

# Kia Manawaroa – Ngā Ākina o Te Ao Turoa

Phase II 2019 -2024

National  
**Science**  
Challenges

Richard Smith  
Director Phase 2

RESILIENCE  
TO NATURE'S  
CHALLENGES

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# National Science Challenges - Principles and Approach

- **Mission-driven**
- **Māori involvement and mātauranga**
- **Science excellence**
- **Best research team collaboration**
- **Stakeholder engagement & public participation**

# The Resilience Challenge Vision

New Zealand has mainstreamed natural hazard risk management and resilience into daily business, underpinned by new knowledge and tools which enable significant societal change.

An aerial photograph showing a wide, muddy river in flood. The water is a light brown color, indicating sediment. On the left bank, there is a steep, light-colored hillside. On the right bank, there is a dense line of green trees. In the foreground, a long, narrow, light-colored structure, possibly a bridge or a causeway, extends into the water. A small white vehicle is visible on a road in the upper right corner.

# The Resilience Mission

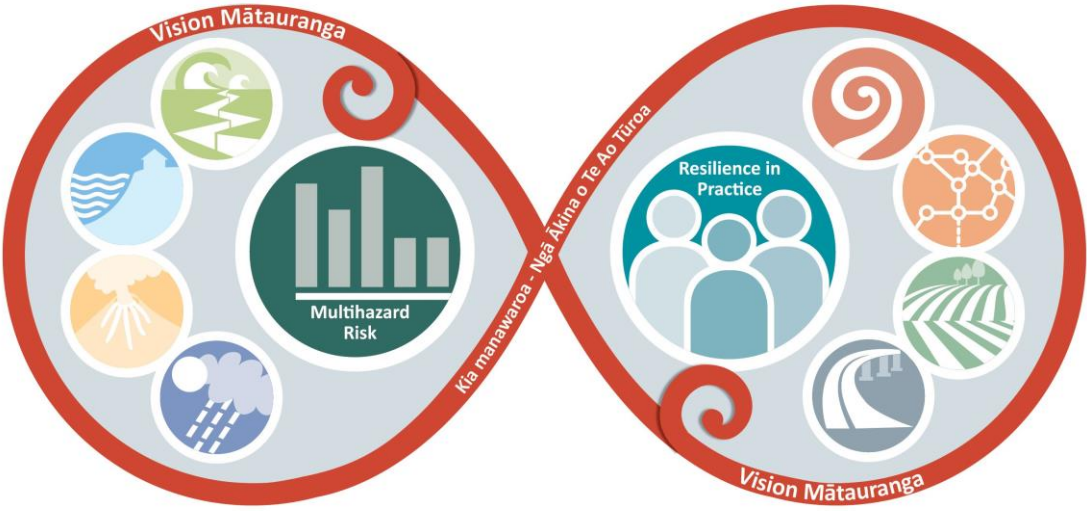
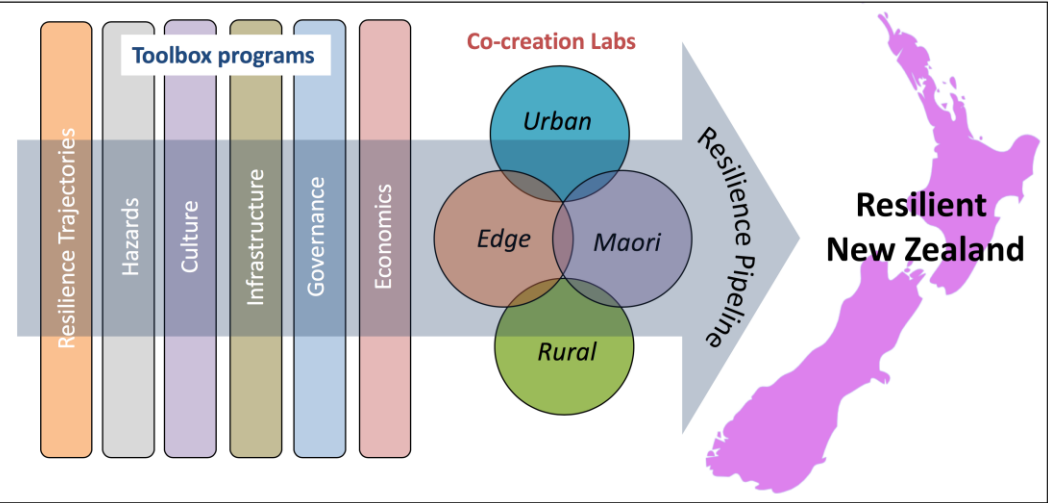
- With multiple end-users we will generate co-created research to accelerate New Zealand's journey toward natural hazards resilience.
- We will unify underpinning research of geophysical, weather and fire hazard into a multi-hazard risk model.
- We will contribute to economic, social and engineering solutions to build inter-generational resilience

