

What's new in resilience research?

a view across the Resilience Challenge

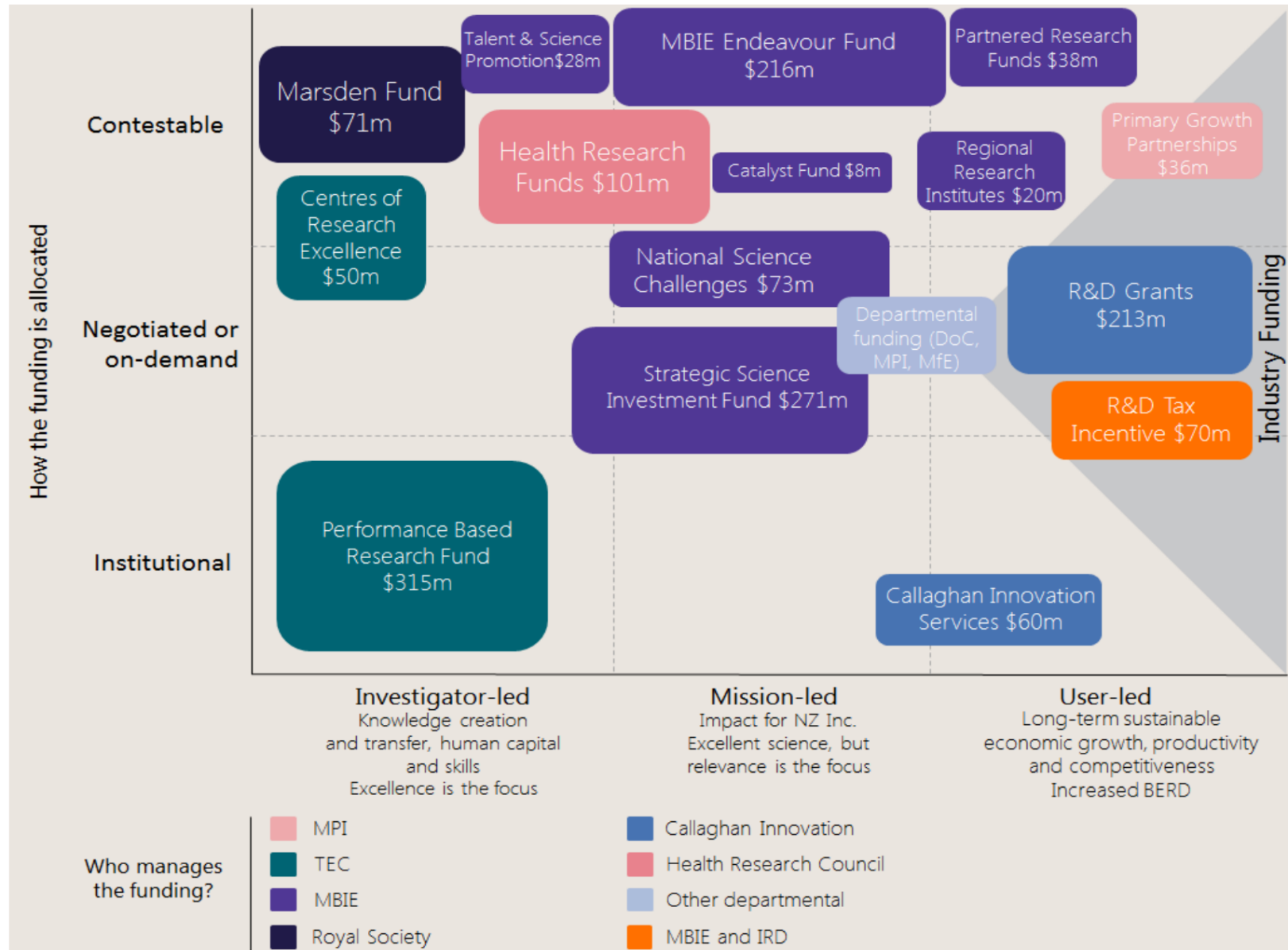
Richard Smith
Director

RESILIENCE
TO NATURE'S
CHALLENGES

Kia manawaroa
– Ngā Ākina o
Te Ao Tūroa

National
SCIENCE
Challenges

The Aotearoa Research Funding Landscape...



The Disaster Resilience Research Landscape...



