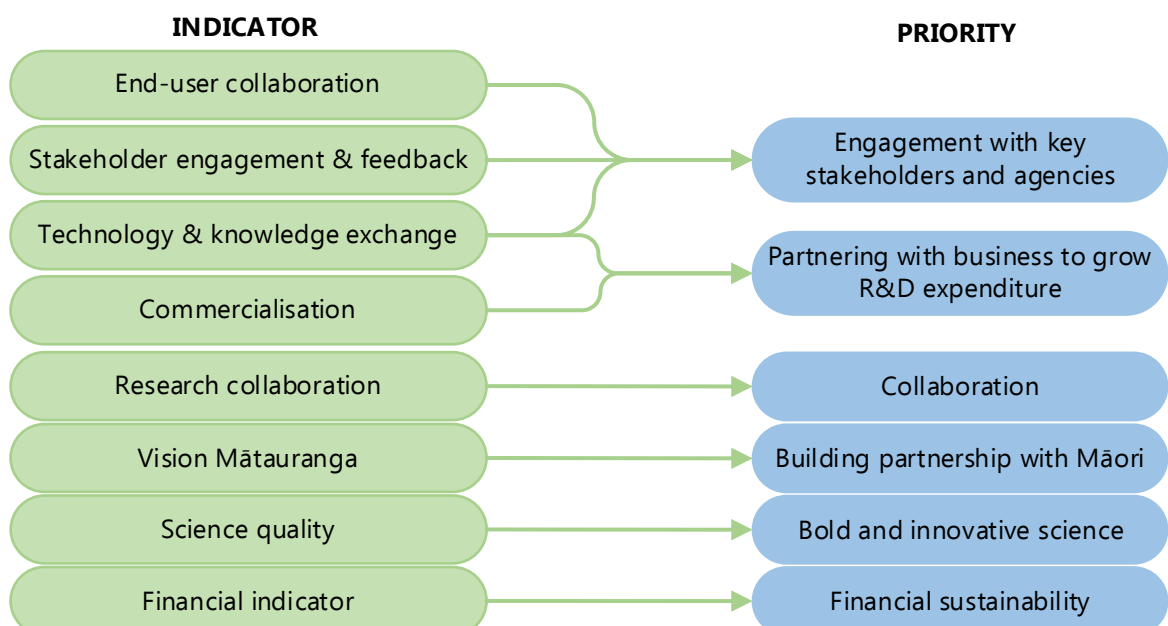
We continue to draw on the Outcomes Advisory Panel (OAP) to understand current and future stakeholder needs and how we are delivering information requirements. The OAP continues to provide valuable feedback on a twice-yearly basis, with one of these meetings providing our Board with an opportunity to hear feedback from the sectors represented by the OAP members. The previous focus on our role in delivering towards sustainable development goals and climate change will continue, but with an added focus on how our information may assist post COVID-19 recovery.

### Te Pae Kahurangi

In November 2019, MBIE embarked on a collective review of Crown Research Institutes (CRIs), Te Pae Kahurangi. The focus of this review is on positioning CRIs to meet New Zealand's current and future needs. It is expected that a final report, response, and action plan will be complete by June 2020. We will support the findings of the review.

