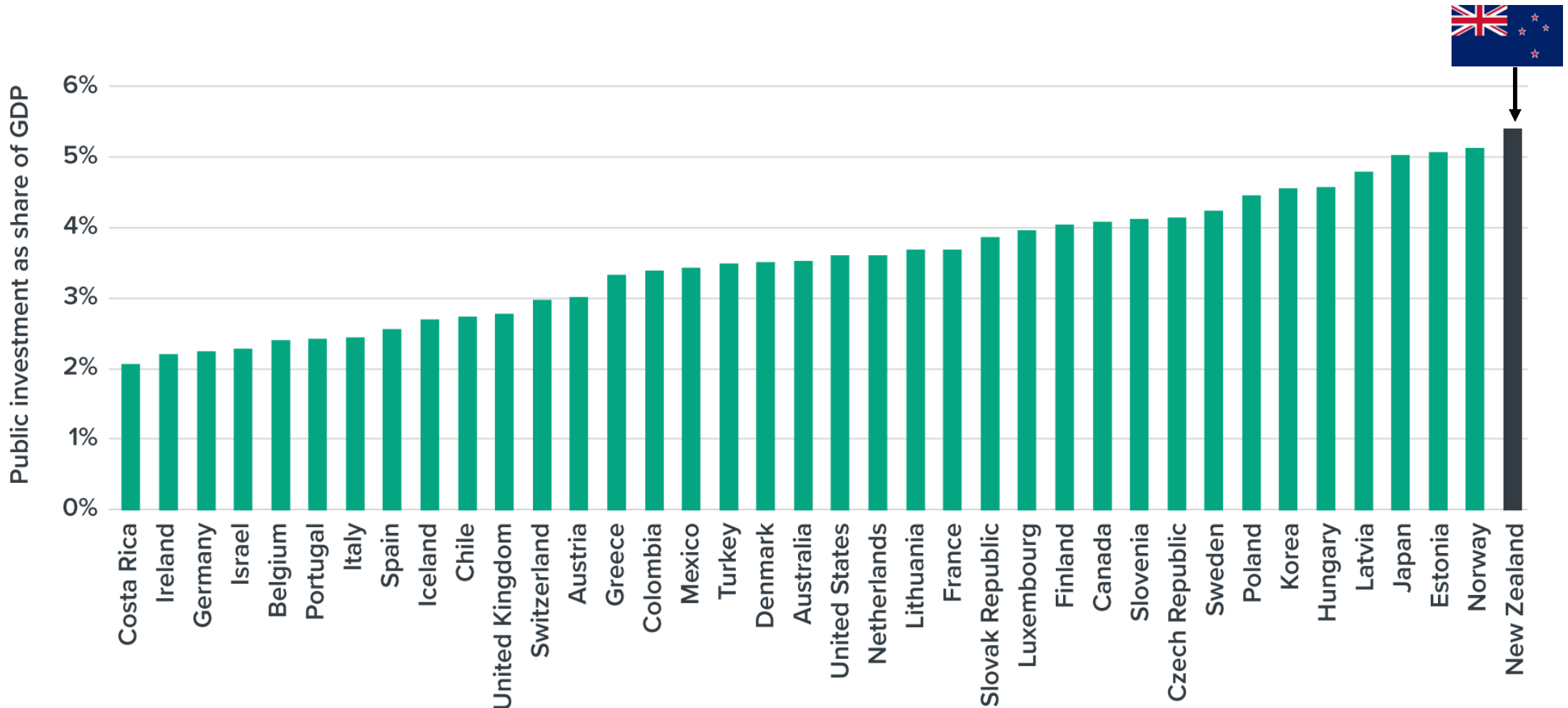


Pulling in the same direction

How we can deliver better infrastructure

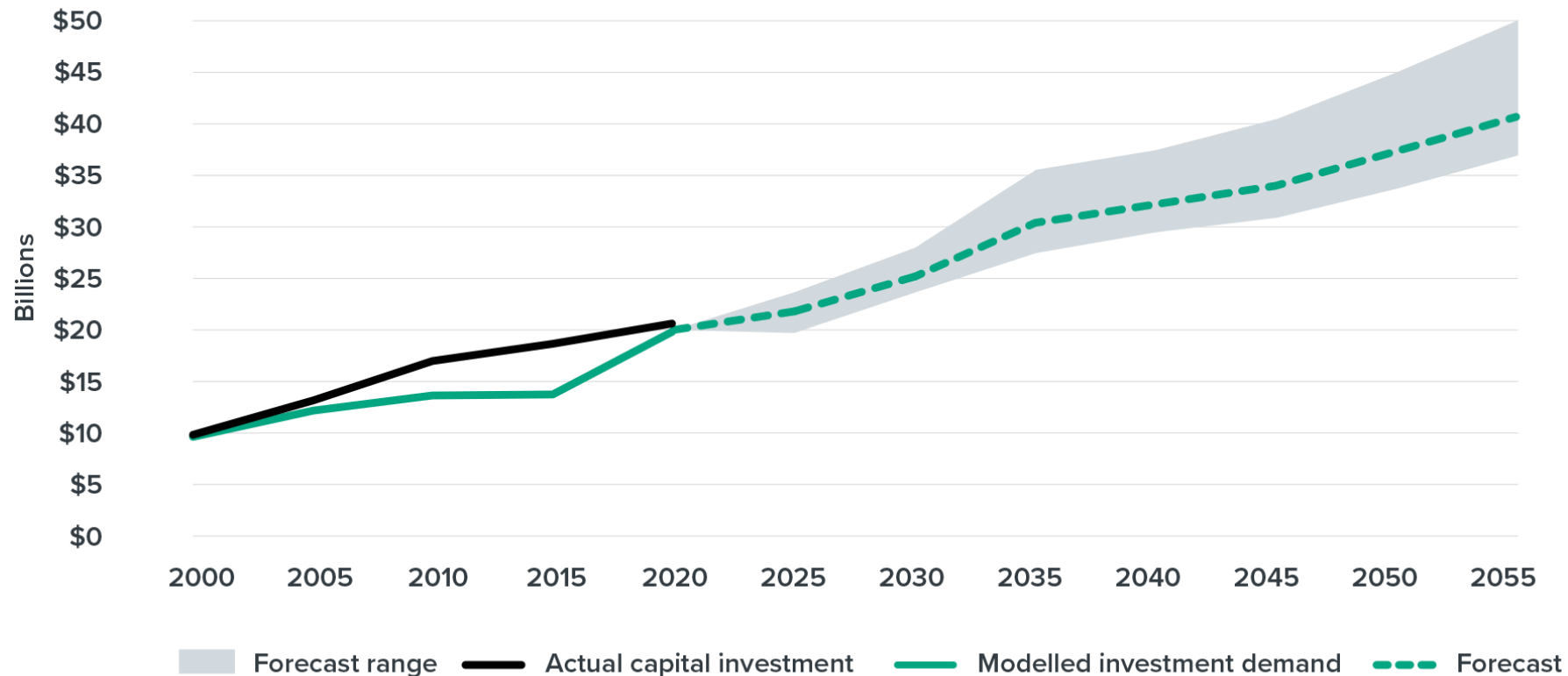
We're committed to infrastructure services

Public infrastructure spend as a share of GDP, 2010–2019



There is further investment to come

Infrastructure investment expected to rise with the economy



The Infrastructure Plan is a Portfolio View

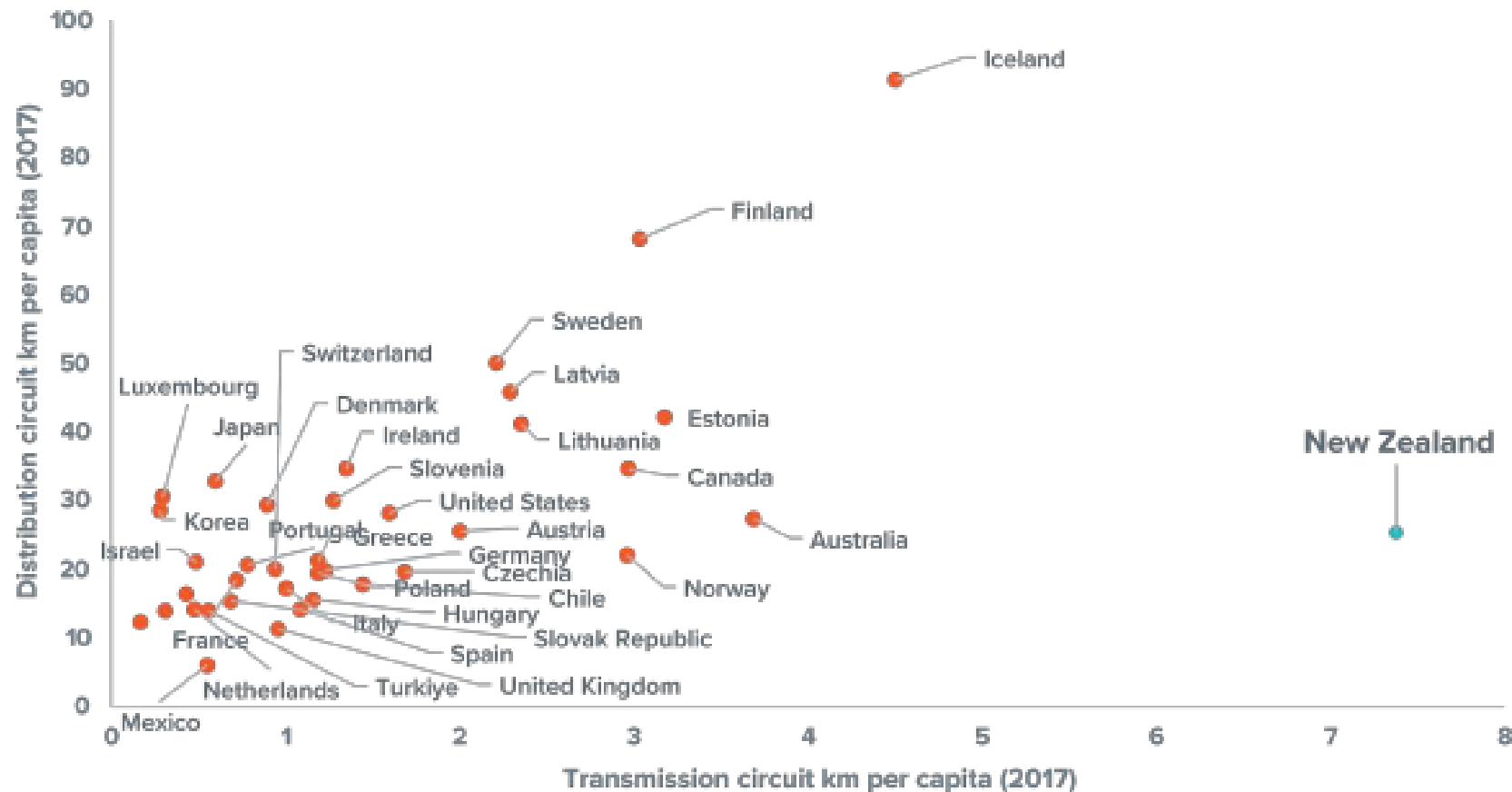
Bringing together 17 sectors and 150 organisations

Sector	Main providers	How to fund investment	Recent investment trends, % of GDP (2010–2022)	Forecast future investment demand, % of GDP (2024–2054)		Key drivers of future investment
Network infrastructure						
Land transport – road, public transport, rail	Central and local government	User charges and rates	1.3%	1.0%	↓	Decarbonisation, slowing income and population growth
Electricity and gas	Commercial sector	User charges	0.8%	1.3%	↑	Decarbonisation, renewals
Water and waste	Local government	User charges and rates	0.6%	0.5%	↓	Renewals and natural hazards
Telecommunications	Commercial sector	User charges	0.7%	0.7%		Renewals, stable outlook
Social infrastructure						
Education – primary/secondary	Central government	Taxes	0.4%	0.3%	↓	Demographic change
Education – tertiary	Central government	Taxes and fees	0.6%	0.5%	↓	Demographic change
Hospitals	Central government	Taxes	0.2%	0.4%	↑	Demographic change, renewals
Public administration and safety – government buildings, prisons, defence, justice	Central and local government	Taxes	0.9%	0.8%		Renewals, stable outlook
Social housing	Central and local government	Taxes and rents	0.3%	0.3%		Renewals and population growth
Other public capital	Central and local government	Various	0.2%	0.2%		Stable outlook

