#76

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Page 2: Section 1: submitter contact information

Q1

Name

Craig Stevens

Q2

Email address

Privacy - 9(2)(a)

Q3 Yes

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

Q6 Yes

Are you a researcher or scientist?

Q7 Age	Privacy - 9(2)(a)
Q8 Gender	
Q9 In which region do you primarily work?	
Q10 Ethnicity	
Page 5: Section 2: Submitter information - individual Q11 What is your iwi affiliation?	Respondent skipped this question
Page 6: Section 2: Submitter information - individual Q12 If you wish, please specify to which Pacific ethnicity you identify	Respondent skipped this question
Page 7: Section 2: Submitter information - individual Q13 What type of organisation do you work for?	Other (please specify): Joint CRI/University
Q14 Is it a Māori-led organisation?	No
Q15 Which disciplines are most relevant to your work?	Earth sciences, Environmental sciences
Q16 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

Te Ara Paerangi - Future Pathways submission form

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

Page 9: Section 3: Research Priorities

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)

The sector needs to embrace the diffuse nature of the "impact of research". Mission-led research and science needs to be closely examined as too much of the time it reduces to "stakeholder-led" (and implicitly short-term) science (which should be paid for by the stakeholder).

The notion of "the stakeholder" has to extend beyond the "stakeholder with money". A climate-facing NSC deciding that the school-age generation was not the target audience for communication is an example of this.

There needs to be some reflection around past decisions so as to not make the same mistakes. For example, why didn't we have a National Science Challenge on Infectious diseases? (And on the positive side – what enabled our science system to support the world-leading elimination strategy?). Why, when facing a fossil fuel driven global crisis, wasn't our renewable energy sector sufficiently knowledge-based to avoid increased coal imports in recent years?

Boosting the profile of investigator-led science will have benefits that are not easily anticipated in a boardroom.

The prioritisation through proposal process is being biased by promises based on the use of postgraduates and postdocs as an underpaid workforce. Mission-led funded programs should have a specified level of capacity development. Beyond this, any additional postgraduates and postdocs should be paid at professional rates as they are being used as professional researchers. If "the project can't afford it" then there is a different problem.

Taking this further, there needs to be a far more developed effort along the lines of the poorly funded Curious Minds initiative. Imagine if 30 years ago, instead of upping the neoliberal dial we had developed far greater connections between knowledge generation and the next generation? They're the decision-makers of today and they've been voting for two decades.

Similarly, develop better pathways for connecting science to policy nexus and elevate their profile and the role of science in the Nation's governing policies. Covid-19 has thrown a spotlight on the effectiveness of evidence-based policy and open lines of communication between science, policy, decision-making and communication.

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)

Respondent skipped this question

Q24

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)

Science vs tech development vs research vs engineering vs operational. There are some hazy distinctions between various activities in the research sector. There needs to be more reflection of what is actually being talked about and funded. Operational priorities are not 1-1 swappable with research priorities.

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

Respondent skipped this question

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

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)

Supporting Te Tiriti requires substantial increased investment in early career Māori researchers with clear goals around long term research-based opportunities.

For the research sector supporting Te Tiriti shouldn't be all about how these needs can be met through the Western model and so there needs to be continued reflection of what constitutes knowledge generation and research.

Q27

Respondent skipped this question

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)

Page 11: Section 5: Funding

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)

There is no way around it, funding for research needs to be increased if we are to meet growing challenges around climate as well as continuing Covid impacts and global socioeconomic uncertainty. The present model has its issues but there is no restructuring that will bring significant improvements in productivity. It might result in some specific improvements, but it won't result in "more and better research" over any extended period of time.

By all means pick winners but reflect on the point above about infectious diseases.

MBIE Endeavour Proposal assessment process needs a revamp. There is so little technical content in the proposals. The combination of a competitive model and veto process almost precludes having people who know anything about the topic assess the proposals. The scores have almost no dynamic range so that unconscious and conscious bias becomes the deciding factor. We'd be better-off with a lottery.

Improved transparency and accountability. The Australian ARC got into trouble through ministerial intervention in decision making. We don't even get to that stage, we have bureaucrats making decisions with no visibility. On the other side, having got funded there is little accountability. You can say anything in a proposal, as likely no one knowledgeable is going to read it and no one is going to check up on if the work as actually achieved.

The burden of the low research investment from outside the government support needs to be understood. There is little incentive for the commercial sector to do so if they can strongly influence what gets funded as a stakeholder. If the system properly valued underpinning research, then funding would stop being used to prop up the commercial sector.

Move at least some of the funding for science out of the ministry focused on economic development, which can directly be at odds with other aspects of science like environment and health. It also provides challenges when other priorities dominate event when research might be a way to surmount those challenges.

Having the research sector within economic develop ministry is probably not even good for economic development in the long run because it removes understanding of the wider scientific process in supporting the economy - i.e. see the debate on "science impact".

Develop a clearer ecosystem view of the science sector. The present competitive system is more a foodweb where it's all about individual institutes "eating as much of the pie" as possible. How this will be achieved with modest funding is not clear. Can we determine how much support is required to enable the transition from a winner takes all food web to a sustaining ecosystem?

There should be a metric for success of funding based around critical mass for research time – having a National Science Challenge saying that it supports over 200 scientists doesn't mean what they suggest it means. Instead it reflects wildly fractionated funding, underpaid students and cross-support gone feral.

Q29 Not sure

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)

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)

The potential for success very much depends on the decision-making attitude wrapped around it. The idea is any design should be embraced and championed for the public good instead of gamed.

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)

The competitive model for science has been counter-productive for the interface between the research sector and the education sector. The separation of this review from consideration of the PBRF is limiting.

It is difficult to see how the level of competition can be reduced with low funding for science coupled with loose oversight.

The board-level model for institutes and universities needs to be weighted more strongly towards the research ecosystem-focused motivations for research rather than individual institutional expansion.

Tying more funding to CVs rather than institutes would shift the attitudes around the value of scientists and boost sector resilience by enabling greater mobility.

Evidence: Presently we collect very little data on the science system. The lack of progress on NZRIS suggests it is simply not a priority but there's not really much point proceeding until there is a mechanism for quantifying the system and its people, outcomes and outputs.

Q32

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)

Respondent skipped this question

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)

Respondent skipped this question

Q34

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

Respondent skipped this question

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)

Revisit the hybrid public good/for profit model to clarify the motivations for doing research.

Page 13: Section 7: Research workforce

Q36

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)

It's right there in the title - the neo-liberal model of a "human resource" or "workforce" for research and science has failed the nation – it doesn't reflect the level of investment that has taken place, or the pathway to impact, imbued in a diverse and valued collection of minds.

This is as much about the resilience and productivity of the research ecosystem as it is about the well-being of individuals.

Q37

Respondent skipped this question

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)

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)

Researchers do Research so there needs to be a much greater focus on the People doing the research. It needs to be the first priority – and it will then support those that follow. The change will come by valuing people - make them, and their careers, the foundation of a good science system.

Mandating a healthy and diverse workforce and career-path specifically including early career researchers, students and technicians will underpin real impact.

Tying more funding to CVs rather than institutes would shift the attitudes around the value of scientists and boost sector resilience by enabling greater mobility.

Page 14: Section 8: Research infrastructure

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)

Making major Capex purchases through institutional margins is poorly thought through. Certainly, having some equipment purchased in this way is fine. Making it all this way, especially for large needs, is very challenging and cumbersome.

The competitive model clearly generates unhelpful barriers here in that the Nation needs the best bang for buck.