NEW ZEALAND
INFRASTRUCTURE
COMMISSION
Te Waihanga

What we heard

Summary of the feedback received on 'Testing our thinking: Developing an enduring National Infrastructure Plan'

tewaihanga.govt.nz

New Zealand Infrastructure Commission / Te Waihanga

Te Waihanga seeks to transform infrastructure for all New Zealanders. By doing so our goal is to lift the economic performance of Aotearoa and improve the wellbeing of all New Zealanders.

We are an autonomous Crown entity, listed under the Crown Entities Act 2004, with an independent board. We were established by the New Zealand Infrastructure Commission/Te Waihanga Act 2019 on 25 September 2019.

Information on the Commission is available at www.tewaihanga.govt.nz/

How to cite this document

New Zealand Infrastructure Commission. (2025). *What we heard: Summary of the feedback received on 'Testing our thinking: Developing an enduring National Infrastructure Plan'*. Wellington: New Zealand Infrastructure Commission / Te Waihanga.

Disclaimer

This document is provided subject to the Commission's Terms of Use (**https://www.tewaihanga.govt.nz/terms-of-use/** - noting that 'our websites' includes this document).

It is recommended that you seek independent advice on any matter related to the use of this document.

Any view, opinion, finding, conclusion or recommendation of an external party (including experts, researchers, parties providing feedback or surveyed respondents) are strictly those of the party expressing them. Their views do not necessarily reflect the views of Te Waihanga.

Te Waihanga takes reasonable care to ensure information in the document is accurate and complete and that any opinions given are fair and reasonable. However, we disclaim any express or implied warranties in relation to such information and opinions to the maximum extent permitted by law.

Peter Nunns
General Manager – Strategy
E: peter.nunns@tewaihanga.govt.nz
Website: tewaihanga.govt.nz
LinkedIn: tewaihanga

What we heard 2025
ISSN 978-1-7385911-2-1 (Online)

Acknowledgement

This report has been drafted by Brittany Farrant-Smith. We would like to acknowledge the individuals and organisations that provided feedback on the discussion document *Testing our thinking: Developing an enduring National Infrastructure Plan* that was released on 5 November 2024. The feedback received on the discussion document will help to inform the development of the National Infrastructure Plan.

Executive summary

The National Infrastructure Plan

The New Zealand Infrastructure Commission, Te Waihanga, is currently developing a National Infrastructure Plan that will help guide decision-making by both central and local government and give the infrastructure industry more confidence to invest in the people, technology and equipment they need to build more efficiently.

The National Infrastructure Plan isn't about identifying a multi-decade list of projects. Instead, it's an opportunity to give us greater certainty about what we should maintain, plan and deliver. The Plan will build on our work for *Rautaki Hanganga o Aotearoa, the New Zealand Infrastructure Strategy*, which made recommendations and set objectives for improving New Zealand's infrastructure system.

To develop the Plan, we're undertaking an infrastructure needs analysis, collecting data on current investment intentions, reviewing unfunded infrastructure investment proposals that are submitted to us through the Infrastructure Priorities Programme, and analysing a proposed approach for infrastructure investment.

Testing our thinking

In late 2024, we sought stakeholder feedback on the discussion document *Testing our thinking: Developing an enduring National Infrastructure Plan*. The purpose of the discussion document was to:

- engage with stakeholders early in the development process to validate our approach and assumptions
- identify additional challenges and opportunities that should be considered in the Plan
- foster an open dialogue to build a shared understanding of infrastructure priorities and trade-offs.

The feedback period, which ran from 5 November to 10 December 2024, provided an opportunity for early engagement to shape the development of the draft National Infrastructure Plan. The document outlined the proposed scope, challenges, and strategic direction of the Plan, inviting input to ensure a comprehensive and well-informed approach.

Over **100 responses** were received from a broad range of stakeholders, including **central government**, **local government**, **private sector**, **peak bodies**, **NGOs, research organisations** and **others** (see Appendix A). The consultation was structured **around 17 targeted questions** (see Appendix B) to capture perspectives on infrastructure priorities, challenges, and opportunities.

Key themes identified in the feedback

While responses reflected a range of perspectives, several key themes emerged as systemic challenges across infrastructure planning, funding and financing, delivery, and governance.

