

# Prime Minister's Chief Science Advisor Workshop

Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia



Connecting Researchers and Policymakers

Tāmaki Makaurau | Auckland

20 February 2024

# Agenda

- 1:40pm Registration
- 2:00pm Mihi whakatau
- 2:05pm Welcome and scene setting  
*Juliet Gerrard*
- 2:10pm *Frank Bloomfield and Wendy Lawson*
- 2.15pm Session 1:  
*George Slim*, Pressures facing the policy analyst trying to connect to researchers  
*Juliet Gerrard*, Research connections to policy
- 2:45pm Session 2:  
*Gill Jolly and Emily Parker*, Hīkina Whakatutuki | Ministry of Business, Innovation & Employment, Building the science base in Aotearoa New Zealand
- 3.00pm *Break*
- 3.10pm Session 3:  
Panel discussion led by CSAs with a focus on learning from case studies
- 4.50pm Session 4:  
*Alison Collins*, The Bridge: Reflections on Science-Policy  
*Ashley Bloomfield*, Increasing the public impact of Universities' research
- 5:00pm Session 5:  
Speed dating and networking with drinks and nibbles – with thanks to the Australasian Research Managers Society
- 6.30pm Close



# Haere mai

## Welcome

Scene setting,  
Juliet Gerrard

Who is, and isn't in the room?

## VISION for the role

a trusted, accessible bridge between scientists, society and government

## PRINCIPLES\*

Rigorous, **Inclusive**, Transparent, Accessible

\* Nature, June 2018 : Four principles to make evidence synthesis more useful for policy

# Session 1

*George Slim*

Pressures facing the policy analyst trying to connect to researchers

*Juliet Gerrard*

Research connections in policy



# Pressures facing the policy analyst trying to connect to researchers

George Slim  
Senior Advisor

Office of Prime Minister's Chief Science Advisor,  
Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

Universities  
New Zealand  
and DPMC  
project on  
knowledge  
sharing  
between  
academics and  
policymakers

## **Enablers**

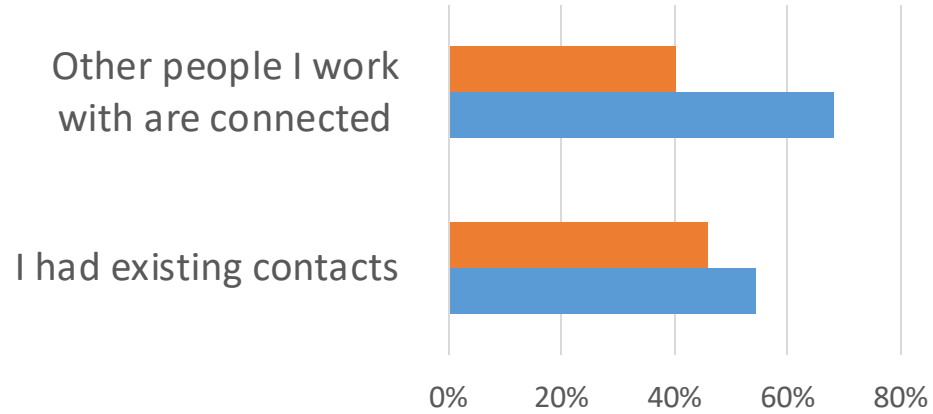
- Relationships
- Chief Science Advisors
- Conferences and other forms of knowledge exchange
- Collaborative initiatives
- Movement of staff
- Key research databases

## **Barriers**

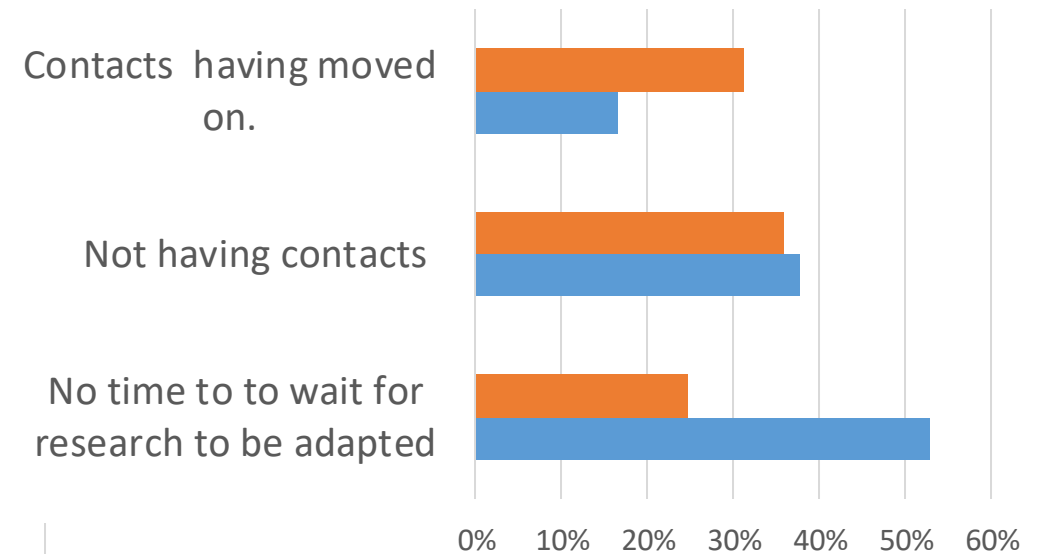
- Ways of working are not aligned
- Poor connections
- Lack of incentives
- Gaps in capacity
- Gaps in relevant research
- Commercial arrangements

# OPMCSA email survey on connections

## Enablers



## Barriers



## What would help?



Academics



Policy makers





# People said:

Researchers need to be independent,  
and at arms'-length from political pressures

People I know have connections

Having policy-makers trained in  
how to connect to researchers

Who are the policy makers and how even would one connect with them?

