



2015 National Lifelines Forum

Your Questions

- If you have any general questions around work in the Lifelines arena, or specific matters that don't get covered off in the sessions, please either text your question to:

027 326 1089

with your name, or drop a handwritten note into Richard at the front desk



The Thirty Year New Zealand Infrastructure Plan 2015

National Lifelines Forum
October 2015



Content

- Infrastructure in New Zealand
- The National Infrastructure Unit
- *New Zealand 30-Year Infrastructure Plan*
- Key Proposals
- Next Steps
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- We look at five sectors – [Transport](#), [Energy](#), [Telecommunications](#), [Water \(Urban Water and Productive Water\)](#) and [Social infrastructure](#).
- In the three years to June 2014, Government added almost **\$16 billion** of assets to its books – reflecting investments in areas like roads, rail, ultra-fast broadband, electricity transmission and the Christchurch rebuild.
- A further **\$939 billion** of capital was invested through Budget 2015.
- The 2015 *Capital Intentions Plan* shows that over the next 10 years, **\$110 billion** will be spent on infrastructure:
 - Central Government: \$49 billion
 - Local Government: \$47 billion
 - Private sector: \$14 billion





Infrastructure in New Zealand



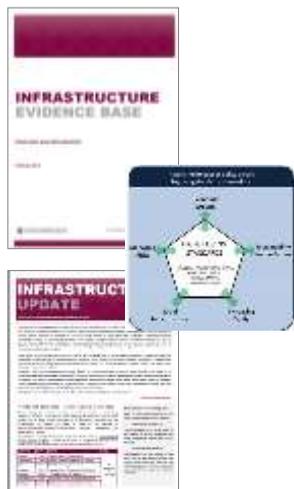
How Government considers national infrastructure

- Infrastructure is critical to our economy, to supporting improved living standards for New Zealanders and can play an important role in protecting our natural environment. This is reflected in two key Government documents:
 - On **Wednesday 20 August**, the Government launched the **New Zealand 30-Year Infrastructure Plan**, a long-term, strategic and future-focussed document setting out a 30-year vision for infrastructure in NZ and an action plan to deliver this vision; and
 - Infrastructure is one of the six pillars of the Government's **Business Growth Agenda (BGA)** which is a policy framework to build a more competitive and productive economy.





The National Infrastructure Unit



- Established 2009, within Treasury.
- Work with central government, local government and private sector, to
 - Look across all the infrastructure sectors to facilitate, and co-ordinate
 - Promote common understanding/ consideration of future challenges
- Informed by the National Infrastructure Advisory Board.
- Focused on supporting delivery of “*High performing infrastructure supporting higher living standards*”.



Strategic Framework

Infrastructure policy and thinking is coordinated and guided through the National Infrastructure Plan, first released in 2010 and followed up in 2011.



- Strategic future focused document – common direction for how we plan, fund, use infrastructure
- A key purpose is increased certainty
- Two outcomes – demand and supply
- Six principles to underpin policy development and advice



The 2010 Plan was a valuable first step, providing context, key investment principles and an initial set of priorities.

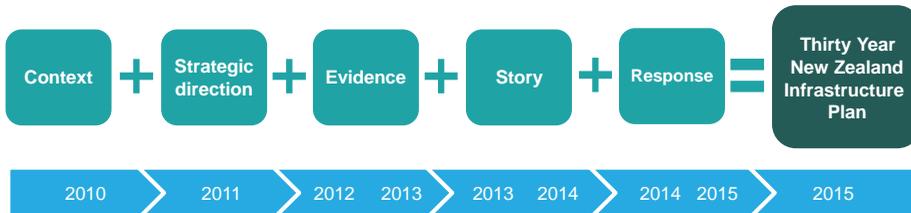


With the National Infrastructure Advisory Board, *State of the Nation* reports were published in 2012 and 2013. These provided a review of the past year and a look ahead to the next year.