## Performance monitoring and reporting

### Indicator alignment to Government priorities



## Non-financial performance indicators<sup>1</sup>

| Indicator                                  | Measure  | 2018/19 actual  | 2019/20 forecast | 2020/21 target |
|--|--|---|------------------|----------------|
| <b>End-user collaboration</b>              | Revenue per FTE from commercial sources (\$000s) <sup>a,b</sup>  | \$56.8  | \$51             |                |
| <b>Research collaboration</b>              | Percentage of papers co-authored <sup>a</sup> (total)  | 87.0%   | 90%              | 85–90%         |
|  | Co-authored with other New Zealand organisations   | 26.4%   | 27%              | 25–30%         |
|  | Overseas co-authors  | 38.0%   | 40%              | 35–40%         |
|  | Both New Zealand and overseas co-authors <sup>b</sup>  | 22.5%   | 23%              | 25–30%         |
| <b>Technology and knowledge exchange</b>   | Commercial reports per scientist FTE <sup>a</sup>  | 0.7   | 0.75             | 0.7–0.8        |
|  | Availability of data from our SSIF-funded databases, collections and information systems (assessed by a variety of metrics appropriate to each; metrics online)  | Increasing trends<br>Refer to annual reports for detail |                  |                |
|  | Response rate for requests to our SSIF-funded biological collections and associated infrastructure (specimen transactions, identifications, visits)  | 97.6%   | 98%              | >95%           |
|  | New and improved products, processes and services  | 51  | 40               | >40            |
|  | Presentations to stakeholders and community groups   | 187   | 130 <sup>c</sup> | 200            |
| <b>Science quality</b>                     | Impact of scientific publications (mean citation score) <sup>a,b</sup>   | 3.9   |                  | 3.0–3.3        |
| <b>Financial indicator</b>                 | Revenue per FTE (\$000s) <sup>a</sup>  | \$211.1   | \$183            | >\$200         |
| <b>Stakeholder engagement and feedback</b> | Percentage of relevant end-users who have adopted knowledge and/or technology from Manaaki Whenua  | No MBIE survey  | NA <sup>d</sup>  | >90%           |
|  | Percentage of relevant funding partners and other end-users that have a high level of satisfaction in our ability to set research priorities   | No MBIE survey  | NA <sup>d</sup>  | >75%           |
|  | Percentage of stakeholders involved in a specific research team/partnership that have a high level of confidence in our ability to form the best team for the collaboration they we are involved in <sup>b</sup> | No MBIE survey  | NA <sup>d</sup>  | >90%           |
|  | Staff invited to participate in stakeholder meetings or workshops  | 261   | 170 <sup>c</sup> | 250            |
| <b>Vision Mātauranga</b>                   | Number of positive strategic partnerships with iwi and Māori organisations in which we link science and mātauranga, and address Māori goals and aspirations <sup>b</sup>   | 96  | 98               | 90             |
| <b>Commercialisation</b>                   | Number of new and existing licensing deals involving Manaaki Whenua-derived IP (including technologies, products and services)   | 12  | 20               | 20–25          |
| <b>High-performance culture</b>            | Staff engagement in survey evaluations   | 88%   | 88%              | >80%           |
|  | Staff retention rate   | 93.2%   | 92%              | >90%           |

<sup>a</sup> Generic indicators required by MBIE across all CRIs are at the Manaaki Whenua Group level; the rest are at Parent level.

<sup>b</sup> Common with or related to SSIF Programmes Investment Contract key performance indicator(s).

<sup>c</sup> Decline due to COVID-19 lock down.

<sup>d</sup> Unable to forecast due to discontinuation of MBIE survey.

<sup>1</sup> Indicators for operational areas such as good employer, health and safety, and our environmental performance can be found on our website: [www.landcareresearch.co.nz/about/sustainability](http://www.landcareresearch.co.nz/about/sustainability).

# Financial reporting

## Financial performance and position

The 5-year financial plan reflects

| For the financial year ending<br>30 June | 2019/20 |          | 2020/21 | 2021/22 | 2022/23 |
|--|---------|----------|---------|---------|---------|
|  | Target  | Forecast | Target  | Target  | Target  |
| Revenue                                  | 93.6    | 95.1     | 104.3   | 102.8   | 103.1   |
| EBIT <sup>1</sup>                        | 2.4     | 1.7      | 3.9     | 0.4     | 0.4     |
| Total assets                             | 74.9    | 86.0     | 86.6    | 89.0    | 89.1    |
| Capital expenditure                      | 16.1    | 14.1     | 7.3     | 9.3     | 6.5     |
| Dividend                                 | -       | -        | -       | -       | -       |
| Equity ratio <sup>2</sup>                | 63%     | 5%       | 54%     | 54%     | 55%     |
| Gearing <sup>3</sup>                     | -       | -        | -       | -       | -       |

### Explanatory notes to table:

<sup>1</sup> EBIT: earnings before interest, financial lease charges and tax, and after committed business development expenditure and technology service expenditure.

<sup>2</sup> Equity ratio: average shareholders' funds ÷ average total assets.

<sup>3</sup> Gearing: interest-bearing debt ÷ interest-bearing debt + shareholders' funds, expressed as a percentage.

In 2021 Manaaki Whenua's revenue is budgeted at \$104.3m million, up by \$14.2 million or 15.7% compared with the 2019 forecast. This increase is predominantly related to the expected impacts of COVID-19 in 2019 compared 2020 and growth in the New Zealand's Biological Heritage Challenge

## Return on equity

Manaaki Whenua must continue to be flexible in responding to changes in the external environment and pursuing strategic opportunities. In determining a rate of return to shareholders, we use the following principles.