I think policymakers are constrained and, despite the best of will,  
are often unable to adopt recommendations.

Senior policy managers who do  
not value evidence or research,  
but instead prioritise  
"good policy advice".

I think the answer is "I can find sufficiently good information  
without connecting to researchers, and I don't know who I  
should approach for more detail on particular  
questions when I can't find information"

Researchers not focusing  
on the key information gaps

I am an ECR, having just completed my PhD.  
I have this week reached out to a policymaker

Policy makers not being open to something  
that did not fit their ideas of evidence

I do not believe they would take any notice

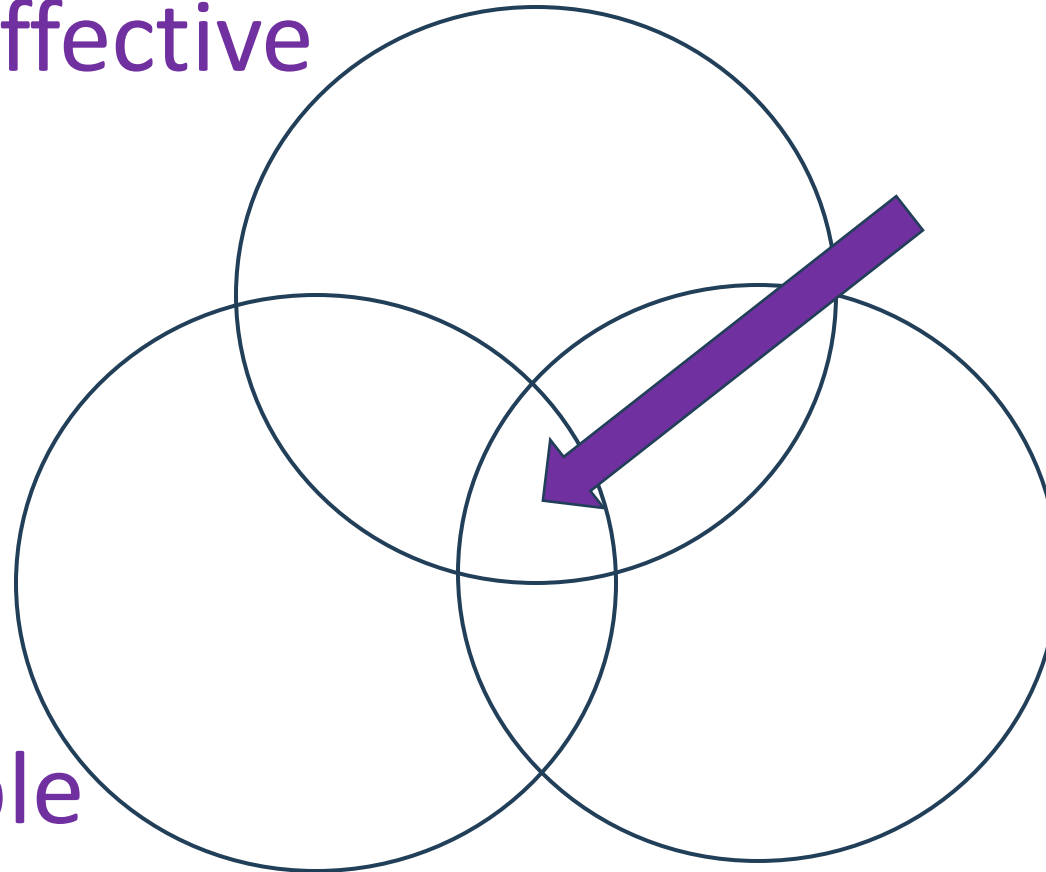
We develop relationships with academics  
and keep them informed of policy interest.

# Good Policy

Effective

Acceptable

Implementable



Resources: [DPMC Policy Project](#)



[Cate Roy's project on  
policy connections](#)



[Hannah McKerchar's  
resources for getting  
started](#)





# Researchers connecting to policy

**Juliet Gerrard**

Office of Prime Minister's Chief Science Advisor,  
Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

# Providing science advice into policy

- **Science is never the only advice**
- Science is good at defining the problem
- Science is good at identifying options
- Science struggles with definitive timely answers
- Politicians have to make decisions in defined timeframes
- Policy makers have to implement those decisions
  
- Presenting the “facts” rarely changed anyone’s mind
- Science debate should not be a proxy for values debate





# The most effective science advice is delivered just ahead of the policy agenda

## COVID-19

Advisory information provided to the Prime Minister as part of the ongoing COVID-19 pandemic.

