

	Geological Hazard Models	Predicting Weather, Flood and Coastal Hazards	Resilient Buildings and Infrastructure	Developing Regional and National Risk Evaluation Models	Societal Resilience – Social, Cultural, Economic and Planning factors
Anchor Organisations	<p>GNS</p> <ul style="list-style-type: none"> Eruption Potential Volcanic Processes Innovations in Volcanology Volcanic hazard statistics & databases Geological hazard models Seismic Cycles Paleoseismicity Ground motion prediction Earthquake rupture physics Spatial variability in ground motion Earthquake & geomagnetic databases Time dependent modelling Tsunami hazard Landslide hazard <p>NIWA</p> <ul style="list-style-type: none"> Submarine Geological Hazards 	<p>NIWA</p> <p>Forecasting -</p> <ul style="list-style-type: none"> weather hazards flood hazards coastal hazards coastal inundation from tsunamis & storm surge EcoConnect 	<p>GNS</p> <ul style="list-style-type: none"> Interdependencies of lifelines & critical infrastructure Impacts of infrastructural damage Alternative design approaches to achieve tolerable impacts in buildings 	<p>GNS/NIWA</p> <ul style="list-style-type: none"> Immediate surveillance & damage assessment Hazard & vulnerability evaluation Asset & vulnerability repository Riskscape system inter-operability 	<p>GNS</p> <ul style="list-style-type: none"> Landuse planning & risk management Community resilience & recovery Emergency management
Partner-led Research w/ subcontracts to other parties.	<p>Massey University</p> <ul style="list-style-type: none"> Quantifying exposure to specific & multiple volcanic hazards 	<p>University of Auckland</p> <ul style="list-style-type: none"> Climate change impacts on weather-related hazards <p>Opus Research</p> <ul style="list-style-type: none"> Tools & Knowledge tom improve NZ's long-term resilience to wind storms 	<p>University of Canterbury</p> <ul style="list-style-type: none"> Research-informed advancements in guidelines & standards of engineering practice for natural hazards 		<p>Opus Research</p> <ul style="list-style-type: none"> Building to recovery: Quantifying & predicting the role of the built environment in social & economic recovery <p>University of Auckland</p> <ul style="list-style-type: none"> Building quake & people: A serious game platform for informing life saving strategies. <i>(Until Oct 2017)</i>
Contest 2017 w/ subcontracts to other parties.	<p>GNS</p> <ul style="list-style-type: none"> Pre-historic earthquakes on Kaikoura's earthquake faults and implications for seismic hazard Paleo-coastal uplift along the Kaikoura coastline: detecting mult-fault rupture and implications for the southern hikurangi margin Improved medium-term earthquake forecasting <p>Massey University</p> <ul style="list-style-type: none"> Too big to fail? - A multidisciplinary approach to predict collapse and debris flow hazards from Mt Ruapehu 	<p>NIWA</p> <ul style="list-style-type: none"> Enhanced probabilistic flood forecasting using optimally designed numerical weather prediction ensembles 	<p>University of Auckland</p> <ul style="list-style-type: none"> Stability of buckling-restrained braced frame (BRBF) connections using a simplified notional load yield line method <p>University of Canterbury</p> <ul style="list-style-type: none"> Improving the seismic performance of glazing and windows 	<p>Market Economics</p> <ul style="list-style-type: none"> Towards robust decision-making in natural hazard risk management: Uncertainty quantification for RiskScape-MERIT modelling 	<p>NIWA</p> <ul style="list-style-type: none"> Adaptive and interactive futures: A 'serious game' for decision-making and coastal hazards <p>MAU</p> <ul style="list-style-type: none"> Indicators of vulnerable populations to natural hazards: a case study of flooding in the Porirua City Council area <p>GNS</p> <ul style="list-style-type: none"> Quicker and safer tsunami evacuations through agent-based modelling

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Kaikoura EQ Short-Term Research w/ subcontracts to other parties. Scheduled for completion early 2018	GNS <ul style="list-style-type: none"> Inventories of onshore surface fault ruptures and coastal uplift Landslide inventory and landslide dam assessments Updated NZS1170.5 subsoil class and site period maps for the Wellington CBD Understanding land damage at Mt Lyford to inform Hurunui DC recovery Including Kaikoura-triggered SSEs into earthquake forecasts and seismic hazard estimates Post-seismic deformation following the Kaikoura earthquake 		University of Auckland <ul style="list-style-type: none"> Assessment and repair of existing concrete buildings in Wellington with precast floors University of Canterbury <ul style="list-style-type: none"> Geotechnical characterisation of CentrePort reclamations 		Resilient Organisations <ul style="list-style-type: none"> Improving economic model estimates of central government productivity losses
Contest 2015 *Scheduled for completion 2018	GNS <ul style="list-style-type: none"> Unknown faults under cities* Paradigm of Alpine fault paleoseismicity* Investigation into potential triggering of eruptions at Okataina Caldera* NIWA <ul style="list-style-type: none"> Marlborough Faults Southern Lakes tsunami hazard Massey University <ul style="list-style-type: none"> National volcano hazard model Large-scale pyroclastic density current hazard impact simulations* Victoria University of Wellington <ul style="list-style-type: none"> Seismic hazard of Kekerengu Fault* 	NIWA <ul style="list-style-type: none"> High water red alert calendar Faster flood forecasting 	GNS <ul style="list-style-type: none"> Modelling earthquake engineering seismic parameters* University of Auckland <ul style="list-style-type: none"> Coupled soil-foundation-structure systems earthquake response 		Resilient Organisations <ul style="list-style-type: none"> Disaster risk management full cost accounting
Other	Lincoln University <ul style="list-style-type: none"> Evidence of prior large earthquakes from paleoliquefaction (<i>Finished Dec 2016</i>) 				

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