The New Natural Hazards Research Platform

- **Kelvin Berryman, Platform Manager**

Natural Hazards Research Platform

Key Features

- To provide a stable, long-term research environment for scientists

- Moving from a competitive to a collaborative environment

- Emphasis on consensus between researchers and end-users on research priorities

Natural Hazards Research Platform

Platform Structure

◆ Managed by the research providers, led by GNS Science and NIWA

◆ Members are those agencies that currently have natural hazards research contracts

– Auckland, Canterbury and Massey universities, and Opus International Consultants, in addition to GNS & NIWA

Natural Hazards Research Platform

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Theme Leaders

◆ Geological Hazards – Gill Jolly

◆ Weather-related Hazards – Michael Uddstrom

◆ Resilient Buildings and Infrastructure – Dave Brunsdon

◆ Risk Evaluation Models – Andrew King

◆ Societal Resilience – David Johnston

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Application of Research Funds

- Funds from FRST (soon to become Ministry of Science and Innovation) is allocated via a negotiated process
- Research priorities being decided by research leaders, the Platform Management Group, and the Strategic Advisory Group

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Platform Priorities

- Review of strategic priorities underway
- Supporting the vision of a Resilient New Zealand
- What are the 'key questions' that end-users would like researched?
- And along comes the 4 September Darfield Earthquake ......

Concept for Platform Research and Application

Underpinning Research & Data	Platform Research	Products/ Outputs	→ Research Users →	Outcomes
PGST Research • PLT • Margins NZ • QMap • NIWA offshore	Geological Hazard Models & Processes	Accurate models of tsunami and volcanoes enabling smart monitoring	MCDEM & TLA's, emergency services	Successful warnings & evacuations (volcano, tsunami, landslip)
		Accurate volcano status & warnings of eruptions	MCDEM, emergency services	Appropriate response (earthquake, volcanoes)
	Predicting Weather, Flood & Coastal Hazards	Landuse planning guidelines for natural hazards	TLA's, insurance sector	Resilient Society
		Probabilistic natural hazard models		
Other Research/Data • **GeoNet** • Marsden • EQC Research • Overseas • CRI Capability • University Research • Consultancy	Resilient Buildings & Infrastructure	Peer reviewed research articles	MED, DPMC, MAF, MfE	Sustainable Development
		Time dependent and and time independent earthquake hazard models	Standards NZ, utility companies, energy sector, transport sector	Safer structures/ Resilient infrastructure
	Developing Regional & National Risk Models	Hazard impacts models incorporating probabilistic inputs and tolerable damage in the built environment	Lifelines, DPMC, MCDEM, TLA's, MfE, MAF, LGNZ	Improved mitigation and readiness
	Societal Resilience:	Socio-economic impact models incorporating direct and indirect losses		Improved recovery