October 2021: The PM requested that Juliet and Ian Town convene an expert group to provide feedback on an earlier iteration of the traffic light system for COVID-19 protection once vaccination targets are reached. The final system is significantly strengthened compared to the consultation draft which was shared with the group. You can read the feedback provided under urgency here (PDF, 309KB)

[Download the July – September 2021 advice bundle \(PDF, 3MB\)](#)

[Download the December 2020 – June 2021 advice bundle \(PDF, 410KB\)](#)

[Download the September/October/November advice bundle \(PDF, 2MB\)](#)

[Download the June/July/August 2020 advice bundle \(PDF, 4MB\)](#)

[Download the May 2020 advice bundle \(PDF, 693KB\)](#)

[Download the April 2020 advice bundle \(PDF, 6MB\)](#)

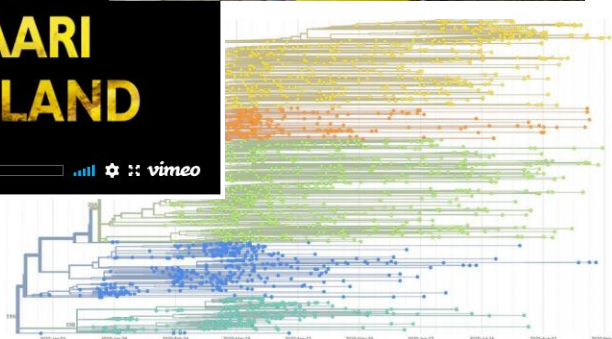
[Read the March 2020 advice bundle \(PDF, 611KB\)](#)

Science and Emergencies - Part 2 Whakaari White Island

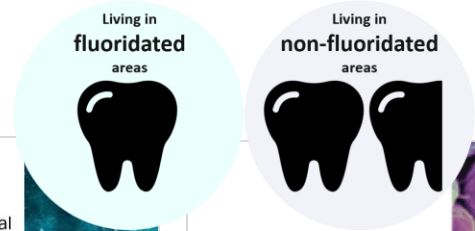
## Part 2 WHAKAARI WHITE ISLAND

13:52

vimeo



On average, children living in non-fluoridated areas have 1.7 times as many decayed, missing or filled teeth than those in fluoridated areas



### 5G roll out

**Trials**

- Select regional towns
- Major cities
- Other areas in future

**Barriers to use**

- Availability in location
- 5G capable device needed

### Myrtle Rust

An invader in Aotearoa New Zealand's ecosystems

**Summary**  
Myrtle rust is an invasive alien fungal disease that affects plants in the myrtle (Myrtaceae) family. Myrtle rust attacks new plant growth which makes seedlings especially susceptible, and severe infections often kill plants. It has had considerable negative impacts internationally in the last decade. It has spread along the east coast of Australia and into South Australia, Victoria, the Northern Territory and Tasmania. Myrtle rust was first detected on Aotearoa New Zealand's mainland in May 2017. It has now been found across most parts of the North Island and in the northern and west coasts of the South Island, and it is expected to continue to spread. Species in the myrtle family provide ecological, cultural and economic benefits for Aotearoa New Zealand. Examples include native species such as mānuka, pōhūkūwae, tōka and rānana as well as exotic commercial species like eucalyptus and figs. With the current tools and level of knowledge, eradication of myrtle rust is not possible. However, a significant programme of collaborative research is underway working closely with iwi and landowners. This research aims to grow our understanding of how the disease behaves in native ecosystems and explore options to make ecosystems more resilient. Research is also examining social behaviours and public perceptions of the disease.

**Background**  
Myrtle rust is a disease that arises from the fungus *Austropuccinia psidii*, which has several different strains. The 'australian' strain is present in Aotearoa New Zealand. Rust fungi typically form raised spots on the underside of leaves which become red-orange spore masses after some time, before turning grey or black. This causes leaves to deform and drop off the plant.

**Figure 3** Various stages of myrtle rust infection on myrtle species in New Zealand. Image 1(a) and 1(b) show the long/short leaf Myrtaceae. Image 1(c) and 1(d) show the short leaf Myrtaceae. Image 1(e) shows the long/short leaf Myrtaceae. Image 1(f) shows the short leaf Myrtaceae. Image 1(g) shows the long/short leaf Myrtaceae. Image 1(h) shows the short leaf Myrtaceae. Image 1(i) shows the long/short leaf Myrtaceae. Image 1(j) shows the short leaf Myrtaceae. Image 1(k) shows the long/short leaf Myrtaceae. Image 1(l) shows the short leaf Myrtaceae. Image 1(m) shows the long/short leaf Myrtaceae. Image 1(n) shows the short leaf Myrtaceae. Image 1(o) shows the long/short leaf Myrtaceae. Image 1(p) shows the short leaf Myrtaceae. Image 1(q) shows the long/short leaf Myrtaceae. Image 1(r) shows the short leaf Myrtaceae. Image 1(s) shows the long/short leaf Myrtaceae. Image 1(t) shows the short leaf Myrtaceae. Image 1(u) shows the long/short leaf Myrtaceae. Image 1(v) shows the short leaf Myrtaceae. Image 1(w) shows the long/short leaf Myrtaceae. Image 1(x) shows the short leaf Myrtaceae. Image 1(y) shows the long/short leaf Myrtaceae. Image 1(z) shows the short leaf Myrtaceae.

