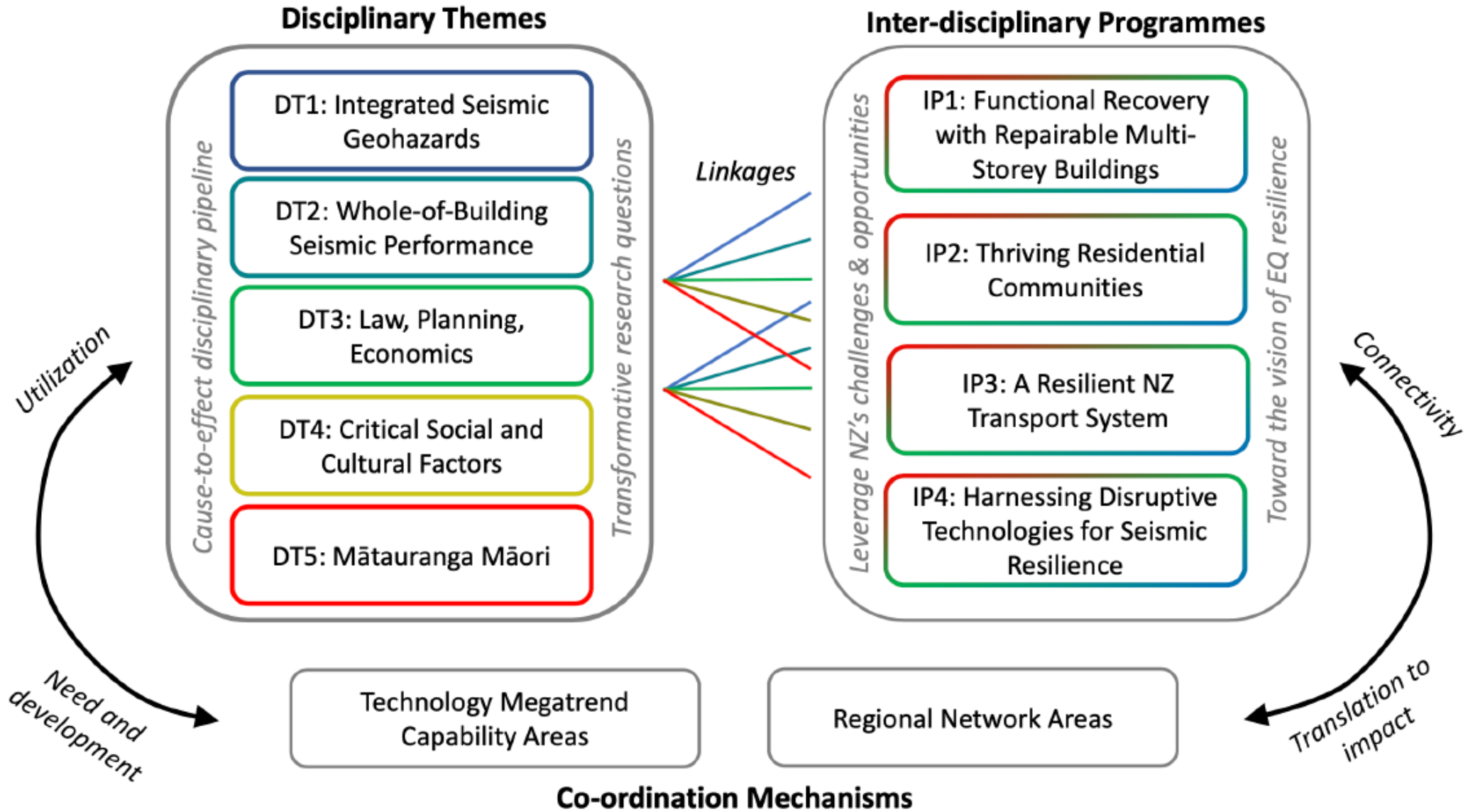


DT2: Whole-of-building Seismic Performance

Theme leads: Rick Henry, Santiago Pujol



Resilient or Repairable Buildings

1. Structural components
2. Structural systems (more than components)

Structural disciplinary Theme: “Whole of building seismic performance”

3. Entire buildings (more than structural system)

Inter-disciplinary programmes

4. Clusters of buildings (more than 1 building)
5. Cities and communities (more than buildings)



DT2 Research Thrusts (2021-2024)

1. Implication of design decisions
2. Interactions between structural components
3. Diaphragm assessment and design
4. Non-structural component demands and interactions