# How did we get here?

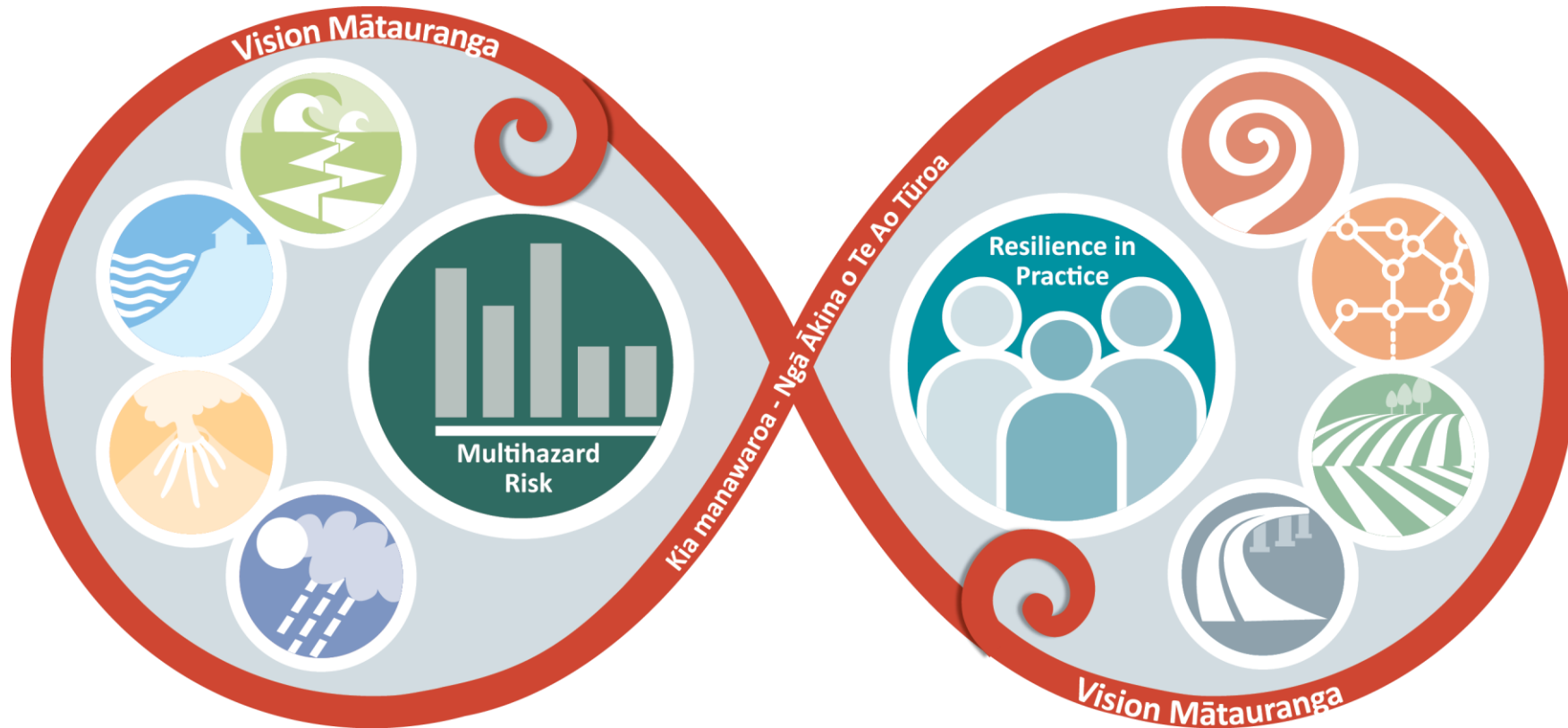


**NATURAL HAZARDS**  
RESEARCH PLATFORM

A multi-party research platform funded by MBIE dedicated to increasing New Zealand's resilience to Natural Hazards via high quality collaborative research