Myrtle rust is thought to have originated in South and Central America, and since reaching Hawaii in 2005, the spread has increased exponentially. Recent research confirms that Aotearoa New Zealand natives are susceptible to both the

### Food waste

A global and local problem

The first report in the food waste series from the Prime Minister's Chief Science Advisor, Kaitiaki Howard Mātanga Pōtauri Mātua ki te Pirimia.

### Cannabis use

Yes  No

- We can expect 'normalisation' of cannabis use, which may lead to increased use.
- Overseas experience shows mixed evidence for use among youth and preliminary evidence of increasing cannabis use among older age groups and university students, following legalisation.
- Despite regulation, commercial cannabis will both contribute to and be impacted by the nitrogen cycle.

Increased nitrogen inputs into the environment, including the use of synthetic nitrogen fertiliser, cattle urine patches, and other types of pollution, can lead to excess nitrates being leached into groundwater.

- Most New Zealanders try cannabis at some point.
- 15% of adults reported using cannabis at least once in the past year (2018/19 data).
- Young people are the biggest users with 29% reporting past-year use (ages 15-24, 2018/19 data).
- Current usage patterns likely to continue.

# Effective science advice includes ...

- **Research other than your own**
- A broad understanding of the government context
- A detailed appreciation of who in particular would value your advice
- A broad understanding of the stakeholder landscape
- A broad understanding of what other countries do in your area at the research-policy interface





CSAs can help



***Ngā mihi nui***

***Questions?***



# Session 2

*Gill Jolly and Emily Parker*

Building the science base in Aotearoa New Zealand

Ministry of Business, Innovation & Employment |

Hīkina Whakatutuki

# Session 3

*Kate Parkes, Tracey McIntosh and Ian Lambie*

Gang Harm Insights Centre

Ministry of Social Development | Te Manatū Whakahiato Ora  
Justice Sector



NEW ZEALAND

Gang Harm Insights Centre

# The Gang Harm Insights Centre

OPMCSA Panel Presentation

February 2024

# The Gang Harm Insights Centre (GHIC)

A multi-agency team focused on better understanding the New Zealand Adult Gang (NZAG) environment, while focusing on the social structures that underpin harmful behaviours. We seek to provide a holistic understanding of the harm caused by, to, and within the gang environment.

We actively partner to deliver holistic, actionable, and timely insights, enabling agencies to empower communities in making a difference to gang-related harm.

We seek to change the focus from preventing gang membership and growth, to addressing the factors influencing the behaviours and criminality often synonymous with gang membership.

## Ka mua, ka muri Looking back to move forward



*We champion the principles of Te Tiriti o Waitangi and mātauranga Māori.*

# Our Approach



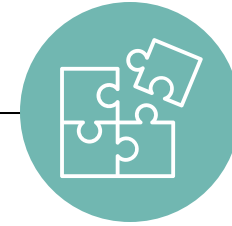
## Life Course Perspective

- We use research and insights to show how life experiences from birth to old age shape who we are, and our access to opportunities that support individuals and whānau to thrive



## Working Together

- We build reciprocal partnerships with communities
- We recognise we only have half the picture if we do not hear, and amplify in our work, their experiences



## Diverse Frameworks

- We acknowledge that different cultures understand evidence and insights differently
- We strive to build a centre that supports different cultural perspectives

*“Listen to our voices and help us solve problems together”*

*A member of an adult gang on working together*

# Big Picture – our role in the System & creating thriving communities

- Systems shift required to create individual shifts
- Engagement & collaboration
- Holistic understanding
- Mindset shift
- Strengths based approach
- Consistent messaging
- Community has the solutions

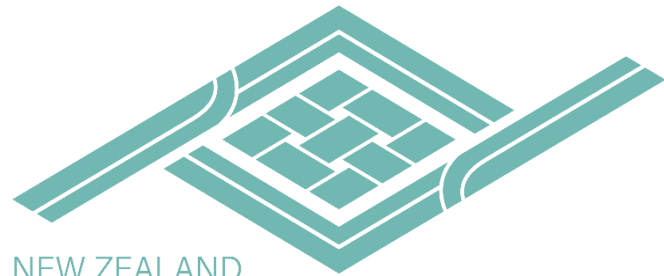
**For communities to thrive, effective engagement must be trauma informed and involve a wrap-around collaborative approach.**

*"Listen to our voices and help us solve problems together"*

A member of an adult gang on working together

# Independent Report on Gangs in Aotearoa

- Hugely positive
- Wider awareness of the mahi of the GHIC
- Useful timing
- Risk around contrary evidence



NEW ZEALAND

Gang Harm Insights Centre

# Questions?

Kate Parkes:

[Kate.Parkes@police.govt.nz](mailto:Kate.Parkes@police.govt.nz)

GHIC Inbox:

[GHIC@police.govt.nz](mailto:GHIC@police.govt.nz)



*“To bring true effect to the spirit of service as a public service leader we have to listen, understand our communities needs and aspirations, then seek to ensure we enable that through our collective efforts.”*

*Otago/Southland Regional Public Service Commissioner, Steph Voight*



# GHIC AGENCIES





In the face of evidence?  
Connecting experience,  
expertise and endeavour.

