Te Ara Paerangi

Submission on behalf of Scion's Te Ao Māori team
16 March 2022

Kupu Whakataki

1. We, the Te Ao Māori team from Scion, support and endorse Scion's submission on Te Ara Paerangi. This associated submission prepared collectively by our team elevates and offers recommendations on further areas of specific relevance to Te Ao Māori from our experiences as Māori and allies working in the Research, Science, and Innovation (RSI) system.

2. Scion's Te Ao Māori team comprises members from corporate, research and support functions, and is also diverse in experience, age groups, cultures, knowledge and exposure to Te Ao Māori and Te Reo Māori, range of science disciplines and mātauranga Māori. The diversity of voices is reflected in this submission.

3. This a solution-focussed submission organised to respond to Te Ara Paerangi overall, rather than in response to specific questions. Key recommendations are summarised at the end.

Te Tiriti, Mātauranga Māori, and Māori aspirations towards national research priority setting

Mehemea ka moemoeā, ko au anake; Mehemea ka moemoeā tātou, ka taea e tātou[1]
If I dream, I dream alone. If we dream together, we will achieve

4. Our aspiration is a tikanga-level partnership, with the people who hold the tikanga defining the partnership. In a true partnership, both parties (Crown and tangata whenua) would have the opportunity, resources, networks, and knowledge to determine the priorities, options, and solutions – demonstrating true tino rangatiratanga as expressed in Article 2 of Te Tiriti o Waitangi (Te Tiriti). This requires a reset or rebalancing and sharing of power for Māori to enter any partnership arrangement. This looks like Māori determining Māori governance and leadership over Māori values, knowledge, resources and assets, and people in the RSI sector (article 1), Māori exercising decision-making and control over Māori resources and infrastructure (article 2), and Māori right to exercise participation, access, and pathways into the RSI sector (article 3). There is also an opportunity to include Māori values-based approaches (originally part of article 4) throughout the RSI sector. This phase is critical and a necessity prior to making an effective shared or partnership initiative.

5. In asking Māori how they would like to be engaged - as you have done via Te Ara Paerangi - we maintain that Te Tiriti is a useful starting point by which to frame a conversation with Māori. We strongly support the recommendations articulated in Te Pūtahitanga that call for a policy approach that is enabled by, and responsive to, Te Tiriti[2]. Furthermore, on the basis that not all hapū signed Te Tiriti, we advise against assuming Te Tiriti is the only or most appropriate frame for a conversation with Māori. The system needs to appreciate and be prepared for multiple perspectives and a plurality of approaches. Whatever is decided, tino rangatiratanga as expressed in article 2 of Te Tiriti, is paramount.

6. At the governance and leadership levels, the essence of Te Tiriti principles is currently scattered throughout the RSI system and lacks continuity and consistency. We need to develop more sustainable practices by embedding the Tiriti principles (as a minimum) throughout every aspect and stage of the RSI system. E.g. from priority setting to governance to funding and investment to career development.

7. We do not necessarily think that efficiency is complimentary to and synonymous with sustainability and enabling. We need to have the option to encourage complexity and diversity, and holism – which is not always efficient. We suggest nuanced pathways to current approaches – to design and achieve desired outcomes according to impact.

8. Like Scion's own journey with the mana whenua for our Rotorua campus, we strongly encourage all CRIs (Crown Research Institutes) to engage with their respective mana whenua as a positive expression of Te Tiriti-based partnership. We would expect the RSI system to resource hapū to firstly determine and define what a successful partnership means for them; and secondly, work with their respective CRI to deliver that.

---

[1] Te Puea Herangi
[2] Kukutai, et al., (2021) Te Pūtahitanga: A Tiriti–led Science-Policy Approach for Aotearoa New Zealand

9. In terms of developing national research priorities, the productive health and wellbeing of our environment and its people are high priority. The mātauranga Māori and its protocols supporting this priority area is a critical research space to be invested in, as the solutions to the environmental issues we face today are found in this indigenous knowledge system.

