

Prime Minister's Chief Science Advisor Workshop

Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia



Connecting Researchers and Policymakers

Ōtautahi | Christchurch

27 September 2023

Agenda

- 1:40pm Registration
- 2:00pm Mihi whakatau
- 2:05pm Welcome and scene setting
Juliet Gerrard
- 2:10pm *Kevin Watson*
- 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:
Emily Parker, Hīkina Whakatutuki | Ministry of Business, Innovation & Employment, Building the science base in Aotearoa New Zealand
- 3.00pm *Break*
- 3.15pm Session 3:
Panel discussion led by CSAs with a focus on learning from case studies
- 5:00pm Session 4:
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

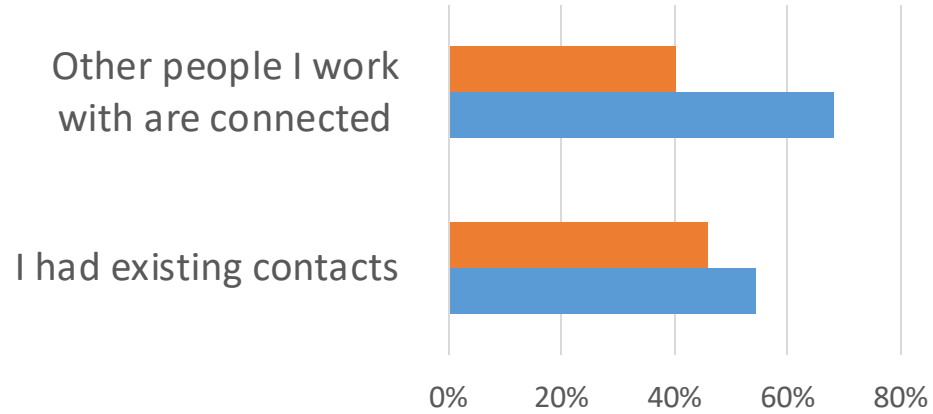
- Relationships
- Chief Science Advisors
- Conferences and other forms of knowledge exchange
- Collaborative initiatives
- Movement of staff
- Key research databases

Barriers

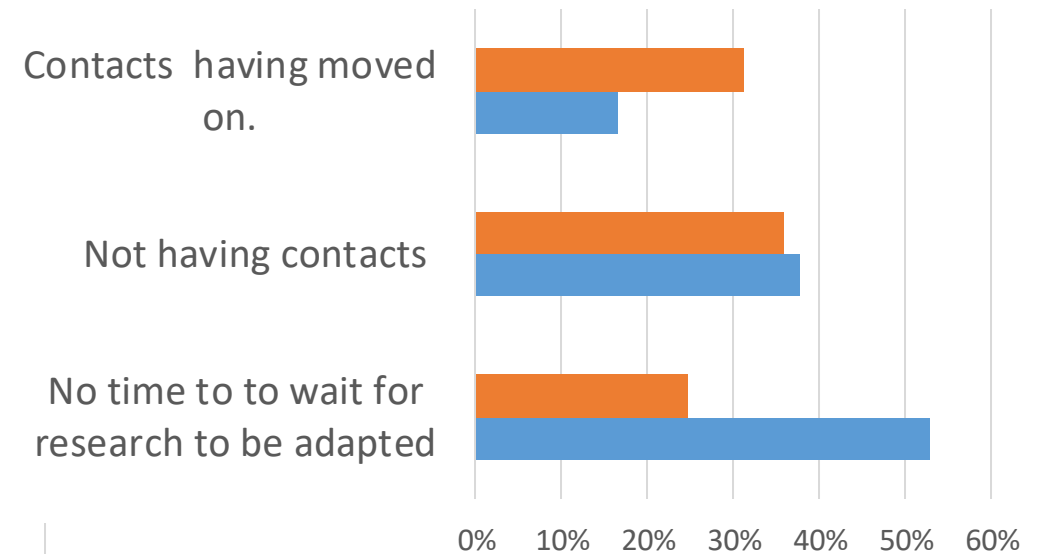
- Ways of working are not aligned
- Poor connections
- Lack of incentives
- Gaps in capacity
- Gaps in relevant research
- Commercial arrangements