- **Strategic infrastructure planning** – A recurring theme with respondents was the need to reduce the impact of short-term political cycles on infrastructure decision-making to ensure long-term, strategic, and effective infrastructure planning.
- **Resilience and adapting to climate change** – Some of the feedback received called for a focus on preparing infrastructure to better adapt to climate risks and ensure greater resilience.

- **Workforce and capability** – Some respondents stated that there is a need to address the ongoing, long-term concern regarding the availability of the right skills and capability to deliver infrastructure projects, particularly in engineering, construction, and digital infrastructure.
- **Funding and financing** – There were calls for stable, long-term funding and financing mechanisms, including alternative funding/financing models.
- **Asset management** – Some of the feedback focused on prioritising better use and maintenance of existing infrastructure before committing to new developments.
- **Transparency and accountability** – Some respondents called for clearer governance structures and more transparent decision-making processes.
- **Regulatory and institutional frameworks** – Some respondents highlighted the need to reform complex regulatory processes, such as those under the Resource Management Act (RMA), to streamline project delivery.
- **Data, technology, and innovation** – Some of the feedback received called for improving infrastructure planning through better use of digital tools, data collection, and standardisation.
- **Collaboration and coordination** – Some respondents stated the need for stronger integration across central and local government, iwi, and private sector stakeholders.

Next steps

The feedback received on the discussion document will help to inform the development of the Plan. We'll be sharing our thinking by presenting at events around the country, hosting workshops and webinars, and sharing updates through our website, newsletter and on social media.

We intend to present the Minister for Infrastructure with the draft National Infrastructure Plan mid-year. At that time, we will also publish the draft Plan on our website and seek feedback.

We plan to present the final National Infrastructure Plan to the Government in December 2025 for their response.

How this report is structured

Part one of this report provides an analysis of stakeholder perspectives and the key themes that emerged through the written submissions received.

Part two offers an overview of key perspectives in response to specific consultation questions, providing deeper insights into the challenges, opportunities, and potential solutions shaping New Zealand's infrastructure future. Part two focuses on the overarching themes that emerged for each question, but for some questions diverging views were expressed. For those questions, we have included a short summary to note the wide range of views expressed.

Appendix A includes a list of organisations that provided a written submission to the discussion document.

Appendix B includes the questions that were asked in the discussion document.

Contents

Part one: Key themes identified in the feedback

While responses reflected a range of perspectives, several key themes emerged as systemic challenges across infrastructure planning, funding and financing, delivery, and governance.

Strategic infrastructure planning

A consistent theme was the need to ensure long-term, strategic, and effective infrastructure planning. Many respondents expressed frustration that short electoral cycles lead to shifting priorities, policy uncertainty, and inconsistent funding allocations, which undermine investment certainty and disrupt infrastructure pipelines. This perceived stop-start approach to infrastructure development was widely seen as inefficient, leading to cost overruns and delays.

To address this, respondents strongly advocated for cross-party agreements and commitments to ensure infrastructure decisions are guided by long-term national priorities rather than short-term political agendas. Many emphasised the importance of adopting a 30- to 50-year planning horizon that aligns with population growth, climate resilience, and economic development.

We recommend that the government should consider the current and future potential operating environments in the NIP, and it should be supported by a cross-party agreement that would ensure continuity and certainty.
– Waikato Regional Council (staff submission)

We believe that multi-decade funding commitments for large infrastructure projects would improve certainty for stakeholders. We recommend independent oversight to assess and prioritise infrastructure proposals based on their long-term value, in collaboration with stakeholders including industry.
– Fonterra Limited

Resilience and adapting to climate change

The growing risks posed by climate change were among the most frequently raised concerns by respondents, who warned that New Zealand's infrastructure is not adequately equipped for future environmental challenges. The increasing frequency and severity of extreme weather events requires infrastructure that is designed to be both adaptable and resilient. However, respondents noted that current planning processes often fail to embed climate adaptation measures at the early stages of infrastructure development, leading to assets that may become obsolete or require costly retrofitting in the future.

A major challenge identified by some respondents was the lack of a centralised, accessible climate data platform to support evidence-based decision-making. Many respondents also raised concerns about the financial burden of climate adaptation, particularly for local government, and called for more proactive investment in nature-based solutions, such as wetlands for flood mitigation and coastal vegetation to prevent erosion, and land-use planning to avoid infrastructure being built in high-risk areas. Integrating decarbonisation and resilience into infrastructure decision-making was viewed as essential to ensuring long-term sustainability.