10. In addition to the above we strongly advocate for:

    a. Māori leadership at all levels of decision-making

    b. Mana ōrite – Māori (tangata whenua and legislated entities) involved as equal partners

    c. Tiriti-based principles underpinning the process – which recognise tangata whenua as an equal partner

    d. Māori-focused National Science Challenge – Consider a programme that allows Māori to develop research priorities based on Māori pedagogies. The processes used to determine the current National Science Challenges was good. However, one significant improvement would be to involve Māori voice more widely by including Māori methodologies, Māori techniques and Māori more connected to grassroots communities to gather Māori voice around national research priorities.

    e. Recognition and protection of tino rangatiratanga (Te Tiriti, Article 2) - It has been noted that Māori have their own thinking systems, and this has not been recognised by the current system. Recognising and upholding Māori Tino Rangatiratanga in article 2 is paramount to the success of the true partnership and our collaboration to tackle foreseeable challenges that we can attempt to survive in. Article 2 Tino Rangatiratanga is a principle that acknowledges Māori sovereignty over whenua, kāinga and taonga. This encompasses our recommendations of an independent Māori-specific Science centre and Mātauranga Māori Commissioner referenced in point 11 and 14.

    f. Equity at all scales – global, national, regional, local and whānau priorities weighted equitably.

To truly enable and protect mātauranga Māori, we need to authentically value, support, and resource our knowledge holders.

11. We recommend the creation of an independent Māori-specific science and innovation centre established by Māori, with Māori and for Māori research. Distinct from the excellent work of our existing whare wānanga such as Awanuiārangi and Raukawa, this centre would provide a korowai aroha (values-based infrastructure) and kete (values-based tools, resources, and personnel) applied at an institutional level focused on the protection of mātauranga.

12. We suggest that the measures of science excellence be extended and valued both equally and differently as appropriate.

13. We recommend the creation of the role of Commissioner - Mātauranga Māori – independent of but supported by government. The Commissioner's core role and function would be the protection of mātauranga Māori, holding this in trust for knowledge holders whilst simultaneously enabling innovation and growth in the RSI system. The Commissioner would set the standards, frameworks, and policies for the RSI system, to ensure that benefits of mātauranga are directed back into communities. We note this is also identified in Te Pūtahitanga.

14. Allowing this establishment of Māori science leadership will exemplify the understanding of Te Tiriti o Waitangi principles at its core rather than science-based foundations that continue to fall short of an authentic approach to Tino Rangatiratanga (as referenced in point 10 e). It derives by Māori with Māori, allowing Māori not to be restricted within the constraints of the current Science system but using their Tino Rangatiratanga to find and guide better pathways to our overall understanding.

Research workforce

Whiria te tangata ka puta he oranga, whiria ngā mahi pūtaiao, ngā mātauranga Māori, ka puta he tino rangatiratanga
Weaving people promotes well-being, weaving the sciences and mātauranga Māori promotes distinctiveness and excellence

15. We endorse the recommendations of the He Rauika Māngai (2020) to empower Māori people, Māori resources, Māori knowledge and the future[3].

---

[3] Rauika Māngai. (2020). A Guide to Vision Mātauranga: Lessons from Māori Voices in the New Zealand Science Sector. Wellington, NZ: Rauika Māngai.

16. As Māori working in the RSI system, the foundation to our mātauranga Māori and innovation is often questioned, disregarded, and relegated to the background. Mātauranga Māori and its knowledge-holders - including Māori working in the system - require mechanisms to have mātauranga Māori supported, rightfully attributed, and protected. This is further reinforced by the findings of a study canvassing CRIs and universities, which overall have failed to support a sustainable Māori and Pacific workforce[4]

17. As Māori staff, we often find we are doing at least two jobs – the job we are employed to do as scientists and researchers and upholding our organisation's cultural capability. We get pulled in many directions, some beyond our core function, to provide necessary cultural support within our organisations that are not recognised or valued by the system. This is consistent with the 'Aronga Takirua - Double cultural shift' phenomena experienced nationally by Māori researchers working in the RSI system[5].

18. We recommend the development and/or adoption of a Mātauranga Māori Rangahau system that recognises, values, protects, and supports Māori scientists within the RSI systems for their cultural knowledge and skills, that will sit alongside the academic scientists/ technologist/ corporate performance frameworks that are currently used in CRIs.

19. We advocate for the embedding of Te Ao Māori principles at the RSI level to ensure that all kaimahi working within the system know what is expected regarding commitment to cultural capability and research opportunities and outcomes for Māori. This will also help to validate and give due recognition to Māori cultural capability and competency.

20. We suggest that specific approaches/mechanisms are put in place to encourage Māori scientists to employ a plural approach to their research so that traditional and conventional knowledge systems are equally valued and utilised.

