

# Interdependent Infrastructure Projects

Conrad Zorn et al.

RESILIENCE  
TO NATURE'S  
CHALLENGES

Kia manawaroa  
– Ngā Ākina o  
Te Ao Tūroa

National  
**Science**  
Challenges



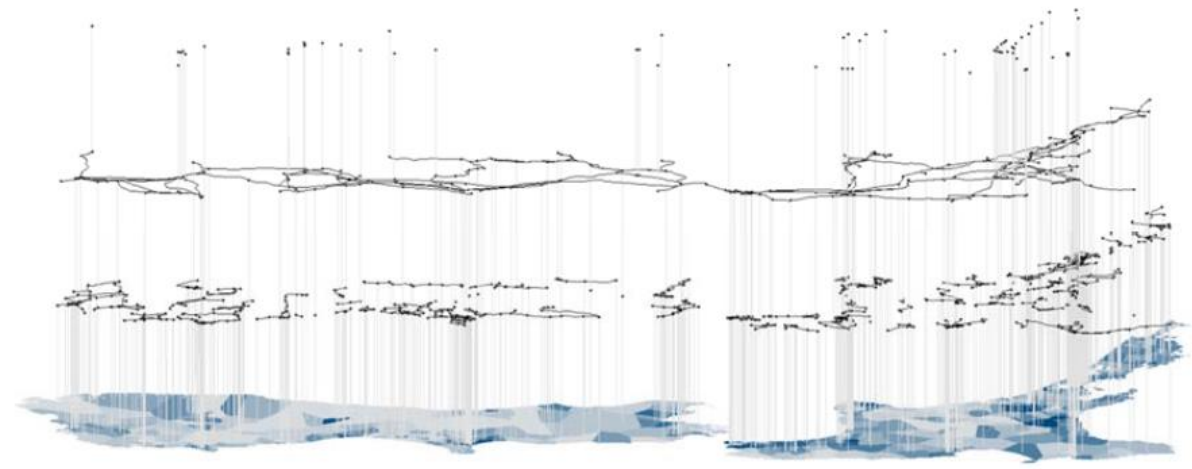
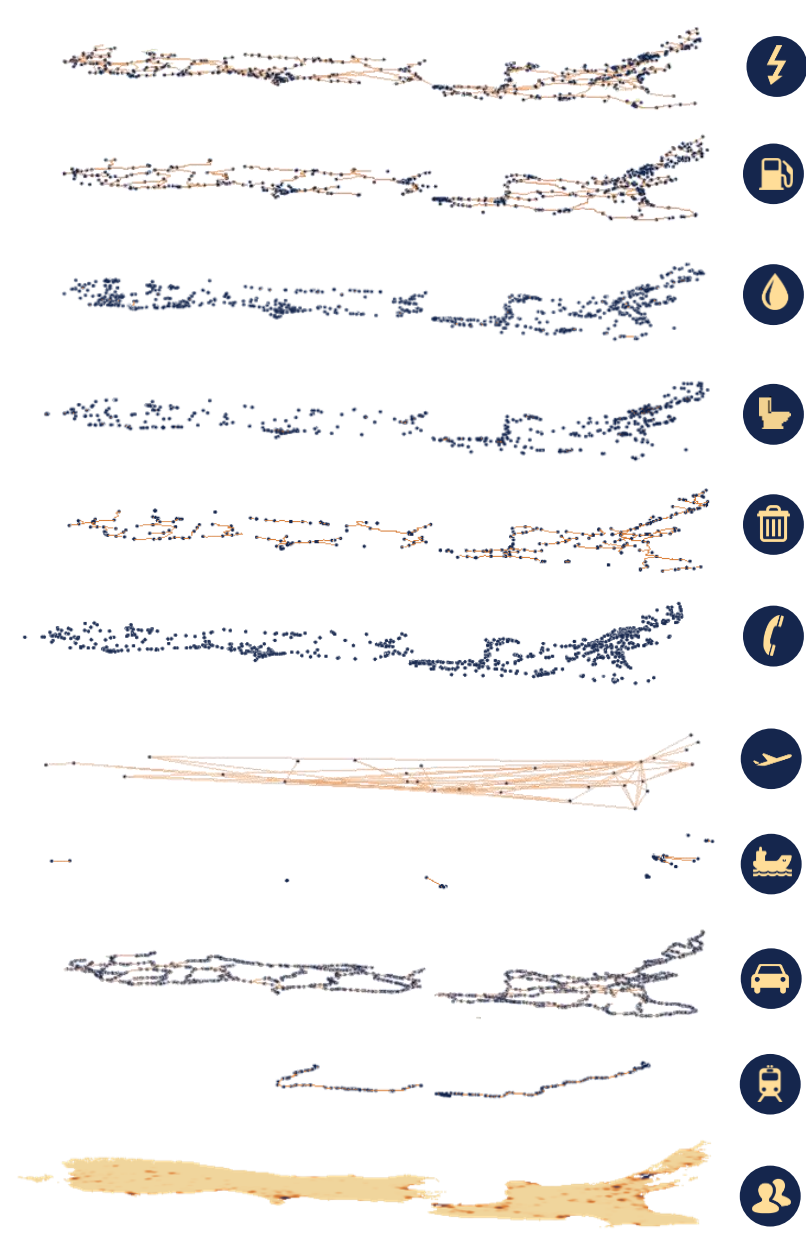
QuakeCoRE  
NZ Centre for Earthquake Resilience  
Te Hiranga Ō