To improve how we understand and manage the risks that natural hazards pose for infrastructure in New Zealand, we need a comprehensive, forward-looking, and collaborative approach that considers a wide range of economic, social, and environmental costs. This requires improved data collection, integrated risk mapping, long-term resilience planning, and improved stakeholder collaboration.
– Downer New Zealand Limited

Building and maintaining resilient infrastructure requires long-term planning, reliable data and strong collaboration between different agencies. Councils are well placed to build more resilient infrastructure and communities but are often held back by funding and regulatory constraints that favour short-term, piecemeal solutions. New Zealand's infrastructure sectors also need to become more mature at assessing and managing risk; this needs to be a key focus for the National Infrastructure Plan.
– Local Government New Zealand

Fit-for-purpose climate-designed infrastructure, that adopts new technologies and cultural ways of doing, could be emphasised further.
– Ministry of Business, Innovation and Employment

The discussion document proposals currently focus on maintaining and increasing the resilience of infrastructure assets. The National Infrastructure Plan should ensure risk assessments for new infrastructure and infrastructure upgrades should account for natural hazard risks, both directly to the infrastructure assets and to the areas they are enabling development. This will ensure infrastructure does not enable (increased) residential property development in areas with high natural hazard risk.
– Natural Hazards Commission

Workforce and capability

Respondents stated an ongoing, long-term concern was the availability of the right skills and capability to deliver infrastructure projects, particularly in engineering, construction, and digital infrastructure. Many noted that workforce planning is not always aligned with demand, leading to delays, higher costs, and capacity constraints. The ageing workforce, combined with a lack of technical training pipelines, has made it difficult to attract and retain talent, exacerbating long-term infrastructure delivery challenges.

To address this, respondents called for greater investment in education and training initiatives, particularly in vocational and technical fields relevant to infrastructure. Strengthening partnerships between industry, government, and educational institutions was seen as critical to aligning workforce development with infrastructure needs. There was also a strong push for greater diversity in the sector, with respondents highlighting the underrepresentation of women, Māori, and Pasifika in infrastructure roles.

Having skilled and knowledgeable people in place to manage the spend of each infrastructure dollar is the most important approach that could be pursued for realising better value from that spend… Continuous annual investment rather than stop-start investment provides better opportunity for the long-term building of skills, resources, equipment with subsequent delivery optimisation.
– Āpōpō

A key challenge will be ensuring the capability to deliver. Developing a skilled workforce that can meet future infrastructure demands will require a sustained effort to maintain a strong pipeline of work - ensuring there's a steady flow of projects to occupy the workforce and train new people.
– WSP New Zealand Limited

Funding and financing

Fluctuating funding allocations, limited borrowing capacity – especially for local government – and short-term budget cycles were seen by many respondents as major barriers to infrastructure planning and delivery. Many respondents stressed the need for sustainable, long-term funding and financing mechanisms that provide investment certainty beyond election cycles.

To address this challenge, respondents supported diversifying funding and financing sources to provide greater stability and certainty. Suggestions included exploring public-private partnerships (PPPs), user-pays models (such as congestion pricing and road tolls), and asset recycling to reduce reliance on government investment. Additionally, some submitters stated there is a need to improve procurement processes and prioritisation frameworks to ensure that infrastructure investments are guided by robust cost-benefit analyses and deliver long-term economic and social benefits.

It is becoming apparent that New Zealand cannot use status quo funding mechanisms for reliance to properly maintain, renew and replace transport assets. Land transport is under significant funding pressure with over 20% of our infrastructure spending being in this area. Investment now exceeds consistently revenues – keeping doing what we do is not sustainable. New ways to fund projects such as Public Private Partnerships must again be utilised, however new ways to capture revenue to service such models are just as important.
– Infrastructure New Zealand

Consider alternative funding mechanisms, revenue generation, where we may be able to see private capital to deliver. These options are likely to be limited given our small country, small population and associated economics, but they're not unachievable.
– Aurecon New Zealand Limited

Asset management

A recurring theme was the inefficiency of infrastructure asset management, with many respondents arguing that existing assets are not being used to their full potential. There was strong concern that infrastructure is often left to degrade due to short-term budget constraints, leading to costly reactive maintenance and reduced asset lifespans. Respondents emphasised the need for a shift towards a proactive, whole-of-life asset management approach that prioritises maintenance and optimisation, before considering new builds. The use of digital tools, predictive analytics, and advanced asset management technologies was also seen as essential to improving infrastructure efficiency and performance.

