

### **Blake Lepper**

**General Manager – Infrastructure Delivery** 



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## Looking Ahead:

The infrastructure challenge



We need to spend \$60 on maintenance and renewal for every \$40 we spend on new infrastructure

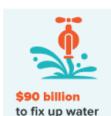


Infrastructure construction costs have risen 60% faster than prices elsewhere in the economy



New Zealand will have a shortfall of 118,500 construction workers in 2024





networks



New Zealand's population will grow to 6.2 million people (or more) over 30 years



115,000 more homes are needed to fix the current housing crisis



There is a 75% chance of an Alpine Fault earthquake by 2070



By 2050 one in four NZers will be over the age of 65



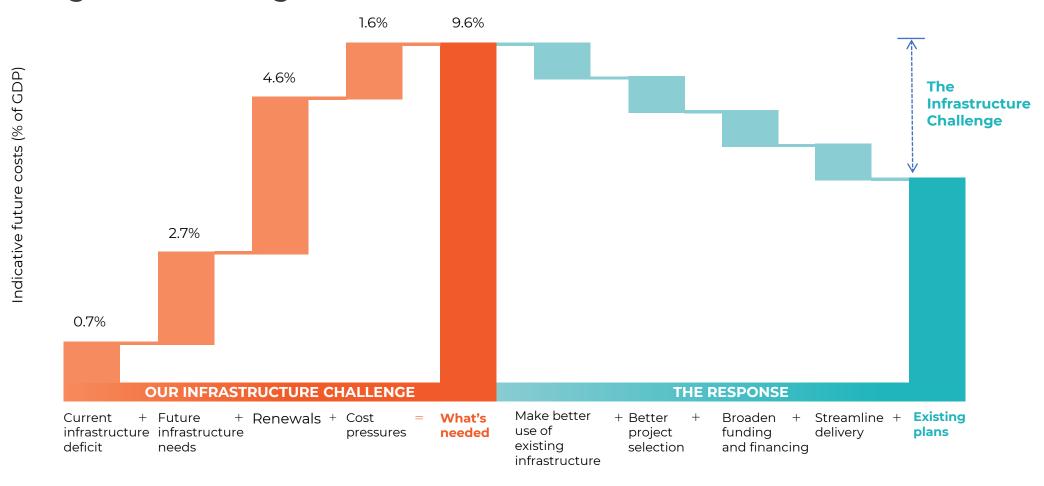


Electricity generation capacity needs to increase by 170%



The average Auckland commuter spends over **5 days in traffic** per year

#### Rising to the challenge





**Strategy presented** to the House

**Government Response** (September 2022)

Strategy submitted to Minister

Strategy released online

**Implementation** 





Net-zero carbon emissions





**Attractive and inclusive cities** 



A circular economy



### How we get there:





Better decision making



Improve funding and financing



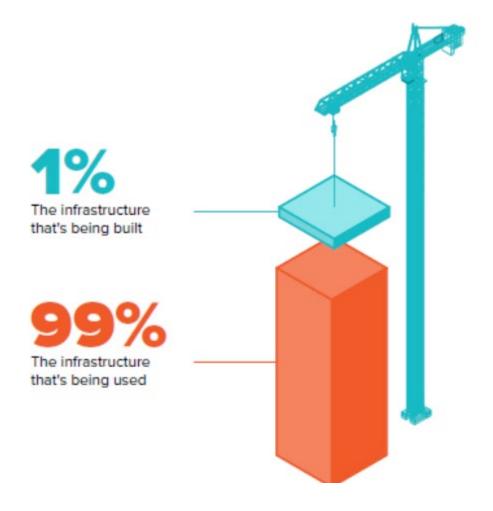
An enabling planning and consenting framework



Accelerate technology use



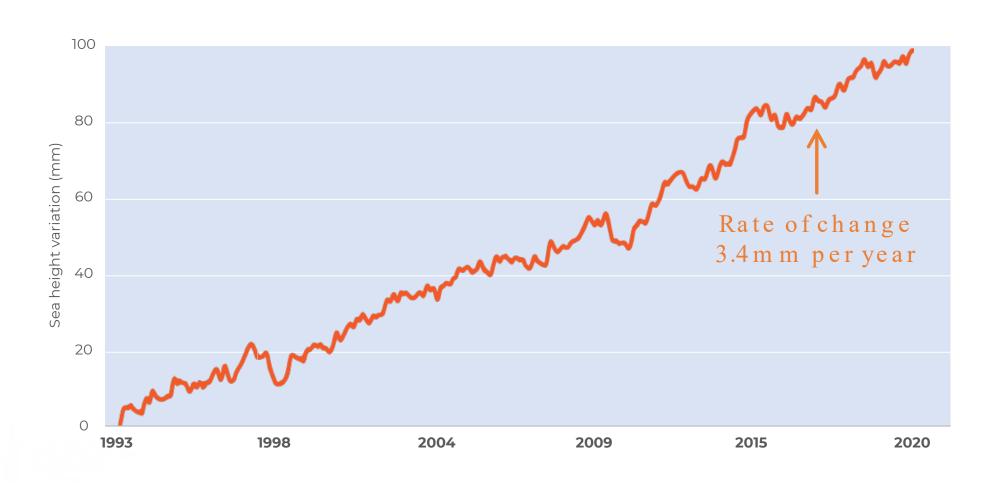
Build workforce capability and capacity



Our future welfare and livelihoods depend increasingly on the less glamorous work of improving our existing infrastructures.

