

**From:** no-reply@mbie.govt.nz  
**To:** [Research, Science and Innovation Strategy Secretariat](#)  
**Subject:** Draft Research, Science and Innovation Strategy submission  
**Date:** Monday, 21 October 2019 11:55:39 a.m.  
**Attachments:** [Online-submission-form-uploadsdraft-research-science-and-innovation-strategy-submissionsubmission-form-research-science-and-innovation-strategy-AY.docx](#)

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Submission on Draft Research, Science and Innovation Strategy received:

**Are you making your submission as an individual, or on behalf of an organisation?**

Individual

**Name**

Anna Yallop

**Name of organisation or institutional affiliation**

Seafood Innovations Ltd, Bioresource Processing Alliance

**Role within organisation**

General Manager of both

**Email address (in case we would like to follow up with you further about your submission)**

anna@rmltd.co.nz

**Which of the below areas do you feel represents your perspective as a submitter? (Please select all that apply)**

Provide services to users of research

**If you selected other, please specify here:**

**Gender**

Female

**Ethnicity**

New Zealander

**Name of organisation on whose behalf you are submitting, if different to the organisation named above**

**In which sector does your organisation operate: (Please select all that apply)**

**If you selected other, please specify here:**

**How large is your organisation (in number of full-time-equivalent employees)?**

**Please indicate if you would like some or all of the information you provide in your submission kept in confidence, and if so which information.**

**Please upload your submission document here**

submission-form-research-science-and-innovation-strategy-AY.docx - [Download File](#)



# Research, Science and Innovation Strategy

## Submission form

The Government is developing a Research, Science and Innovation (RSI) Strategy to set out our vision for RSI in New Zealand and its role in delivering a productive, sustainable, and inclusive future.

We are keen to hear the views of New Zealanders on the draft Strategy so that we can get a better understanding of what our country needs from RSI. We also are looking for feedback on how we can take action to ensure New Zealand's RSI system is optimised for success. These views will inform the direction of Government investment in RSI and the research and innovation areas for us to focus on as a country, as well as help us understand the challenges we need to overcome.

We encourage anyone with an interest to make a written submission.

## How to have a say

We have included a number of questions in the draft RSI Strategy document to highlight issues on which we would like further input. We encourage you to use these questions as a guide when submitting your feedback.

This document provides a template for you to provide your answers. Please upload the completed document using our [online submission page](#).

**You do not have to fill out every section – we welcome submissions on some or all of the questions.**

The closing date for submissions is 10 November 2019.

After the consultation period finishes, we will analyse the submissions received and incorporate the feedback in the final version of the strategy.

## Confidentiality

**Please note:** All information you provide to MBIE in your submission could be subject to release under the Official Information Act. This includes personal details such as your name or email address, as well as your responses to the questions. MBIE generally releases the information it holds from consultation when requested, and will sometimes publish it by making it available on the MBIE website.

If you do not want some or all the information you provide as part of this consultation to be made public, please let us know when you upload your submission. This does not guarantee that we will not release this information as we may be required to by law. It does mean that we will contact you if we are considering releasing information that you have asked that we keep in confidence, and we will take your reasons for seeking confidentiality into account when making a decision on whether to release it.

If you do not specify that you would prefer that information you provide is kept in confidence, your submission will be made public. While we will do our best to let you know that we plan to publish your submission before we do so, we cannot guarantee that we will be able to do this.

## Contribution of Research, Science and Innovation

This strategy is about New Zealand's Research, Science and Innovation (RSI) at a high-level. Its aim is to identify challenges and opportunities that will have the broadest impact on our research and innovation activities. For this reason, it mentions few specific areas or sectors of research and innovation. For this draft version of the Strategy, we are keen to hear from researchers, innovators, businesses, and providers of public services on what the RSI system could be doing to accelerate progress on Government's priorities.

**Question 1:** Where can the RSI system make the greatest contribution towards the transition to a clean, green, carbon-neutral New Zealand?

**Question 2:** Where else do you see it making a major contribution?

**Question 3:** What else could the RSI system be doing to accelerate the progress towards the Government's priorities\*?

\* see list of the Government's twelve priorities included in Part 1 of the draft Strategy.

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q2: It's great that you are emphasising connections, as this will be a key driver for making considerable changes in a positive way.

Q3: Avoid R,S & I regulations that bog people and companies down and therefore slow things up and make things difficult and frustrating for end users trying to get things done.

