



17 April 2019

Hon Dr Megan Woods
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Dear Minister

Meeting the Government's priorities

We refer to your annual Letter of Expectations for 2019/20, a draft of which we received on 5 March 2019.

In response to your letter, I would like to outline what we see as the key strategic issues for GNS Science for the coming fiscal year. Consistent with our Statement of Core Purpose, our vision for a *cleaner, safer and more prosperous New Zealand* will directly contribute to the achievement of a more productive, sustainable and inclusive economy.

In the coming year, we will focus on furthering the benefits to New Zealand from:

- Implementation of the Strategic review of GNS Science
- Enhanced geohazards monitoring
- Delivering on stakeholder priorities
- Improved Māori partnerships
- Cross-system collaborations in freshwater, climate change and energy futures

Strategic review

The strategic review of GNS Science is progressing well, with new executive management and corporate functions in place. On 25 March 2019, our new science structures and roles will go live, with associated corporate systems operational from 1 July 2019. Through an all-of-staff Conference in May, we will celebrate the 'reset' of the organisation.

Capability, culture and strategic workforce planning

Over the next three years, we are putting major emphasis on building GNS Science beyond an organisation of world-leading scientists. Work has begun on an Organisational Development Strategy to enable the organisational capability, capacity and culture we need to be a world-leading science organisation. Implementation of the Strategy will focus on leadership capability, culture transformation, and strategic workforce planning. The latter programme will include a focus on workforce diversity to accelerate GNS Science's response to the issues raised in the pan-CRI report-backs on *Māori partnership and co-innovation* and *CRI science workforce planning*.

As part of the strategic workforce planning programme, we will continue to engage with others (e.g. Callaghan Innovation, other CRIs and beyond) to share best practice and learnings on recognising and incentivising diverse contributions in science. We will also contribute through the Departmental Science Advisors' forum to work led by the Prime Minister's Chief Science Advisor on better enabling diversity on science.

Strategic science priorities

By making clearer strategic choices about the research we do, GNS Science will deliver more tangible benefits to address New Zealand's changing needs. As outlined in our draft *Statement of Corporate Intent*, four new Strategic Themes will drive our science from 1 July 2019:

- Natural Hazards and Risks
- Environment and Climate
- Energy Futures
- Land and Marine Geoscience

Accordingly, we have reshaped our Strategic Science Investment Fund (SSIF) programmes. Following internal and external consultation, three new mission-led, integrated and interdisciplinary research programmes will begin on 1 July 2019 to:

- Better understand and mitigate Hazards and Risk
- Sustainably manage New Zealand's Groundwater Resources
- Explore the continent of Zealandia-Te Riu a Māui

Design work is in train for further SSIF investments in 2019/20 to enhance support for Vision Mātauranga research, integrate social science across our physical science programmes, and boost our capability and capacity in data science.

Energy Futures

In 2019/20, we will finalise work to develop and implement the new Energy Futures Science Theme. As the lead Energy CRI, GNS Science is looking to play a greater leadership role in enabling New Zealand to transition to a lower-carbon economy and meet national renewable energy goals. We are actively contributing to the development of the Hydrogen Green Paper, and will seek further opportunities to add value to cross-system thinking in these areas.

Enhanced geohazard monitoring

Following the launch in December 2018 of the National Geohazards Monitoring Centre *Te Puna Mōrearea i te Rū*, work has continued on the associated work programme to enhance the provision of timely and accurate advice on major geological threats. The back-up facility at Wairakei is now operational.

A focus in 2019/20 will be enhancement of earthquake and tsunami advice, and progressing SSIF-funded research on effective early warnings/forecasts, improved response decision-making and recovery planning, and improved risk governance. We are working closely with stakeholders to ensure that robust governance, service and funding arrangements support the effective delivery of GeoNet services into the future.

Delivering on stakeholder priorities

As part of the strategic review, GNS Science is investing systematically in improving how we engage with and respond to the needs of our major sector partners. A new Group has been established to ensure we deliver science solutions of high relevance to stakeholder priorities, both current and emergent. In 2018/19 we undertook several formal and informal surveys to shape our new SSIF programmes. In 2019, we will identify what formal mechanisms are best-suited to seeking regular and meaningful feedback from our major sector stakeholders.

Over 2019-2021, we will be developing and implementing a new Stakeholder Engagement programme, including new approaches to enable co-innovation with major end-users. We have established a new Innovation Hub within GNS to support higher-risk innovation. Work has started to refresh our approach to commercialisation and IP management – recognising that strategic choices are key to enabling both ‘open science’ with high public-good impact, and developing industry-led innovation to grow new industries and value for New Zealand.

Achieving Vision Mātauranga goals

GNS Science is committed to growing our ability to effectively implement the Vision Mātauranga policy in our work. Through a new programme, we will:

- Implement an engagement strategy to enhance relationships with iwi/Māori
- Support the development of iwi-led research and development strategies
- Collaborate with other CRIs to develop whole-of-government approaches
- Develop internal capability and capacity to support Vision Mātauranga goals
- Develop Māori science and innovation capability through high-impact partnerships
- Foster connections between Māori, government, the science system and industry to grow opportunities for Māori led science and innovation

Our aspiration is that Māori worldviews, priorities and needs are clearly visible and reflected in our ways of working, as well as our strategic direction. To grow capability, we will develop a new intern programme to support Māori entering into the science sector.

High-value connectivity

GNS Science is taking active steps to collaborate more effectively across the science and innovation ecosystem. We are well-positioned to link CRIs, Universities and other research institutions. In 2019-21, we will focus on extending our high-impact collaborations in Antarctic science, consolidating a new national approach to groundwater research, and working with others to develop a systems-view of energy futures research of relevance to New Zealand.

Increasingly, GNS Science will play a leadership role beyond hazards research in bringing together science and stakeholder interests in areas of national priority. For example, through close collaboration with the research community, energy sector, Māori partners, and regional development interests, we will seek to unlock the potential from New Zealand’s renewable geothermal energy resources. Leveraging longstanding international collaborations will be a focus in 2019/20 as we scope opportunities to develop next-generation (deep heat) geothermal energy. Our relationship with Japan will be especially important, including to develop relevant capability and understand new technology paradigms.

High performance Boards

The Board undertakes self-assessments on an annual basis and provides feedback to MBIE and The Treasury. In 2019/20, we will look to refresh membership of the Strategic Science and User Advisory Panel to ensure future-focused independent advice to the Board. This is important given rapid technology advances and growing societal expectations of science.

Engagement

We look forward to engaging with you regularly through the year on strategic issues such as preparation for the forthcoming review of CRIs, CRI workforce planning, and cross-CRI Māori engagement. We continue to work closely with MBIE officials to develop our SCI, refresh SSIF contracts to reflect our new strategic direction and priorities, and demonstrate good progress in hosting and governance of the Resilience Challenge, so that we are well positioned to assist the Government with its priorities for research, science and innovation.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nicola Crauford', written in a cursive style.

Dr Nicola Crauford
Chairman