

New Zealand Society of Earthquake Engineers

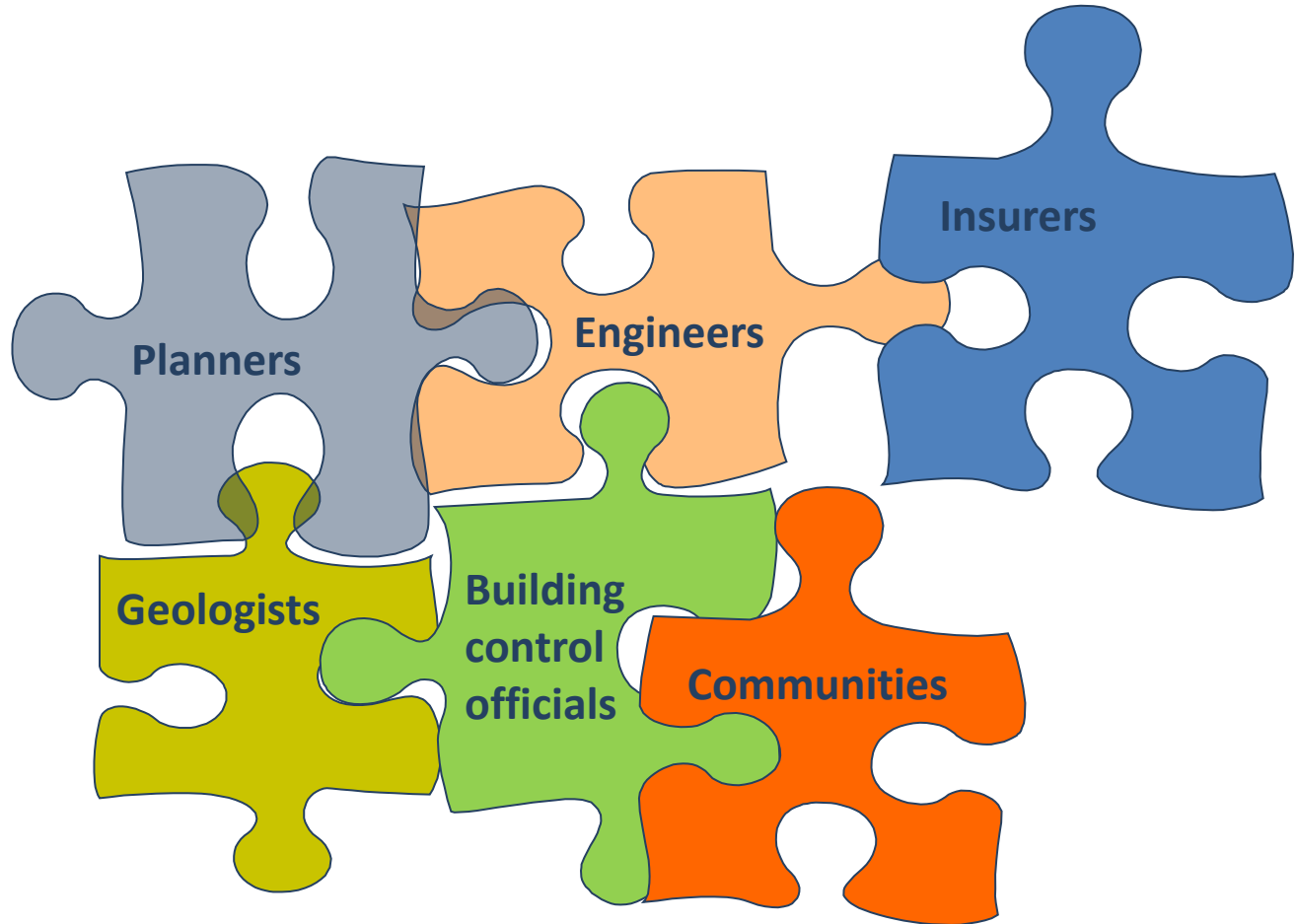
15 April 2021

Tim Grafton
Chief Executive
Insurance Council of New Zealand

10 Years On and a Tale of Two Cities' Resilience



Risk Management Jig-saw



Accountability for the risks that lie between boundaries

After Cowan (2021)

Managing Risk

- NZ is a high risk country; Wellington one of the highest risks
- Risk to property is created by
 - where we choose to build
 - how we choose to build
- There are 4 ways to manage risk –
 - **Avoid** it
 - **Transfer** it (insurance)
 - **Control** it
 - **Accept** it (BCs must fully insure – UTA)
- We have built on soft soil/reclaimed land and our building codes don't sufficiently address the property risk, so Avoid and Control is poor, nor is NZ's risk appetite explicitly stated
- We rely heavily on Transfer; better understanding of risk affects capital availability and pricing of that risk

Kaikōura EQ Failure of new builds



Wellington

- Better understanding of risk from Canterbury (e.g. liquefaction, hillside risks) and Kaikōura (100% plus NBS became total losses)
- Wellington's CBD located on reclaimed land/soft soil
- Wellington's building stock generally older
- Wellington less resilient than Christchurch
- Wellington property owners lobbied to be subsidised by the rest of the country to mask insurers' pricing of risk
- a Mayoral Taskforce was put together to review the situation

Wellington Mayoral Taskforce

- Did not quantify the affordability problem and thus the proportionality of any response
- Had more recommendations on risk Transfer than Control, Avoid or Accept combined
- Advocated for a very large increase in the EQC cap and extending it to all commercial property
- Appropriately sought urgent upgrading of the National Seismic Hazard Model, consistent compliance with non-structural building elements, provide better risk information and use it to inform land use decisions, and review building regulation to ensure more resilient structures, and constrain development in inherently risky areas.

Christchurch de-risked

- All the old stock destroyed
- CBD not built on reclaimed land, though soft soil issues
- New builds incorporated best practise:
 - base isolation (a few, but should be more)
 - steel braced framing with seismic joints easily replaced in a quake
 - laminated timber frames (ductility)
 - 2012-16 builds were to “above standard”
 - deep piling
 - surface soil removal, fill with compacted material/ground strengthening
- Height restrictions on new builds lowers risk

Closing thoughts

Reduce risk (Avoid and Control)

- Make new buildings more resilient e.g. base isolators, deep piles
- Change building code (NBS) to increase resilience, not just life risk
- Invest in low cost retrofits to make current stock more resilient
- Look at where we build
- Invest in infrastructure

Retain more risk with owner (Accept)

- More resilient buildings can retain more risk and pay less in premiums
- Higher risk buildings can reduce their premiums with higher deductible/excess
- Amend Unit Titles Act to allow owners to have more flexibility to retain more risk

Reduces costs (Transfer)

- Remove the fire and emergency levy from insurance - this is uncapped on commercial property and increases as property values increase