- The rate of return on equity (RoE) needs to ensure the financial sustainability of the organisation.
- The Board proposes a lower RoE so that it can support the databases and collections and strategic investments, which will enhance science, provide benefit to New Zealand and underpin future value.
- The targeted RoE will be reviewed by the Board over the planning period as other strategic investment opportunities with long-term benefits are presented.

Manaaki Whenua's RoE before investment in 2021 is 7.2%



## Balance sheet

Manaaki Whenua's science requires an ongoing investment in scientific equipment if we are to secure revenue and be financially sustainable. Beyond this underlying capital spending requirement, the priority for 2021 is to complete redevelopment of the Lincoln site to provide modern fit-for purpose facilities for our people

## Cash flow and dividend

Manaaki Whenua expects to continue to deliver steady operating cash flows, with earnings before income tax before depreciation, amortisation and fair value adjustments (EBITDAF) of \$8.5 million in 2021. Based on the strategic capital investment needs identified above, no dividends are planned during the period of this SCI. However, the Manaaki Whenua Board will review this annually.

## Risks

There is forecasting uncertainty associated with Manaaki Whenua revenue budgets. There are risks and opportunities for competition and disruptive technologies with the potential to affect capability and future business sustainability.

Revenue risk is high in 2021/2022 and 2022/2023 as several MBIE Endeavour research investments come to an end. The increasing focus of Endeavour investment on 'frontier innovation' is not well aligned with the CRIs' focus on strategic research, which spans the frontier-to-applied spectrum with a strong focus on impact for the benefit of New Zealand. Therefore, we have moderated our expectations of continuing this level of investment. Our emphasis on finding alternative investment from non-MBIE sources is moderated by the expectation that those sources will still be influenced by post-pandemic restraint.

Manaaki Whenua is confident its plans remain robust, and we will actively monitor and respond to any emerging risks.



**Jane Taylor**  
Chairman



**Dr Paul Reynolds**  
Deputy Chair  
30 June 2020

## Appendix 1: Additional financial indicators

| For the financial year ending<br>30 June    | 2019/20  |          | 2020/21  | 2021/22  | 2022/23  |
|---|----------|----------|----------|----------|----------|
|   | Target   | Forecast | Target   | Target   | Target   |
| Operating margin <sup>1</sup>               | 7.3%     | 6.8%     | 8.1%     | 5.7%     | 6.6%     |
| Profit/FTE                                  | \$15,232 | \$15,461 | \$19,066 | \$13,191 | \$15,372 |
| Quick ratio <sup>2</sup>                    | 1.32     | 1.73     | 1.72     | 1.51     | 1.55     |
| Interest coverage <sup>3</sup>              | -        | -        | -        | -        | -        |
| Profit volatility <sup>4</sup>              | 17.9%    | 19.4%    | 19.3%    | 22.1%    | 14.2%    |
| Forecasting risk <sup>5</sup>               | 3.1%     | 2.9%     | 0.8      | 1.3%     | (0.3%)   |
| RoE NPAT <sup>6</sup><br>(after investment) | 4.7%     | 3.5%     | 6.2%     | 1.0%     | 1.0%     |
| Revenue growth                              | 9.2%     | 10.4%    | 11.6%    | (1.4%)   | 0.2%     |
| Capital renewal <sup>7</sup>                | 3.6      | 3.0      | 1.4      | 1.7      | 1.0      |

### Explanatory notes to table:

<sup>1</sup> Operating margin: EBITDAF ÷ revenue, expressed as a percentage and per FTE (EBITDAF is earnings before interest, income tax, depreciation, amortisation and fair value adjustments).

<sup>2</sup> Quick ratio: (current assets – inventory – prepayments) ÷ (current liabilities – revenue in advance).

<sup>3</sup> Interest cover: EBITDAF ÷ interest paid.

<sup>4</sup> Profit volatility: the standard deviation of the past 5 years' profit, scaled by average profit.

<sup>5</sup> Forecasting risk: 5-year average of return on equity, less forecast return on equity.

<sup>6</sup> Return on equity: NPAT ÷ average shareholders' funds, expressed as a percentage (NPAT is net profit after tax). Shareholders' funds include share capital and retained earnings.

<sup>7</sup> Capital renewal: capital expenditure ÷ depreciation expense + amortisation expense.