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

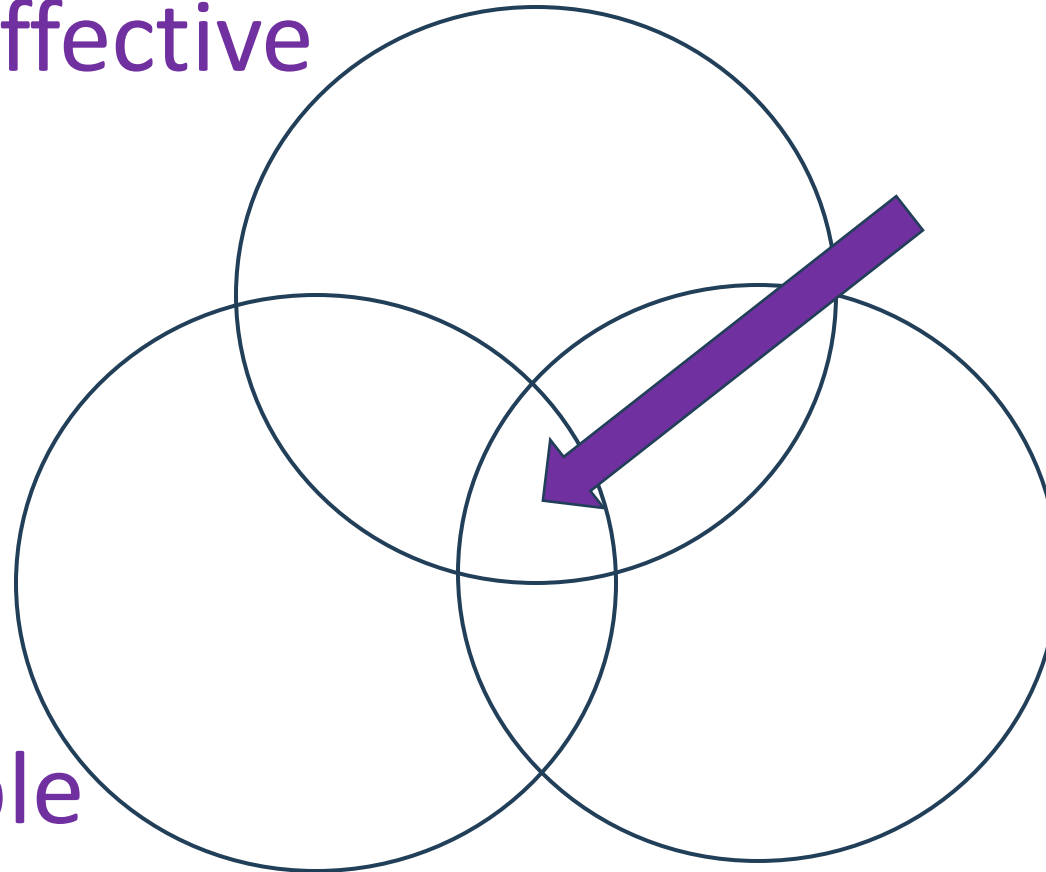
We develop relationships with academics
and keep them informed of policy interest.

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 \(PDF, 693KB\)](#)

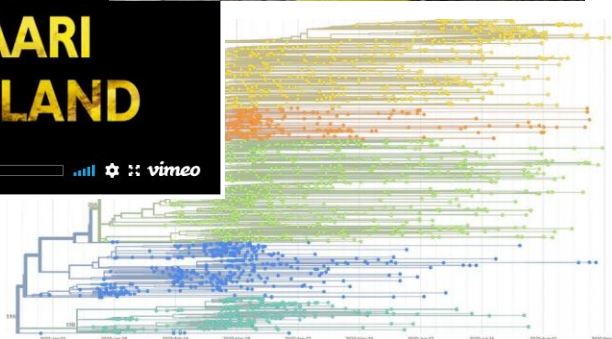
[Download the April 2020 advice bundle \(PDF, 6MB\)](#)

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

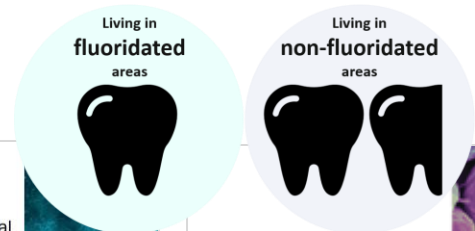
Science and Emergencies - Part 2 Whakaari White Island

Part 2 WHAKAARI WHITE ISLAND

13:52



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, tōiā 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 plants in New Zealand. Image 1(a) and 1(b) show the long/short leaf Myrtle Rust (LR) and the orange spore masses after some time, before turning grey or black. This causes leaves to deform and drop off the plant.

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 Pōhara Matahi 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 profit and persist.

- 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.

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.