A significant portion of New Zealand's infrastructure is ageing. Improved asset management strategies are necessary to maintain and upgrade existing infrastructure, reducing waste and embodied carbon through optimised material reuse and refurbishment.
– Concrete New Zealand Incorporated

Given the affordability challenges for funding new infrastructure, we suggest making the most of existing infrastructure capacity should be a strong emphasis of the NIP. This is noted to some extent in the discussion document – especially through mention of pricing. We suggest the NIP expands this to also consider things like:

- *How growth could be better incentivised in areas with more infrastructure capacity and/or lower infrastructure costs.*
- *The importance of changing the use of infrastructure depending on time of day to meet different demands.*
- *Opportunities for technology to optimise existing infrastructure.*
- *The importance of small-scale agile improvements that can delay the need for major improvements.*

  – NZ Transport Agency Waka Kotahi

Transparency and accountability

A recurring concern raised by respondents was the lack of transparency and accountability in infrastructure decision-making, which has contributed to inefficiencies, cost overruns, and a lack of public trust. Many highlighted unclear governance structures, inconsistent project selection processes, and limited visibility over project pipelines and funding allocations as major barriers to effective infrastructure planning.

To improve transparency, respondents called for greater oversight and independent reviews of infrastructure projects, ensuring that investments are guided by objective decision-making criteria rather than political influence. Many suggested standardising infrastructure reporting and benchmarking practices, allowing for greater public access to project data and improving accountability for project outcomes. Establishing clearer roles and responsibilities between central and local government, along with stronger public engagement and consultation processes, was also seen as key to ensuring that infrastructure investments are strategic, evidence-based, and aligned with national priorities.

Implement transparent processes that allow for accountability and trust. Clear communication of goals, progress, and challenges is essential for building stakeholder confidence.
– Raukawa Charitable Trust

Transparent and accountable decision-making: investment decisions should be based on transparent processes and robust data, ensuring accountability and a solid evidence base to guide decisions about which projects provide the most value to communities and the economy in the long term.
– Rewiring Aotearoa

Regulatory and institutional frameworks

Regulatory inefficiencies, complex approval processes, and inconsistent frameworks were highlighted as key factors delaying infrastructure projects and driving up costs. The slow and fragmented consenting processes under the Resource Management Act (RMA) were widely criticised, with respondents calling for streamlining and standardising regulatory requirements across councils to improve efficiency. Many advocated for a more strategic, coordinated approach to infrastructure planning across government agencies, local councils, and industry stakeholders to reduce duplication and ensure better alignment between policy, funding, and project delivery.

Frequent changes in energy policies and resource management regulations can create uncertainty, making it challenging to plan long-term investments.
– Mercury NZ Limited

Rigid and outdated regulatory frameworks often lag behind technological advancements and emerging infrastructure needs. A more flexible and responsive regulatory framework is required to adapt to changes in technology, demand, and policy. This includes enabling regulatory sandboxes for innovation, streamlining approval processes, and aligning incentives with desired outcomes.
– Electricity Engineers' Association of New Zealand

Data, technology and innovation

The integration of data, technology, and digital tools into infrastructure planning was referenced to improve efficiency, reduce costs, and enhance long-term resilience. Respondents emphasised the need for better data collection, transparency, and standardised reporting to support evidence-based decision-making and ensure more effective infrastructure investment. Many highlighted that predictive analytics, digital twins, smart technology, and real-time monitoring could optimise asset management and improve long-term planning. However, fragmented and inconsistent data systems remain a significant barrier, limiting cross-sector coordination and preventing fully informed decision-making.

To fully realise the benefits of emerging technologies, respondents stressed the need for regulatory adaptability and digital capability building. They noted that current infrastructure planning does not adequately incorporate digital solutions, calling for greater effort to embed smart technologies, digital planning tools, and demand-side management into investment decisions. Additionally, there was strong support for open data policies and improved access to real-time information, enabling infrastructure providers to better monitor and manage network performance.

