



Te Hiranga Rū | QuakeCoRE

Aotearoa New Zealand Centre for Earthquake Resilience

QuakeCoRE Rebid: QC2 Draft Research Structure

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QC2: Research Structure



1. Disciplinary Focus Areas

‘Narrow and deep’ research areas that span the earthquake resilience pipeline and focus on transformative research questions that Aotearoa New Zealand has shown global leadership in.

2. Grand Challenges

Multidisciplinary research areas that leverage Aotearoa New Zealand’s unique situation and challenges.

3. Coordination Mechanisms

There will be two coordination mechanisms:

- **Regional Networks:** Provide contextual relevance and rapid embedding of research solutions into tangible advances in earthquake resilience.
- **Technology Megatrends:** Development of human capability necessary for early adoption and leverage of global megatrends to accelerate earthquake resilience.

Disciplinary Focus Areas

Disciplinary Focus Areas

1: Mātauranga Māori

2: Cultural & socio-economic aspects

3: Economics and policy effects

4: Critical Structural engineering factors

5: Integrated seismic demands & consequent geohazards

Grand Challenges

Coordination Areas

‘Narrow and deep’ research areas that span the earthquake resilience pipeline and focus on transformative research questions that Aotearoa New Zealand has shown global leadership in.

Grand Challenges

Disciplinary Focus Areas

Grand Challenges

Coordination Areas

1: Resilient communities during & after earthquakes

2: Repairable buildings serving resilient communities

3: Building seismic resilience into New Zealand's transportation & logistics system

4: Transforming the resilience of New Zealand's infrastructure through disruptive technologies

Multidisciplinary research areas that leverage Aotearoa New Zealand's unique situation and challenges.

Coordination Areas

Disciplinary Focus Areas

Grand Challenges

Coordination Areas

1: Regional networks

- Alpine Fault (South Island)
- Wellington
- Hikurangi subduction (North Island)
- Auckland

2: Technology Megatrends

- Sensing & monitoring
- Machine learning
- Computational science
- Additive manufacturing

Regional Networks: Provide contextual relevance and rapid embedding of research solution into tangible advances in earthquake resilience.

Technology Megatrends: Development of human capability necessary for early adoption and leverage of global megatrends to accelerate earthquake resilience.



Disciplinary Focus Areas

- 1: Mātauranga Māori
- 2: Cultural & socio-economic aspects
- 3: Economics and policy effects
- 4: Critical Structural engineering factors
- 5: Integrated seismic demands & consequent geohazards

Grand Challenges

- 1: Resilient communities during & after earthquakes
- 2: Repairable buildings serving resilient communities
- 3: Building seismic resilience into New Zealand's transportation & logistics system
- 4: Transforming the resilience of New Zealand's infrastructure through disruptive technologies

Coordination Areas

- 1: Regional networks
- 2: Technology Megatrends



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Feedback welcomed

We welcome your feedback, ideas and contribution to develop our research structure and other components of the rebid.

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