**Whole-of-life
design**



**Whole-of-building
response**

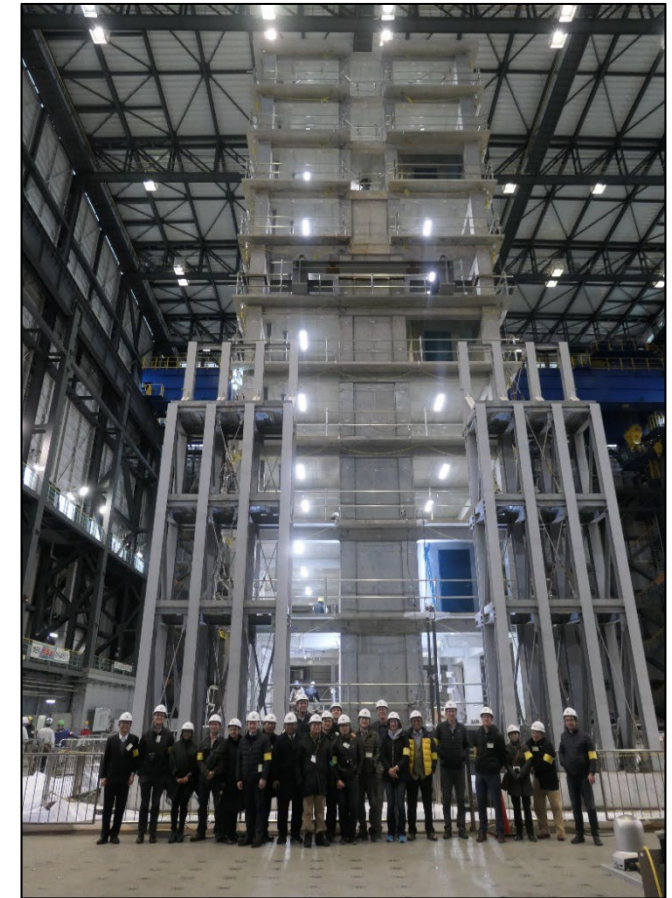
Large-scale Testing – QC1



NCREE Taiwan



ILEE China



E-defense Japan

Workshop Objectives

1. Review current DT2 research projects
2. Strengthen the linkages between projects
3. Support current/future large-scale testing

Agenda

Time	Title	Theme	Presenter
9:30	Introduction, and workshop format		
9:36	Seismic Assessment of RC Buildings based on Casualty Risk	1. Implication of design decisions	Faraz Zaidi
9:48	Improving the seismic performance of buildings by increasing stiffness	1. Implication of design decisions	Liam Pledger
10:00	Staggered Lap Splices in Slender RC Walls	1. Implication of design decisions	Charles Kerby
10:12	<i>Discussion</i>		
10:18	Seismic behaviour of low-rise precast wall-to-foundation connection	2. Interactions between structural components	Vinu Sivakumar
10:30	Interaction in coupling beams and coupled walls	2. Interactions between structural components	Ren-Jie Tsai
10:42	Seismic performance of recently constructed concrete wall-steel frame hybrid buildings	2. Interactions between structural components	Claire Pascua
10:54	ILEE-QuakeCoRE Low-Damage Concrete Building Test: Modeling and Design	2. Interactions between structural components	Anqi Gu
11:06	Low Damage Wall to Floor Connections for Seismic Resilient Timber Structures	2. Interactions between structural components	Soheil Assadi
11:18	ILEE ROBUST Project - Steel	2. Interactions between structural components	Zhenduo Yan
11:30	Recent testing at BRANZ		David Carradine, Angela Liu
11:42	<i>Discussion</i>		
12:00	Lunch Break		
12:45	System Level Seismic Performance Assessment Of Precast Hollow-core Floors	3. Diaphragm assessment and design	Mohamed Mostafa
12:57	FRP use in Diaphragm Strengthening	3. Diaphragm assessment and design	Junrui Zhang
13:09	Floor Response Spectra in buildings with controlled rocking braced frames	4. Non-structural component demands	Kieran Haymes (online)
13:21	Testing of a drift-sensitive sub-assembly of non-structural elements with low-damage characteristics	4. Non-structural component demands	Robert Clement
13:33	<i>Discussion</i>		
13:40	Previous identified research priorities for large-scale testing		Rick Henry
13:50	ROBUST: What worked, lessons learned, and current research needs	Large-scale testing and ROBUST project	Greg MacRae
14:10	<i>Discussion</i>		
14:30	Coffee Break		
14:45	Design of a large scale test structure for whole-of-building seismic performance		Will Pollalis
15:00	Integration of research into large-scale tests - Structural systems	Future large-scale testing	Break out groups
15:30	Integration of research into large-scale tests - NSE		Break out groups
16:00	General discussion - Identify priorities		
16:30	Meeting Wrap-up		