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

Emily Parker

Building the science base in Aotearoa New Zealand

Ministry of Business, Innovation & Employment

Hīkina Whakatutuki

Session 3

Simon Kingham, Jane Cameron, Mike Fisher and Tony Moore

Ministry of Transport
Te Manatū Waka

Christchurch City Council

ChristchurchNZ

Ken Hughey

Lincoln University
Te Whare Wānaka O Aoraki

Ashleigh Fromont and Rochelle Faimalo

National Emergency Management Agency
Te Rākau Whakamarumarū

Engaging in the transport and urban space

Simon Kingham, Jane Cameron and
Tony Moore, Mike Fisher

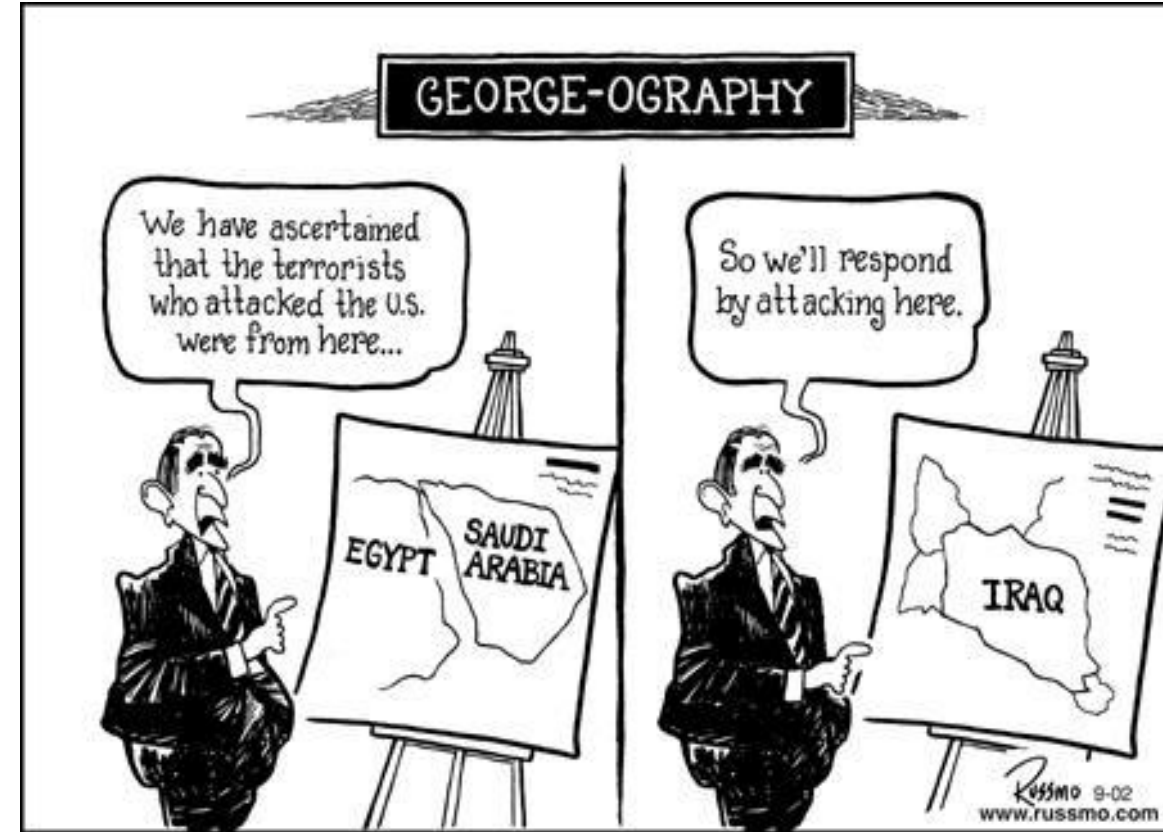
Simon Kingham

- Ahorangi | Professor
- Te Whare Wānanga o Waitaha |
University of Canterbury
- Kaitohutohu Matua Pūtaiao |
Chief Science Advisor,
- Te Manatū Waka | Ministry of
Transport

Evidence based policy

- Good evidence base
- .. leading to...
-good policy

- But this doesn't always happen
 - Why not?
- Researchers and policy makers not always connected



Why don't researchers engage better

- They are busy
- They don't know who to talk to
 - Government websites not hugely helpful
- There are few rewards for engaging
 - Journal articles
 - Performance Based Research Fund (PBRF)

Under the PBRF system of performance evaluation, academics who engage with policy-focused work, that is inherently less likely, or slower, to generate high-impact publications, are penalised. Ironically