21. We further support the following initiatives to grow and develop the Research workforce:

    a. Seamless secondments with other research institutions to enable Māori researchers to move between various CRIs, providing greater opportunity for innovation and exploration into new areas of research and enhancing knowledge and career development pathways

    b. More direct and stronger relationship building between teacher training programmes and schools to support professional development of schoolteachers – particularly in schools with a high Māori population

    c. Pathways for Māori to enter our institutes by forming a straight line from school/tertiary student intern systems, subsidised with additional funding (as per past technician's trainee system)

    d. Cultural exchanges, secondments, and other pathways to increase awareness and accelerate learning of the two main knowledge systems (like VMCF but broader, with more funding allocated)

    e. Equal access by Māori to funding to build skills relevant to our knowledge system.

Funding

Ki te kore nga pūtake e mākukungia e kore te rakau e tupu
If the roots of the tree are not watered the tree will never grow

22. We define a 'core function' as that which enables the community to access research and science. For example, while the long-term intent during the process of rangahau is to share benefits, this does not always happen. Dissemination of information does not always take place in a holistic way (ensuring benefit for Aotearoa NZ (New Zealand)) and therefore does not always reach the intended audience. Impact needs to encompass all while simultaneously adopting a targeted approach to ensure equitable access to research and science.

23. Although this impact is considered in the design of a research programme, the outcomes are not consistent. There is little accountability to share publicly or more widely, and often commercial outcomes take priority. We need to build the trust of public access research.

---

[4] Tara G. McAllister, Sereana Naepi, Elizabeth Wilson, Daniel Hikuroa & Leilani A. Walker (2022) Under-represented and overlooked: Māori and Pasifika scientists in Aotearoa New Zealand's universities and crown-research institutes, Journal of the Royal Society of New Zealand, 52:1, 38-53, DOI: 10.1080/03036758.2020.1796103

[5] Haar, Jarrod, and William John Martin. "EXPRESS: He Aronga Takirua: Cultural Double Shifting of Māori Scientists." Human Relations, 8 Mar. 2021, p. 001872672110039, journals.sagepub.com/doi/full/10.1177/00187267211003955, 10.1177/00187267211003955. Accessed 13 Mar. 2022.

24. While there is an ardent desire (and need) to build mātauranga Māori and Māori-centred research, there is no framework and little infrastructure to support this. This failure is linked to how institutions and the system are valuing and therefore funding this type of research.

A Māori impact framework is required before moving to a base grant funding model

25. We support the recommendations of Te Pūtahitanga as it relates to Tiriti-based guidelines for RSI funding.

26. We further strongly advocate the need for a Māori impact framework (like the Results Chain framework), designed by Māori working in and with the science system. We suggest this is critical for designing and delivering impact for Māori. The framework would include earmarked funds for actively widening access to vulnerable and marginalised communities and could be tied to wellbeing outcomes such as those articulated in the Living Standards Framework.

27. The Māori impact framework would need to be constituted within government policy to ensure uptake and compliance by CRIs. Institutions access to core funding would be dependent on achieving a benchmark of Māori impact.

28. Alongside the Māori Impact framework would be a set of tools (based on robust and rigorous indigenous and assessment principles) for nationwide distribution and use that assesses a holistic and integrated approach to impact for Māori.

29. We suggest that without a Māori impact framework, base grant funding should be delayed until the needs of Te Ao Māori are fully considered. Delaying base grant funding until institutions embed proper measures could be an incentive for meaningful change.

30. Alongside the development of a Māori impact framework, we propose a three-pronged funding model:

    a. The first would support projects that focus on building the capability of Māori to engage with the RSI system and undertake preliminary rangahau that puts them on a pathway to meet their medium-long term research and development aspirations. This fund would have clear criteria and a user-friendly application process with less-frequent and less-onerous reporting requirements (higher volume, lower cost projects that realistically fund capability building).

    b. The second targets larger and longer-term projects/programmes. For larger projects/programmes we strongly recommend a move away from the current competitive funding model to a collaborative system that rewards collaboration between Aotearoa NZ organisations and international institutions, with a simpler and clearer application process.

    c. The third would devolve higher % base funding to institutions (i.e. increase from current 40-50% to 60-70%), rewarding alignment to government priorities and the Māori impact framework. It is important to assign criteria and accountability for how this is allocated so it is more consistently applied across the RSI system.

A funding model needs to address equity and access issues

31. If you look to the experiences of schools that operated on base grant funding – inequities between schools became wider because the underpinning formula was based on class (which also reflects the distribution of race and social capital). Unless there is a strong weighting added to addressing issues of inequities, including redistribution of resources to science projects connected to communities of need, a base grant funding model will not deliver the expected return on investment.