Prime Minister's Chief Science Advisor Workshop:  
Connecting Researchers and Policymakers

# Towards an understanding of Aotearoa New Zealand's adult gang environment

- Evidence-based policy on polarising social issues creates unique challenges and opportunities
- The issue is not always a knowledge deficit: past experiences, prior understanding, cultural, political and social identity influence how people interact with evidence.
- Disrupting embedded often simplistic narratives and presenting competing explanations effectively means broadening the scope of inquiry, deepening the way we understand expertise and practicing deep listening of diverse invested communities.
- Relationships are our lifeblood
- Diversity and the depth of those relationships are key



# Rethinking Expertise: Peer review

## Eugene Ryder

- *'Gangs are difficult to define'*: Even when patched my response to the question "are you in a gang" was and remains a resounding "NO" usually followed by "I am Black Power".
- *'It is difficult to obtain reasonable data that speaks to the numbers of children and young people in gang environments, and it is not clear whether children born into gang whānau will inevitably remain in a gang themselves'*: Even the notion of 'a gang environment' is subjective. ALL tamariki that have 'members' as parent or primary caregiver are effectively in a 'gang' environment. However individual whānau determine what that 'environment' looks and feels like. For example, my personal whānau environment includes kōhanga reo/kura engagement, kapa haka and diving. Yet my association with BP has been deemed a 'risk' if applying for parole for my son or caregiver responsibilities for any of my mokopuna when they are 'in care'. An example of assumptions made by way of association rather than behaviour.

# Rethinking Expertise: Peer review

## Eugene Ryder

- *Researchers have established various frameworks and theories to understand gangs. These can be described at a macro-level with theories such as Interactional or Social Disorganisation to explain why gangs exist:*  
Rangatahi that are more likely to end up in gangs have minimal choices of where to go (socially) and who to trust. Gang whānau tend to have an open-door policy to new members to join. Who else opens their doors for these rangatahi? In some instances, even marae are not welcoming.





# Session 3

*Stuart McNaughton, Julia Novak, Campbell Birch, Jared Carpendale and Melinda Webber*

Ministry of Education | Te Tāhuhu o Te Mātauranga

Massey University | Te Kunenga Ki Pūrehuroa

University of Auckland | Waipapa Taumata Rau

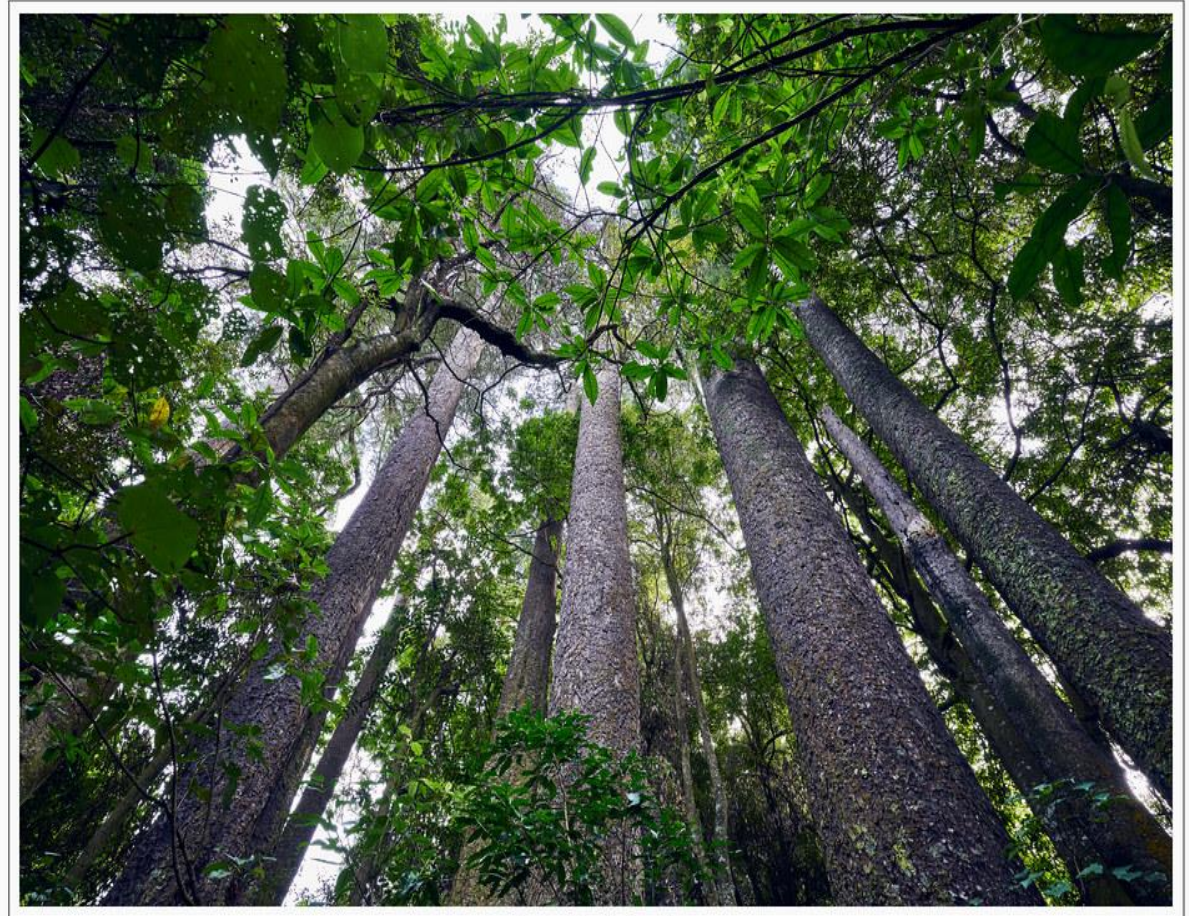


# Session 3: Case Study

## He Uru Kahikatea

Building young people's resilience through media and information literacy and digital citizenship skills.