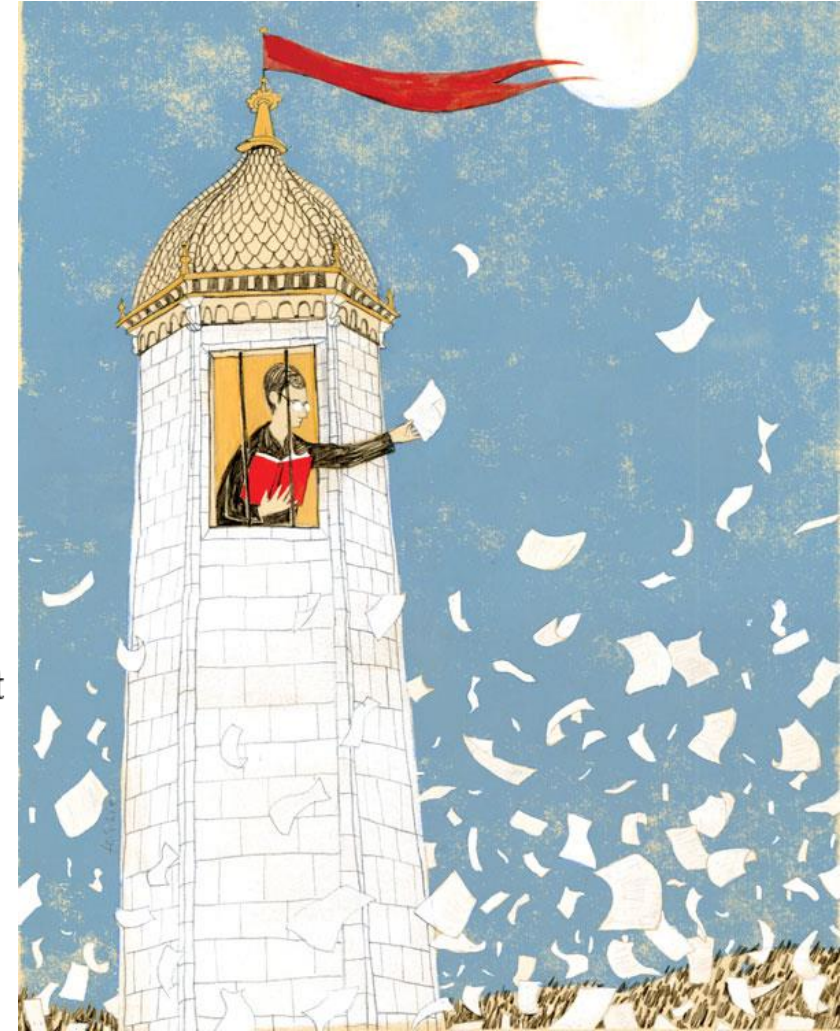
<https://sciblogs.co.nz/politecol/2016/07/14/academics-less-engaged-policy-making/>

- They are often introverts

Climatic Change (2012) 112:233–242
DOI 10.1007/s10584-011-0205-7

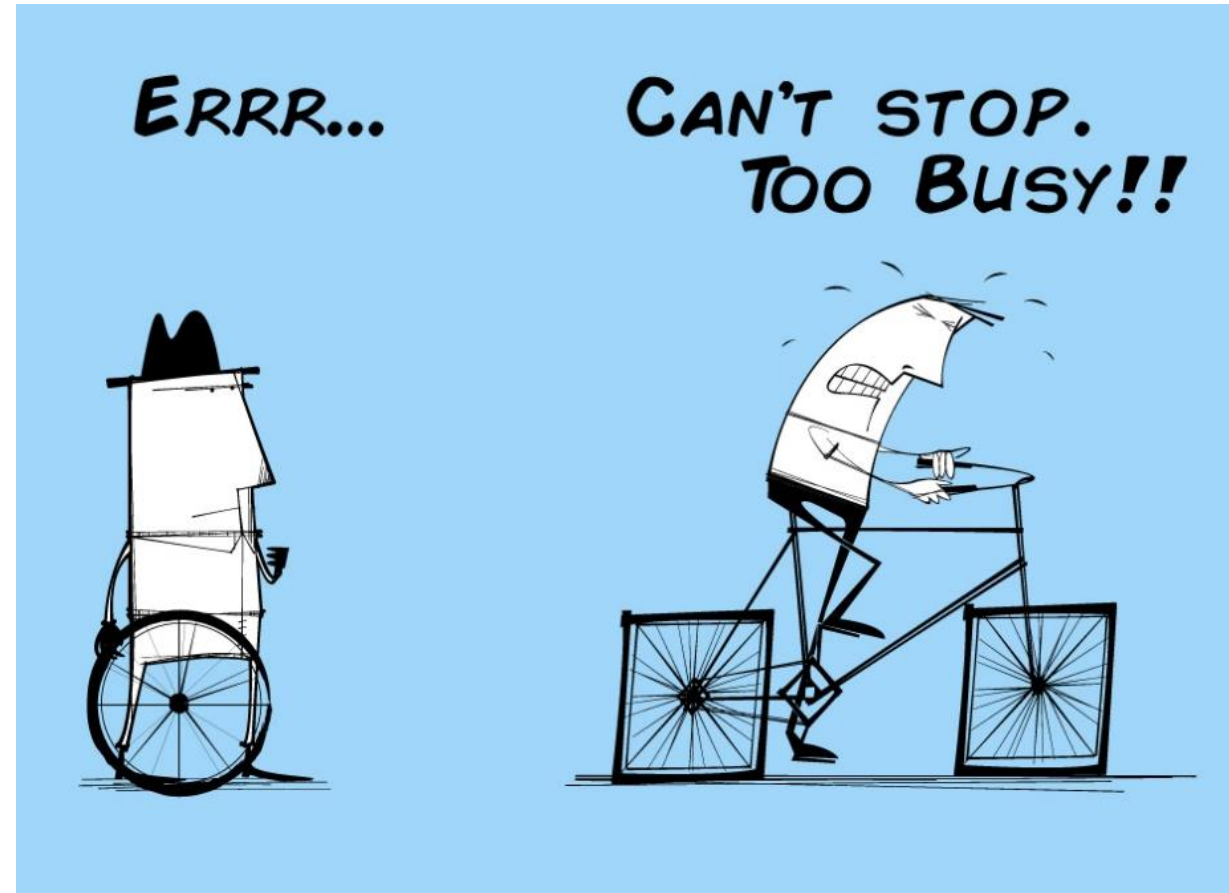
Personality type differences between Ph.D. climate researchers and the general public: implications for effective communication