32. The current competitively focussed MBIE (Ministry of Business Innovation & Employment) funding model has a high transactional cost when compared to the success rate of proposals. We envision an RSI system that improves opportunities for Māori – particularly smaller whānau and hapū-based entities - to pursue their R&D aspirations by providing seed funding that is accessible and free of unnecessary administration and reporting, to bridge future research opportunities.

Institutions

He ora te whakapiri, he mate te whakatakariri. Mā pango, mā whero ka oti ai te mahi.

There is life in unity, there is defeat in division. Through the collaboration and diversity of leaders and workers, the goal will be achieved.

33. As noted above, the current funding model proliferates unhealthy competitive behaviour amongst CRIs. Similarly, the current company, commercially geared model under which CRIs operate conflicts with notions of collaboration and public good.

34. We believe more consistent and stable funding, such as that proposed above would drive more altruistic behaviour by individual CRIs which would be beneficial for the RSI system overall.

35. We support a collaborative body representing all CRIs as an overarching gateway to CRIs - a networked approach like the Te Pūkenga model[6]. This 'gateway' would facilitate a consistent, 'one-door' approach by which the public are able to engage with the RSI system more easily and to curb overlap and duplication of effort and resource. We will have the benefit of the Te Pūkenga journey to extract learnings from.

Research infrastructure

Ngā tini kete mātauranga kia hora, hei whare āhuru mōwai, hei whare whakaruruhau
The many repositories of knowledge are accessible, held in a nurturing state and safe space

36. We are acutely aware of some of the issues impacting the integrity and preservation of research infrastructure particularly databases, monitoring repositories and national collections.

37. We strongly recommend a national audit on all research infrastructure. This would include interrogating how databases, monitoring repositories and national collections are being resourced, managed, and cared for at the institution level, and the extent to which they are connected to landowners, kaitiaki and knowledge holders regarding governance, management, and access.

38. Following the audit, we suggest that an action plan is implemented – with appropriate resourcing and support - to facilitate whānau, hapū and iwi awareness of and access to these databases.

Marae-based hubs

Te pokapū o te whenua, te Toi Huarewa o te pito mata
The hub of the land, the ascent to our potential

39. On the basis that Māori knowledge is not organised 'regionally' we suggest that marae-based hubs – as opposed to regionally-based knowledge hubs – would better support and mobilise mātauranga Māori systems and maintain the mauri of practitioners to support their communities.

40. This approach offers many benefits, including opportunities for scientists and researchers to engage with Māori communities where the issue is being expressed; greater interface between research, research funding and Māori; exposure to localised issues; enhancing of existing knowledge and nurturing of new knowledge; regionally based (marae-based) employment opportunities within Māori communities.

41. Marae would need to co-lead the design of this new concept to direct the outcomes, infrastructure, and benefit flow into communities, and to ensure marae fully understand the commitment required in terms of capability and capacity.

42. We suggest that capability and capacity for the marae-based hubs would be best built over time. Adequate and sustainable resourcing is critical to ensuring their success. Some communities will need more support to establish and sustain a marae-based hub; whilst for others, it may not be appropriate or viable at all.

43. In proposing the concept of marae-based hubs, the inherent flaws in the RSI system discussed in previous sections still need to be resolved. As Māori kaimahi within the RSI system, our role includes "defending the pā" It will be important to ensure that direct access to Māori communities does not result in further exploitation and harm.

Ngā Tūtohunga Matua

The key recommendations from our submission are summarised below:

Engagement pathways and Māori aspirations for authentic partnership

44. We recommend:

   a. A reset or rebalancing and sharing of power for Māori to enter any partnership arrangement. This looks like Māori determining Māori governance and leadership over Māori values, knowledge, resources and assets, and people in the RSI sector (article 1), Māori exercising decision-making

---

[6] New Zealand Government. "Education and Training Act 2020 No 38 (as at 01 January 2022), Public Act Schedule 13 Te Pūkenga—New Zealand Institute of Skills and Technology's Charter – New Zealand Legislation." *Www.legislation.govt.nz*, 13 Mar. 2022, www.legislation.govt.nz/act/public/2020/0038/latest/LMS253892.html. Accessed 13 Mar. 2022.

and control over Māori resources and infrastructure (article 2), and Māori right to exercise participation, access, and pathways into the RSI sector (article 3). There is also an opportunity to include Māori values-based approaches (originally part of article 4) throughout the RSI sector. This phase is critical and a necessity prior to making an effective shared or partnership initiative.

b. Adopting Te Tiriti o Waitangi as a starting point to frame a conversation with Māori and accepting that Māori will have multiple perspectives and plurality of approaches.

c. Aiming towards a tikanga-level partnership, where those who hold the tikanga define the partnership, and both parties (Crown and tangata whenua) together determine priorities, options, and solutions.

d. Requiring all CRIs to engage with their respective mana whenua as a positive expression of Te Tiriti-based partnership and providing explicit funding to do this.

