

15 April 2021

Hon Dr Megan Woods
Minister of Research, Science and Innovation
Parliament Buildings
Wellington

Tēnā koe e Minita

ESR Strategic Issues Letter

Thank you for your 'Annual Letter of Expectations for 2021/22.' 2020 was a year unlike any other for the Institute of Environmental Science and Research (ESR). The COVID-19 pandemic pushed genomics-enabled public health to the very top of the national agenda and ESR collectively rose to that challenge and has been publicly acknowledged for the exceptional role it played in the response effort. ESR's COVID-19 response is enabled because of its scientific strength across multiple disciplines.

It is ESR's epidemiologists and analysts who tracked the development of the disease from its emergence in December 2019 and who created a live dashboard with up-to-the minute information for use by the Ministry of Health and health sector. ESR promoted and led the implementation of genome sequencing and the multi-disciplinary analysis needed to distil public health intelligence from it as a key policy response platform. ESR also promoted and led the validation and trialling of saliva testing, enabling private sector providers to offer testing services that meet the Government's policy objectives. The point should not be lost that had ESR not decided to pursue a programme of genome sequencing capability five years ago which was not widely supported at that time, New Zealand would not have been able to effectively implement its' elimination strategy.

That scientific foresight is a strength of ESR, which plays across a number of arenas. ESR is not only delivering public health solutions for today, it is actively preparing for the unknown challenges of the future. ESR is actively preparing science based solutions in areas such as genomics, social systems, and digital forensics. Our work includes leading edge flu research and surveillance, development and delivery of agile world leading drug detection services, the science to trace and distinguish a range of substances in wastewater for the benefit of public health and policing, as well as the applied science which ensures that many of our primary products are free of contamination to meet the requirements of our global export markets. These efforts will help underpin the implementation of government and industry strategies such as *Fit for a Better World Roadmap* and the *Conservation and Environment Science Roadmap*.

As we look to strengthen and deliver on the Government's expectations, we are mindful of the uncertainty that the Te Pae Kahurangi Report and the Health and Disability Review has on our people. We look forward to working with you to deliver on your expectations in these areas as soon as practicable so that ESR's people can remain focussed on delivering exceptional science led solutions for New Zealanders today and equally important undertaking cutting edge research to prepare science solutions to meet New Zealand's future challenges.

Accelerating New Zealand's Economic Recovery

ESR's genome sequencing work has been fundamental to allow for the management of moving in and out of lockdown levels. It has been estimated that urgent sequencing of the one unlinked case in Auckland in November last year which prevented a further lockdown, prevented \$132 million being removed from the NZ economy. We will continue to actively pursue opportunities to contribute to economic recovery including analysis of other COVID-19 testing mechanisms such as rapid serology tests and continue the validation and protocols around the use of saliva testing. We are also pursuing discussions with the Ministry for Primary Industries (MPI) around future scenarios where the testing for frontline food-processing staff involved in exports to certain nations, where it might become a requirement that there is a testing regime for COVID-19 prior to goods being exported to them. We continue to provide a range of services to private sector companies to ensure that the products they export meet the food safety requirements of those markets.

During times of fiscal restraint which the Government currently finds itself managing, the importance of allowing science to innovate and deliver market solutions should not be lost in current sector design thinking. ESRs' subsidiary STRmix (forensic software that helps resolve complex mixtures of human DNA) continues to be a significant source of innovation and revenue to ESR, reducing the demand on public funds. The development of LUMI (a handheld real-time electronic drug screening device) in collaboration with the NZ Police s9(2)(b)(ii) s9(2)(b)(ii) and there is significant interest from overseas jurisdictions in this product. These applied science applications not only keep our scientists close to our stakeholders and focussed on New Zealand's most pressing problems, they benefit the government and New Zealand through innovative solutions helping community resilience and wellbeing and also reduce the demand for government revenue. ESR will continue to mobilise its' expertise to drive innovation and stakeholder engagement to develop the products and services our customers want.

Co-creation of Health, Primary Industries and Policing Outcomes and Priorities

ESR is currently in the process of renegotiating its' contractual relationship with both the Ministry of Health (MoH) and the Ministry for Primary Industries. All parties are working collaboratively to reset the nature of these relationships. ESR is also working closely with MoH in shaping its transformation journey. ESR believes that great outcomes are generated when strategy and delivery are co-created so that when contracts are formalised the applied science being delivered is nimble and agile to meet mutually agreed public health and primary industry objectives. This approach is being embraced by all parties and we are confident that it will deliver better overall value for the people of New Zealand. Negotiations around our Police contract are also in process and we are pursuing the same integrated approach to our interactions, including joint strategy sessions to understand and co-create programmes which will deliver enhanced community outcomes. We are also using this renegotiation period to lift our ability to deliver positive impact for Māori, and to partner with Māori to translate mātauranga Māori into positive *impact* for NZ, as key success indicators.

Collaboration and Interconnectedness

ESR is also strengthening its system wide collaboration and interconnectedness through a number of avenues, deepening knowledge and understanding through building science capacity and capability by:

- Proactively enabling Māori participation and Mātauranga Māori as a core part of our science programmes.
- Secondments and placements with Ministry of Health, Ministry for Primary Industries, University of Canterbury, Plant and Food Research.