C. Susan Weiler • Jason K. Keller • Christina Olex



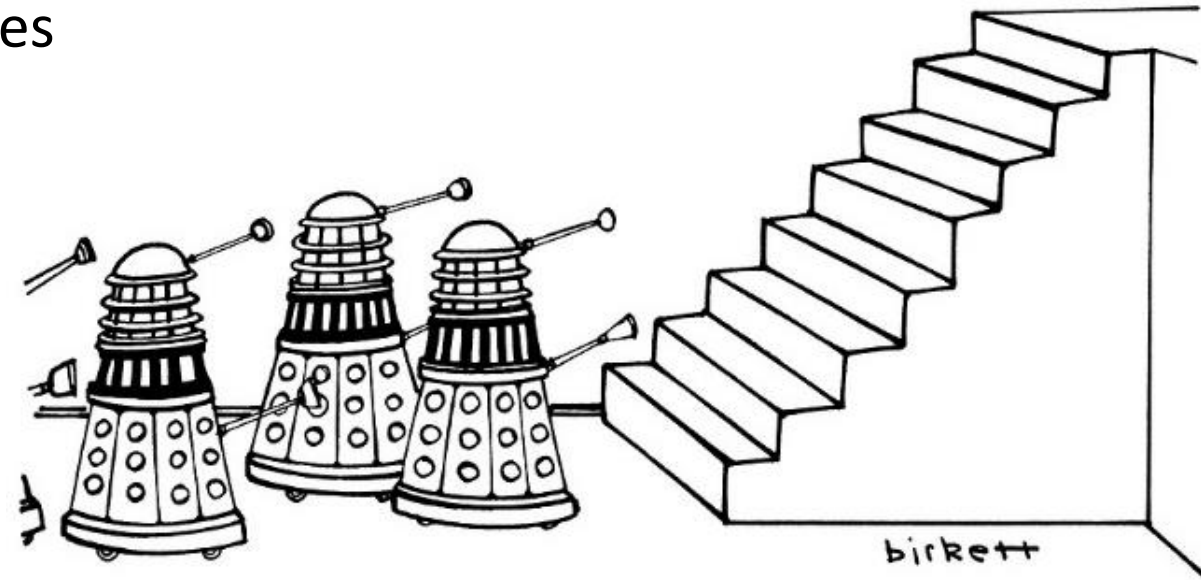
Why don't policy makers engage better?

- They are busy
- They don't know who to talk to
 - Hidden in all sorts of places
 - Not always obvious who are experts
- Academic literature is hard to read
 - Jargon
 - Technical
 - Theoretical
 - Irrelevant
- Timing



Why should we engage?

- See research *actually* inform policy
 - Not just journal articles and PBRF scores
- Make a difference
- Moral responsibility?
 - Tax payer funded
- To avoid missing the obvious



“Well, this certainly buggers our plan to conquer the Universe.”

