

FP5: Pathways To Resilience

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Flagship Summary

Our goal in Flagship 5 is to identify how societal decisions and choices affect the social, culture and economic resilience of communities, at local, regional and national scales. QuakeCoRE will bring together expertise from a range of disciplines, including tangata whenua knowledge to develop a holistic understanding of social, cultural and economic impacts from earthquakes; thus, providing key input to policy decisions at all levels of government and building a resilience community of practice.

The key thrust areas are:

1. Addressing key knowledge gaps to improve our ability to holistically evaluate impacts of earthquakes, to understand and model system effects, and to advance our capability to evaluate the case for investment.
2. Analysis and sharing of current tools and methodologies used for the evaluation of resilience-building policies and practices in order to identify opportunities for innovative cross-sectorial and organisational research collaboration.
3. Development and evaluation of up to 6 Wellington case study activities which critically assess potential investment policies and practices to improve New Zealand's resilience to earthquakes; and their use to provide inventive recommendations and advice for practical implementation.

Thrust Areas	Key tasks	Start	Finish
FP5.1 Addressing key knowledge gaps [activities can occur in parallel and in any order]	1. Developing new methods for evaluating socio-economic impacts	1/07/2017	31/12/2020
	2. Improving our understanding and analysis of system effects	1/01/2017	31/12/2020
	3. Exploring new ways to evaluate the case for investment and methods to building social, cultural and economic resilience	1/01/2017	31/12/2020
FP5.2 Analysis of common methodologies, tools and knowledge	1. Assessment of existing tools and alternative evaluation techniques	1/01/2016	31/12/2017
	2. Evaluation of stakeholder wants and needs	1/01/2017	31/12/2017
	3. Series of workshops for sharing new discoveries/learnings across teams for cross-pollination	1/01/2017	31/12/2020
FP5.3 Development and evaluation of Wellington case study key activities	1. Selection of Resilience Pathway key activities to be developed	1/07/2017	01/01/2018
	2. Resilience Pathway Activity 1 – Wellington Resilience Framing Exercise	01/01/2018	31/12/2018
	3. Resilience Pathway Activity 2 – Whakaoranga Iwi Whanui	01/01/2018	31/12/2020
	4. Resilience Pathway Task 3 – Wellington Infrastructure Investment	01/01/2019	31/12/2020
	5. Resilience Pathway Task 4 – Planning and Policy in a Dynamic Risk Environment	01/01/2018	31/12/2018
	6. Resilience Pathway Task 5 – Understanding Community-Based Resilience	01/01/2018	31/12/2020

This flagship focuses on determining how we decide where to invest attention and finances to improve NZ's resilience to earthquakes.

Key research thrusts in this Flagship include:

- **Review existing tools:** Review of existing tools and evaluation techniques to better understand their suitability and relevance for supporting different types of decisions about how best to improve NZ's resilience to earthquakes.
- **Evaluation of cases studies:** Evaluation of real-world resilience investment decision case studies for New Zealand. Example topics include (but are not limited to) the following:
 - What are the most effective forms of investment to support a community's resilience and/or recovery? How do we make the business case for resilience investment? How might we differentiate between public and private benefits and costs? Are there different ways to encourage and finance resilience investments?
 - What are the implications of different recovery decisions? For example, what pace and sequencing of rebuild is desired to deliver an effective recovery? What are the implications of changes to codes or construction practices? When are the use of cordons and/or demolition orders appropriate? How might we decide following future earthquake whether an area should or should not be rezoned?
 - What are the barriers and enablers for effective resilience and recovery governance? How might we achieve better community engagement in resilience and recovery decisions? Are there particular governance structures that work better for different contexts or scales of event?
 - **Address knowledge gaps:** Research to address current knowledge gaps, including: improving our ability to evaluate socio-economic impacts from earthquakes; improving our understanding and analysis of system effects; exploring new ways to evaluate the case for investment; or finding new ways to communicate with and engage the public and key stakeholders to invest in resilience.

What will success look like

- Key stakeholders (which stakeholders will depend on the Resilience Pathway decision being evaluated) actively using the evaluations that emerge from the Resilience Pathways Decision teams to support their investment decision making.
- Tools and techniques for evaluating resilience investments become 'mainstream' in the sense that practitioners have the confidence to either use them directly, or to commission their use for evaluating resilience investments as a matter of good practice.
- Practicality and relevance of research outcomes demonstrated by policy makers actively seeking out researchers to provide advice and input into future resilience investment decisions.

[Research Meeting Schedule \(link\)](#)

[Flagship 5 Research Projects \(2017\)](#)

[2016 Projects](#)