# #45

#### COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Thursday, February 24, 2022 11:00:28 AM
Last Modified:	Thursday, February 24, 2022 2:54:28 PM
Time Spent:	03:53:59

Page 2: Section 1: submitter contact information

#### Q1

Name

Michael Carson

# Q2

Email address

Privacy - 9(2)(a)

# Q3

Can MBIE publish your name and contact information with your submission?Confidentiality notice: Responding "no" to this question does not guarantee that we will not release the name and contact information your provided, if any, as we may be required to do so by law. It does mean that we will contact you if we are considering releasing submitter contact information that you have asked that we keep in confidence, and we will take your request for confidentiality into account when making a decision on whether to release it.

Q4	Yes
Can MBIE contact you in relation to your submission?	
Page 3: Section 2: Submitter information	
Q5	Individual
Are you submitting as an individual or on behalf of an organisation?	
Page 4: Section 2: Submitter information - individual	
Fage 4. Section 2. Submitter mormation - mulvidual	
Q6	Yes

Yes

Are you a researcher or scientist?

# Te Ara Paerangi - Future Pathways submission form

Age Q8 Gender	Privacy - 9(2)(a)
<b>Q9</b> In which region do you primarily work?	
<b>Q10</b> Ethnicity	
Page 5: Section 2: Submitter information - individua <b>Q11</b> What is your iwi affiliation?	Respondent skipped this question
Page 6: Section 2: Submitter information - individual <b>Q12</b> If you wish, please specify to which Pacific ethnicity you identify	Respondent skipped this question
Page 7: Section 2: Submitter information - individua <b>Q13</b> What type of organisation do you work for?	Independent research organisation
<b>Q14</b> Is it a Māori-led organisation?	No
<b>Q15</b> Which disciplines are most relevant to your work?	Agricultural, veterinary and food sciences, Biological sciences
<b>Q16</b> What best describes the use of Mātauranga Māori (Māori knowledge) in your work?	There is some Mātauranga Māori, but it is not the main science knowledge

Page 8: Section 2: Submitter information - organisation

<b>Q17</b> Organisation name	Respondent skipped this question
<b>Q18</b> Organisation type	Respondent skipped this question
<b>Q19</b> Is it a Māori-led organisation?	Respondent skipped this question
<b>Q20</b> Where is the headquarters of the organisation?	Respondent skipped this question
<b>Q21</b> What best describes the use of Mātauranga Māori (Māori knowledge) in your organisation?	Respondent skipped this question

Page 9: Section 3: Research Priorities

#### Q22

Priorities design: What principles could be used to determine the scope and focus of research Priorities? (See page 27 of the Green Paper for additional information related to this question)

I support the concept of Priorities and believe there should be relatively few of them, and they should be clearly-defined. They should also be stated in active, vs passive terms, e.g. 'Active methods for combatting the negative impacts arising from climate change'. Priorities should be focused on either major problems and/or opportunities, and not on technologies or disciplines. A focus on either a technology or a discipline can lead too easily to a confusion of goals, and opportunities for 'researcher capture'. I support placing greater emphasis on Priorities aimed at addressing major problems, since often the best science outcomes can result from multiple efforts aimed at single, major issues that are of widely-recognised importance. In contrast, Priorities aimed at opportunities are more difficult to define and pursue, and should be limited to a few outstanding topics.

## Q23

Priority-setting process: What principles should guide a national research Priority-setting process, and how can the process best give effect to Te Tiriti?(See pages 28-29 of the Green Paper for additional information related to this question)

These issues are outlined well in the Green Paper. The process needs to start from a broad base of inclusive consultation, to be subsequently distilled in a series of workshops involving key decision-makers. Where possible, they should be directed towards clear actions and outcomes.

Operationalising Priorities: How should the strategy for each national research Priority be set and how do we operationalise them? (See pages 30-33 of the Green Paper for additional information related to this question)

Any set of Priorities will be meaningless unless accompanied with strong processes monitoring delivery and accountability. The lack of these processes has been a major limitation of the current CRI system, and the decision to adopt the company model for the CRIs has exacerbated the problem. Centralising the research institutions will enable better delivery on Priorities, but there also is a need for independent monitoring and review of progress, using small steering (not just advisory) committees representative of stakeholders.