- Participation in the Evidence Based Policing Centre with University of Waikato.
- Increasing international connectiveness through avenues such as the Strategic Science Advisory Panel building on ESRs' international recognition generated by the Lancet publication.
- Strengthening networks and ties with like-minded universities through pursuit of joint graduate initiatives, exchange of scientific expertise under professional interchange, and formalising the use of expertise for mutual benefit such as sharing of data analysis statistical personnel; and
- Building resilient infrastructure by co-creating business support services across CRI's to maximise efficiencies and connectiveness through areas such as shared virtual IT security services, common Enterprise Resource Planning platforms, Lab information systems and the development and implementation of a National Data Centre.

Ensuring New Zealand's scientists have world class facilities to continue their world class science

I acknowledge your letter to CRI Chairs 'Re: Development of an integrated approach to property development'. ESR is committed to ensuring that New Zealand's scientists' have access to the best laboratory facilities. ESR's laboratories and work spaces at Kenepuru are antiquated and no longer fit for purpose. It is a credit to our scientists that they continue to deliver outstanding science in the physical environments they currently work in. To ensure that our science is best connected and our infrastructure is fit for purpose we have been in active discussion with all the other CRI's as well as universities and the local DHB on whether there is the ability to share existing laboratory services or co-locate on site. Because of the nature of ESR's forensic work, its' work with noxious substances and highly infectious micro-organisms, our laboratory and infrastructure requirements only partially align with many other organisations. The exception is with MPI and their high-containment laboratory space at Wallaceville.

ESR will continue to pursue a 'portfolio approach' to ensure resilience and collaboration. We are in close collaboration with MPI to ensure that we align as much of ESR requirements as is compatible at Wallaceville. We are committed to rejuvenating our science centre at Kenepuru (KSC) to a world class science facility that embraces the mana and wairua of Ngāti Toa Rangatira and that KSC continues its close collaboration with the Police. Ngāti Toa Rangatira are deeply engaged and involved in all components of the design and build process as mana whenua and partner with ESR. We are also looking to refresh our sites at Mount Albert (MASC) working collaboratively with Plant & Food Research and at Christchurch (CSC) with University of Canterbury to ensure that they continue to be spaces that maximise the ability for our staff to deliver world class science and research. ESR will also continue to collaborate with multiple agencies to design the Gracefield Innovation Quarter.

Vision Māturanga

ESR is well into its journey of embracing Māturanga Māori as a foundation element of the ethos that is ESR – so that it becomes part of our DNA. The Board and Leadership Team fully embrace the value which Māturanga Māori brings to ESR.

ESR has established and continues to actively seek opportunities to pursue whakawhanaungatanga with iwi. It is in active discussions with Ngāti Whātua; Ngāti Toa Rangatira and Ngāi Tahu as well as our Mana Whenua and other Māori communities in the

Tāmaki region with the objective of determining how we can collectively grow mutually beneficial relationships.

ESR's He Wai Māpuna programme is progressing strongly and fulfilling its promise to become an exemplar for ESR of a new way of working with Māori. He Wai Māpuna is a partnership between ESR and Māori communities that uses water – Wai – as the vehicle to unlock impacts for Māori. ESR has established three community-scale programmes in Tauranga Moana, Whakatāne and Wairarapa Moana. All three communities are working on detailed plans of aspirations and needs relating to water. Additionally, we expect to have two new He Wai Māpuna iwi partners by end of 2021.

In building our organisational capability we will continue to work towards our strategy of increasing cultural capability and capacity to deliver Māori impact through both recruitment of new staff and the development of existing ESR staff. A comprehensive programme which includes opportunities for all staff in Te Reo Māori and Tikanga, support and mentoring for people leaders including SLT and the Board and a 12-month comprehensive programme for a cohort of ESR staff currently working with Māori will be further embedded this year. A key component of ESR's organisational strategy is centred around embedding Māori Data Sovereignty. A Māori Data Leadership Group is being established to design and implement the Māori data principles and practices that will inform our data ecosystem.

To deepen our ambition we will be reviewing ESR's health-related services and research with the objective of determining a pathway forward on how and where ESR can provide greater impact towards equitable health outcomes for Māori. We will be reviewing our procurement processes to ensure Māori suppliers are viewed equitably by ESR and will refresh ESR's visual identity so that it better reflects who we are, the communities we serve and embeds Te Ao Māori to tell a cohesive and richer visual story about both Mātauranga Māori and Western Science.

Wellbeing and workplace diversity – good governance

We acknowledge your expectations on wellbeing and workplace diversity and good governance, over and above where these matters have been specifically addressed. The areas of employee wellbeing, pay equity principles, diversity and inclusion and maintaining and building a diverse workforce at all levels will continue to be an important focus.

Conclusion

On behalf of the Board and management of ESR we look forward to working with you to ensure ESR continues to deliver excellence in science led solutions for the health and well-being of New Zealand communities. Looking to the past to inform and take decisions for the future, embracing a Te Ao Māori approach to achieve scientific excellence, ESR will continue its transitional journey of solving the public health challenges of today and preparing for the challenges of the future.

Nāku iti noa, nā



Denise Church
Chair ESR