Models of engagement

- Chats
- Advice
 - Formal or informal
- Internships
- Scholarships
- ‘Showcase’ events
- Student projects
- Research projects
 - Advisory Board
 - Co-created

Tony Moore

- Principal Advisor, Climate Resilience
- Strategic Policy and Resilience
- Christchurch City Council

Jane Cameron

- Team Leader, Strategic Transport
- Planning & Strategic Transport
- Christchurch City Council

Mike Fisher

- Place and City Transformation Manager, Christchurch NZ
- Urban Tacticians
- Adjunct Research Fellow, UC

Final comments

- It makes the research real and relevant
- Real impact – *making a difference*
- Benefits to both sides; research and policy decisions
- It needs time investment to make relationships
- Helps policy makers find time to *think*
- Fresh eyes on a topic
- Independent academic voice; local and global perspectives
- It won't happen if you sit in your office
- Career pathways

Success and failure in the science-policy space: experience from an operational agency perspective: DOC

Ken Hughey

Emeritus Professor of Environmental Management, Lincoln University

Former CSA, Te Papa Atawhai DOC, 2014-2022

Relationships that have worked to address important issues: **the importance of trust**

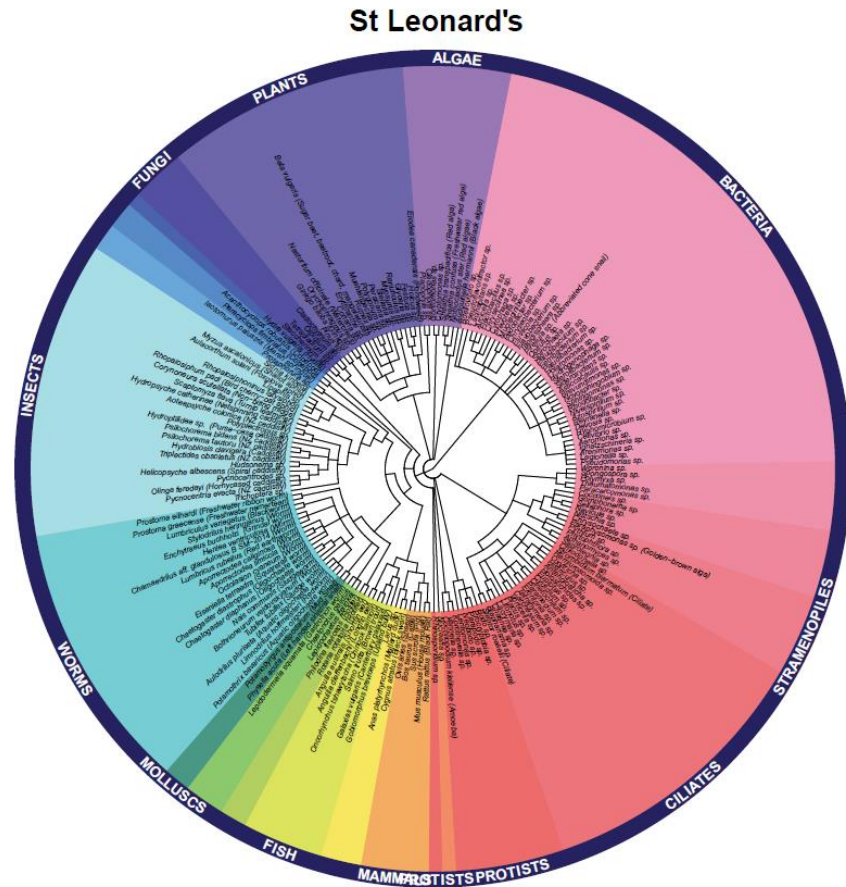
- Trust is hard earned, easily lost, and once lost almost impossible to regain! I've seen the latter play out in multiple Environment Court, in several Crown-Māori contexts, and in a number of other situations (including with Ministers)
- When I was the DOC CSA I spent a lot of time building relationships, across Departments, within the Department, with science providers, and with others – mostly but not always successfully
- And when successful it delivered and I can think of multiple win-win examples ...