## Researching and innovating towards the frontier

- Question 4:** Do you agree that the RSI Strategy should be focused on innovation at the “frontier” (creating new knowledge) rather than behind the frontier (using existing knowledge to improve the ways we do things)?
- Question 5:** In which research and innovation areas does New Zealand have an ability to solve problems that nobody else in the world has solved? Why?
- Question 6:** In which areas does New Zealand have a unique opportunity to become a world leader? Why?
- Question 7:** What do you consider to be the unique opportunities or advantages available to the RSI system in New Zealand?
- Question 8:** What RSI challenges are unique to New Zealand, that New Zealand is the only country likely to address?
- Question 9:** What are the challenges of innovating in the public sector? How do they differ from those in the private sector?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

The explanation of the Horizon 1-3 was very confusing, so may need sense-checking in terms of what is Horizon 1 and what is Horizon 3 and one of the diagrams mentioned ‘merging’ instead of ‘emerging’.

Q4: There needs to be a balance, as if you say far horizon and high risk, companies run a mile, as this sounds expensive and too high risk when they often want to low risk opportunities – which can still be highly valuable.

There isn’t anything wrong with using knowledge to make products/processes and services or develop things that people need, so I would avoid an over-obsession with novelty if possible. The strategy seems to forget that there is a good deal of value to be had doing what others in the world may be doing, or responding to a market need, even if it’s not world-leading.

Q6: Safe, healthy food production because we have track record, a (comparatively) clean environment for growing food and provenance that overseas markets want.

Q7: Small nation, where we can connect with anyone easily and quickly and we are nimble and economic in how we do things

Q8: Limited funds compared with other OECD countries, limited money for commercial scale-up of ideas, so we end up selling to overseas companies. Getting products to market with as little cost and environmental footprint as possible, as this will potentially put overseas markets off buying our products. It is hard to do business overseas and takes significant money, time in market and connections, so this is a challenge many other nations don’t necessarily have.

Q9: High staff turnover, constant restructuring, apathy, arms-length dealings with end users and an inability for some in the public sector to understand the needs of the end-users and

be responsive enough to support them (as opposed to frustrate them).

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## Our key challenge – Connectivity

**Question 10:** Do you agree that a key challenge for the RSI system is enabling stronger connections? Why or why not?

Please type your submission below.

Definitely and we are well placed to make this happen due to our small size and ease of dealing with people at any level, so we can get things done. We need to make sure that the public sector is staffed with people who go the extra mile and support the innovation system rather than get in the way.

We need to emphasise that we are not competing with each other and that we need to combine efforts to deliver excellent results for end users, for our organisations and for our country.

## Guiding Policy – Excellence

**Question 11:** Do you agree with the definition of excellence presented here as the best thing possible in its context? Why or why not?

**Question 12:** How can we achieve diversity within our research workforce? What are the current barriers preventing a diverse range of talent from thriving in the RSI system?

**Question 13:** Do you agree that excellence must be seen in a global context, and draw from the best technology, people, and ideas internationally? Why or why not?

**Question 14:** Do you agree that excellence is strengthened by stronger connections?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

The science system currently has a preoccupation with 'excellence' and as such, there is a gap for very applied R&D that doesn't necessarily involve science stretch but is, nevertheless very necessary and valuable and is often something that can't be done in a company because of resource, time, money, expertise but can still create value for the country, so this should not be overlooked.

Q12: I think our research workforce is incredibly diverse but my read of the strategy is that by diverse, it is mostly referring to increased Maori and Pacific Island diversity. There is a danger that the diversity that already exists will not be acknowledged and supported, especially for recent migrants who have come to New Zealand to add value to the country and contribute. We risk not making them feel they are New Zealanders, helping grow the country.

Q13: Yes, because the world is increasingly global and we can't afford to not pay attention to what is deemed excellent internationally but there is room for us to still achieve world-class results with less than the best technology, investment, etc, so we do have that track record that has worked for us quite well to date.

Q14: Yes, to a degree, as long as we retain some of what makes us unique and good at what we do as well.

## Guiding Policy – Impact

**Question 15:** How can we improve the way we measure the impact of research?

Please type your submission below.

Ensure that programmes continue to monitor (via regular unobtrusive interactions) the success and failures of the research. This is best done with phone calls and discussions (not surveys, as people don't have time!) by key people who have existing relationships with end-users (not from people who don't have the relationship or understanding about what the company/researcher does). Anecdotal reporting via ad hoc discussions is highly valuable, as you tend to get genuine comments about the value (or cost) of research.

Avoid constantly surveying the very people and companies who are trying to generate tax revenue for New Zealand – while it is desirable to measure what is having impact, the cost of tying people up in constant surveys mean they're not getting on with business and in some instances, the hoop jumping that is expected in return for tax payer funding will put some companies off doing R&D which will have a detrimental effect.



## Guiding Policy – Connections

**Question 16:** Where do you think weak connections currently exist, and what are the barriers to connections at present?