# RNC2 Research Programme 2019-2024



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# RNC2 Research Themes



Rural



Urban



Māori



Built



Resilience in  
Practice



Earthquake  
Tsunami



Coastal



Volcano



Weather



Multihazard  
Risk

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### **Resilience in Practice**

#### **Science leaders**

Dr Nick Cradock-Henry  
(Manaaki Whenua)  
Dr Julia Becker  
(Massey University)

**Host organization**  
Manaaki Whenua



### **Māori**

#### **Science leaders**

Dr Acushla (Dee)  
Sciascia  
(Massey University)  
Dr Wendy Saunders  
(GNS Science)

**Host organization**  
Massey University



### **Urban**

#### **Science leaders**

Assoc Prof Jan Lindsay  
(The University of  
Auckland)  
Prof David Johnston  
(Massey University)

**Host organization**  
University of Auckland



### **Rural**

#### **Science leaders**

Assoc Prof Tom Wilson  
(University of  
Canterbury)  
Dr Caroline Orchiston  
(University of Otago)

**Host organization**  
University of  
Canterbury



### **Built**

#### **Science leaders**

Assoc Prof Liam  
Wotherspoon  
(University of  
Auckland)  
Assoc Prof Tim Sullivan  
(University of  
Canterbury)

**Host organization**  
University of Auckland

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### **Multihazard Risk**

#### **Science leaders**

Prof Mark Bebbington  
(Massey University)  
Dr Garry McDonald  
(Market Economics)

#### **Host organization**

Massey University



### **Earthquake Tsunami**

#### **Science leaders**

Prof Andy Nicol  
(University of  
Canterbury)  
Dr Bill Fry  
(GNS Science)

#### **Host organization**

University of  
Canterbury



### **Coastal**

#### **Science leaders**

Assoc Prof Mark  
Dickson  
(The University of  
Auckland)  
Dr Rob Bell  
(NIWA)

#### **Host organization**

University of Auckland



### **Volcano**

#### **Science leaders**

Assoc Prof Jon Procter  
(Massey University)  
Dr Art Jolly  
(GNS Science)

#### **Host organization**

Massey University



### **Weather**

#### **Science leaders**

Dr Richard Turner  
(NIWA)  
Dr Sally Potter  
(GNS Science)

#### **Host organization**

NIWA

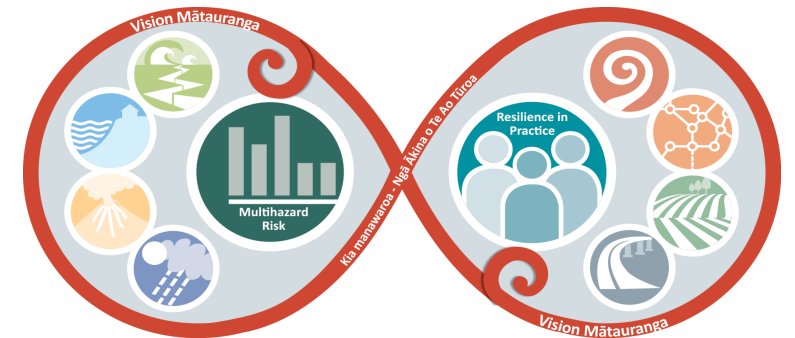
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# Phase 2 Opportunities

- Strengthened and integrated mātauranga and kaupapa Māori
- Integration and coordination
- Partnering for impact and implementation



# Phase 2 Engagement and Co-Production

## Project Level

- Local case-studies
- Piloting tools

## Challenge Themes

- Theme-specific stakeholder groups (e.g Volcano, Urban, Rural, Built, Maori)
- Partnership with 'boundary organisations' eg. AF8, IOF, Devora, ECLAB, Regional Hazards SIG