## Appendix 2: Collections, databases and information systems







|  |  | Accessibility Goals and Key Performance Indicators  |
|--|--|---|
| <p><b>Land Resource Information Systems (LRIS)</b></p> <p>Includes the New Zealand Land Resource Inventory (NZLRI), Land Use Capability (LUC), fundamental Soils Layer (FSL), and related datasets and materials.</p> <p>Presents general land characteristics and land evaluation information, plus a range of environmental, climatic, management and production attributes.</p> <p>- <a href="http://lris.scinfo.org.nz">http://lris.scinfo.org.nz</a><br/>- <a href="https://ourenvironment.scinfo.org.nz/">https://ourenvironment.scinfo.org.nz/</a></p>  |  | <p>Service availability uptime is ≥90%.</p> <p>Number of data sets provided online to users is maintained or increases.</p> <p><b>NSD</b><br/>More services added, and new data sets uploaded.</p> <p>Develop new routes to our data building on test APIs and visualisation created last year.</p> <p><b>LRIS</b><br/>User numbers (direct or indirect) are maintained or increase.</p> <p>Data support environmental reporting and resource management instruments, and their implementation at the regional level.</p> <p>User confidence is maintained or increases.</p> <p><b>S-map</b><br/>The breadth of soil information for users is extended.</p> <p>New tools added to aid users and maximise value of data.</p> |
| <p><b>National Soils Database (NSD)</b></p> <p>1,500+ New Zealand soil profile descriptions, plus analytical data on their chemical, physical, and mineralogical characteristics. Includes the National Soils Archive, a reference collection of soil samples for the NSD.</p> <p>NSD data are stored and managed in the National Soils Data Repository alongside other New Zealand soil profile descriptions.</p> <p>- <a href="https://viewer-nsdr.landcareresearch.co.nz/">https://viewer-nsdr.landcareresearch.co.nz/</a></p>  | <p>Used for National and regional state-of-environment monitoring, forest and shrubland inventory, biodiversity assessment, trend analysis, and infrastructure planning.</p> |   |
| <p><b>Land Cover Database (LCDB)</b></p> <p>A classification of land-cover change across New Zealand in a series of snapshots dating back to 1996. Contains 33 mainland classes (35 including the Chatham Islands).</p> <p>- <a href="http://lris.scinfo.org.nz">http://lris.scinfo.org.nz</a><br/>- <a href="https://lris.scinfo.org.nz/layer/104400-lcdb-v50-land-cover-database-version-50-mainland-new-zealand/">https://lris.scinfo.org.nz/layer/104400-lcdb-v50-land-cover-database-version-50-mainland-new-zealand/</a><br/>- <a href="https://vizbe.landcareresearch.co.nz/">https://vizbe.landcareresearch.co.nz/</a></p> | <p>Used by regional and central government, primary industry, and the finance, environment, and education sectors.</p>   |   |
| <p><b>S-map Online</b></p> <p>A national system that provides comprehensive, quantitative soil information to support sustainable development and scientific modelling.</p> <p>- <a href="https://smap.landcareresearch.co.nz">https://smap.landcareresearch.co.nz</a><br/>- <a href="http://lris.scinfo.org.nz">http://lris.scinfo.org.nz</a></p>   |  |   |
| <p><b>National Vegetation Survey (NVS) Databank</b></p> <p>A national repository of plot-based vegetation survey data from 109,000+ survey plots going back over 70 years. Covers Northland to Stewart Island, the Kermadec and Chatham Islands, and from coastal to forests to high alpine.</p> <p>- <a href="http://nvs.landcareresearch.co.nz">http://nvs.landcareresearch.co.nz</a></p>  | <p>Used for New Zealand's biodiversity and biosecurity information infrastructure.</p>   |   |