Digital transformation is significantly underrepresented in the plan and has the potential to affect every part of physical infrastructure, from alternative funding to maintenance budgeting, to optimising the build process.
– Government Chief Digital Office

More investment in Information systems development and taking a national approach with these projects. Useful IT developments are underway (e.g., NZTA's road data management standards, and DIA's support of Wellington City's underground asset project, as well as Forward Works Viewer). These have good potential to improve the administrative, physical, financial, economic and social impacts of infrastructure construction and maintenance.
– New Zealand Utilities Advisory Group

Collaboration and coordination

A consistent theme was the need for stronger collaboration and coordination across government agencies, regions, and the private sector to improve infrastructure planning and delivery. Many respondents emphasised the importance of better cross-agency coordination, particularly between central and local government, to align priorities, streamline decision-making, and ensure infrastructure investments are delivering maximum value. Transparency about planned projects and funding timelines was seen as essential to enabling private sector alignment and fostering more efficient infrastructure delivery.

Stakeholders also stressed the importance of collaborative contractual mechanisms that share risk and reward in a way that incentivises efficiency and budget adherence. Standardised data collection, shared asset management systems, and a national infrastructure pipeline were among suggestions to enhance coordination and reduce duplication across projects and regions.

We want a more a holistic approach focusing on outcomes with better coordination between government agencies, local councils, and private stakeholders with the aim of reducing fragmentation and delays.
– Property Council of NZ

A national plan needs to challenge infrastructure paradigms to avoid simply building ever increasing capacity using the same old models. A long-term holistic view should provide the basis for transformational change in supply as well as optimisation of delivery. Spatial plans are an important tool to support a long-term holistic view at a local level, and to help balance supply and demand and integrate and coordinate planning across sectors to enable effective investment to occur.
– Queenstown-Lakes District Council

New Zealand does not undertake integrated transport planning across all transport modes. Aviation is often not considered in terms of land transport connections. Remedying this would support higher quality and more efficient transport investment overall.
– NZ Airports Association Incorporated

Part two: Question analysis

Section one: Why do we need a National Infrastructure Plan?

Q1. What are the most critical infrastructure challenges that the National Infrastructure Plan needs to address over the next 30 years?

Key themes identified in the feedback:

1. Long-term, integrated infrastructure planning
2. Preparing for climate change
3. Investment pipeline
4. Workforce and capability
5. Asset management
6. Regulatory and planning processes
7. Transitioning to renewable energy

Long-term, integrated infrastructure planning

There was a strong consensus on the need to move away from reactive, short-term infrastructure planning toward a long-term, strategic, and integrated approach. Respondents emphasised the importance of developing a strategic vision that considers infrastructure's role in supporting economic growth, social well-being, and environmental sustainability over a longer period – beyond 30 years.

Shifting political priorities that can alter project priorities and cause delays.
– Orion New Zealand Limited

Preparing for climate change

Climate change mitigation and adaptation were identified as critical challenges, with respondents emphasising the need to reduce emissions, ensure assets can withstand climate impacts, and address the financial burden of adaptation. They called for greater certainty around funding mechanisms, investment priorities, and the integration of climate risk assessments into planning. Embedding resilience measures across all decision-making was seen as essential to minimise disruptions and economic losses.

A lack of nationally consistent climate data was also highlighted by some respondents as a significant barrier to effective planning and decision-making. Some respondents advocated for the creation of a centralised platform to provide reliable, accessible climate data and support evidence-based approaches.

Investment pipeline

Uncertainty and inconsistency in the investment pipeline were seen as major barriers to building a stable and capable industry, making it difficult to plan and deliver long-term projects efficiently. Fluctuating funding, rising costs of materials and labour, and limited borrowing capacity – particularly for local governments – place significant pressure on public resources. Many respondents emphasised the need for a more predictable and sustainable funding framework to provide greater certainty for infrastructure planning and delivery.

Suggestions included diversifying funding sources, improving procurement processes, and considering more user-pay models while ensuring costs remain fair and sustainable. The need for better prioritisation frameworks was also emphasised to avoid inefficient spending on projects with limited public benefit.