Some context for our efficiency challenges

We have more infrastructure per person than most

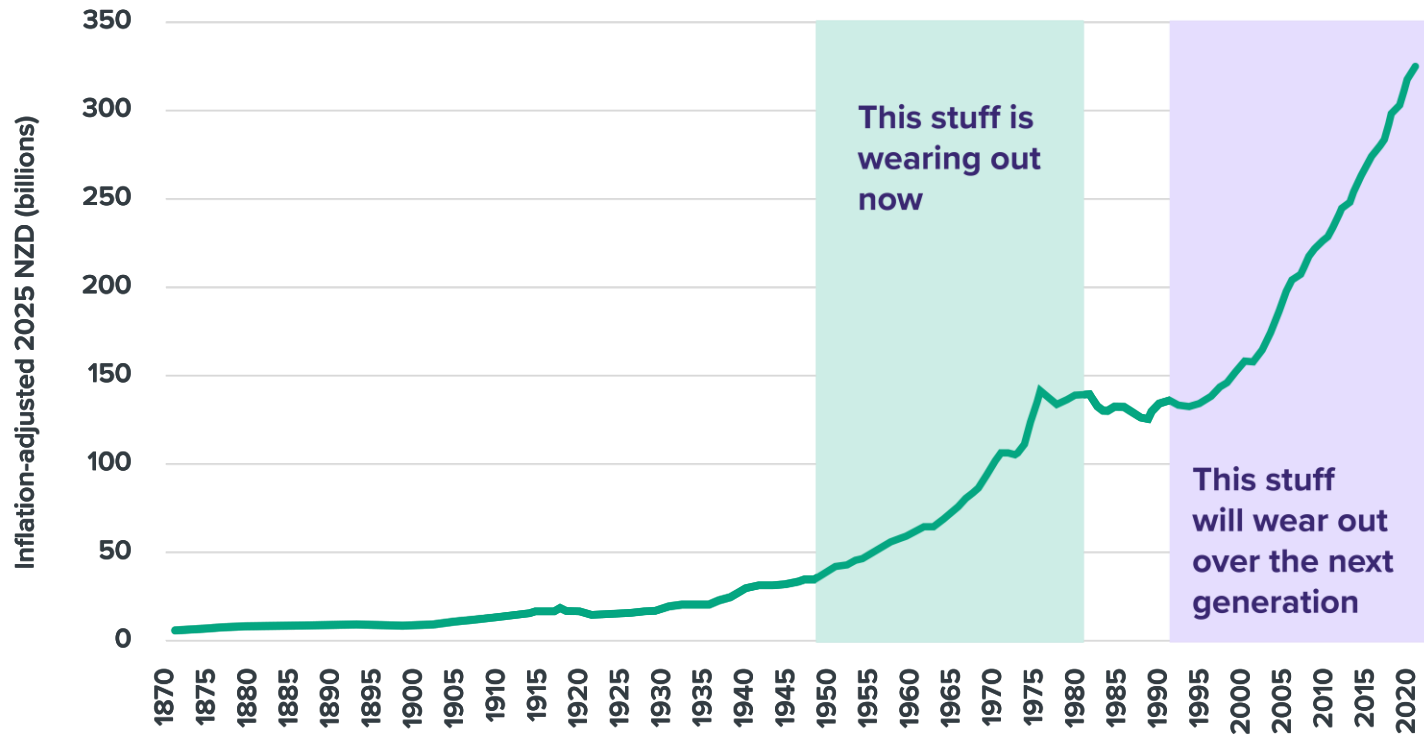
Electricity transmission and distribution length per capita, OECD countries



The one megaproject we cannot avoid

Maintenance and renewals

Estimated financial value of NZ's infrastructure, 1875–2022



“A flaw in the human character is that everyone wants to build and no one wants to do maintenance.”

Kurt Vonnegut

We're planning more than we can afford

National Infrastructure Pipeline



\$275bn

value of projects in
planning and delivery in
the Pipeline



44

largely unfunded
megaprojects each worth
more than \$1 billion



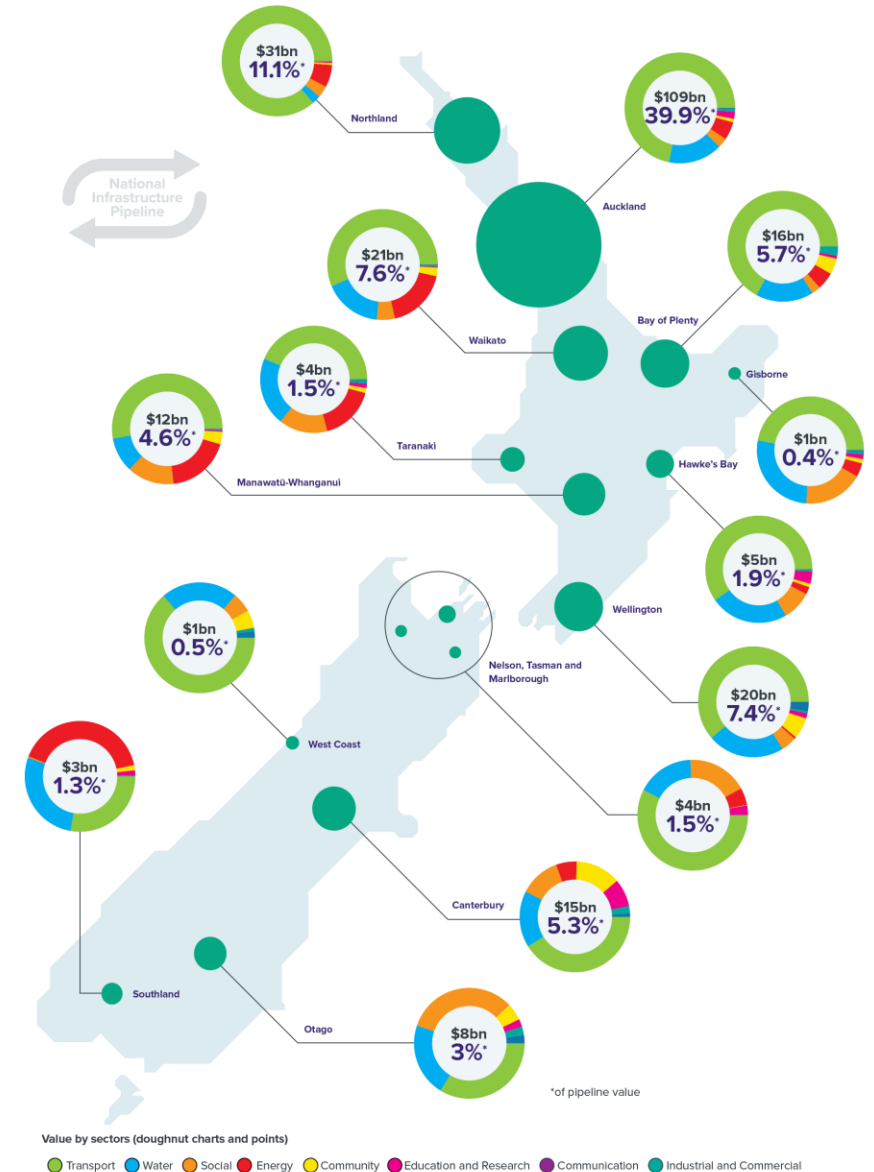
11,925

number of projects



98%

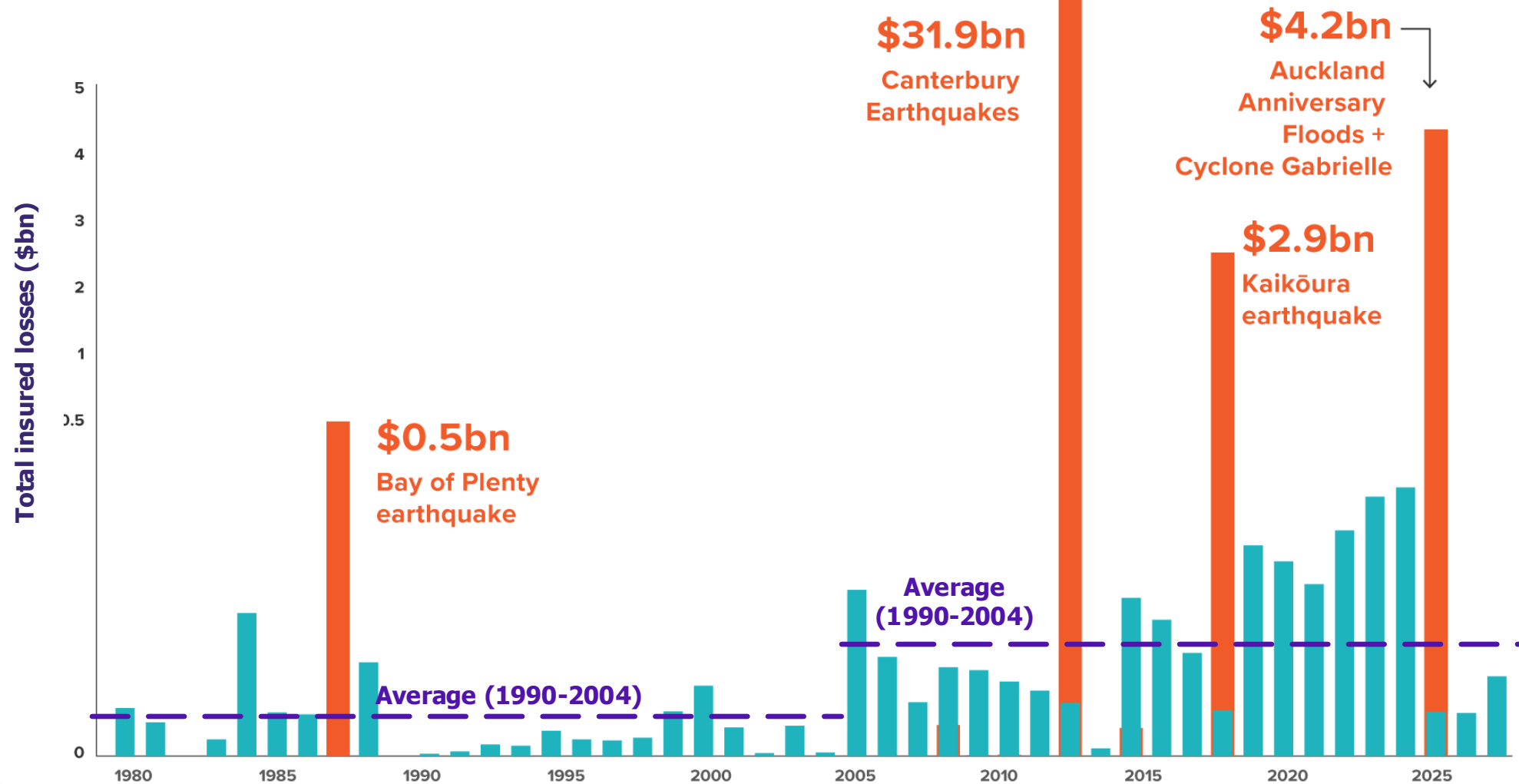
of projects are worth less
than \$100 million



As renewal cycles are

shortening

Insured losses, 1980 - 2026



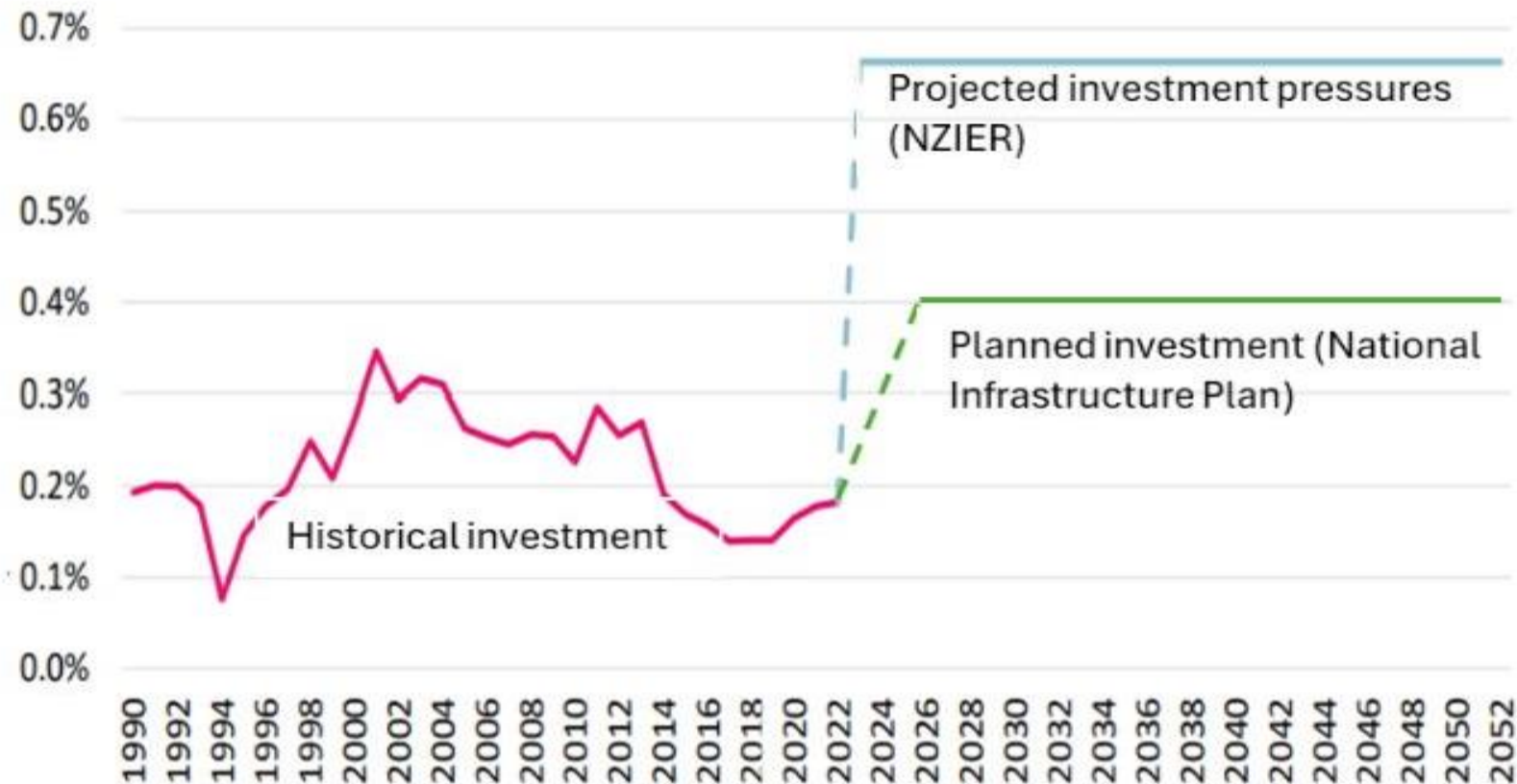
Source: New Zealand Insurance Council, New Zealand Infrastructure Commission