Success:



- Much stronger relationships with key CRIs delivering:
 - GNS – improved way of thinking about and handling hazard related concerns in the recreation planning and management space, e.g., Cape Kidnappers
 - NIWA – a modernized and fit-for-purpose weather forecasting system helping recreational users on PCL and also DOC operations including 1080
 - Manaaki Whenua – a better understanding of the drivers and consequences of wilding tree spread leading to better informed and strategic management responses
- Co-governance and co-learning relationships, e.g., Tiakina kauri, bringing out the best of mātauranga Māori and western science to make real differences
- Enhanced working relationships with universities:
 - A post graduate scholarship programme delivering multiple win-win benefits
 - An improved permissions system, albeit one that still faces challenges
 - Targeted areas of research benefiting high need conservation priorities, e.g., Victoria and Canterbury universities in the kauri dieback space

'Failure':



Wheel of life

- An inability to help modernize & integrate (eDNA, remote sensing, AI) this country's nature conservation and environmental monitoring system
 - Why? The power of what I call 'embedded BAU'.
- An inability to develop a significant operational science funding system that could and should make real differences to nature conservation
 - I get blue skies and strategic science but at the end of a short day our windows of opportunity are often on very short timelines, e.g., myrtle rust and kauri die back.



NATIONAL EMERGENCY MANAGEMENT AGENCY



**National Emergency
Management Agency**
Te Rākau Whakamarumarū



Forecasting Cyclone Gabrielle

HEAVY RAIN HIGH RISK
RED WARNINGS

CATEGORY 3
EX-TROPICAL

ORANGE WARNING
HIGH PROBABILITY

SIGNIFICANT & WIDESPREAD

DAMAGING SEVERE GALES

STORM SURGE

REDUCED RAIN THRESHOLDS

LARGE WAVES

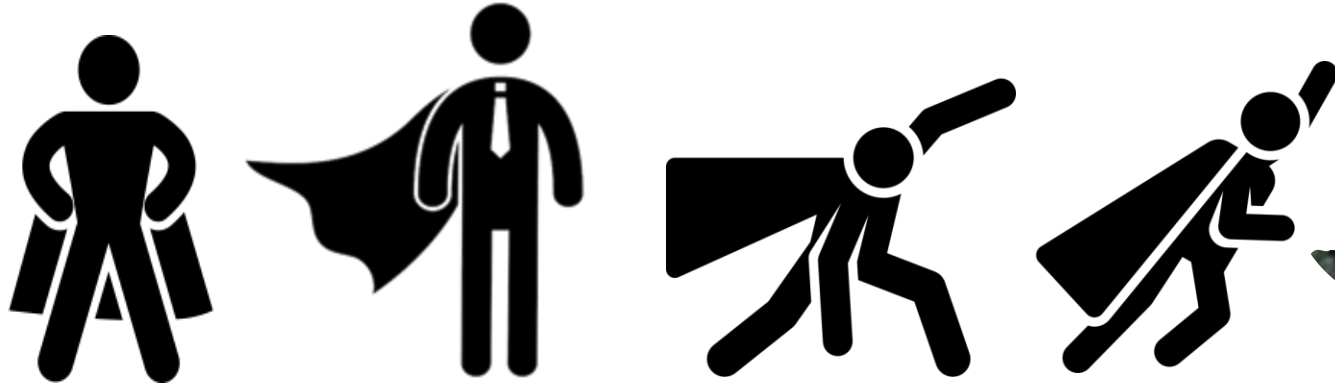
SATURATED GROUND

CYCLONE 200 - 300 MM+

Assembling Decision Makers

Cyclone Gabrielle Landslide Dam

Locally led, regionally coordinated, nationally supported!



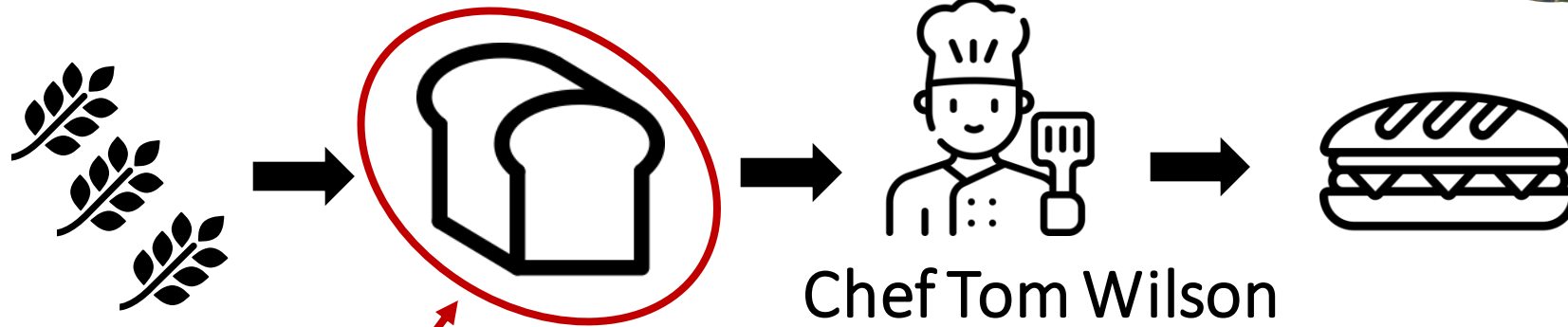
Relationships are a critical enabler in an emergency

Trusted decisions require multiple perspectives
both from data and 'on the ground' experience

Just because it hasn't been done before doesn't
mean it can't be done now



The Crisis you never heard about – Taupō unrest



Don't forget about this step!