## Challenge Level

- 'End-Users' Group
- Kahui Maori
- Independent Science Advisory Panel

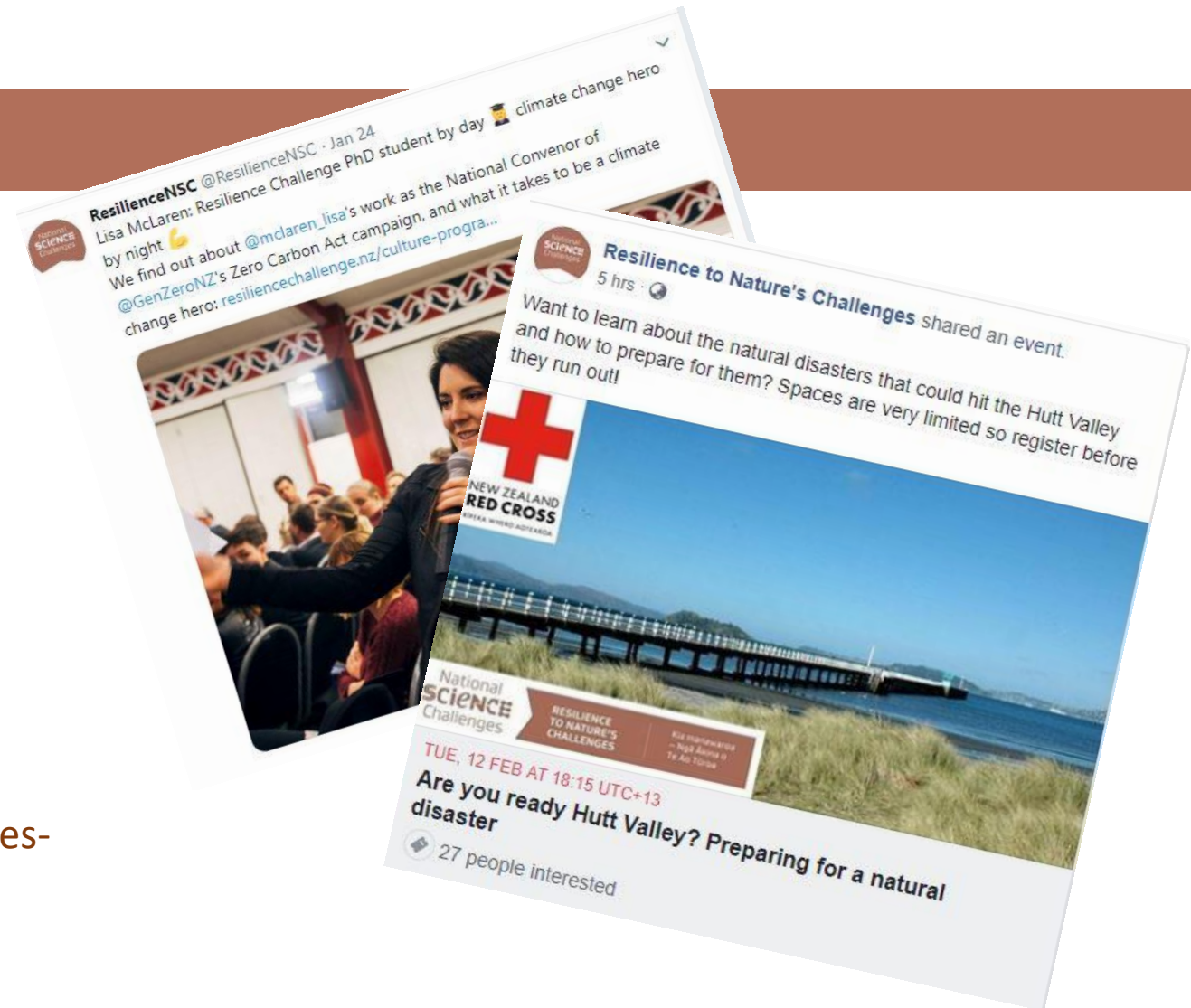
# Find out more

<https://resiliencechallenge.nz/>

<https://www.facebook.com/resiliencechallengeNSC>

<https://twitter.com/ResilienceNSC>

<https://www.linkedin.com/company/resilience-to-natures-challenges/>



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