Page 10: Section 4: Te Tiriti, mātauranga Māori, and Māori aspirations

#### Q25

Engagement: How should we engage with Māori and Treaty Partners? (See page 38 of the Green Paper for additional information related to this question)

I believe the engagement with Maori should be respectful and as inclusive as possible. The emphasis should be on understanding Maori goals and aspirations, particularly those that have not been understood and addressed in the past. As appropriate, Research Priorities should be designed to address any clear needs.

#### Q26

Mātauranga Māori: What are your thoughts on how to enable and protect mātauranga Māori in the research system? (See pages 38-39 of the Green Paper for additional information related to this question)

In my opinion the best way to protect Maori interests in research and research outcomes is to ensure that Maori are wellrepresented in the research community itself. Priority should be given to processes that support young Maori gaining the education and access needed to participate in research.

## Q27

Regionally based Māori knowledge hubs: What are your thoughts on regionally based Māori knowledge hubs?(See page 39 of the Green Paper for additional information related to this question)

Environmental and social research are areas of primary interest to Maori, and could provide a focus for regional activities. Such hubs should be subject to similar levels of monitoring and accountability as proposed for Research Priorities, above.

#### Page 11: Section 5: Funding

#### Q28

Core Functions: How should we decide what constitutes a core function, and how do we fund them? (See pages 44-46 of the Green Paper for additional information related to this question)

Since databases exist to support decision-making, it follows that those that support Critical and High-priority research and services need to be identified, and given funding priority. The Green Paper outlines the issues very well, but is 'silent' on the role that IT will have in making critical data more easily and widely accessible. There is a huge opportunity in ensuring that the design and platforms for key databases are standardised and linked for ease of access and use by researchers and other stakeholders. For example, if this approach were to be taken for digitising and integrating data across our health systems improved health and science outcomes would certainly result.

Yes

Establishing a base grant and base grant design: Do you think a base grant funding model will improve stability and resilience for research organisations?(See pages 46-49 of the Green Paper for additional information related to this question)

# Q30

Establishing a base grant and base grant design: How should we go about designing and implementing such a funding model? (See pages 46-49 of the Green Paper for additional information related to this question)

We need to avoid repeating the mistakes inherent in the CRI design, some of which are well-described in the Green Paper. CRIs (or their equivalent) should not have to compete for funding with private organisations in their sector, and neither should they use taxpayer's funds to initiate and/or replicate R&D already being carried out by other agencies. Base funding should be accompanied by a complete rethink about how govt research is currently organised in CRIs, leading to a change in their focus and reduction in their number -preferably to one multidisciplinary organisation. This will have the effect of removing a whole level of unneeded CRI supernumeraries currently involved in paper-passing activities vs research. However, the research organisation(s) should also be monitored independently and carefully to ensure that existing, and particularly new, appointments are efficiently matched to the R&D priorities, and are flexible enough to address new priorities over time.

I don't think it advisable to allow CRIs, etc to opt in or out of base funding - these organisations exist to service NZ R&D needs, and individual researchers should continue to be able to leave and work in the private sector if they wish.

I favour use of a performance-based system, with room for review and negotiation on a periodic basis.

Page 12: Section 6: Institutions

#### Q31

Institution design: How do we design collaborative, adaptive and agile research institutions that will serve current and future needs? (See pages 57-58 of the Green Paper for additional information related to this question)

I strongly support the Green Paper comment "Any new design needs to point towards a more seamless and fluid model, where different types of organisation appear less distinct and separate.". NZ had such a model with the DSIR, and that model had less limitations than the subsequent CRI model. The change to the CRI model led directly to there being less collegiate activity, collaboration and critical technical review, and increased inefficiency as well as competition for R&D funding. Also, instead of closing the 'technology gap' between R&D and business, the CRI model achieved the opposite. A new model needs to ensure that scientific excellence is supported, while recognising that the science institutions are there to support, and to an extent serve the NZ public. Centralisation of research policy, governance and administrative management will assist, but research strategy and management should reside with researchers, guided by active steering groups representing stakeholders. There should also be processes that support outstanding researchers focused on critical Priorities.