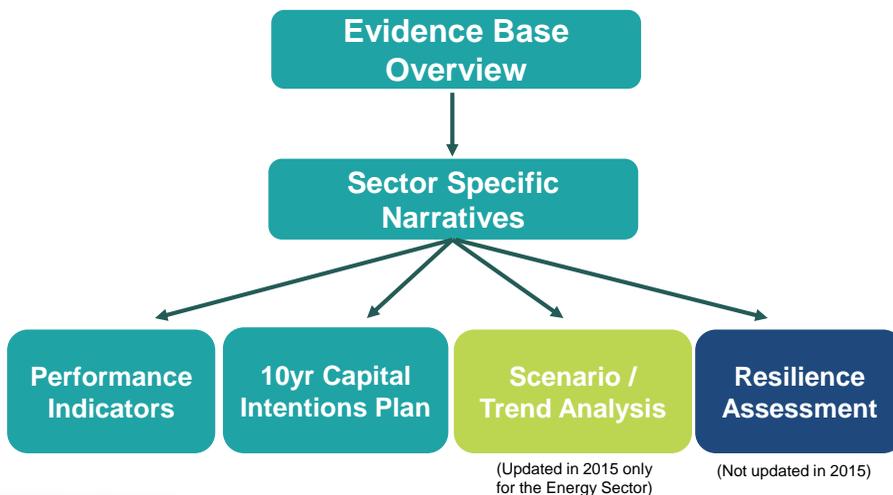




2010 to 2015



Evidence Base





Summary of findings

- Broadly, New Zealand has a good infrastructure base.
- However:
 - the quality of available data is still suboptimal; and
 - there are a number of challenges ahead and traditional systems will not be sufficient to meet these.
- To overcome these challenges, New Zealand needs to develop a more sophisticated approach to infrastructure management.
 - A more holistic approach to asset management
 - Better use of data and more effective decision-making
 - Adopting innovative approaches that move away from supply-side solutions
 - Regional and inter-agency collaboration
 - More integrated planning regulation
 - Resilience



New Zealand 30-Year Infrastructure Plan 2015



Developing the Plan

Plan developed in close collaboration with...

- infrastructure users
- all sectors and stakeholders – central and local government, the private sector, interested groups
- peak bodies: BusinessNZ, NZCID, Water New Zealand, LGNZ, SOLGM, IPWEA(NZ)
- central government infrastructure agencies
- individual local and regional authorities
- individual businesses and providers



Purpose of the Plan

- set a marker for New Zealand's long-term infrastructure journey and the progress achieved;
- advance the debate on long-term provision of infrastructure;
- deliver a step change in our approach to infrastructure planning and management; and
- provide confidence to businesses and people to invest in capital, develop skills and take risk. infrastructure users

two outcomes sought from the Plan – better use of existing infrastructure and better allocation of new investment.





Vision

- The 2015 Infrastructure Plan provides the vision of:

By 2045 New Zealand's infrastructure is resilient and coordinated and contributes to a strong economy and high living standards



The challenges

Broadly, New Zealand has a good infrastructure base for today. However, to be successful over the next 30 years we need to have resolved a number of challenges...

- Ageing assets and infrastructure networks
- Affordability constraints
- Population ageing
- Regional growth and decline
- Productivity gaps
- Technology change and cyber security risk
- Infrastructure pinchpoints, especially in Auckland
- Shift in economic gravity to Asia and the opportunities this provides





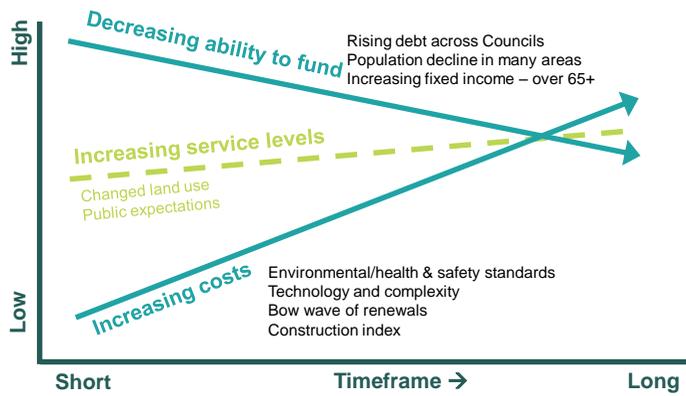
Two stories and the headwinds

From the first national infrastructure evidence base two stories were emerging:

The first is focused on managing the demands of growth in major urban areas

The second is managing long term provision in areas of population decline.