Coastal People : Southern Skies



Endeavour Fund 2020

Reducing flood inundation hazard and risk across Aotearoa

Endeavour Fund 2020

RCET Rapid Characterisation of Earthquake and Tsunami



Endeavour Fund 2019

Whakahura: Extreme Events and the Emergence of Climate Change research programme



Transitioning Taranaki to a Volcanic Future
MBIE Endeavour



MBIE Endeavour

Resilience Challenge

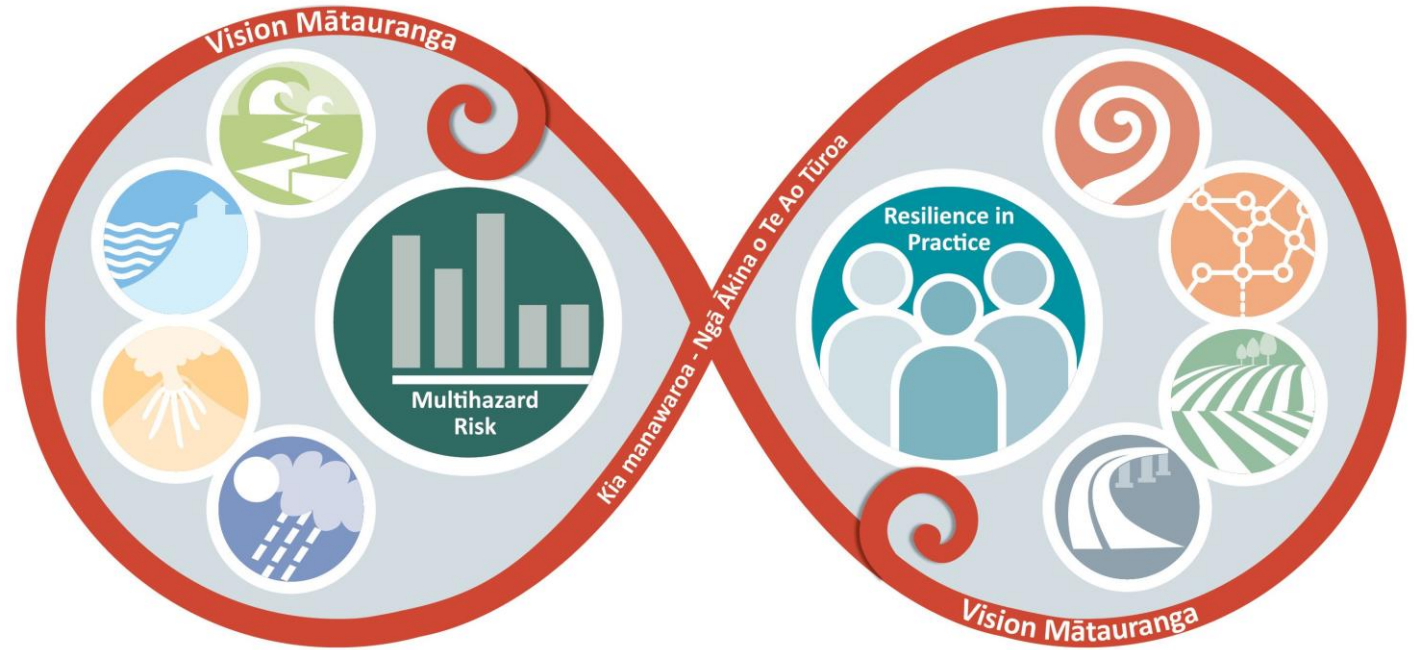
Funding until 2024

330+ researchers

127 students

10 Post-docs

10 programmes; 37 projects

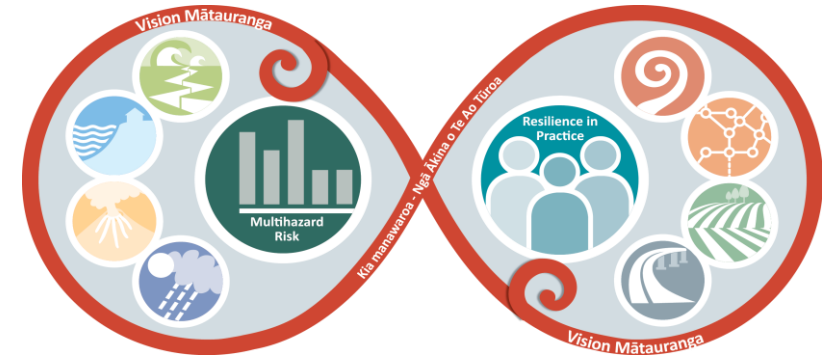


Some projects of Interest...



Multihazard
Risk

- Earthquake cycle simulation for New Zealand faults
- National probabilistic tsunami and landslide models
- Coincident and cascading hazard models
- Social and economic impacts estimation
- Coastal change and inundation models
- High-impact weather scenarios for Auckland
- Volcanic forecasting and impact tools

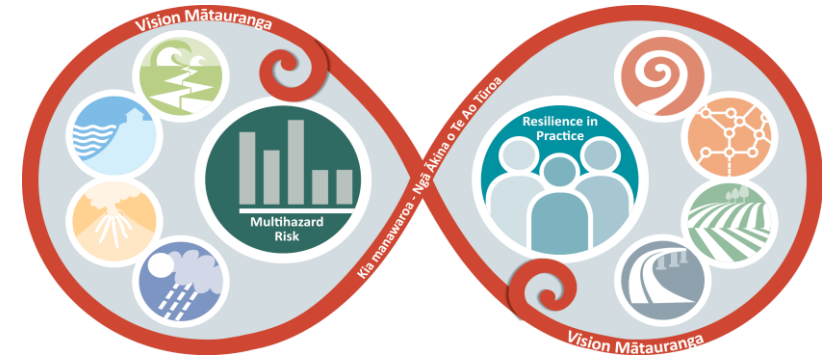


Some projects of Interest...



Resilience in
Practice

- Innovation spaces for testing resilience policy choices
- Adaptation planning
- Modelling resilience building strategies
- Incorporating mātauranga māori for hazard risk assessment and resilience planning
- Effective risk communication and the role of digital technology
- Serious games for learning and engagement
- Impacts-based warnings and forecasting
- Social vulnerability and livelihood resilience



Future resilience research landscape

Major reform of science system in next 3-5 years...

- **Increasing technology focus?**
- **Elevated and embedded Mātauranga Māori**
- **Integrating local knowledge into national frameworks**
- **Further progress on multi-and transdisciplinary approaches**



Accelerating Aotearoa New Zealand's resilience to ever-changing natural hazards

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Thank You



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The National Science Challenge model

- **Collaboration**
- **Multi- and trans-disciplinary work**
- **Elevating Mātauranga Māori**
- **Te Tiriti-led science system**
- **Science into policy and practice**
- **Capability building**