**Question 17:** What actions will stimulate more connectivity between parts of the RSI system?

**Question 18:** How could we improve connections between people within the RSI system and people outside it, including users of innovation, and international experts, business communities, and markets?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q16: Research organisations that take an exclusive approach to dealing with other research organisations. Research organisations who are more focused on winning clients than providing excellent value for money. Public agencies that frustrate people's endeavours to get things done by being hard to contact, slow to respond, don't respond, tie things up in beauracracy, etc. National Science Challenges are sometimes seen by industry as not being relevant and simply a way for researchers to get funding to do research that they are interested in and subsequently, the challenges can struggle to get engagement with industry.

Barriers also include the high charge-out rates for research organisations and universities which puts companies off, a lack of motivation to make connections outside one's organisations at times (although this is changing) and competitive research funding mechanisms (in some instances).

Q17/18: Getting researchers to realise that it makes us all look good if we connect with each other and that it generates benefits to organisations. Eemploy people who are motivated to connect people, whatever their needs are, continue to encourage collaboration across research programmes, allow end-users to take the Government's no-wrong-door approach to getting to where they need to get to (because chances are, they don't know what is available and where to go for help).

## Actions – Making New Zealand a Magnet for Talent

**Question 19:** How can we better nurture and grow emerging researchers within New Zealand and offer stable career pathways to retain young talent in New Zealand?

**Question 20:** How could we attract people with unique skills and experience from overseas to New Zealand?

**Question 21:** What changes could be made to support career stability for researchers in New Zealand? What would be the advantages and disadvantages of these approaches?

**Question 22:** Do you agree with the initiatives proposed in the Strategy to support and attract talented researchers and innovators? Are any changes needed for these initiatives to be successful? Are there any other initiatives needed to achieve these objectives?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q19: In many ways, it is understandable that young emerging researchers will want to go offshore in the early days for experience, money, travel, etc. The trick is making sure New Zealand is the type of place they want to come back to and bring their international expertise by retaining a high standard of living, challenging jobs, an innovative economy, etc.

Q20: We already do, due to New Zealand's beauty, lifestyle, etc. New Zealand is awash with overseas researchers but as mentioned, we should make them feel like they are part of New Zealand, so that they feel they are New Zealanders.

Q22: Insist that PhD students who are publically funded they remain in New Zealand for a minimum amount of time after graduating. Why should we fund their study and yet there is no expectation that they will provide any benefit back to New Zealand?

## Actions – Connecting Research and Innovation

- Question 23:** What elements will initiatives to strengthen connections between participants in the RSI system need to be successful?
- Question 24:** What elements will initiatives to strengthen connections between participants in the RSI system and users of innovation need to be successful?
- Question 25:** What elements will initiatives to strengthen connections between participants in the RSI system and international experts, business communities, and markets need to be successful?
- Question 26:** Are there any themes, in addition to those proposed in the Strategy (research commercialisation and international connections), that we need to take into consideration?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q23: The right people who have the right attitude to get things done (people who are motivated by what is best for New Zealand), an open attitude to sharing knowledge across research organisations, flexibility on the part of funders in how people work together.

Q24: Responsive Business Development people, commercial/professional attitudes on the part of researchers, simple IP terms. Stop restructuring Callaghan Innovation – this is highly disruptive and companies have to contend with turnover of staff, changing policies, endless due diligence questions, long time to get answers to funding, etc.

## Actions – Start-up

**Question 27:** How can we better support the growth of start-ups?

**Question 28:** Do the initiatives proposed in the draft Strategy to support growth of start-ups need to be changed? Are there any other initiatives needed to support start-ups?

**Question 29:** What additional barriers, including regulatory barriers, exist that prevent start-ups and other businesses from conducting research and innovation?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q27: Emphasise the reality of what happens after you've done the start-up – there is an obsession with entrepreneurship, raising funds, starting businesses and yet there seems to be a gap between the excitement of that and the reality of the hard work that's involved to get past just being a start-up. Whilst it's great to get people enthused about starting businesses and innovating, there seem to be unrealistic expectations and a lack of support once the shine wears off and the real work starts so that companies and their innovations can be in for the long haul.

Continue to help de-risk their ideas at this early stage, discourage them from selling their companies off at the early stage, encourage them to focus on retaining as much ownership as they can until the time is right to get further investment (and only if genuinely needed).

The Government incubator model is necessarily the right model, as it can encourage perverse behaviours and from some reports from end-users, doesn't always add value.

Q29: Cost of trials, scaling up ideas, using others' equipment and expertise, lack of time, lack of connections. The R&D tax credit has the potential to be so complex that only large companies with teams of finance people can utilise it.

## Actions – Innovating for the public good

Question 30: How can we better support innovation for the public good?

Question 31: What public-good opportunities should our initiatives in this area be focused on?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

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## Actions – Scale up

**Question 32:** What is the best way to build scale in focused areas?

**Question 33:** Do the initiatives proposed in the Strategy to build scale in focused areas need to be changed? Are there any other initiatives needed to build scale?