Which creates sizeable funding gaps

Hospitals

Water

Land transport

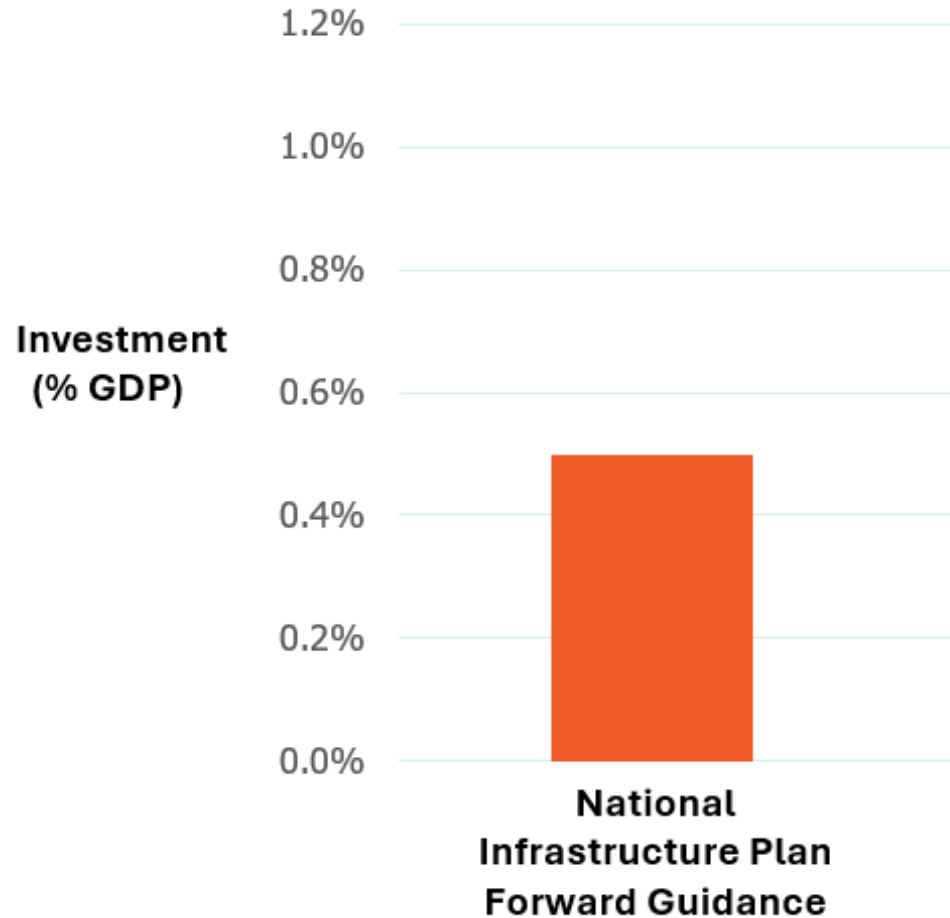


Which creates sizeable funding gaps

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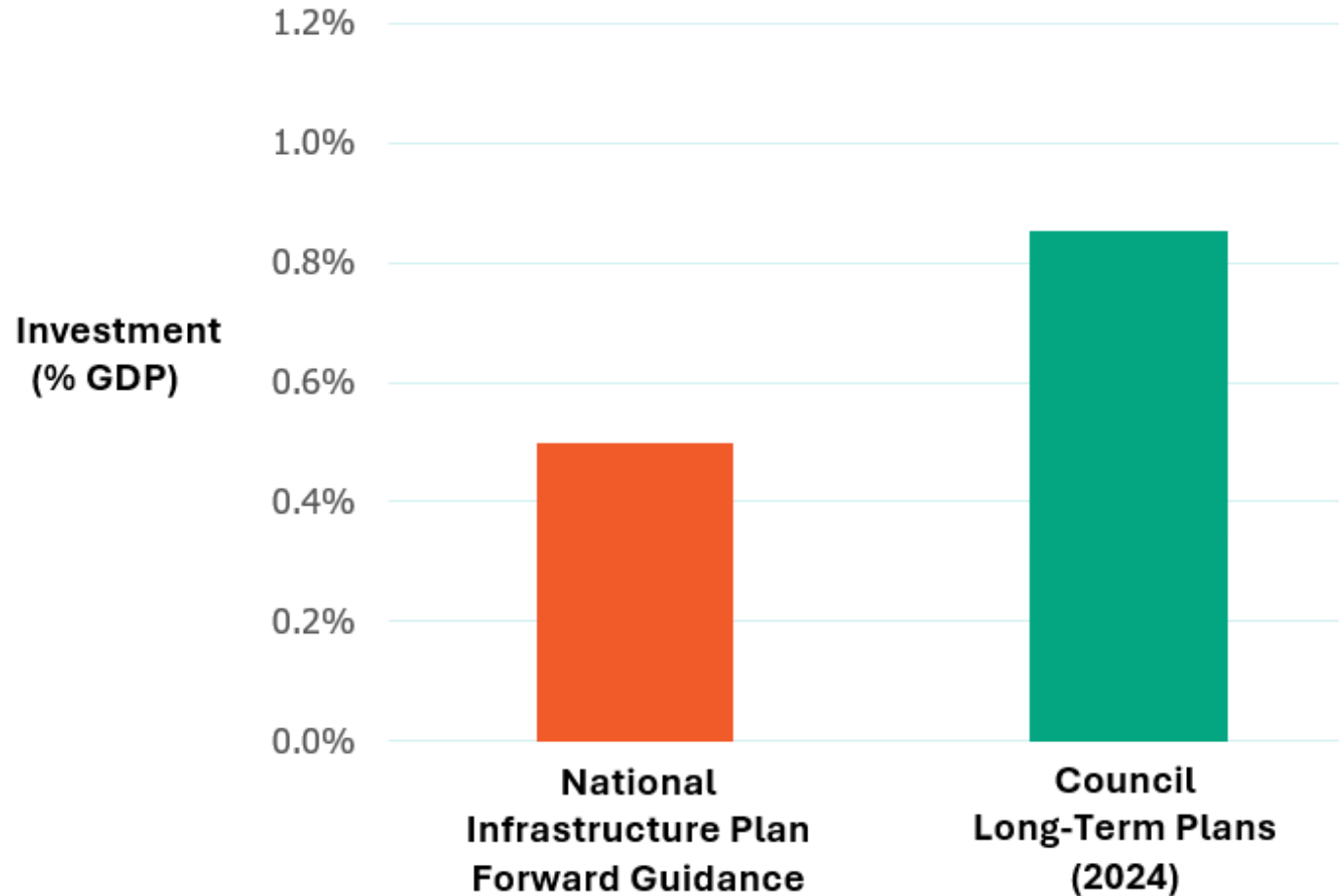


Which creates sizeable funding gaps

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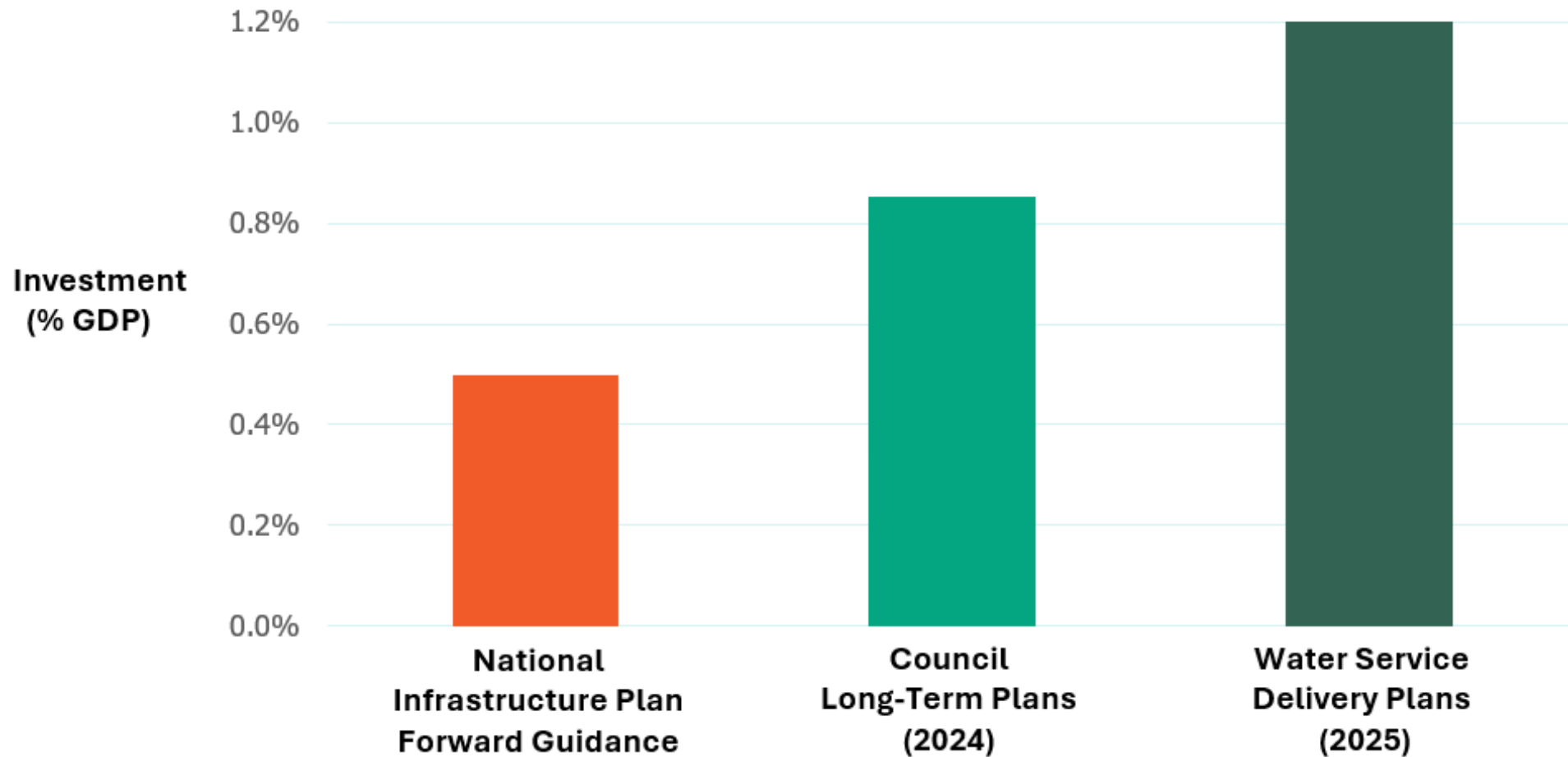