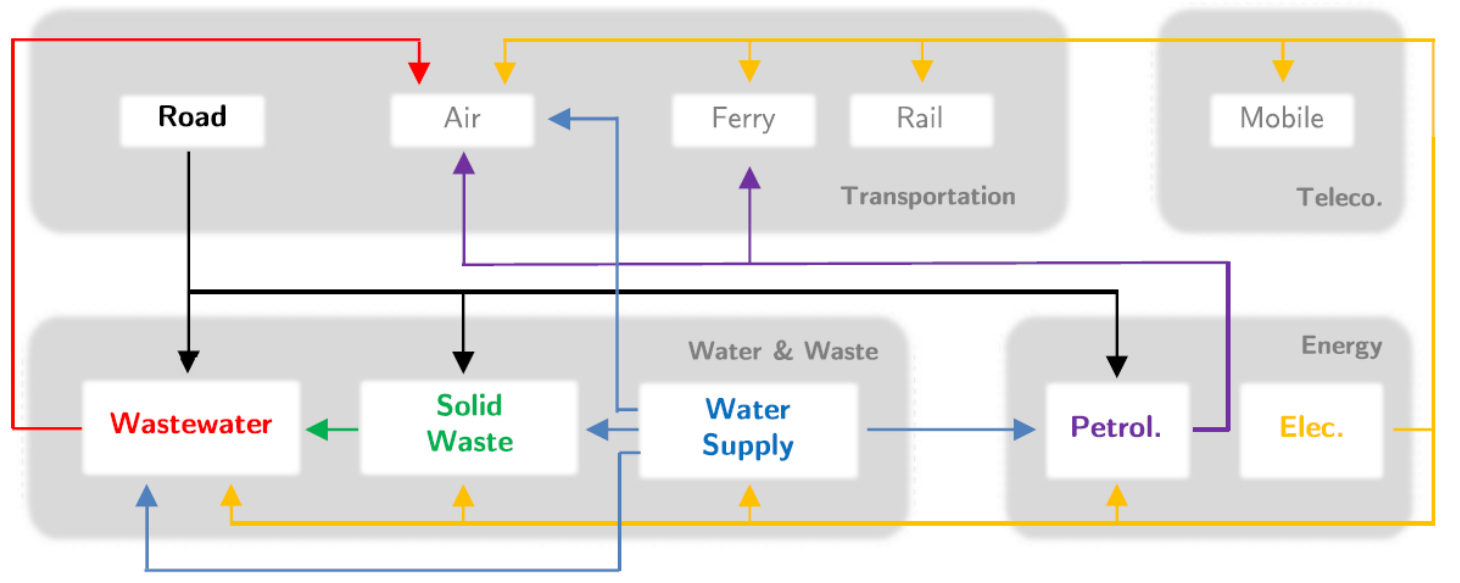
THE DEEP SOUTH

Te Kōmata o  
Te Tonga

National  
**Science**  
Challenges



Generation  
 Transmission  
 Distribution  
 Local / Demand



Post-Disaster vs BAU applications

## Going forward:

- Importance of interdependencies
  - *Direct damages only account for 53% of user disruptions – target robustness or redundancies?*
  - Proposed amendments to CDEM Act
- Focus on national scale with ability to ‘zoom in’ regionally.
- Better representation of source-sink flows

## New Projects in New Zealand

- Projects started using:
  - National Coastal Hazards (Deep South)
  - National Flooding (Endeavour)
  - EQ Scenarios (QuakeCoRE)
  - Christchurch Case Study (UC)
  - Wellington Case Study (UoA)
    - Build off previous study with wide range of reproducible scenarios.
    - Coupling with building damage and requirements post-disaster.
    - Incorporate recovery decisions, future network configurations/narratives, uncertainties, etc.
- Post-event 2019 Rangitata/2021 Canterbury Floods