 Database

 Collector

 Nationally significant

 Significant

|  |  |   |  |
|--|--|---|--|
|  <p>Allan Herbarium [CHR]</p>   | <p>New Zealand's national herbarium with 650,000+ specimens of New Zealand and South Pacific algae, lichens, liverworts, mosses, ferns, and seed plants.<br/>- <a href="http://www.landcareresearch.co.nz/allanherbarium">www.landcareresearch.co.nz/allanherbarium</a></p>      | <p>Used by New Zealand's biodiversity and biosecurity systems, benefiting conservation, forestry, horticultural and agricultural sectors.</p> | <p>A 2-week response time for 90% of loan requests.</p>  |
|  <p>New Zealand Arthropod Collection [NZAC]</p>                         | <p>Largest collection of New Zealand insects and related arthropods with 7 million+ specimens. Includes the National Nematode Collection of New Zealand [NNCNZ].<br/>- <a href="http://www.landcareresearch.co.nz/nzac">www.landcareresearch.co.nz/nzac</a></p>                  |   | <p>Page views and visitor numbers for the Systematics Collections Data portal are maintained or increase.</p>  |
|  <p>New Zealand Fungarium [PDD]</p>                                     | <p>Primary information source on New Zealand and Pacific fungi with 101,140+ dried fungal specimens, and voucher specimens documenting most plant diseases recorded in New Zealand.<br/>- <a href="http://www.landcareresearch.co.nz/pdd">www.landcareresearch.co.nz/pdd</a></p> |   | <p>CHR and NZAC<br/>The NZ Threat Classification System uses new taxonomic information.</p>  |
|  <p>International Collection of Microorganisms from Plants [ICMP]</p> | <p>One of three major international collections for plant and soil bacteria, with living cultures of 21,000+ strains of bacteria and fungi from plants and soil.<br/>- <a href="http://www.landcareresearch.co.nz/icmp">www.landcareresearch.co.nz/icmp</a></p>                  |   | <p>PDD and ICMP<br/>Maintain or increase cultures and specimens used in scientific literature, and DNA sequences generated.<br/>New specimens accessioned.</p> |
|  <p>Ngā Tipu Whakaoranga Database</p>                                 | <p>2,400+ records on Māori names and cultural uses of New Zealand native plants, fungi, and algae.<br/>- <a href="http://maoriplantuse.landcareresearch.co.nz">http://maoriplantuse.landcareresearch.co.nz</a></p>   |   | <p>CHR – 6,000+</p>  |
|  <p>National New Zealand Flax Collection</p>                          | <p>Living collection of Phormium species of cultural, economic, and historical interest.<br/>- <a href="http://www.landcareresearch.co.nz/harakeke">www.landcareresearch.co.nz/harakeke</a></p>  | <p>NZAC – 7,000+</p>  |  |
|  |  | <p>PDD – 500+</p>   |  |
|  |  | <p>ICMP – 300+ new cultures.</p>  |  |
|  |  |   | <p>Visitor numbers are maintained or increase.</p>   |
|  |  |   | <p>The weaving resources Facebook page user numbers increase.</p>  |
|  |  |   | <p>A 2-week turnaround for 90% of weaving material orders.</p>   |
|  |  |   | <p>All weaving cultivars represented online with Māori names and stories.</p>  |

○ Database

□ Collector

○ □ Nationally significant

○ Significant

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## Appendix 3: Business policies

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We operate in accordance with the purpose and principles as stated in the Crown Research Institutes Act 1992 and have statutory obligations under other acts, including the Companies Act 1993 and Crown Entities Act 2004. Our business policies include the following.

### Dividend policy

The Board will notify the shareholding Ministers within 3 months of the end of each financial year of:

- the amount of dividend (if any) recommended to be distributed to the shareholders
- the percentage of tax-paid profits the dividend represents
- the rationale and analysis used to determine the amount of dividend.

In determining the amount of surplus funds, consideration will be given to:

- shareholder policies on dividends and capital structure
- providing for strategic and capital investment requirements (including equity investments) without recourse to the Crown for equity injections to the company
- working capital requirements (including subsidiaries/businesses in which equity is held)
- the ongoing financial viability of the company, including its ability to repay debt
- the extent of debt financing in relation to the prudent borrowing capacity of the company
- obligations of the Directors under the Companies Act 1993 and other statutory requirements.

With the projected profitability and capital requirements of the organisation in the course of this planning period, we are not projecting to pay dividends to the shareholder.

### Risk policy

Manaaki Whenua has risk management and compliance processes in place and operating effectively across the agency. The risk management framework identifies, classifies, reports on and mitigates business risk. Risk reporting to the Audit and Risk Committee and the Board is done every 6 months, or as a risk arises.

### Accounting policies

A summary of our accounting policies is included in our Annual Report. The current Annual Report can be found on our website: <http://www.landcareresearch.co.nz/about/sustainability/annual-reports/>

### Shareholder consent for significant transactions

The Board will obtain prior written consent from the shareholding Ministers for any transaction or series of transactions involving full or partial acquisition, disposal or modification of property (buildings, land and capital equipment), and other assets with a value equivalent to or greater than \$10M or 20% of the Company's total assets (prior to the transaction), whichever is the lesser.