Which creates sizeable funding gaps

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Land transport

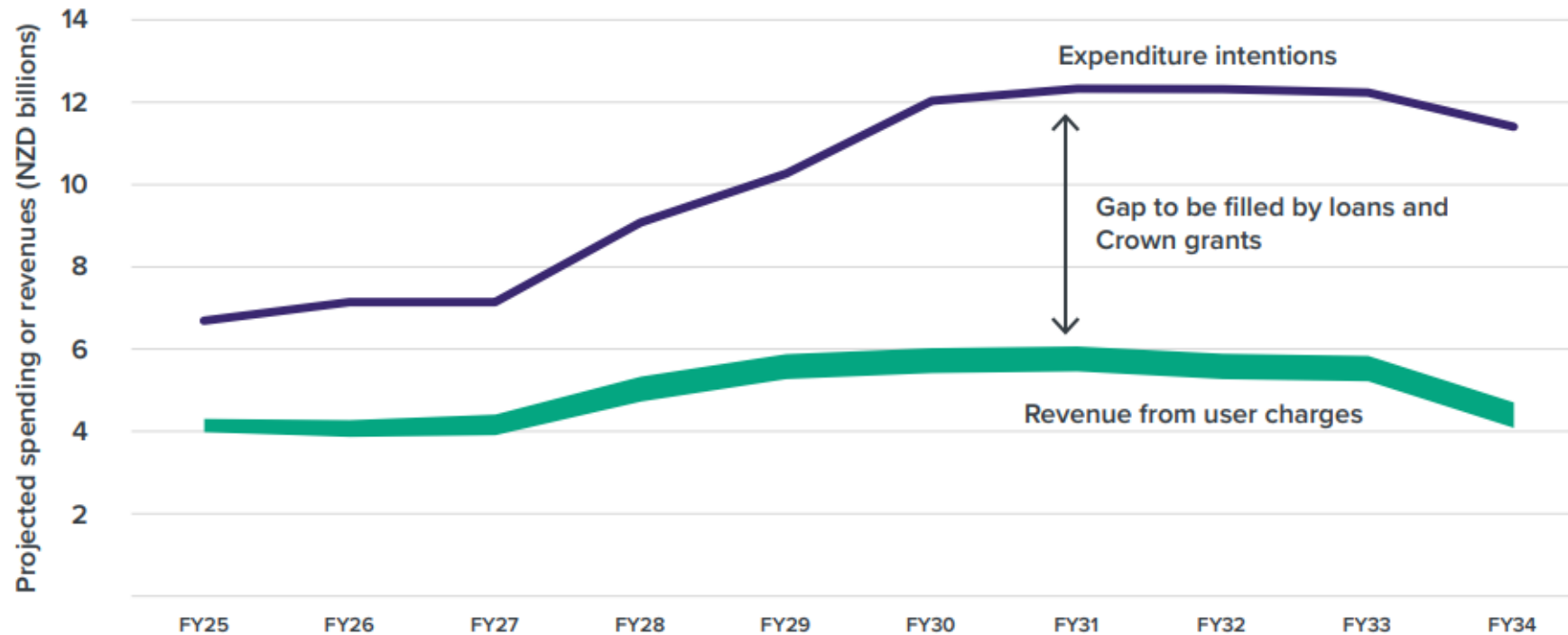


Which creates sizeable funding gaps

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Land transport

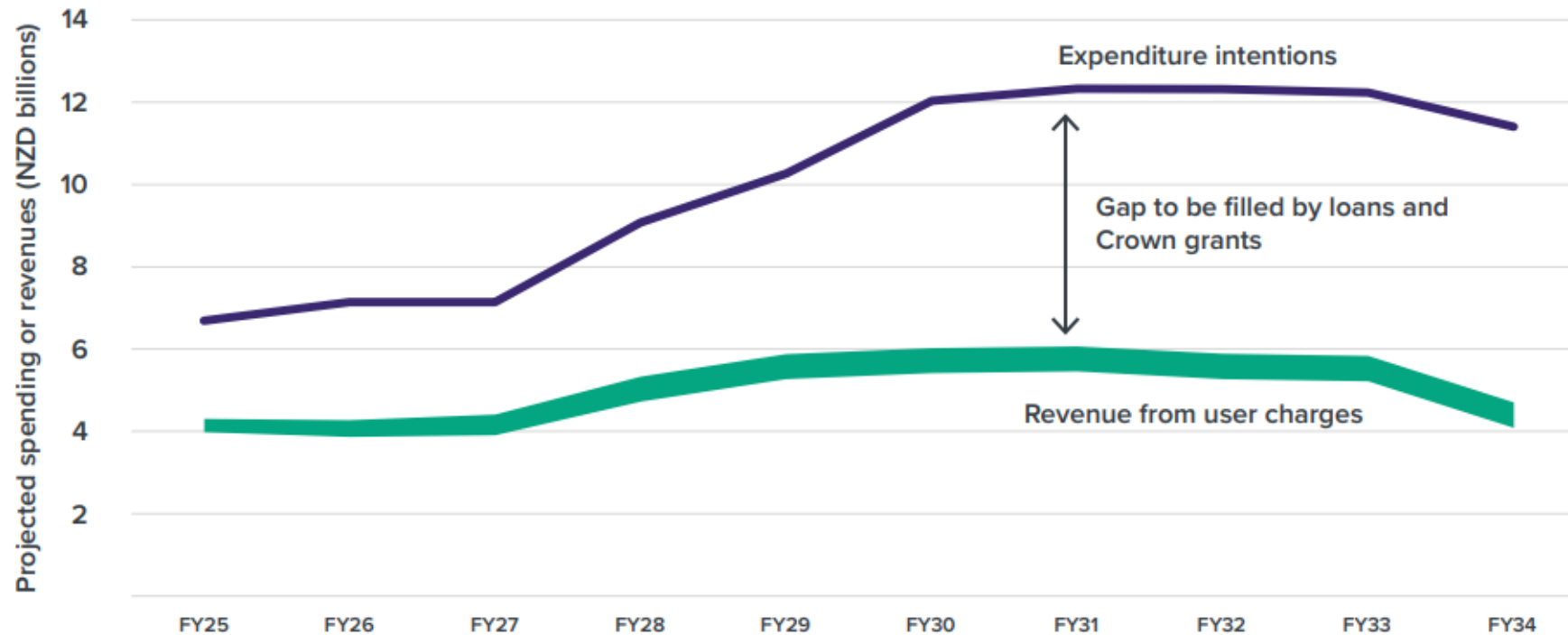


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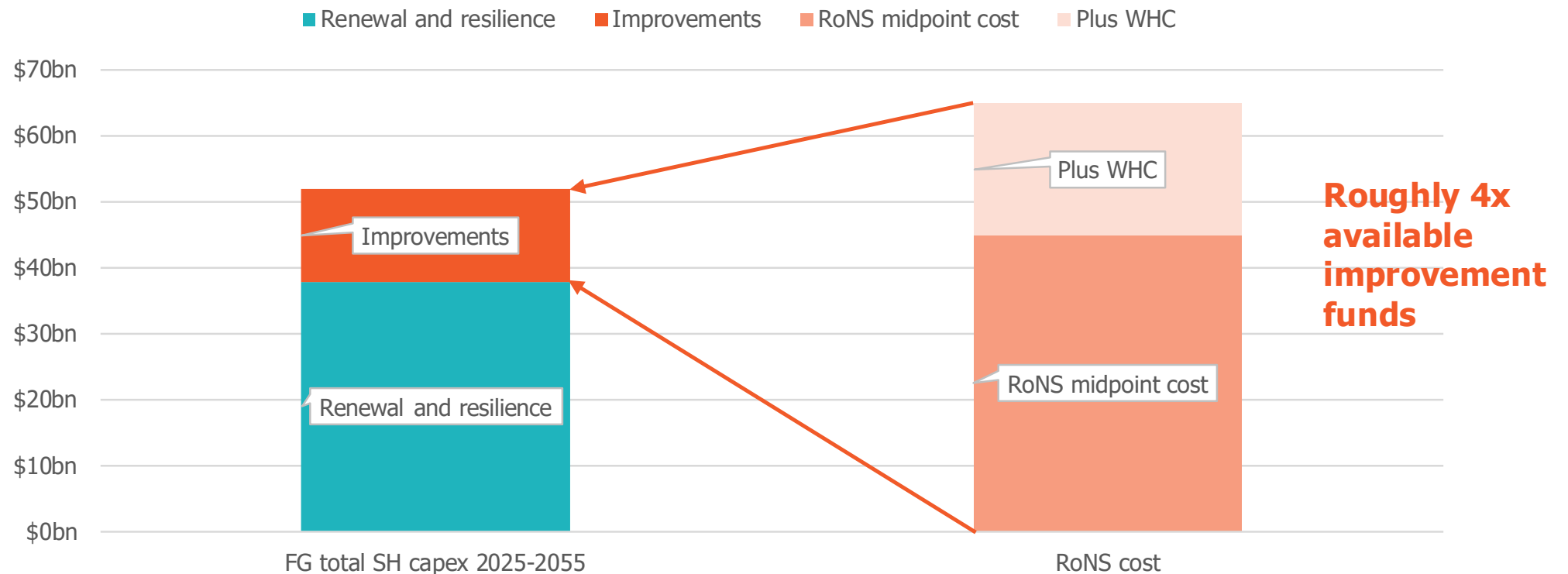
Land transport



So what are the funding options?

This gap is represented in Forward Guidance

Major transport project capex against FG for SH capex

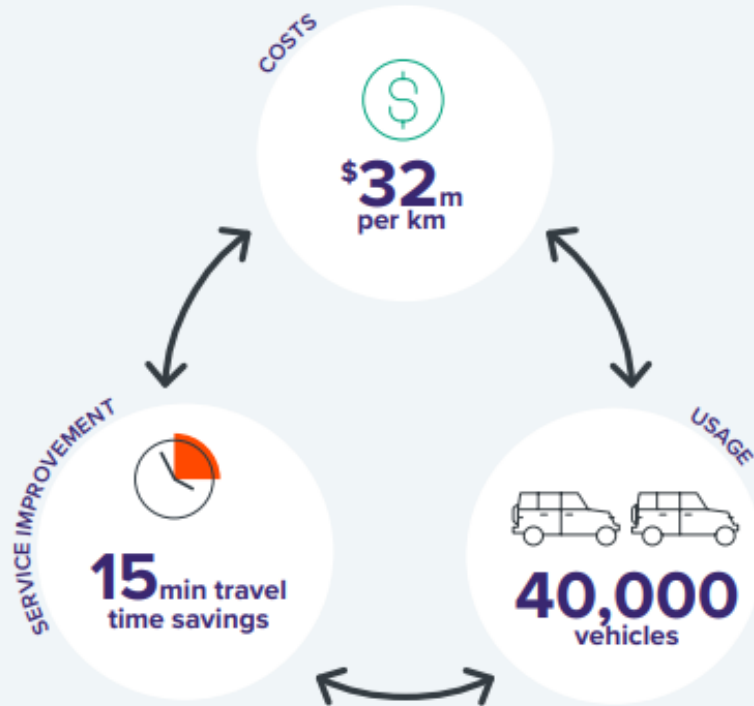


Note: Forward Guidance for SH investment is similar to NZTA view on investment programme if NLTF was limited to user revenues; leading to \$400-500m in annual state highway improvement capex.

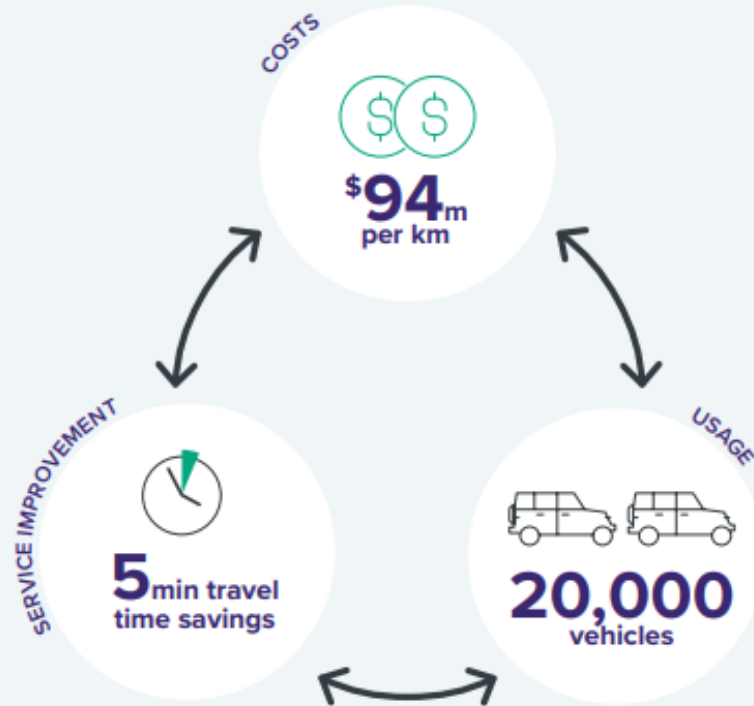
Could users of the asset pay more?

Predicted cost recovery for new toll roads

Panel A: Factors needed for 100% cost recovery



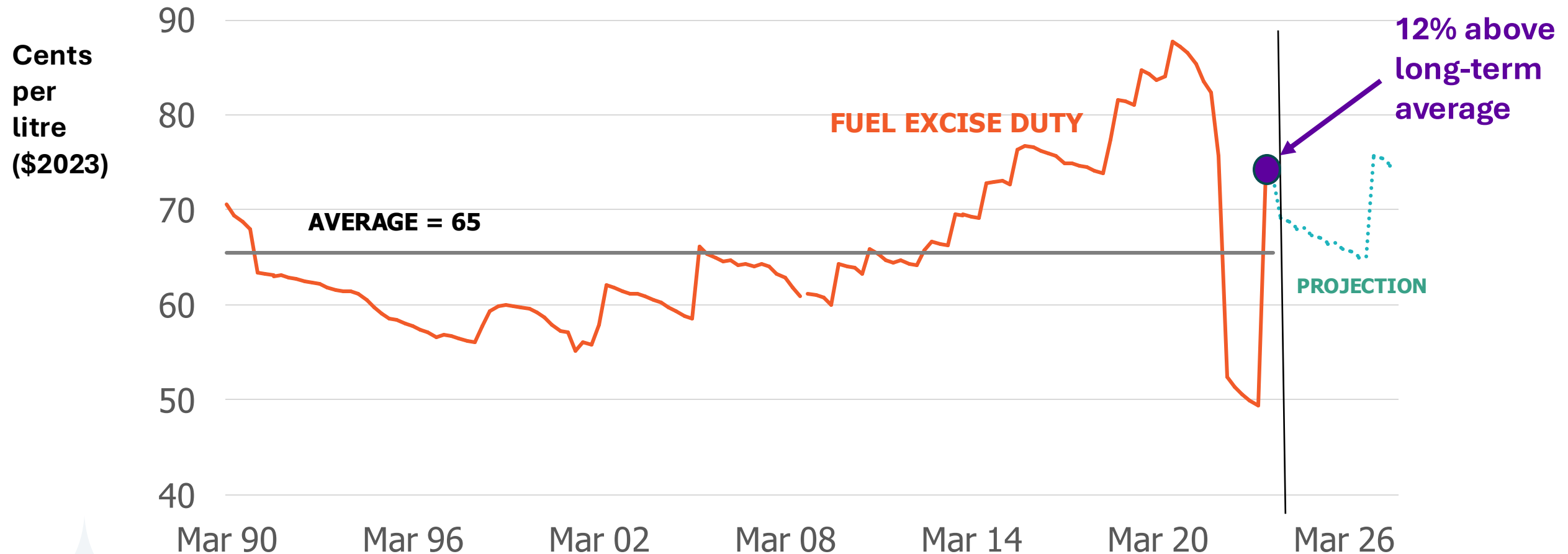
Panel B: Factors needed for 10% cost recovery



Source: New Zealand Infrastructure Commission modelling. ¹¹¹

What about other users on the network?