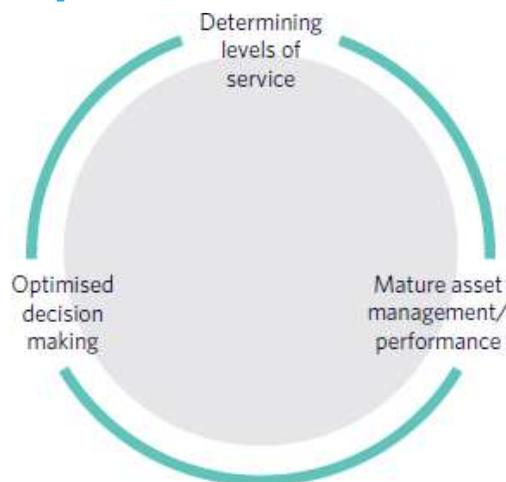
The chart to the right summarises the second of these stories.



Between 2011 and 2031, 56 TLAs (84%) are projected to decline overall in ages 0-64.



The need for a different approach: The Response Framework



A response summarised as ...

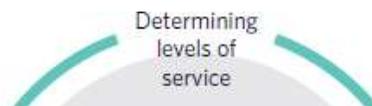
We need to make a step-change in our approach to infrastructure planning and management. ... Simply building things to address our problems is no longer sustainable...

1. We need a better understanding of the **levels of service** we want to deliver.
2. More **mature asset management practices** and use of data.
3. More effective **decision-making** that considers non-asset solutions.

This shift will drive the two outcomes sought from the Plan - better use of existing infrastructure and better allocation of new investment.



Determining levels of service...



Incorporates key elements of ...

1. **Collaborate effectively** –between infrastructure providers and other relevant stakeholders; this includes working together at the local, regional and national levels.
2. **Better integrate land use planning** - a need to more adequately align key pieces of planning legislation with wider urban development, housing and infrastructure plans.
3. **Have a clear and detailed vision** - infrastructure decision-makers at all levels need to have a clear vision to guide investment decisions.
4. Ensuring **clear alignment between individual investment decisions and economic goals**.
5. Consider **whole-of-life infrastructure costs**.



Mature asset management...

Mature asset management/performance

Fundamental to making good decisions about how services are delivered. It should bring together key disciplines beyond engineering, including financial and spatial planning.

Includes a stronger understanding of the **resilience of our infrastructure networks** at a national, regional and local level, especially key pinch-points and the degree to which different parts of networks are critical to overall performance.

To become more effective we need to:

1. **Get the incentives right**
2. **Apply asset management capability wisely**
3. **Collect the right kind of data using shared data standards**



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Optimised decision making...

Optimised decision making

To become more effective we need to strengthen ...

1. **Governance and tools** - right governance/ownership structures and it is clear where accountabilities lie and what outcomes are being sought or delivered. We are missing opportunities to better utilise the private sector.
2. **Demand management** - shift away from our traditional focus on building new infrastructure and first look at how existing assets might be better used through behaviour change.
3. **The regulatory system** - ensure that a predictable regulatory system provides businesses and people with the confidence to innovate, invest in capital, develop skills and take risks.
4. **Funding, financing and procurement** - consider the full range of tools when decisions are made to invest.



