#99

COMPLETE

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Page 2: Section 1: submitter contact information

Q1

Name

Shane Stuart

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 **Organisation**

Are you submitting as an individual or on behalf of an organisation?

Page 4: Section 2: Submitter information - individual

Q6 **Respondent skipped this question**

Are you a researcher or scientist?

Q7

Age

Respondent skipped this question

Q8

Gender

Respondent skipped this question

Q9

In which region do you primarily work?

Respondent skipped this question

Q10

Ethnicity

Respondent skipped this question

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?

Respondent skipped this question

Q14

Is it a Māori-led organisation?

Respondent skipped this question

Q15

Which disciplines are most relevant to your work?

Respondent skipped this question

Q16

What best describes the use of Mātauranga Māori (Māori knowledge) in your work?

Respondent skipped this question

Page 8: Section 2: Submitter information - organisation

Q17

Organisation name

Priority One

Q18 Organisation type	**Business**
Q19 Is it a Māori-led organisation?	**No**
Q20 Where is the headquarters of the organisation?	**Bay of Plenty**
Q21 What best describes the use of Mātauranga Māori (Māori knowledge) in your organisation?	**There is some Mātauranga Māori, but it is not the main science knowledge**

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)

1. Careful framing, definition and scoping. The range of potential priorities for a national science system is enormous and hugely varied. If we are going to make major changes in national investment, is important that time is spent clearly defining what is meant by 'priority' (for who, and relating to what), and what are the different types of priority (long term? Urgent? Capability? Types of impact?), and what are mechanisms by which those priorities are best handled? Dealing with climate change, or an urgent biosecurity event, or a need for new technological capability, or a major public health issue, these are all fundamentally different issues that cannot be approached in the same way.
2. Take an 'Innovation Ecosystems' approach just not a science system approach. If we take seriously the features of a modern research system (p20), we'd argue that, for at least some kinds of priority, an ecosystems approach is required. This would change the scope and focus of research priorities because it requires more holistic thinking and engagement, where we prioritise building powerful innovation ecosystems rather than defining science priorities as such. This would look quite different to any existing programme (including the Industry Transformation Plans), in particular having a much greater emphasis on 'place' as a key factor in effective ecosystems.

This is consistent with international practice, for example the same EU Research and Innovation report quoted the in the Te Ara Paeranga Green Paper notes:

"The R&D oriented one-size-fits-all, European-wide policies of the past have not led – and, in all likelihood – will not lead to improvements in competitiveness. Nor are they likely to yield significant improvements in economic growth, sustainable employment, and welfare in the EU's less-developed regions…There is a need, therefore, to go beyond the focus on R&D and adapt policies to the specific characteristic of different territories: a place-sensitive innovation policy for the EU."p703 EU Science, Research and Innovation Performance of the EU (2020)

One example of this is the Canadian SuperClusters Initiative (ic.gc.ca), which are national initiatives, but integrated across regional levels, and working across research, education, indigenous organisations, and businesses of many different sorts. There are many examples across Europe, the US, Australian, Ireland, Israel and Asia; in short, all the economies we might consider peers or comparators.

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)

1. The strategy and operation of research priorities should be fit for purpose. There is no one size fits all answer here and priorities should be set, operationalised and implemented based on careful framing, definition and scoping of the issues and contexts related to that priority.

One useful example is the EU's Smart Specialisation process; this has been developed over a number of years, across many different kinds of situation (https://s3platform.jrc.ec.europa.eu/edp.

2. The management of the priority setting process should be independent from science system stakeholders, avoiding conflict of interest and organisational politicisation of these processes.

3. Priority setting processes should be transparent – everyone should have confidence in what the priorities are seeking to achieve and, even if they disagree, be able to see the rationale. This is important to confidence in the process.