Workforce and capability

A recurring concern raised by respondents was the availability of skilled workers needed to deliver infrastructure projects. Respondents stated that workforce planning has not kept up with demand, leading to delays, higher costs, and capacity constraints across the sector. Key barriers identified include gaps in technical and trade skills, an ageing workforce, and a lack of diversity within the sector, all of which hinder effective infrastructure delivery.

Respondents stressed the need for greater investment in training and vocational education to develop a pipeline of skilled workers, particularly in engineering, construction, and digital infrastructure sectors.

One of the most pressing challenges is the persistent shortage of skilled workers across the vertical and horizontal construction sectors. In a talent-scarce market, and as the current workforce ages, this issue significantly constrains infrastructure delivery, leading to cost overruns and project delays.
– ConCOVE Tūhura

Asset management

Some respondents stated that ageing infrastructure and historical underinvestment have created vulnerabilities and inefficiencies. They emphasised the need to optimise and modernise existing assets through improved asset management and called for investments that deliver long-term economic, social, and environmental benefits, rather than focusing solely on new developments.

A number of respondents also stressed the importance of flexible and adaptive planning to address uncertainties such as demographic shifts, technological advancements, economic changes, and climate variability. They warned that rigid planning processes could limit infrastructure's ability to evolve with changing needs and risks. To ensure resilience and long-term relevance, respondents advocated for scenario planning, robust cost-benefit analysis, and adaptive management strategies.

Regulatory and planning processes

Regulatory and planning processes were widely seen as barriers to efficient infrastructure delivery. Respondents cited lengthy approval timelines, complex compliance requirements, and inconsistent regulatory frameworks as key challenges that slow down project implementation and increase costs. Some called for streamlining regulatory processes to enable more agile and responsive infrastructure delivery. Suggestions included harmonising planning regulations across different levels of government, reducing duplication in consultation processes, and leveraging digital tools to improve regulatory efficiency.

Transitioning to renewable energy

Respondents consistently identified energy infrastructure as a critical challenge, particularly in the transition to renewable energy. Many stressed that New Zealand's electricity grid is not equipped to handle increasing demand from the electrification of transport and industry, creating risks for energy security and reliability. Decarbonisation was seen as a central priority, with strong calls for investment in renewable generation, energy storage, and grid modernisation.

Today's 'just-in-time' approach to transmission and distribution network investment will stall low-cost renewable generation development and electrification, increasing emissions and net prices for consumers.
– Electricity Networks Aotearoa

Range of views

While there was broad consensus on the major challenges, some areas of divergence emerged. For example, opinions varied on the role of private sector involvement, with some advocating for increased government intervention to ensure public benefit, while others emphasised the importance of private investment and market-driven solutions.

Q2. How can te ao Māori perspectives and principles be used to strengthen the National Infrastructure Plan's approach to long-term infrastructure planning?

Key themes identified in the feedback:

1. Māori values and mātauranga Māori
2. Māori partnership and participation
3. Long-term, intergenerational planning

Māori values and mātauranga Māori

Some respondents highlighted the importance of incorporating Māori values and mātauranga Māori into infrastructure planning to guide infrastructure decisions that align with cultural, environmental, and social priorities.

Incorporating te ao Māori principles into the National Infrastructure Plan can enhance long-term infrastructure planning by fostering sustainability, community connection, and intergenerational responsibility.
– Christchurch City Council (staff submission)

Māori partnership and participation

It was highlighted that there is a need for strong, enduring partnerships with Māori at all stages of infrastructure planning and decision-making. Respondents emphasised that Te Tiriti o Waitangi (Treaty of Waitangi) obligations must be honoured, with Māori playing an active role in co-governance, co-design, and co-management of infrastructure projects.

Early and ongoing engagement with iwi and hapū was identified as critical to ensuring that infrastructure solutions align with Māori priorities and deliver long-term benefits to Māori communities. Many respondents also called for capacity-building initiatives to support greater Māori participation in the infrastructure sector, building career pathways and leadership opportunities.

