Science New Zealand

Science New Zealand Inc
PO Box 10-345, The Terrace, Wellington 6143, New Zealand
Level 6, 17 Whitmore Street, Wellington
P +64 4 472 0612 **W** sciencenewzealand.org

Strengthening the resilience of Aotearoa New Zealand's critical infrastructure system:

Critical Infrastructure Phase 1 Consultation

8 August 2023

Submission from Science New Zealand Inc

1. Science New Zealand is the peak body for New Zealand's seven Crown Research Institutes and Callaghan Innovation (a Crown agency). It supports the members in their mandate under the CRI Act 1992 to undertake research that benefits New Zealand and to promote and disseminate such research and knowledge. Each member has specific sectors to serve; increasingly, this requires collaborative approaches around development of capability and resources including physical assets, and strategies for stakeholders. This reflects that many issues are complex interactions of economic, environmental, social and cultural elements.

2. The members are the Crown's largest set of wholly owned science research capability, with some 5000 FTE in 50 locations around New Zealand. Members support public and private sector entities and are often the largest supplier of science research knowledge and advice to central and local government. Revenue comes from commercial contracts with clients (public and private sector), contestable funding and licences and royalties.

3. As entities, CRIs must have regard to Ministerial expectations, and the Statements of Corporate Intent are subject to approval by the two shareholding Ministers. In addition, the CRI Act 1992 (Clause 43) specifies that the Prime Minister may give direction to CRIs in certain circumstances (such as a State of Emergency declared under CDEM 2002, or emergencies regarding animals, apiary, plant or forests).

4. During the review of National Civil Defence and the formation of NEMA, it became apparent that CRIs were adding more value to the reduction, readiness and response, and recovery (4Rs) for New Zealand than was previously apparent when CRIs were treated solely as suppliers of information and/or technicians during the time of the emergency. In fact, CRIs had extensive experience of handling regionally and nationally significant emergencies, had processes in place to prepare for such events and the recovery. This included relationships with other key actors (such as local and central government, industry sectors, other research providers).

5. Assets, people and external relationships are stewarded by members within the concept that they will be ready and deployable at any time. They also strategically consider the individual and collective resilience of these elements, similar to that outlined on page 12 of the consultation paper.

6. The members share learnings with each other from their varied experiences; this enhances their ability to cooperate quickly and intelligently wherever necessary. For example, in the Covid-19 emergency members quickly rallied to support ESR with equipment and personnel, and formed an essential element in the whole of science system response; equally, the CRIs were ready and able to collaborate in the 2023 extreme weather events for response and recovery.

7. The members are strongly of the view that the framework for ensuring New Zealand has a secure platform for a productive, sustainable and inclusive economy (encompassing all the capitals) must continually evolve. This includes evolution of elements such as infrastructure, assets and people and organisational relationships.

8. Therefore Science New Zealand welcomes this initial consultation and the commitment to further consultation both on the Emergency Management Bill currently in the House, and on this process.

9. Science New Zealand places on record the readiness of all its members to be included in this process as it continues. NIWA, a Science New Zealand member, has made a submission in this consultation process providing more detail from its perspective.

10. The initial consultation paper notes that the Emergency Management Bill definition of critical infrastructure will include assets, systems and networks rather than the more constrained set of lifeline utilities. Science New Zealand agrees with this approach.

11. Members also agree that the challenges of the future provide an opportunity for New Zealand, as well as presenting risks to be avoided or mitigated. This mindset informs the ongoing work of each Science New Zealand member.

12. The consultation paper rightly asserts that any changes in regulations must be as light as possible to achieve the outcomes desired. A principles-based approach is a useful start to this conversation. We note that CRIs are already subject to multiple regulatory agencies, and more discussion would be needed to determine if additional regulations would add value.

13. Regulations are not a substitute for adequately equipping and staffing the agencies or providing resource to ensure ongoing preparation and practise.

14. At present, agencies must make the trade-off between doing what they believe is in the New Zealand interest (i.e. to be adequately prepared) and cost incurred. It would be more consistent if regulations imposing requirement were resourced and include any other science organisations which could contribute to the 4Rs. CRIs work collaboratively with universities in some types of emergency (natural hazards, animal and plant health) and also operate under Protective Security Requirements.

15. Science New Zealand members have clear reporting responsibilities and accountabilities to monitoring and evaluation agencies (principally MBIE and Treasury), and CRIs are companies with relevant company obligations for Boards and management. These should be sufficient to ensure compliance with any additional requirements upon governance and management.

16. Just as it is important for Science New Zealand members to regularly cooperate and coordinate where possible, it is important for central government to have clarity of the roles of its agencies. Whether there is one central agency for all types of emergency or a clearly designated lead agency relevant to specific emergencies, is less important than clarity of role and ongoing preparation (*Readiness*) in conjunction with organisations such as the Science New Zealand members.

17. Science New Zealand members are reliant upon critical infrastructure to perform our role, not least during emergencies. Emergency management of various kinds rely upon data, assessment, and insight from CRIs – which in turn is reliant upon data bases, electricity and telecommunications and health. The cost-benefit ratio of ensuring such resilience will need to be further discussed, to consider the individual entity resilience and contribution to the national resilience in any event.

18. The paper identifies four megatrends which can be a useful starting point for assessment of risk (and opportunity). NIWA provides some additional detail, some of which arise from those (such as human population flows caused by climate change or by natural hazards) but need to be separately identified. While perhaps not a megatrend, health is a considerable risk factor with occurrence and impact increasing.

19. As noted above, CRIs are already subject to central government direction (Prime Minister's right to do so – Clause 43 of the CRI Act), and central government expectation.

20. The direction right has never needed to be exercised.

21. The CRI culture is to respond immediately to a regional, national or sectoral emergency – reallocating use of people and assets as and when needed. This can come at considerable cost, both in the immediate and foregone activity. It is, however, part of why the Crown continues to own these capabilities, even if it does not cover costs for these specific purposes (CRIs must win revenues from contracts to maintain capability).

22. In Japan, with a slightly lower national risk profile than New Zealand, central government agencies are explicitly resourced from a standing fund to undertake emergency response. This removes financial concerns from the agencies, or post-event negotiations.