*Stuart McNaughton,  
Melinda Webber, Jared  
Carpendale, Julia Novak and  
Campbell Birch*



Standing Straight And Tall - Kahikatea

Geoff McKay

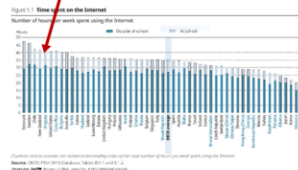
Massey University | Te Kunenga Ki Pūrehuroa  
Ministry of Education | Te Tāhuhu o Te Mātauranga  
University of Auckland | Waipapa Taumata Rau



# Context

- 1. Commissioning<sup>1</sup>** by PM Ardern, part of a series of work streams **across government** tackling the challenge of 'polluted information'
- 2. Responsive** context provided by previous general reports by PMCSA and social sector CSAs (2018), and ongoing advice (eg *literacy, communication and maths strategy*)
- 3. Availability** of local and international evidence: (a) the issues (b) possible responses

1. Rapid increase in 15 year olds use of internet: (doubled from 2012)
2. Presence of 'polluted' information



3. Few skills with 'polluted' information

Table 2  
Percentage of Responses at Each Rubric Level by Task

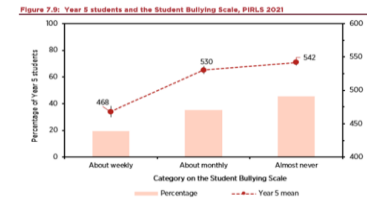
Level	Evaluating Evidence	Website Comparison	Website Evaluation	Social Media 1	Social Media 2	Home Page Analysis
Beginning	77.6%	82.7%	90.8%	82.8%	85.4%	83.7%
Emerging	13.8%	6.7%	1.4%	6.9%	2.7%	35.9%
Mastery	8.7%	1.2%	1.8%	1.3%	1.9%	4.7%
Total (n)	3,119	2,871	2,364	2,437	2,421	2,369

Note: Some students in the analytic sample did not complete all the tasks or did not provide responses that could be scored. Consequently, the total number of responses varied by task.

**Mastery responses**, students evaluated online content by investigating the source of information, by interrogating the evidence presented, or by seeking out information from other reliable sources. **Emerging responses** were partially incorrect or did not fully articulate sound reasoning. **Beginning responses** included incorrect or irrelevant strategies for evaluating online information. Breakstone, J., Smith, M., Wineburg, S., Rapaport, A., Carle, J., Garland, M., & Saavedra, A. (2021). Students' civic online reasoning: A national portrait. *Educational Researcher*, 50(8), 505-515. <https://doi.org/10.3102/0013189X211017495>

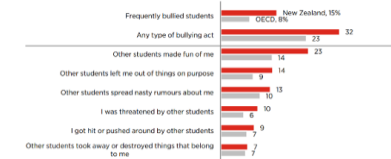
## (Cyber)bullying

PIRLS Y5 (2021 Q adds one item to scale 'nasty or hurtful information on line')

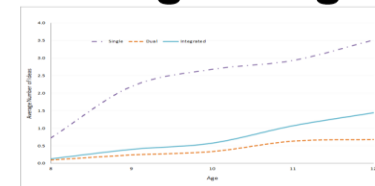


PISA15 year olds (2018 Q adds 'can happen in social media')

Figure 3.8. The proportion of students experiencing bullying is above the OECD average



## But also digital argumentation skills



- Single** support one's own position
- Dual** adds critique of the opposing position
- Integrated** considers weakness in one's own and strength in opposing positions; weighing up to reach a conclusion;

<sup>1</sup>Major catalyst Royal Commission of Inquiry into the terrorist attack on Christchurch masjidain <https://christchurchattack.royalcommission.nz/the-report/findings-and-recommendations/chapter-5/Recommendation 36>

# Key Messages (not recommendations) in 7 areas

1. Media and information literacy and digital citizenship (both)
  2. Initial teacher education and in-service professional learning and development
  3. Support for schools, kura, and teachers
  4. Equity and Te Tiriti
  5. A national approach, locally led
  6. Libraries
  7. Developing effective tools and measuring progress
- Research from multiple sources
  - A broad understanding of the dynamic government context
  - A detailed appreciation of who in particular would value [this] advice
  - A broad understanding of the stakeholder landscape
  - A broad understanding of what other countries are doing
  - *A broad understanding of implementation*

# Messages reflect awareness of Enablers and Constraints, Good policy, Implementation science

## System level

Strengths and capabilities eg curricula, national strategies, teachers, libraries ...

