#17

COMPLETE

Collector:Web Link 1 (Web Link)Started:Friday, December 24, 2021 11:07:04 AMLast Modified:Friday, December 24, 2021 3:21:40 PMTime Spent:04:14:35

Page 2: Section 1: submitter contact information

Q1

Name

Dr Freeman John Cook

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	
Q6	Yes

Yes

Are you a researcher or scientist?

Te Ara Paerangi - Future Pathways submission form

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): My consulting company Freeman Cook & Associates Pty Ltd (Australian Registered)
Q14 Is it a Māori-led organisation?	Νο
Q15 Which disciplines are most relevant to your work?	Earth sciences, Environmental sciences, Physical 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

Q17 Organisation name	Respondent skipped this question
Q18 Organisation type	Respondent skipped this question
Q19 Is it a Māori-led organisation?	Respondent skipped this question
Q20 Where is the headquarters of the organisation?	Respondent skipped this question
Q21 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)

The problem with setting research priorities is these are often developed around issue that are occurring at the time and are often not forward looking. Because of this and my experience of being a researcher for over 40 years I would suggest that the priorities need to of a more general nature than most politicians and administrators will be comfortable with. The main priority I would suggest is that excellence should be the goal in all facets of the research portfolio.

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)

I have seen many incentives to gain cooperation between various organisations in my career. The only ones I have found work are when this process occurs from the bottom up. What is required is a workshop or symposium on the topic and letting researchers than are interested in working together form research projects and teams. Every top down system to create cooperation I have been involved with, including being a researcher leader for the eWater CRC in Australia, has failed.

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)

The strategy should consist of a three step process: set priorities and goals, evaluate progress, modify priorities and goals. In this process not reaching a goal can also be a success as it eliminates a possible theory or research path.

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 am not well qualified to answer that as I only returned to New Zealand four years ago. However, my experience with dealing with farmers is that they often are good observers of a phenomenon but there interpretation of cause and effect is not always correct. I would think the same thing could be the situation with engaging with Maori it will be at first a communication process to develop trust and then through that a joint research project can be developed. If you get this right they will become often the best advocates for the research.

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)

As stated above one of the ways that will protect matauranga Maori will be to add value or knowledge that is based on a testable scientific approach. This may at times challenge some of this knowledge but if done sensitively adaption of the knowledge will occur as it will have done through history.

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)

These could be useful if they can be staffed and equipped to a proper standard. The issue with a lot of citizen science projects is governance around data quality, data storage and meta data recording. Without a definitive plan and strong advocacy and leadership these will be doomed to failure.

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)

The base functions are derived from the basic disciplines of science: mathematics, physics, chemistry and biology. There needs to be support to maintain these basic disciplines and to support young researchers to gain knowledge by having this support. I wrote a paper during my early days with DSIR that has become a citation classic due to such support.

Q29

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)

I am going to suggest some things not to do.

Do not make this a process of competitive fund. This will only result in spending half the money on administration. Do not have an annual review. I would suggest at least three years.

Do not subvert this into only supporting priority research, no one has a crystal ball and often the least fashionable research can produce gems.

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 spent 26 years working for CSIRO where there was a continual reorganisation process. I my opinion this has been a total waste of resources and the goodwill of staff. Don't change the institutes find ways through funding to allow them to form real partnerships and collaboration.

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)

The worst thing I have seen in my time has been demise of disciplinary based teams in favour of project teams. I would suggest that a hybrid model would be best with: a home (disciplinary team) where the person spends one year in four brushing up on his skills and writing; and a project team where he works for three out of four years on project based work in a multi-disciplinary team.

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)

I suggested when with CSIRO that a database of staff and their skills be developed and also a database of equipment. Such a system would help to maximise the utilisation of staff and equipment.

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)

Not my area of expertise.

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)

During my career I have found that symposia with a maximum number of participants of about 60 provide the best environment for exchange of knowledge and ideas.

Scientist are not always the best at technology transfer so there needs to be partnerships with outside organisations. Also the outside organisations are often poor in communication to scientific institutes. The process takes trust and is usually best when people can work alongside each other. Having worked as a consultant for the last nine years it has been my experience that this is the way such exchange works best.

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)

I talked of the need for disciplinary teams earlier, one of the reasons is these provide mentoring and succession planning without specifically needing to design for these functions.

As someone who started as a technician and became a Senior Principal Research Scientist, I think there is a need for a flexible structure that allows staff to develop their potential.

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 would hope it allowed for young researchers to be employed to do innovative research rather than working on applied research that brings in funding.

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)

Get rid of as much of the mind numbing administrative workload as possible. Prior to leaving New Zealand in 1991 I was interviewed by North and South magazine. In the article I stated that a lot of the money from the grants we received when on accounting for the small amount that was actually spent on research. Computers have give the opportunity to implement such systems that account for minutia but this does not mean that we should. Focus on reviewing outcomes not inputs.

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)

Scientist require equipment and often expensive equipment but at a lower level there is a lot of equipment sitting in cupboards that could be used by other researchers. An inventory and ways to exchange equipment would be a useful system to implement. Get rid of any administrator or architect who suggests open plan offices. Open plan offices are terrible for researchers.