**Note:** see following page to comment on possible areas of focus

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

**Q32:** Encourage the Food Innovation Network and other such initiatives that help companies prove something before they have to invest in equipment.

Invest in more equipment 'hubs' that cater to specific needs of companies when they want to innovate but don't have the particular equipment of expertise in house.

**Q33:** Recognise CAPEX as in-kind or cash funding – many companies can throw cash at an R&D project but it shows very real commitment investing in plant and equipment, yet this is barely recognised/measured.

## Scale up – Choosing our areas of focus

For this draft iteration of the strategy, **we seek input on the selection of possible areas of focus**. We will consider establishing around five focus areas, but, depending on the eventual selection, are likely to introduce them over time, rather than immediately. In addition to the criteria set out in the Strategy document, we invite stakeholders to consider the following factors in their suggestions –

- The ambition of this strategy to focus efforts in the RSI portfolio at the global frontier of knowledge and innovation.
- Ways in which the RSI system can accelerate progress on the government’s goals.
- The focus areas already determined by *From the Knowledge Wave to the Digital Age*.
- Work already underway where we are already seeking to build depth and scale in the RSI system.

The following areas could be a useful start, and are highlighted in *From the Knowledge Wave to the Digital Age*:

- **Aerospace**, including both autonomous vehicles and our growing space industry.
- **Renewable energy**, building on recent investments in the Advanced Energy Technology Platform.
- **Health technologies** to improve delivery of health services and explore opportunities in digital data-driven social and health research.

**We invite comment on these suggestions and welcome input on other possible focus areas.**

**Please type your submission below.**

Continuing to leverage our expertise in food-related products.

Health can be a hard one, with as little money as we have in New Zealand compared with other advanced nations.

I appreciate that the intention is to expand the focus areas but I would be hesitant to have too narrow a focus across very niche areas such as aerospace .

## Actions – Towards an Extended Vision Mātauranga

This section of the draft Strategy signals our intention to consult and collaborate further with Māori stakeholders to co-design our responses and initiatives. From that perspective, we consider the signals in the draft Strategy to be a start, rather than a set of final decisions. Nonetheless, we are keen on initial feedback in the following areas.

**Question 34:** Does our suggested approach to extending Vision Mātauranga focus in the right five areas? If not, where should it focus?

**Question 35:** How can we ensure the RSI system is open to the best Māori thinkers and researchers?

**Question 36:** How can we ensure that Māori knowledge, culture, and worldviews are integrated throughout our RSI system?

**Question 37:** How can we strengthen connections between the RSI system and Māori businesses and enterprises?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q36: It is very difficult to ensure that Maori world views are integrated throughout the system as there are many situations when it is not appropriate, so there needs to be caution not to over-mandate this provision. An example of this is when research funds that involve companies (who put in co-funding) insist on making the applicants engage with Maori and justify why Maori are not involved if they are not. This is seen by some companies as giving Maori preferential treatment on a commercial opportunity when this may be completely inappropriate and can cause problems if not all relevant Maori are consulted.

Q37: Strong connections are starting to happen but Maori companies get fatigued with everyone constantly asking them to be involved in their research proposals because it is being expected by MBIE. The result is that Maori companies get overwhelmed and it feels disingenuous at times.



## Actions – Building Firm Foundations

**Question 38:** Do the current structures, funding, and policies encourage public research organisations to form a coordinated, dynamic network of research across the horizons of research and innovation? What changes might be made?

**Question 39:** Is the CRI operating model appropriately designed to support dynamic, connected institutions and leading edge research? What changes might be made?

**Question 40:** What additional research and innovation infrastructure is necessary to achieve the goals of this Strategy? What opportunities are there to share infrastructure across institutions or with international partners?

**Question 41:** What elements will initiatives in this area need to be successful?

**Please type your submission below. If applicable, please indicate the question(s) to which you are responding.**

Q39: There are differing approaches across the CRIs about access to IP and commercialisation generally which can get in the way for companies and other researchers wanting to engage. A simple approach creates more opportunities and frees up people to get on with innovating and can be designed in a way that maximises the opportunity for taxpayer funding.

Q40: More equipment at reasonable cost for companies to access for early stage to pre-commercial scale. Simplified processes for submitting funding proposals, such as the 2-stage process of an EOI, then a full proposal due to the huge cost in time and money writing them. Note that this doesn't mean encouraging everyone to submit a full proposal but instead, weeding out the ones that aren't likely to be funded in stage 1.

Q41: Well funded, with long-term certainty of existence, an operating model that isn't pre-occupied with being self-sustaining but instead, delivers results for others who then generate benefits for New Zealand.

## Actions – General

**Question 42:** How should the Government prioritise the areas of action, and the initiatives proposed under each area?

Please type your submission below.

PROACTIVELY RELEASED

## General

**Question 43:** Do you have any other comments on the Strategy which have not yet been addressed?

Please type your submission below.

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