4. Implementation must consider the compliance cost to stakeholder communities not just the science system. This means both the actual resources required but also the longer-term cost to our system through behaviours that the processes incentivise. An over-reliance of open, contestable processes has resulted in systemic issues of competition noted in the green paper. If we want our national priorities to have engagement, partnership and co-investment from other stakeholders, then the processes by which these are developed and implemented should reflect those values.

a. One example is the Queensland 'Advancing Regional Innovation Program'. In summary this involved twelve Queensland regions having access to a dedicated fund of $500,000 each, if they could produce a proposal for science-based innovation integrated with local needs and stages of development. Note that each region had their own fund and that there was not competition between regions. There was transparency at the start about the criteria and the process for acceptance, and clear incentive for regional stakeholders to collaborate together.
https://advance.qld.gov.au/entrepreneurs-and-startups-industry-investors-small-business-universities-and-researchers/advancing-regional-innovation-program

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)

Respondent skipped 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)

Respondent skipped this question

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)

Respondent skipped this question

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)

Respondent skipped this question

Q29

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)

Not sure

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)

Respondent skipped this question

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)

1. Focus on system performance not individual institutions. The design challenge should start with achieving outcomes via effective systems, not apriori that there needs to be institutional/organisational change. The green paper seems to start with the latter without making the case for the former.
a. We haven't seen any evidence that having fewer larger science organisations is a notable feature of how peer economies are looking to enhance science-led innovation. What is common across them is an increased focus on ecosystems which are generally multi-faceted and multi-layered, reflecting and embracing complexity and diversity.
b. No one organisation (or organisational design) can be everything, they all have tradeoffs. In that context, we have signficant concerns about proposed CRI consolidation in terms regional and business engagement. There may be sound reasons for consolidation in terms of efficiencies, economies of scale, allocation of resources robustness and resilience. However, consolidation will not deliver improved flexibility and agility, and will likely make responsiveness, adaptability at sub-national levels much more difficult.

2. Ensure space for organisational innovation. Following on from the above we need to ensure there are other organisations, with different sizes, roles and scopes, and that allowing these to emerge is key to creating effective ecosystems.
a. For example here in Tauranga, we continue to support PlantTech, the regional research institute, because we see the value it plays in our regional ecosystem, and we do not see how CRI or University could fulfil a similar role. A small, highly focussed organisation based locally can do fundamentally different things, making the overall system work better and therefore enhance the impact of the larger national organisations.
b. Again the focus for institutional reform should be on overall system performance and outcomes, and we believe that, alongside CRIs and Universities, independent research organisations, and other focused smaller entities can play hugely valuable roles. And there should be greater space for innovating through organisations that span the technology development spectrum

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 Tiriti-enabled institutions? (See page 59 of the Green Paper for additional information related to this question)

Respondent skipped this question

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)

1. Work with private sector to increase absorptive capacity firms and mitigate low R&D intensiveness of industry. We are concerned that the sole focus in the Green Paper here seems to be on the 'supply side' – that is on what the science system can do. That is important but changes in the science system must be partnered with investments and interventions with businesses otherwise we won't have the demand and pull through required, no matter how good our public sector. We have an economy dominated by industries that are relatively low research intensity, we have many very small firms. The Green Paper seems relatively silent on the implications of this, but we will not change the game in terms of knowledge transfer and impact unless our private sector has the capacity to invest in and 'pull through' innovation.

a. This means Govt working with industry and firms to support collaborations and networks that build private sector capability and demand. Our challenge in the world isn't that our science isn't as good, it's that our companies are smaller, and in less knowledge intensive industries. Given this, if we are to compete globally we need to innovate as a country to find ways to support our science system.

b. This is where place-based and ecosystems initiatives have specific role and we see many examples of this kind of approach internationally. New Zealand is arguably an outlier in how little emphasis we have afforded this.

2. We recognise that this is not a regional development process; however, we consider that science and innovation policies that are more integrated with innovation systems will have a much better chance to deliver impact, and in turn lift national performance. International evidence of practice and policy around the world supports this. Again, referring to the EU report:

"This requires an innovation policy that goes well beyond the simple funding of R&D and subsidies to firms in support of R&D and concentrates on : a) enhancing the innovation capacity of firms in the region; and b) creating an adequate ecosystem for innovation to emerge and thrive. More focus on the role of production networks and value chains, as well as on the triple and quadruple helix strategies is thus warranted …" p701

Therefore we see a signficant win-win for public sector science through engaging more strategically and directly with cities and regions.

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)

Respondent skipped this question

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)

Respondent skipped 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)

Respondent skipped this question

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)

Respondent skipped this question