The Board will obtain the prior written consent of shareholding Ministers for any transaction or series of transactions with a value equivalent to or greater than \$5M or 30% of the Company's total assets (prior to the transaction) involving:

- acquisition, disposal or modification of an interest in a joint venture, partnership or similar association
- acquisition or disposal, in full or in part, of shares or interests in a subsidiary, external company or business unit
- transactions that affect the Company's ownership of a subsidiary or a subsidiary's ownership of another entity
- other transactions that fall outside the scope of the definition of the Company's core business or that may have a material effect on the Company's science capabilities
- intellectual property transactions, which, wherever possible in advance, will be notified in the quarterly reports to shareholding Ministers.



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## **Appendix 4: Other matters required by the Crown Research Institutes Act 1992**

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### **Activities where shareholder compensation is required**

Where the Government wishes Manaaki Whenua to undertake activities or assume obligations that will result in a reduction of the organisation's profit, or net worth in terms of investment in research, the Board will seek compensation sufficient to allow the organisation's position to be restored.

No requests for compensation are currently under consideration.

### **Other matters specifically requested by the shareholder**

Section 16(3) of the Act requires Manaaki Whenua to furnish an estimate of the current commercial value of the Crown's investment.

The Board is satisfied that the net asset position (or total equity) is a reasonable proxy for the commercial value of the Group. The net asset position, as shown in accordance with the Company's accounting policies for 30 June 2019, was \$44M.



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## Glossary

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|                                |  |  |
|--------------------------------|--|--|
| BH-NSC                         | New Zealand's Biological Heritage National Science Challenge   | <a href="http://www.biologicalheritage.nz">www.biologicalheritage.nz</a>   |
| CDP                            | Carbon Disclosure Project  |  |
| CEMARS                         | Certified Emissions Measurement And Reduction Scheme   |  |
| DOC                            | Department of Conservation   | <a href="http://www.doc.govt.nz">www.doc.govt.nz</a>                       |
| EBITDAF                        | Earnings before income tax before depreciation, amortisation and fair value adjustments  |  |
| EMS                            | Enviro-Mark Solutions Ltd  | <a href="http://www.enviro-mark.com/home">www.enviro-mark.com/home</a>     |
| GHG                            | greenhouse gas   |  |
| JAS-ANZ                        | Joint Accreditation System of Australia and New Zealand  |  |
| KPI                            | key performance indicator  |  |
| MBIE                           | Ministry of Business, Innovation and Employment  | <a href="http://www.mbie.govt.nz">www.mbie.govt.nz</a>                     |
| MFAT                           | Ministry of Foreign Affairs and Trade  |  |
| MfE                            | Ministry for the Environment   | <a href="http://www.mfe.govt.nz">www.mfe.govt.nz</a>                       |
| MPI                            | Ministry for Primary Industries  | <a href="http://www.mpi.govt.nz">www.mpi.govt.nz</a>                       |
| NSC                            | National Science Challenge   |  |
| Natural Resources Sector (NRS) | Comprises the core government agencies responsible for the management and stewardship of New Zealand's natural resources, and includes regional council stakeholders | <a href="http://nrs.mfe.govt.nz">http://nrs.mfe.govt.nz</a>                |
| NPAT                           | Net profit after tax   |  |
| RS&I                           | Research, Science and Innovation   |  |
| SCI                            | Statement of Corporate Intent  |  |
| SCP                            | Statement of Core Purpose  | <a href="http://www.landcareresearch.co.nz">www.landcareresearch.co.nz</a> |
| SDG                            | UN Sustainable Development Goals   |  |
| SSIF                           | Strategic Science Investment Fund (MBIE)   | <a href="http://www.mbie.govt.nz">www.mbie.govt.nz</a>                     |

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# Directory

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## DIRECTORS

Jane Taylor (Chair)  
Dr Paul Reynolds (Deputy Chair)  
Ngarimu Blair  
Prof. Emily Parker  
John Rodwell  
Prof. Caroline Saunders  
Hon. Kate Wilkinson  
Justine Gilliland

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NZBN Number: 9429038990496

## SENIOR LEADERS

|                      |  |
|----------------------|--|
| Dr Richard Gordon    | Chief Executive                                    |
| Dr Fiona Carswell    | Chief Scientist                                    |
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3,600

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PASSIONATE PEOPLE

50

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NEW ZEALAND

6,000

SCIENCE PROJECTS  
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40

NATIONALLY SIGNIFICANT  
DATABASES & COLLECTIONS

**ag**research  
*āta mātai, mātai whetū*

**E/S/R**  
Science for Communities



Manaaki Whenua  
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RANGAHAU AHUMĀRA KAI



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