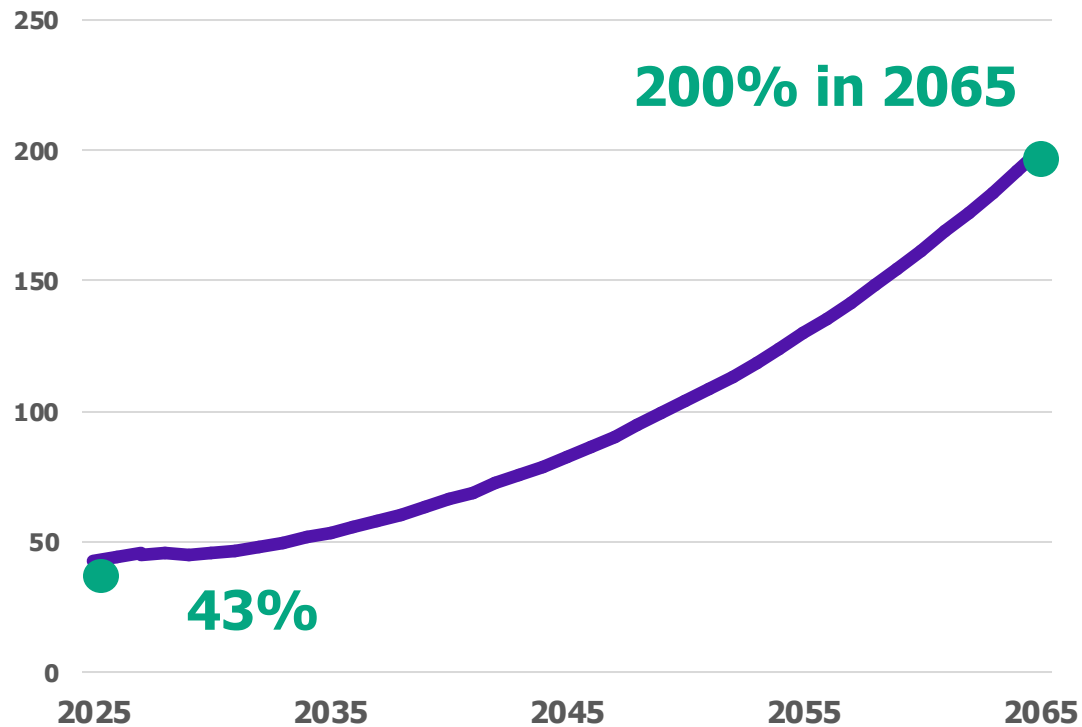
Fuel Excise Duty, 1990-2026 (inflation adjusted)



What about consolidated revenues?

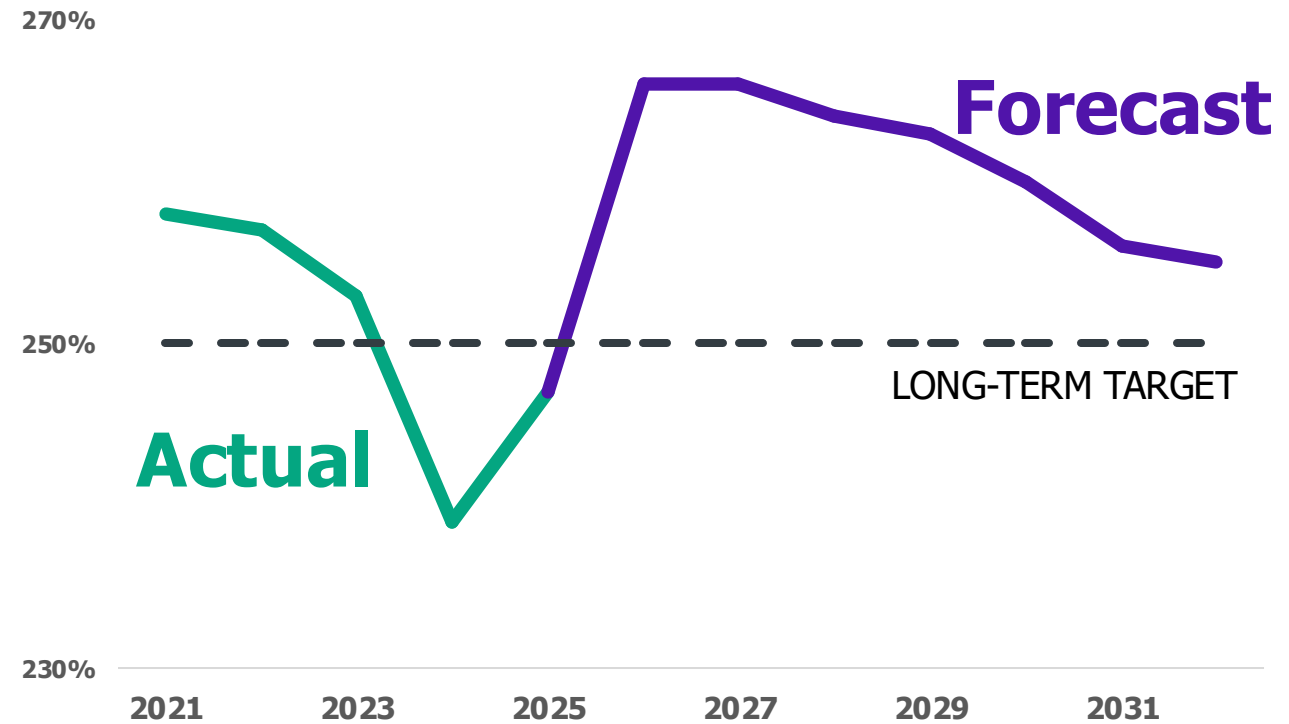
Central Government

Net Core Crown Debt to GDP



Auckland Council

Debt to revenue



What about reprioritisation from other sectors?

Most sectors in a similar position; capital allowance of ~\$5bn



"The Health Infrastructure Plan identifies the **more than \$20 billion** investment required to meet future health needs..."

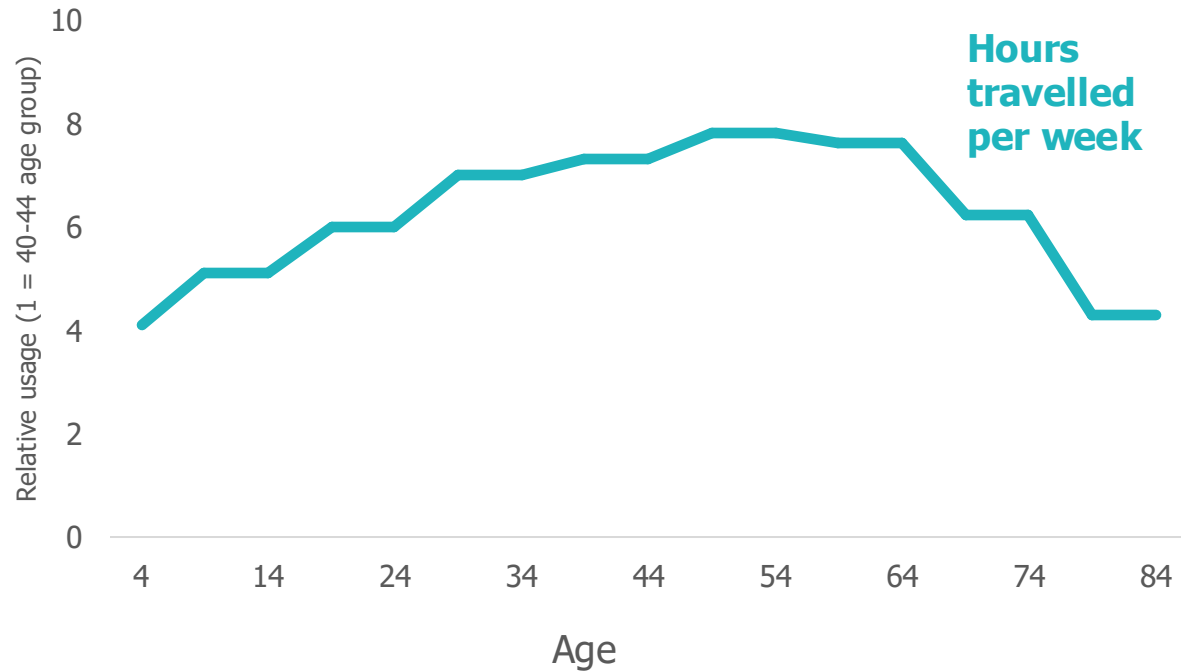


"This new Defence Capability Plan contains \$12 billion of funding over the next four years, which includes **\$9 billion of new spending.**"

What about staging and phasing?

Demand vs capacity analysis

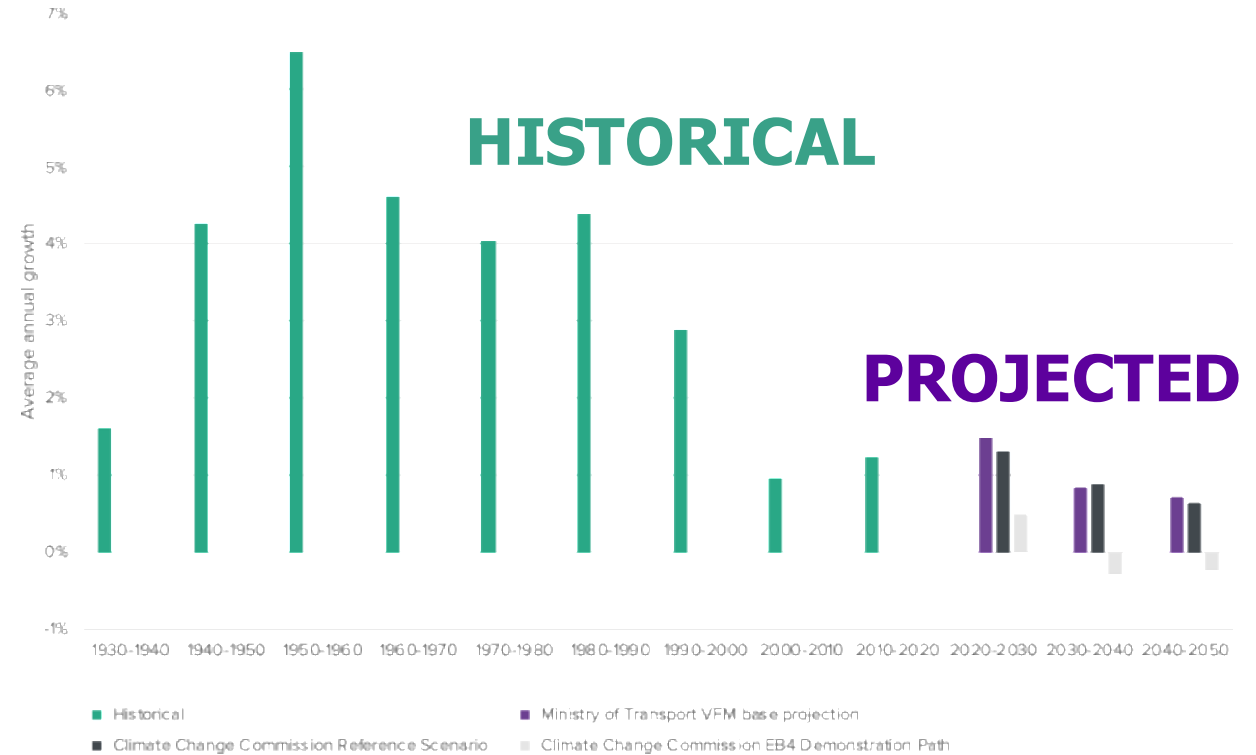
Demographics will impact demand



Source: "Understanding capacity upgrade pressures across infrastructure networks".
Infrastructure Commission. 2026.

VKT is moderating

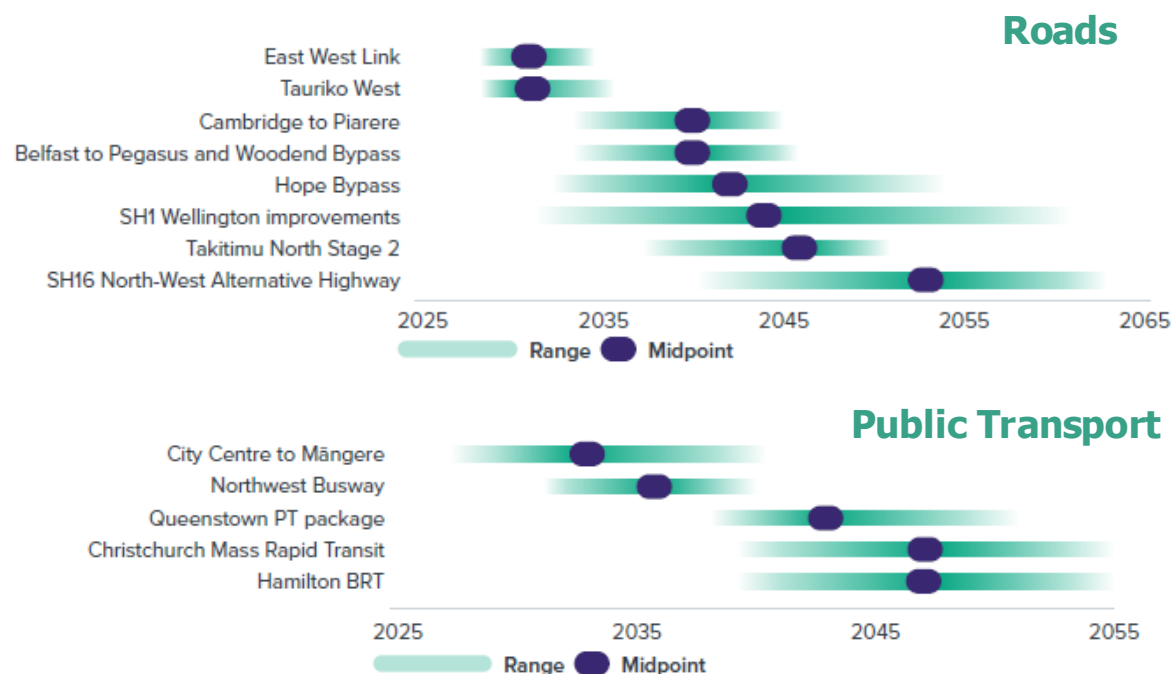
Average annual growth in vehicle kilometres travelled