Long-term, intergenerational planning

Some respondents highlighted the alignment between Māori worldviews and the need for long-term, intergenerational planning in infrastructure development. Some respondents also stated that Māori principles encourage a perspective that prioritises sustainability and considers the needs of future generations, contrasting with short-term, cost-driven decision-making approaches. Respondents stressed the importance of incorporating adaptive and flexible planning frameworks that can evolve with changing environmental and societal needs. By embedding intergenerational thinking into infrastructure planning, respondents stated that projects can deliver enduring value and resilience.

Applying a te ao Māori intergenerational perspective will underpin the importance of genuine long-term planning, and hopefully reduce the impacts of our election cycle on the Infrastructure Agency cycles of work planning, budget planning and delivery.
– Nelson Regional Development Agency Limited

Range of views

While most respondents supported the integration of te ao Māori perspectives, a small number expressed concerns about the prioritisation of Māori values over other cultural perspectives. Some argued that infrastructure planning should consider the views of all New Zealanders equally.

Section two: Long-term expectations

Q3. What are the main sources of uncertainty in infrastructure planning, and how could they be addressed when considering new capital investments?

Key themes identified in the feedback:

1. Long-term infrastructure certainty
2. Technological change
3. Climate-related risks
4. Impacts on infrastructure planning
5. Changing population patterns, urbanisation trends, and evolving community expectations

Long-term infrastructure certainty

Frequent changes in policy direction, regulatory frameworks, and funding commitments were seen as significant barriers to long-term infrastructure planning. Respondents advocated for a depoliticised approach to infrastructure investment, with calls for cross-party agreements and long-term strategic frameworks that extend beyond electoral cycles.

The political cycle – changes in policy regarding funding, environmental and health standards, even matters such as building codes and immigration policy standards can all impact the demand for and nature of the investment.
– Taituarā Charitable Trust

Technological change

Rapid technological advancements, particularly in energy and digital infrastructure, were seen by respondents as presenting both opportunities and challenges. Respondents noted the difficulty in predicting which emerging technologies will become viable and how best to integrate them into existing infrastructure systems. Respondents called for infrastructure designs and regulation that are flexible and adaptable to accommodate future technological changes and ensure longevity in investments.

Climate-related risks

Respondents frequently raised concerns about the increasing impact of climate change on infrastructure resilience. Extreme weather events, rising sea levels, and the growing need for managed retreat were identified as significant challenges. Many respondents noted that current infrastructure planning does not adequately account for long-term climate risks, which could lead to costly retrofits or premature obsolescence of assets. There was also concern that uncertainty around environmental policy and regulations contributes to delays in decision-making and investment.

There is significant uncertainty with forecasting the scale and timing of climate change impact.
– BECA Limited

Impacts on infrastructure planning

Many respondents pointed to financial uncertainty as a critical challenge in infrastructure planning. The availability of funding, fluctuations in government investment priorities, and the absence of a long-term infrastructure pipeline were common concerns. Some respondents noted that short-term funding cycles at both central and local government levels prevent effective long-term planning, while others raised

concerns about the increasing costs of materials and labour. The risk of cost overruns and project delays due to uncertain financial commitments was also frequently mentioned.

Changing population patterns, urbanisation trends, and evolving community expectations

Respondents highlighted the need for improved data collection and scenario-based planning to better align infrastructure investments with future demographic trends. Addressing regional disparities and ensuring infrastructure meets the needs of rural and Māori communities were also identified as priorities.

Range of views

Whilst some respondents prioritised economic growth and infrastructure investment as drivers of national prosperity, arguing that efficient infrastructure should enable productivity and economic expansion, others placed greater emphasis on sustainability, resilience, and climate adaptation, expressing concerns that economic growth-focused infrastructure investments could lead to environmental degradation or lock-in high-emission pathways.

There was also a divide between some emphasising the importance of local decision-making, arguing that local councils and communities are best placed to determine infrastructure needs, while others criticised the fragmented nature of local decision-making, stating that a more centralised, coordinated approach would prevent localised priorities from overshadowing national interests and ensure a more strategic allocation of resources.

Section three: Existing investment intentions

Q4. How can the National Infrastructure Pipeline be used to better support infrastructure planning and delivery across New Zealand?