Role of institutions in workforce development: How can institutions be designed to better support capability, skill and workforce development? (See page 58 of the Green Paper for additional information related to this question)

From my own experience I can identify two key aspects that should be present re workforce development. The first is to ensure that researchers are supported for both funding and financial management such that their time is not wasted on writing proposals and managing budgets -activities that others can do better. Base funding will support the former, and both high and mid-level accounting support the latter.

My second key suggestion would be substantially strengthen relationships with secondary and tertiary education institutions such that student researchers and (through secondments) private sector researchers can become more actively involved in workface science. This approach can provide across-the-board 'win-win' benefits that I have had the pleasure of supporting and observing during my own R&D career.

#### Q33

Better coordinated property and capital investment: How should we make decisions on large property and capital investments under a more coordinated approach? (See pages 58-59 of the Green Paper for additional information related to this question)

Centralised policy-making and research governance should assist coordination. Beyond that, I believe that siting of such assets is less important than ensuring that they are available to provide R&D services wherever priorities dictate. In some cases this may mean relying on negotiated access to R&D assets located in other countries.

#### Q34

Institution design and Te Tiriti: How do we design Tiriti-enabled institutions? (See page 59 of the Green Paper for additional information related to this question)

To me the emphasis should be on "how institutions can be better enabled to create enduring and meaningful partnerships with Māori and meet Māori aspirations. "

#### Q35

Knowledge exchange: How do we better support knowledge exchange and impact generation? What should be the role of research institutions in transferring knowledge into operational environments and technologies? (See pages 60-63 of the Green Paper for additional information related to this question)

Of the topics outlined in the Green Paper, I view the provision of Platform technologies as being the most important. While it is valuable, and even necessary to provide other processes for knowledge exchange, platform technologies and databases will enable researchers and other stakeholders to directly access what they need for their work, which may meet myriad objectives that cannot often be described in advance.

Page 13: Section 7: Research workforce

Workforce and research Priorities: How should we include workforce considerations in the design of national research Priorities? (See pages 69-70 of the Green Paper for additional information related to this question)

I support the proposals to encourage more movement of R&D staff within and among NZ organisations, as well as promotion of opportunities to gain offshore experience. The Green Paper correctly notes that writing articles for publication should not be the only or primary goal. Applied research should be the main goal for public researchers, and this means a focus on ensuring that research outcomes are meaningful to and accessible by the public.

#### Q37

Base grant and workforce: What impact would a base grant have on the research workforce? (See pages 70-71 of the Green Paper for additional information related to this question)

I support the views expressed in the Green Paper. Base funding will assist the workforce, and adherence to performance guidelines should be an expectation.

#### Q38

Better designed funding mechanisms: How do we design new funding mechanisms that strongly focus on workforce outcomes? (See page 72 of the Green Paper for additional information related to this question)

I have worked as a partner in AbacusBio the last 3 years and have been impressed with their annual 'intern programme', which effectively provides a lead-in to a research apprenticeship. Either graduated students or researchers already in the workforce can participate, and the benefits in terms of improved networking and individual motivation can be striking. Broader replication of this model could be very beneficial to workforce outcomes across the NZ science sector.

Page 14: Section 8: Research infrastructure

#### Q39

Funding research infrastructure: How do we support sustainable, efficient and enabling investment in research infrastructure?(See pages 77-78 of the Green Paper for additional information related to this question)

Our world is getting smaller, and much closer and high-level collaboration between NZ science and Australia's CSIRO seems like a 'no-brainer'. Similar bilateral arrangements should be made re specific infrastructure assets with other countries, in particular the US, China, UK and the EU.