Prioritise and sequence major transport projects

Sequenced capacity upgrades

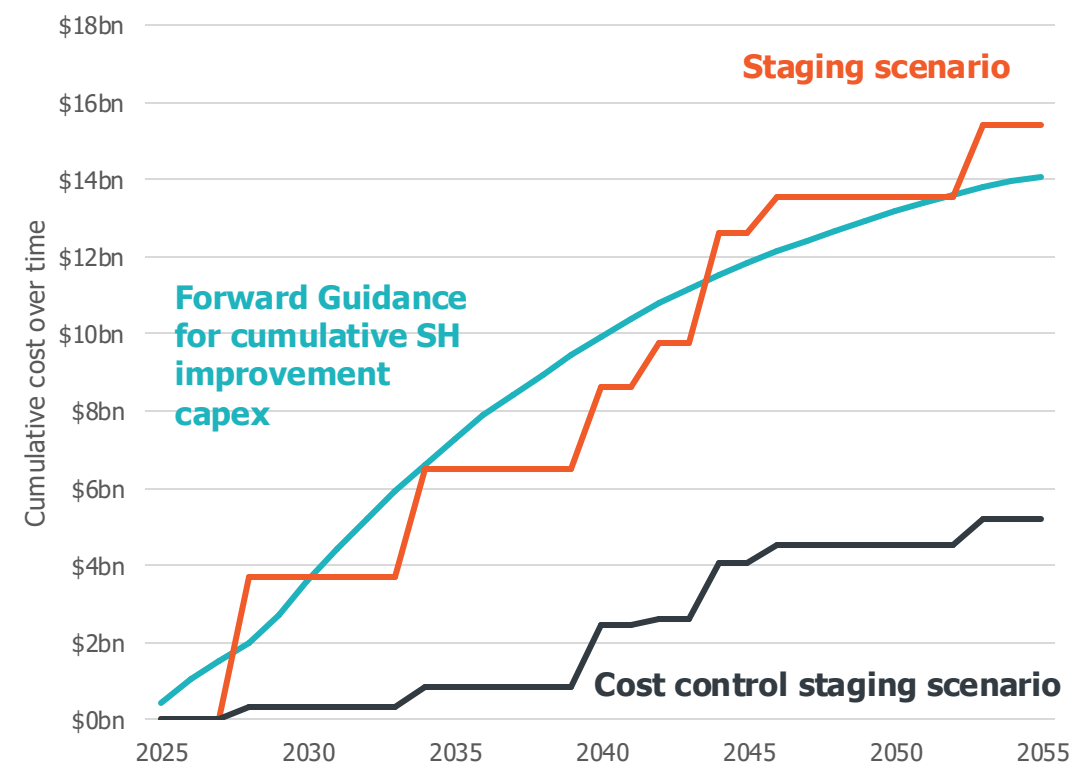
Estimated date range for exceeding capacity of current infrastructure



Notes: This high-level analysis focuses on the need for capacity upgrades, where expected peak volumes cannot be served by existing infrastructure, rather than improvements to speed, reliability, safety, or resilience, which are also considered in investment decisions. Some corridors not listed on these charts could also reach capacity prior to 2055, but this is not the most likely timing scenario.

To maintain affordability

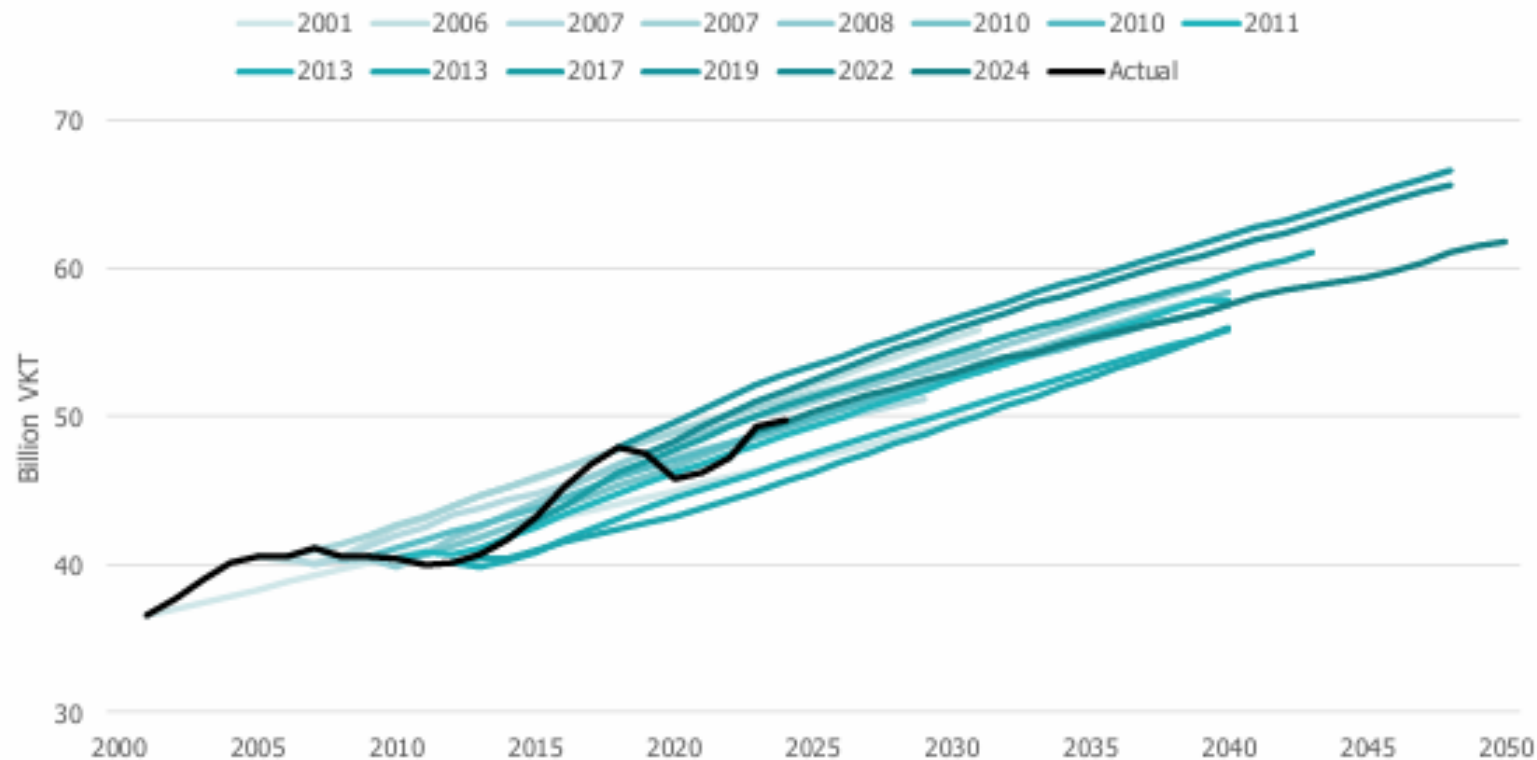
Staging spend against Forward Guidance



Decision-making under uncertainty

Vehicle kilometres travelled projections, 2001-2024

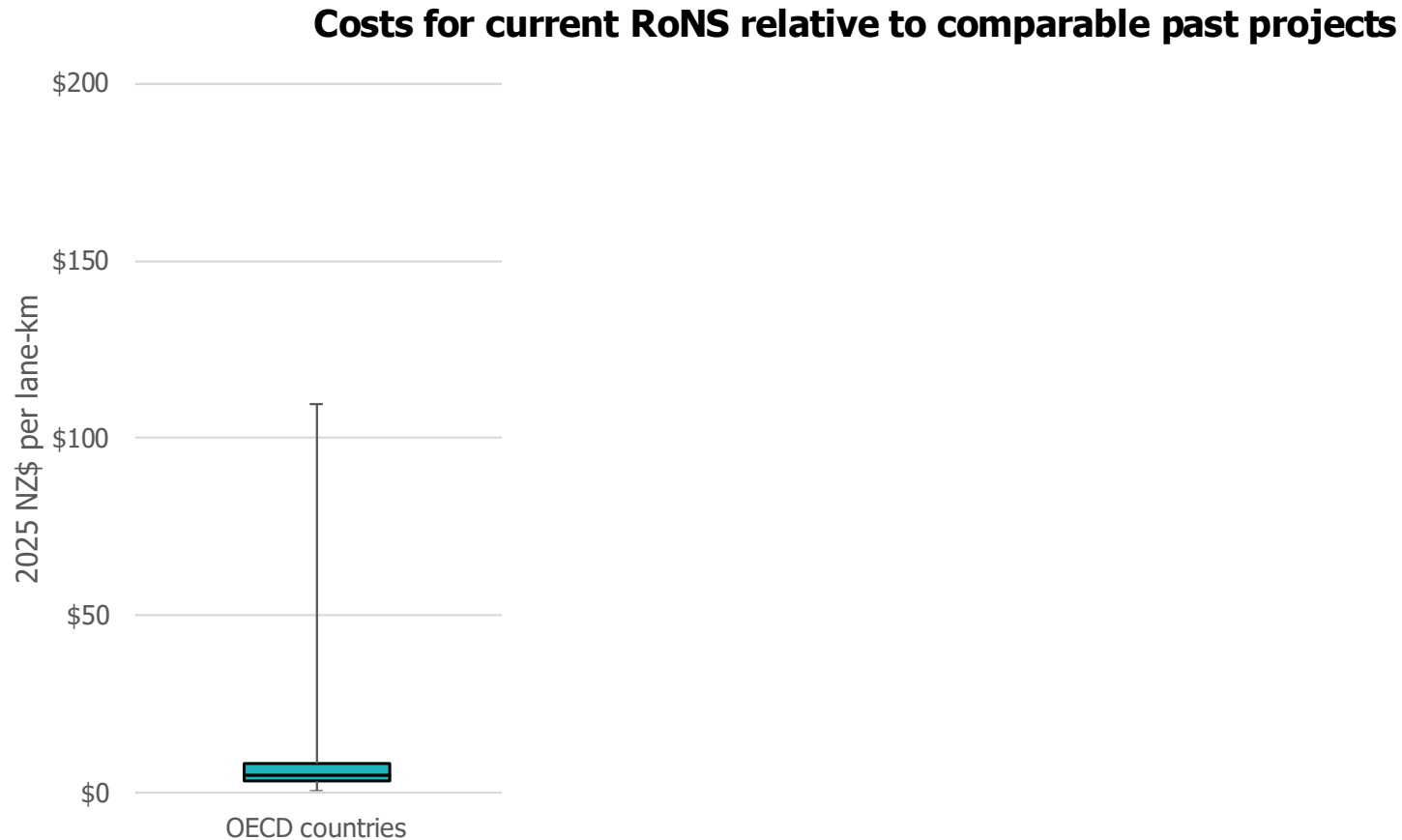
Figure 6: Road infrastructure demand: Vehicle kilometres travelled projections, 2001-2024



Source: Actual traffic volume data is from Ministry of Transport's Annual Fleet Statistics.⁴ Projections for 2001-2013 were provided by Ministry of Transport, based on various version of the Ministry's former Vehicle Fleet Emissions Model. There are two separate projections for 2007 and 2013, reflecting sensitivity ranges. Projections for 2017-2024 are from the Ministry's updated Vehicle Fleet Model, often sourced from its Transport Outlook publication.⁵