Weaknesses eg measures, evidence informed resources and tools

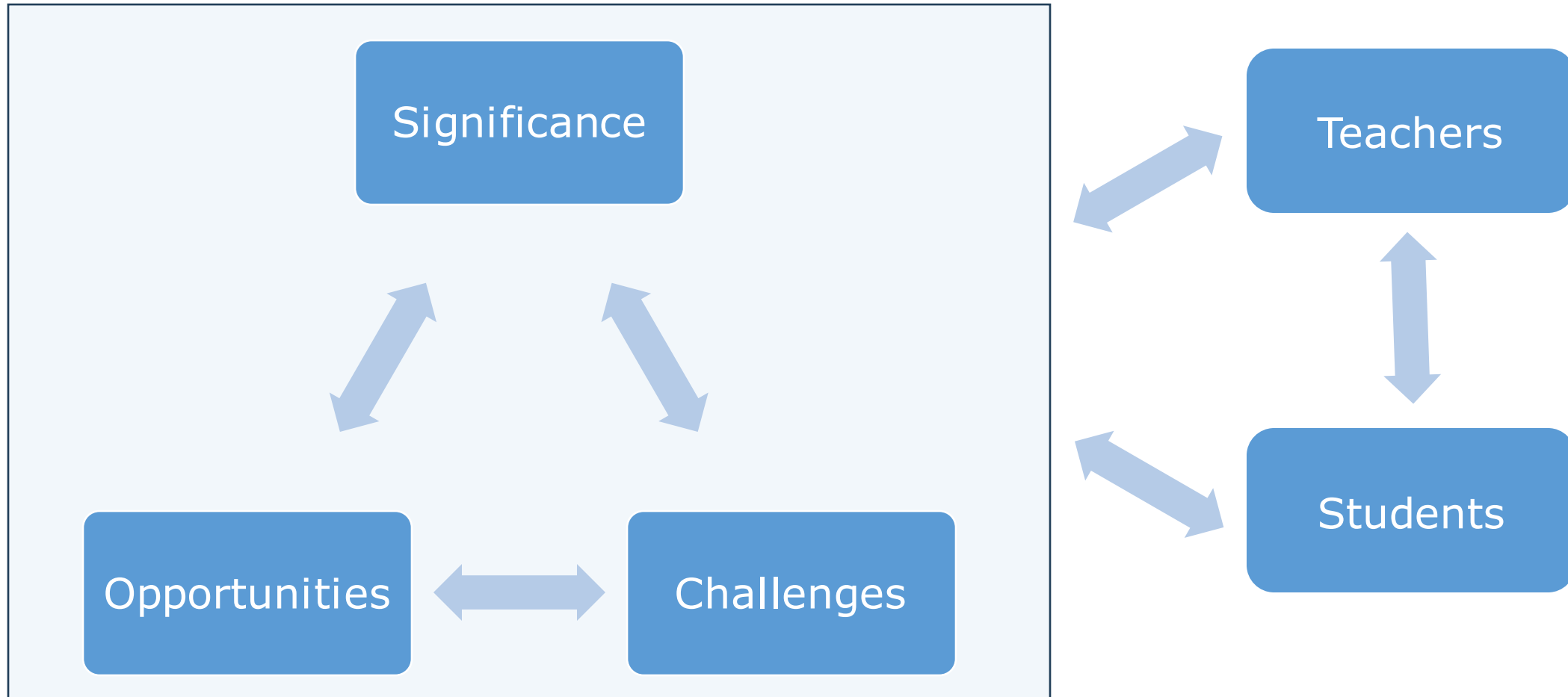
## More general constraints

- Low status of educational sciences, generally social sciences
- Shifting government priorities
- 'crowded curriculum'- both schools and Initial Teacher Education
- And other elephants in the room



Office of the Prime Minister's Chief Science Advisor  
Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia

# Implications for Teacher Education







A whole-of-system approach to MIL and DC requires MOE support, leadership and resource development oversight, quality teaching and teacher preparation, and strong reciprocal relationships between schools, students, whānau and the wider community

Figure 1: Centring the media and information literacy and digital citizenship system around the young person. MIL = Media and information literacy, DC = Digital citizenship.

# Session 4

*Alison Collins*

*The Bridge: Reflections on Science-Policy*

Ministry for the Environment | Manatū Mō Te Taiao

*Ashley Bloomfield*

*Increasing the public impact of Universities' research*

University of Auckland | Waipapa Taumata Rau



# The bridge

Connecting across the science-policy interface





# Role of [Departmental] Chief Science Advisor

- Like any public servant there to offer free and frank advice – ministers decide how that is used
- Specifically, in role:
  - Advise and review – reports, process, capability, strategic direction
  - Translate and simplify
  - Challenge and hold to account
  - Keep safe – Our Science Strategy
  - ‘Head of profession’
  - Connect and be a conduit



## OUR CONTEXT

- Complex operating environment – political timeframes, but stewardship challenges
- Dynamic system of socio-ecological interactions
- Evidence at heart of:
  - Verifying problem
  - Informing pathway
  - Evaluating options
  - Tracking progress
- Trust in our use of evidence critical, particularly against a movement of misinformation and scrutiny





# A science- policy fable







The science-  
policy  
interface

# Pooh's side of the river

- Deeply analytical
- Motivated by new understanding
- Aims for certainty
- Reputation focus
- Frustrated by policy short-termism





# Christopher Robin's side of the river

- Generalist, agile
- Motivated by making a difference
- Little control and limited access
- Delivery focus
- Frustrated by accessibility of science