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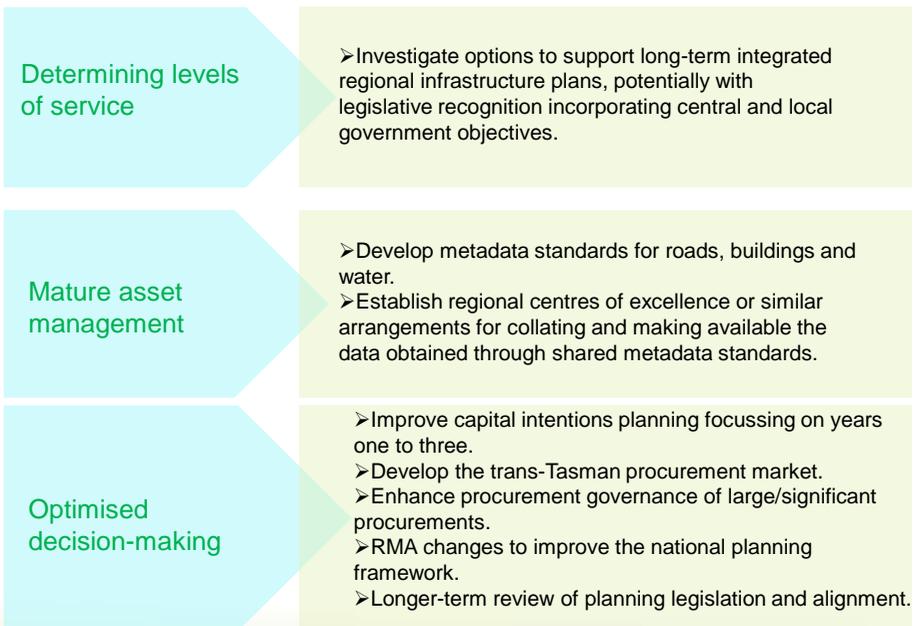
Resilience



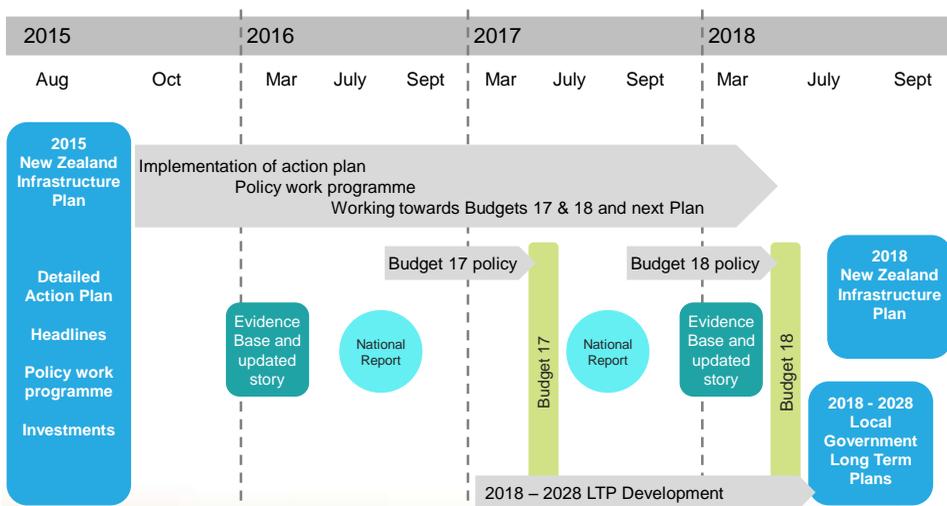
The *Plan* is actions-focused...

- The *Thirty Year New Zealand Infrastructure Plan 2015* is more than just the vision; it is a collaborative roadmap to get us there.
- It include an *Action Plan*, detailing what stakeholders across the public and private sectors are doing, and what else needs to be done and by who.
- The Action Plan is based on the response framework.
- The New Zealand Infrastructure Forum held in March and regional workshops helped unpack this next vital step; to understand what the key actions and the roles of stakeholders needs to be.





Towards 2018





International Collaboration



Critical Five

- Australia, Canada, New Zealand, United Kingdom, United States of America.
- Share best practice and experience relating to critical infrastructure security and resilience.
- Work programme this year includes:
 - defining criticality;
 - the link between critical infrastructure resilience and economic prosperity;
 - performance measurement of resilient infrastructure, etc.
- New Zealand hosted this year's annual face to face meeting.





Asia Pacific Economic Council

- Various infrastructure workstreams, including:
 - Global Infrastructure Initiative, including Global Infrastructure Hub;
 - Asia-Pacific Infrastructure Partnership;
 - APEC PPP Experts Advisory Panel;
 - Action on Promoting Infrastructure Investment through Public-Private Partnership;
 - Senior Officials Meetings Technical Steering Groups, including Transport, Telecommunications, Energy, etc;
 - CTWG Critical Infrastructure Resilience and Security Work Stream and Framework.



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