Cost management stands as a critical issue

Cost affordability analysis

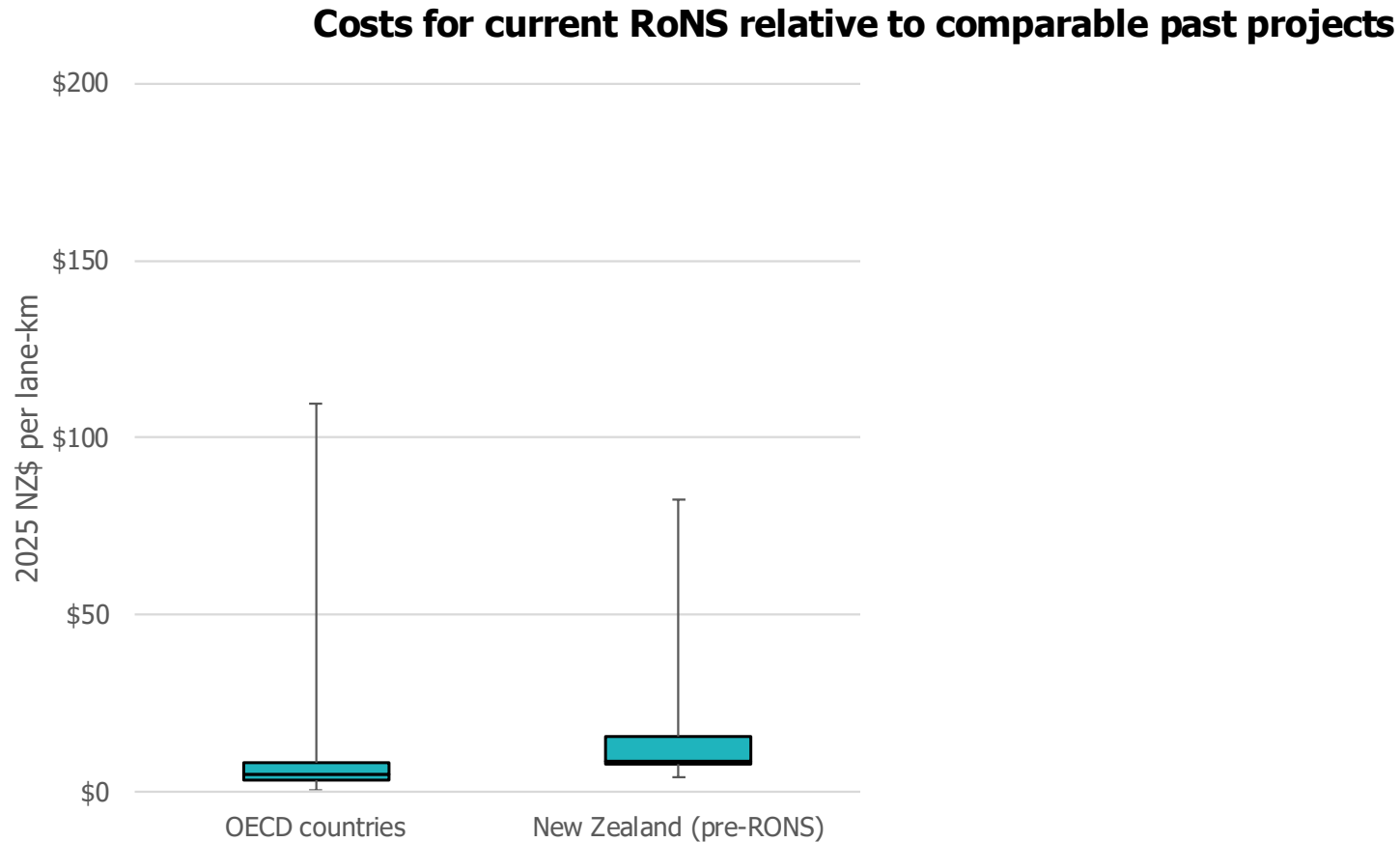


Notes: Box and whisker plot showing cost range for current and past motorway/expressway projects

Source: "Understanding capacity upgrade pressures across infrastructure networks". Infrastructure Commission. 2026.

Cost management stands as a critical issue

Cost affordability analysis

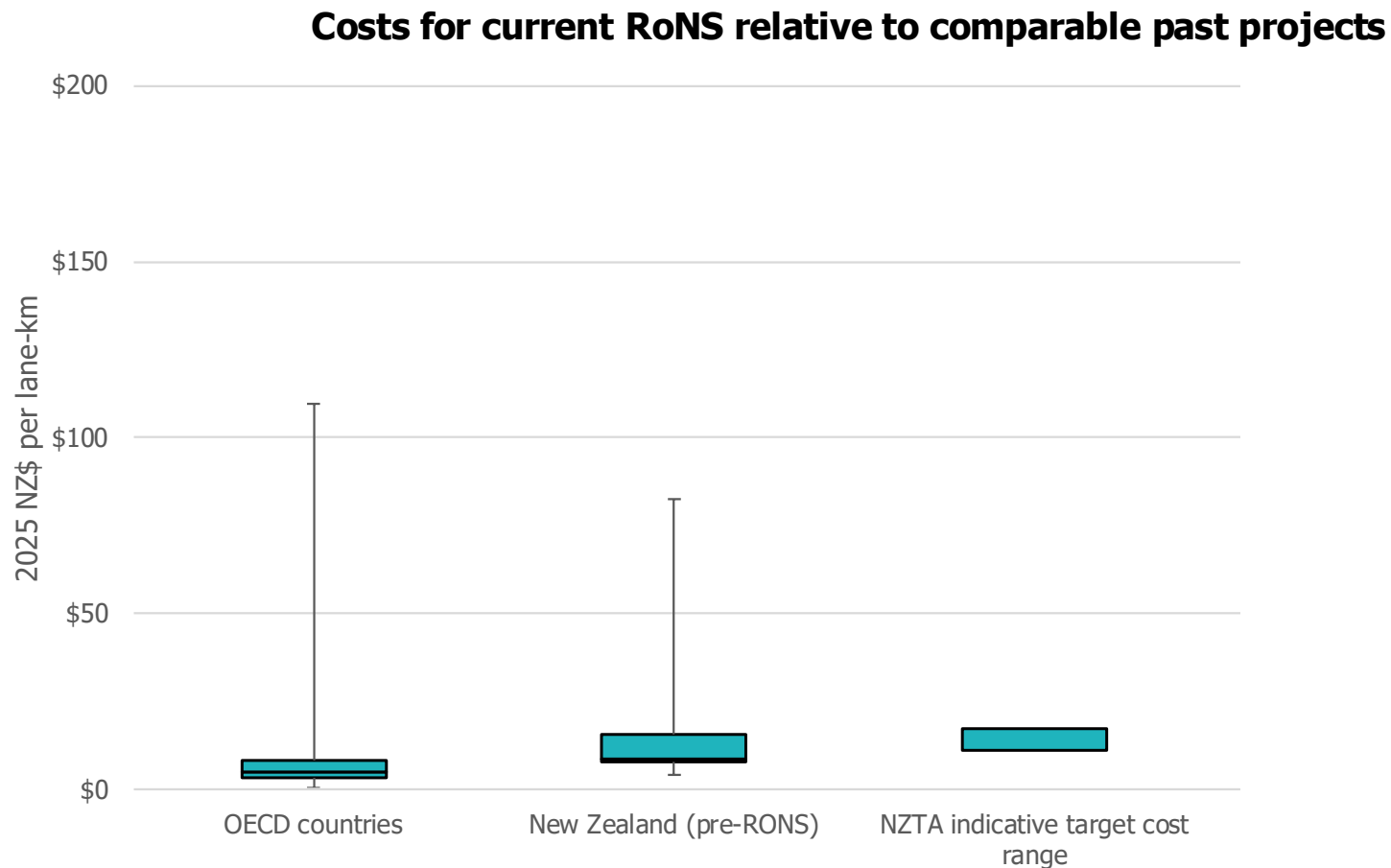


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Cost management stands as a critical issue

Cost affordability analysis

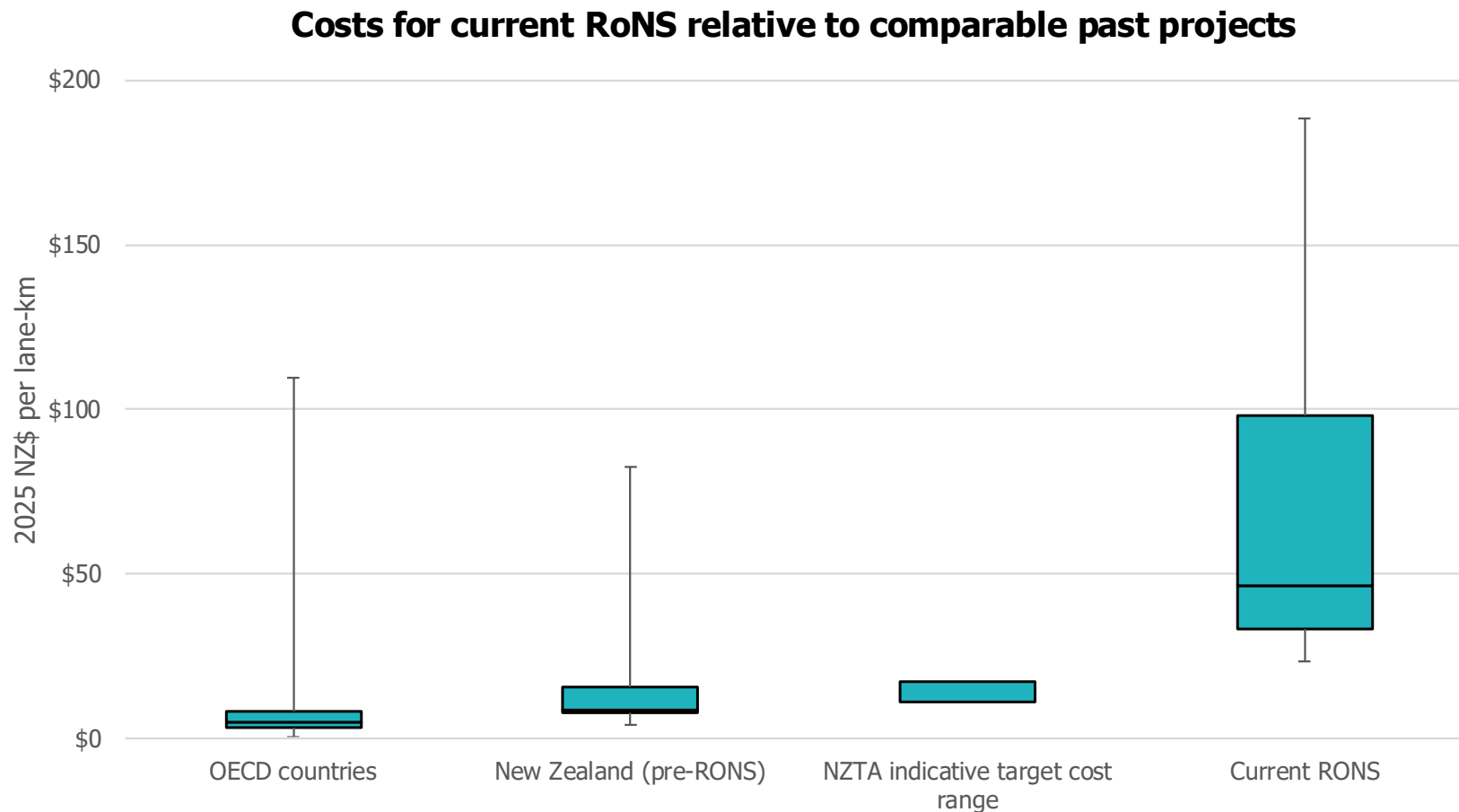


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Cost management stands as a critical issue

Cost affordability analysis

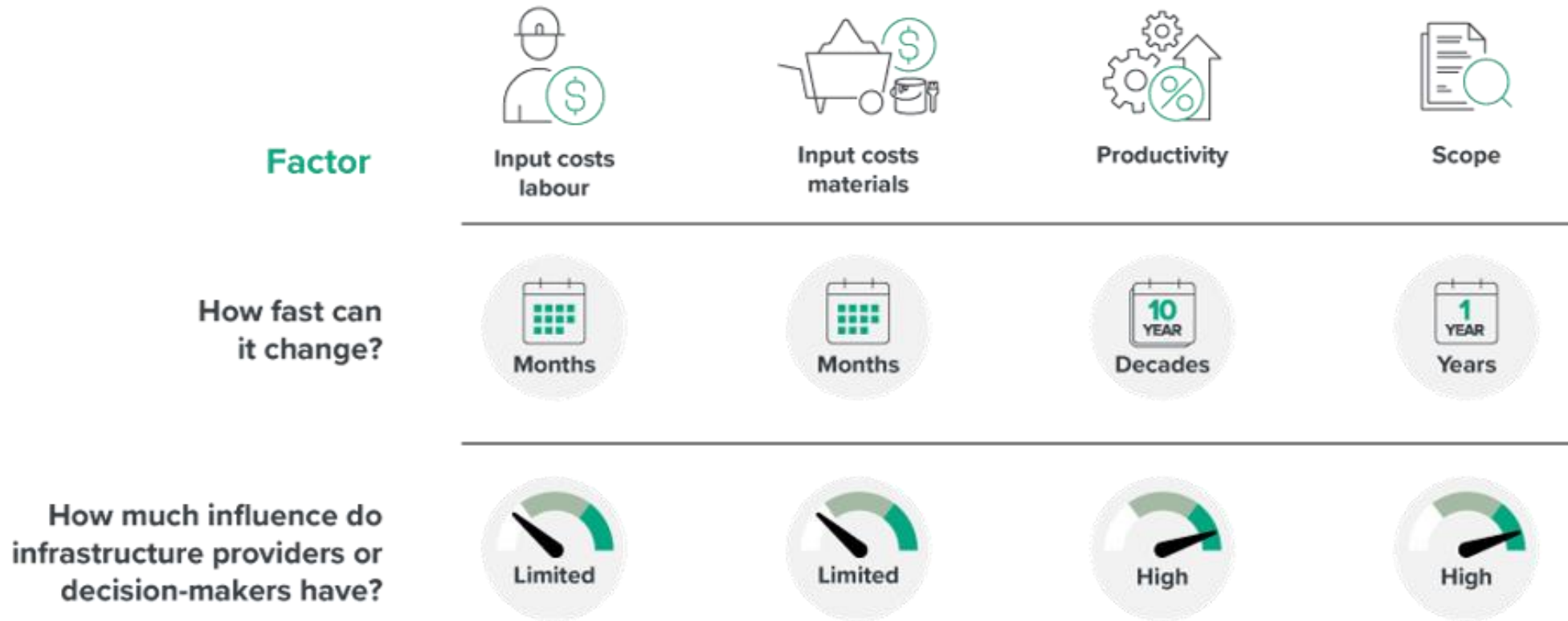


Notes: Box and whisker plot showing cost range for current and past motorway/expressway projects

Source: "Understanding capacity upgrade pressures across infrastructure networks". Infrastructure Commission. 2026.