# The bridge – why & what



- Knowing the starting point
- What level advice is needed
- What type of science
- Principles to keep us all safe



# The bridge – the how

- Push, pull, or co-produce?
- Lots of activities – but need a mix between long-term enduring and real-time fixes



# The bridge – who?

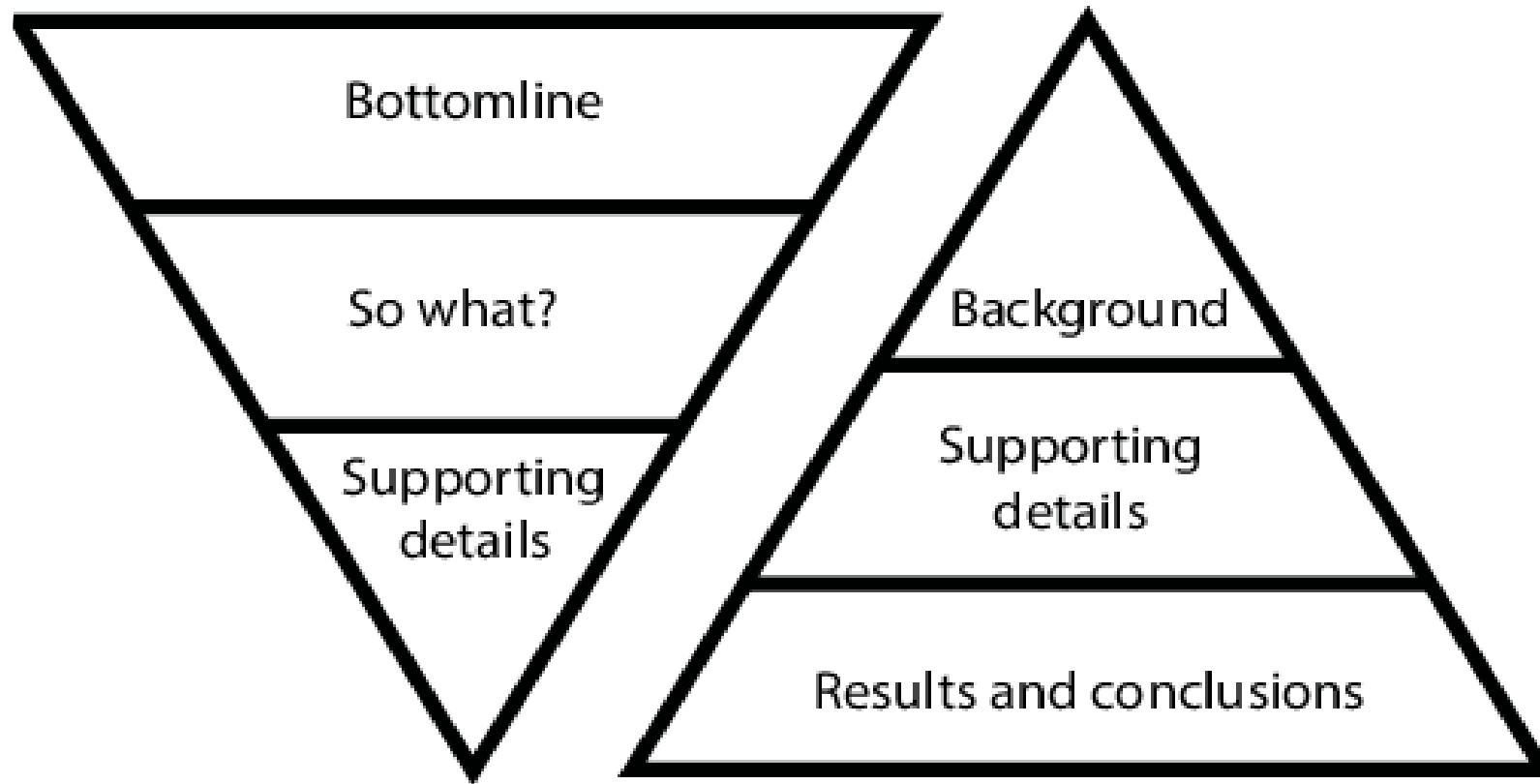
- Roles
  - Knowledge brokers, Scientists in the business
  - Secondments, government advisors
- Structures
  - Science advisory panels, Technical review experts
- Culture
  - Our Science Strategy *Rautaki Pūtaiao*
  - Long-term capability building (creating unicorns!)



# Policy briefs – *how to think like Christopher Robin*



The inverted pyramid



Usual communication by scientists

- Step away from Pooh!
- Use the inverted pyramid approach





BACK TO THE FABLE



# Session 4

*Ashley Bloomfield*

*Increasing the public impact of Universities' research*

University of Auckland | Waipapa Taumata Rau

# Session 5

*Speed dating and Networking*

# We would really like your feedback, please

*What would be the best next steps to connect researchers and policymakers?*

- 1st | Co-operative projects
- 2nd | Help to connect the right researchers and policy people on projects
- 3rd | Theme based discussions
- 4th | Network meetings
- 5th | Secondments of researchers into government departments and vice versa meetings
- 6th | Nothing else is needed

Join at [menti.com](https://menti.com), use the code 6165 3107



*We would like a more inclusive range of participants at follow-up events, do you have any suggestions?*

# Ngā mihi nui

