Early Earthquake Warning and Rapid Response Science

Earthquake Early Warning Systems (EEWS) are an important part of any Earthquake Resilience toolkit, due to their potential to save lives and reduce injuries. Similarly, rapid earthquake science information helps emergency responders best direct resources to people in need, supporting the response and recovery. The Sendai Framework of disaster risk reduction 2015-2030 has 7 global targets including "Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030".

Despite global advances in operational EEW, New Zealand does not yet operate a national EEWS. However, foundational research has explored its benefits and potential capability.
EEWS relies on three main pillars: seismology, sensor and communication technologies, and understanding of the end-users. The addition of earthquake engineering as a fourth pillar is considered essential to include local effects of soil and building amplification. These pillars also underpin rapid earthquake response science, with recent advances realised through the key contribution of the R-CET programme and operational earthquake forecasting.
We welcome presentations on all aspects of EEWS and rapid earthquake science: seismology (source characterization, ground shaking and earthquake forecasting), social science, communication engineering and earthquake engineering.