Making every dollar count

Some cost drivers are more within our control than others

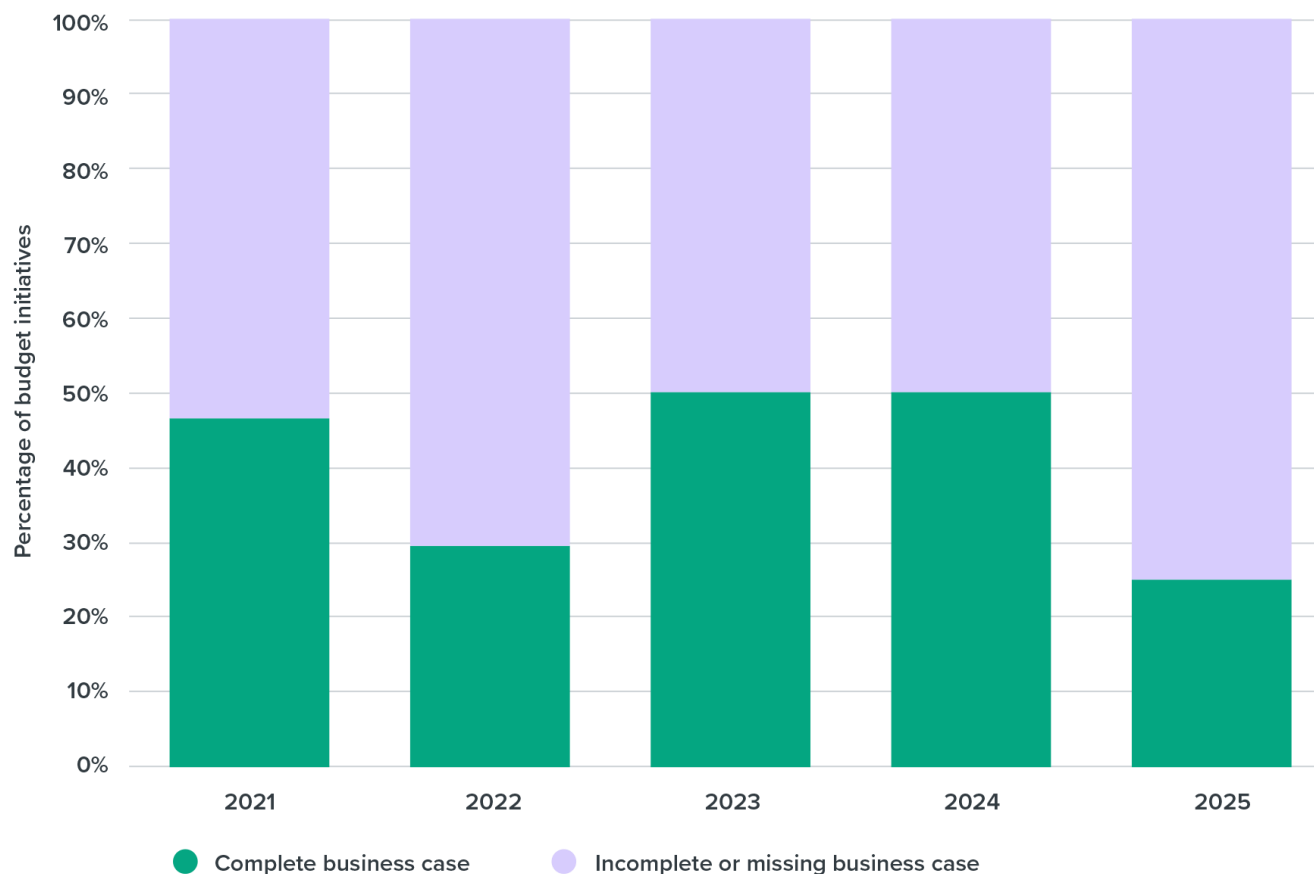


Source: 'Why do construction input costs change? The role of global and local factors'. New Zealand Infrastructure Commission. (2023).

Some context for our efficiency challenges

Too many proposals start without a strong business case

Compliance with business case requirements among Budget infrastructure project funding bids reviewed by Treasury's Investment Panel, 2021–2025



Is growth a way out?

Depends where you look

Estimated fiscal cost recovery for council growth infrastructure, 2007–2031, millions of 2023 NZD

	Auckland Council (2012-2031)	Wellington City	Christchurch City	Hamilton City	Tauranga City	Queenstown- Lakes	Dunedin City
Estimated growth costs	\$21,427	\$873	\$2,703	\$3,308	\$3,280	\$1,565	\$296
Estimated growth revenues	\$9,722	\$737	\$3,080	\$1,156	\$1,060	\$792	\$556
Share of growth costs covered by growth revenues	45%	84%	114%	35%	32%	51%	188%
Estimated population growth over study period	33%	23%	20%	47%	56%	122%	14%

Notes: Auckland data are from 2012 through 2031. Capital value growth from 2023–2031 averages 2% per year in Dunedin, 3% in Wellington and Christchurch, and 5% in others. Maintenance and renewal expense is estimated as 3.5% of non-depreciated asset value per year. Value of building consents is assumed as a constant historical (2013–2023) share of capital value from 2024 to 2031. Figures are net present value (NPV) with a discount rate of 2%. Sources: New Zealand Infrastructure Commission's analysis of council annual reports, plans, long-term plans, and Stats NZ.

Long-term system shifts

16 NIP recommendations to improve infrastructure



Planning what we can afford

1. Needs-based capital allowances.
2. Land transport funding and oversight.



Looking after what we've got

3. Long-term investment planning.
4. Predictable Government funding signals.
5. Multi-year budgeting.
6. Asset management performance reporting.



Prioritising the right projects

7. System-wide assurance.
8. Asset management assurance.
9. Investment readiness assurance.
10. Project information coordination.

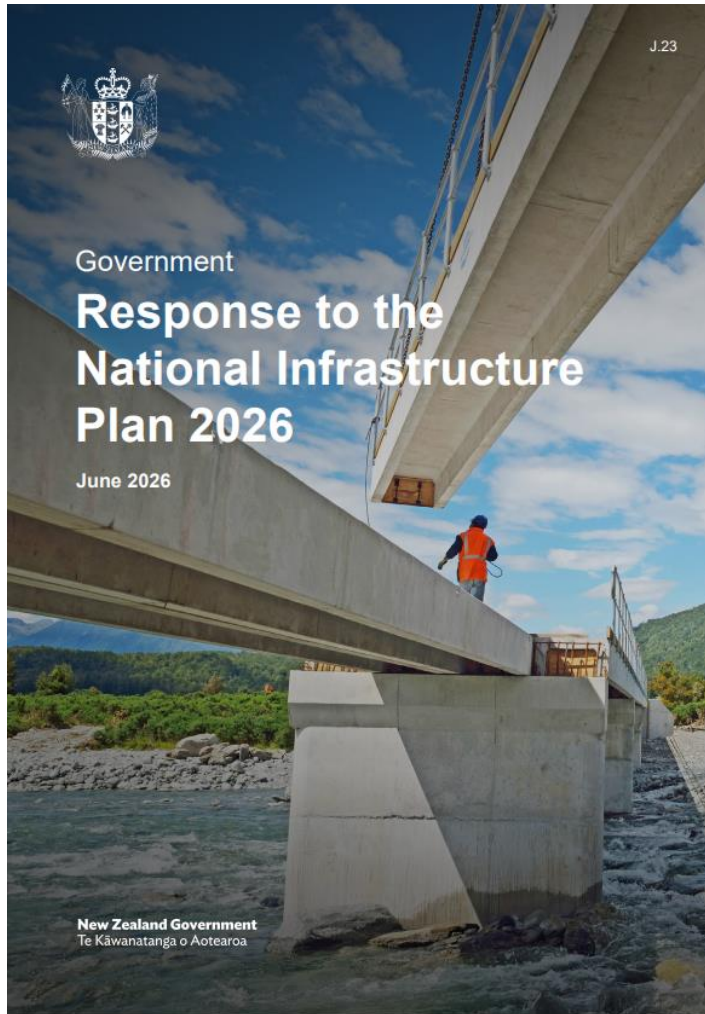


Making it easier to build better

11. Stable resource management framework.
12. Integrated spatial planning.
13. Optimised infrastructure use.
14. Accelerated electricity investment.
15. Coordinated workforce development.
16. Public sector project leadership.

The Government Response

Multi-party support



“It’s not this Government’s Plan – it’s New Zealand’s Plan”

Hon Chris Bishop, Government Response

“We support the 16 recommendations in full ... [and] welcome the Coalition Government’s support for the recommendations and priorities outlined in the Plan”

Hon Julie-Anne Genter, Green Party Response

“[It is] a long-term, evidence-based path that doesn’t belong to any one government ... a framework durable enough to survive changes of government”

Hon Kieran McAnulty, Labour Party Response

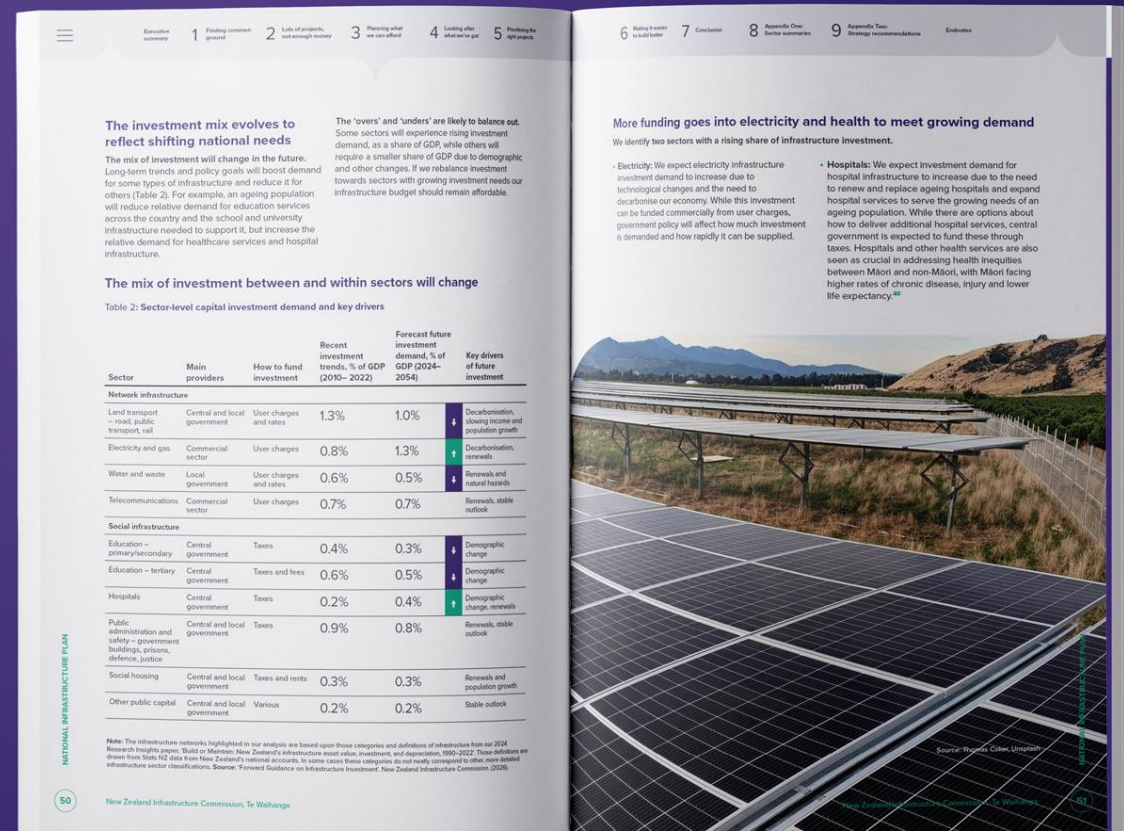
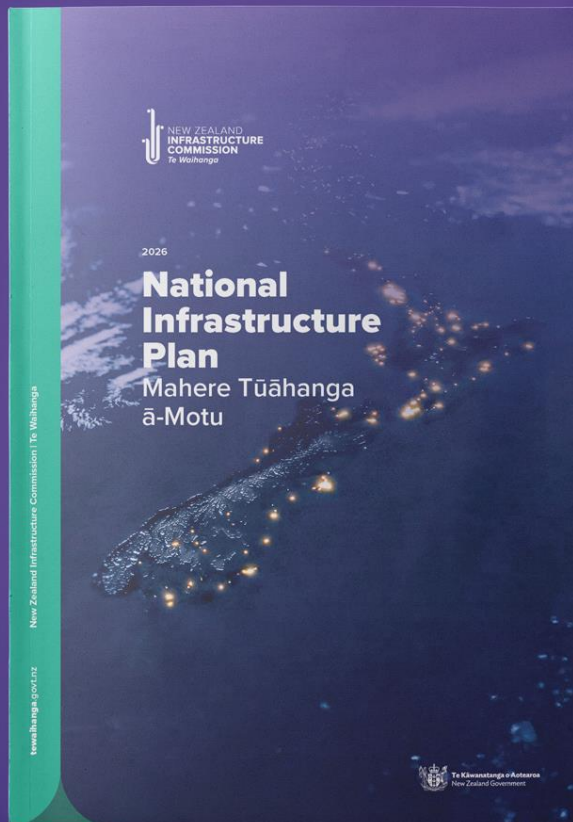


"It's amazing to be back in New Zealand. They are having one of the most serious and professional conversations on cities, infrastructure, and public investment that I've ever witnessed.

We can all learn a lot from what is happening here."

Charles Marohn

Author, *Confessions of a Recovering Engineer*



Ngā mihi, Thank you