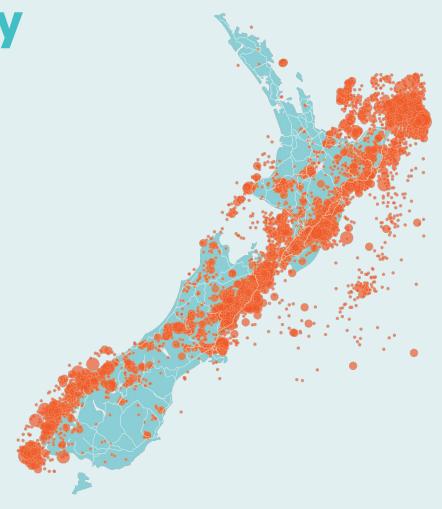
**Scotland Infrastructure Commission** 

### **Existing infrastructure will come under new stresses**

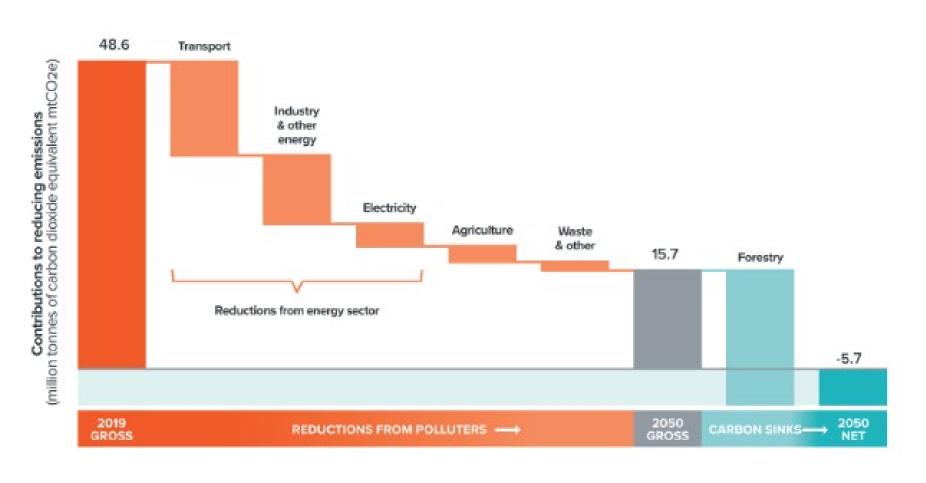


# National State Highway network and observed shallow earthquakes from 2010 to 2020

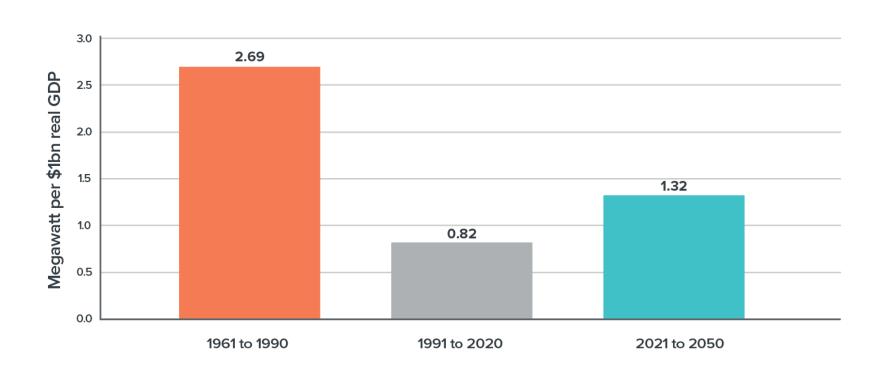
Our infrastructure is vulnerable to hazards.



## Most of the reductions in gross emissions are from the energy sector

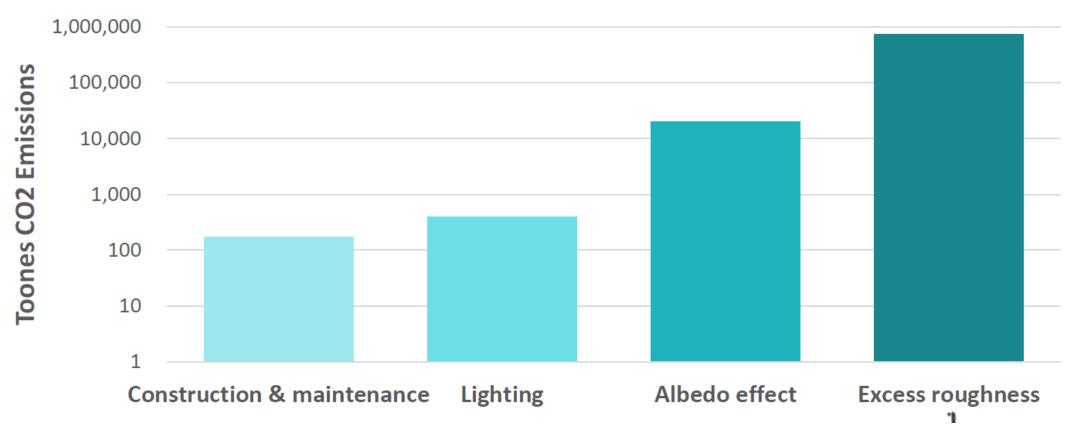


## We will need to increase generation and get energy to the right places



### Need to take a whole of life approach to emissions

### 50-year emissions — 1 km of highway in Norway







One of the biggest challenges is going to be skills ... The world is going to be queueing up on the skillsets that are needed. So we better double down on training our own and we better figure out where to get the skills from to get it done ... or we'll have the strategy, we'll have the finance, we'll have the vision, but we will fall woefully short on execution.

**Dr Rod Carr** 