Protect and enable mātauranga Māori

45. We recommend:

a. Establishing an independent Māori-specific science and innovation centre established by Māori, with Māori and for Māori research. This centre would provide a korowai aroha and kete with tools applied at an institutional level that are specific to the protection of mātauranga, with relevant measures that are valued within the system.

b. Creating the new role of Commissioner, Mātauranga Māori – independent of, but supported by government. The Commissioner's core role and function would be the protection of mātauranga Māori, holding this in trust for knowledge holders whilst simultaneously enabling innovation and growth in the RSI system.

Research workforce

46. We recommend:

a. Developing and establishing specific approaches/mechanisms to encourage Māori scientists to employ a plural approach to their research so that traditional and conventional knowledge systems are equally valued and utilised.

b. Developing and adopting a Mātauranga Māori Rangahau system that recognises, values, protects, and supports Māori scientists within the RSI systems for their cultural knowledge and skills, that will sit alongside the academic scientists/ technologist/ corporate performance frameworks that are currently used in our CRIs.

c. Embedding Te Ao Māori principles at the RSI level so that there are clear expectations for all regarding commitment to cultural capability and research opportunities and outcomes for Māori.

d. Directing central government support to on-job training (skills-based and cultural competency) for all staff in science system/institutes, as a clear need to lift cultural competency of staff in the science system and recognise as (at least) equal knowledge in Te Ao Māori, and further, that cultural training delivery is increased at the institute-level (based on metrics are collected).

e. Creating an action plan to increase access by Māori to funding to build skills relevant to our knowledge system (based on metrics that are collected).

f. Enabling cultural exchanges and cross-CRI secondments to increase awareness and accelerate learning of the two main knowledge systems.

Funding

47. We recommend:

a. Enabling the development of a Māori impact framework for the RSI system (prior to a base funding model or any funding allocation) designed by Māori working in and with the science system. The framework would include earmarked funds for actively widening access to vulnerable and marginalised communities and could be tied to wellbeing outcomes such as those articulated in the Living Standards Framework.

b. Developing a three-pronged funding model: with small, medium, and larger devolved funding mechanisms, with clear criteria that supports Māori capability building, authentic partnerships and collaboration as opposed to competition.

    c.   Developing a set of values-based guiding principles (Tiriti-based, power-sharing, collaboration) for the way funding is managed, allocated, distributed, monitored, and reviewed, with metrics collected and openly reported at each stage in the funding process. This is to ensure that the future funding model addresses the current equity and access issues. Weightings may be required to ensure equitable outcomes.

Institutions

48. We recommend:

    a.   Investigating alternative models to the current company model adopted by CRIs, to reduce the conflict between collaborative and public good drivers with commercially driven outcomes and impacts required.

    b.   Establishing a collaborative body as an overarching gateway to CRIs as a way of facilitating a consistent, 'one-door' approach by which the public engages with the RSI system.

Research Infrastructure

49. We recommend:

    a.   Initiating a national audit on all research infrastructure including databases, monitoring repositories and national collections, including how they are being resourced, managed, and cared for at the institution level, and the extent to which they are connected to landowners, kaitiaki and knowledge holders regarding governance, management, and access.

    b.   Implementing an action plan – with sufficient resourcing and support - to facilitate whānau, hapū and iwi awareness of and access to these databases.

Marae-based hubs

50. We recommend:

    a.   Exploring the concept of marae-based hubs, rather than regional hubs, to better support and mobilise mātauranga Māori systems and maintain the mauri of practitioners to support their communities. Marae would co-lead the design of these hubs which would be fully and sustainably funded, with marae capacity and capability built over time.

Kupu Whakatepe

51. We are excited by the conversations that Te Ara Paerangi has prompted and reignited within our team, within our institution and across the RSI system. We appreciate the opportunity to provide our feedback and offer solutions towards recreating a responsive, progressive, and impactful system that rightfully embraces Te Tiriti, Te Ao Māori, and Mātauranga Māori.

52. We welcome the opportunity to further discuss and clarify any aspects of our submission.

Nāku iti nei,
Te Ao Māori Research Group
Scion