National decision making
(warnings)
Executive briefings
Reassurance



Enhanced Regional Planning
(known impacts)
Agency Briefings



Public communications
Reassurance

LESSONS

Existing relationships make or break decisions in an emergency

Wellbeing covers more than just life safety – it includes protecting environmental, built, economic and cultural / social aspects of lives and livelihoods.

The best science communication is served many ways

Emergency Management operators and policy makers are faced with a overwhelm of ‘important and urgent’ – be quantitative and place advice in context

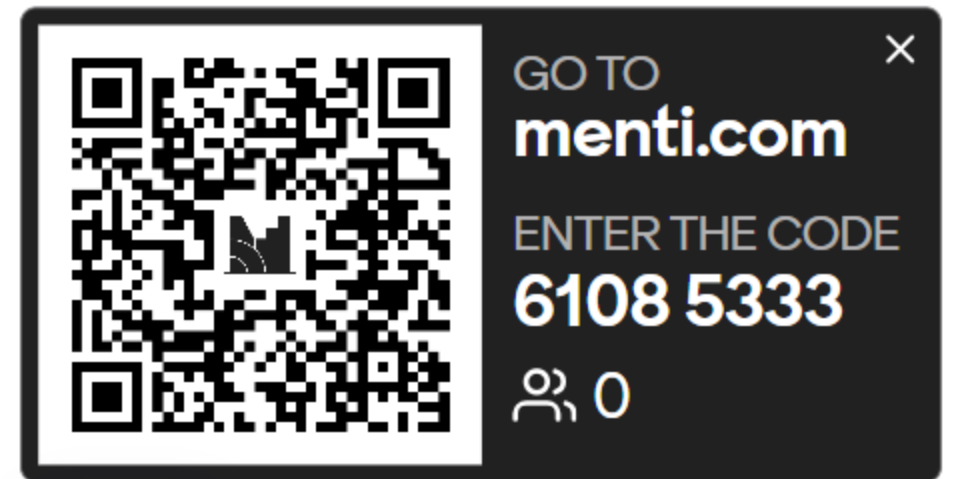
Session 4

Speed dating and Networking



We would really like your feedback, please

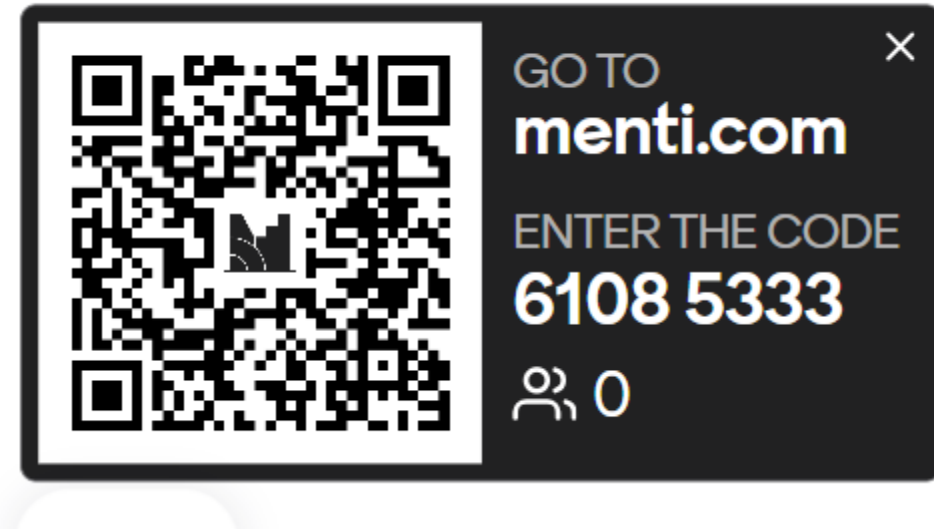
*Complete the [Mentimeter poll](#)
Come and talk to us, or
Fill in the suggestions box outside*



We would really like your feedback, please

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

- 1st Networking meetings
- 2nd Theme based discussions
- 3rd Co-operative projects
- 4th Nothing else is needed
- 5th Helps connect the right researchers and policy people on activities
- 6th Secondments of academics in to departments and vice versa



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

Ngā mihi nui