Key themes identified in the feedback:

1. Integrated infrastructure planning and prioritisation
2. Strategic focus
3. Accountability and transparency
4. Collaboration and coordination across sectors
5. Workforce planning

Integrated infrastructure planning and prioritisation

Respondents emphasised the need for the Pipeline to support a centralised framework for assessing and prioritising infrastructure investments based on national and regional needs. A more consistent and evidence-based approach to project selection was seen as crucial to ensuring that infrastructure investment is strategic, efficient, and aligned with long-term goals. Several respondents noted that aligning planning efforts across government levels and sectors would help reduce duplication and promote more effective use of resources.

Strategic focus

Respondents emphasised the need for the Pipeline to reflect long-term certainty and stability, independent of short-term political cycles, to enable effective infrastructure planning and delivery. Many highlighted that frequent shifts in government priorities undermine investor confidence, create inefficiencies and a lack of certainty for both public and private sector stakeholders.

Effective and efficient delivery requires a visible forward pipeline. Having a National Infrastructure Pipeline that goes beyond political cycles will be important for the sector to have the confidence to invest in their people and technology we need to deliver on these projects.
– ACE New Zealand

Accountability and transparency

A recurring theme in the feedback received was the importance of ensuring that the Pipeline remains transparent and accessible to all stakeholders. Respondents advocated for a more user-friendly and regularly updated system that provides clear insights into project timelines, costs, and progress. Standardising data reporting formats and ensuring the visibility of infrastructure projects were seen as critical to building trust and facilitating better planning.

Collaboration and coordination across sectors

Many respondents highlighted the potential of the Pipeline to foster greater collaboration between central and local government, iwi, and private sector stakeholders. Improved coordination was seen as essential to achieving synergies across infrastructure projects, sharing resources, and leveraging joint procurement opportunities. The establishment of formal mechanisms to support cross-sector partnerships was suggested to ensure alignment and consistency in infrastructure delivery.

Having a shared view across central and local government alongside the private sector will help ensure that there is appropriate sequencing of works and maximum pricing efficiency. However, it's not clear what the mechanism is to 'negotiate' a sequenced pipeline, and this is something the Commission might like to consider.
– Department of Internal Affairs

Workforce planning

Respondents stated the Pipeline has a role to play in workforce planning by providing long-term visibility over project pipelines. This can help businesses, training institutions, and government agencies plan for skills development and workforce retention. It was noted that gaps between projects could result in workforce attrition, with skilled workers moving to other sectors or countries, undermining infrastructure delivery capabilities.

The pipeline would better enable the private sector to develop the necessary skills and workforces required to deliver infrastructure projects, albeit there is likely a role for central government in this regard too. Having increased certainty about what projects and where will be invested in and delivered would allow the private sector to better understand the gaps, where opportunities may exist for investment etc.
– Packaging Council of New Zealand

Range of views

While many contributors stated that they support the long-term outlook provided by the Pipeline, some highlighted the risk of locking into projects that may become obsolete due to unforeseen changes, reflecting a tension between the need for stability and need for flexibility.

While there was broad agreement on the need for transparency, there were differing suggestions on how this should be achieved, including geospatial mapping, standardised reporting formats, or enhanced user interfaces for public and private stakeholders.

Section four: Changing the approach

Q5. Are we focusing on the right problems, and are there others we should consider?

Key themes identified in the feedback:

1. Many respondents expressed support for the existing focus areas outlined in the discussion document.
2. Additional considerations highlighted included:
    a. Strategic asset management
    b. Resilience and climate adaptation
    c. Leadership and technical expertise
    d. Procurement processes
    e. Other considerations

Strategic asset management

Respondents emphasised the need for a more strategic and proactive approach to asset management. Some stated that infrastructure assets are often 'sweated' past their intended lifespan, leading to costly reactive maintenance. They argue that long-term investment and planning should ensure infrastructure is maintained efficiently rather than left to degrade. This includes incorporating whole-of-life costs into decision-making and ensuring that infrastructure investments are sustainable over decades, not just in the short term.

Resilience and climate adaptation

Respondents agreed that resilience must be embedded in infrastructure planning, not just to mitigate immediate climate risks but to withstand long-term global disruptions, from supply chain failures to geopolitical instability. Many respondents supported proactive land-use planning to prevent development in high-risk areas rather than relying on costly retrofitting later. Calls for integrating biodiversity, water quality, and nature-based solutions into infrastructure planning were strong, with some noting that resilience and efficiency should be treated as equally critical. Energy security, particularly decentralised and renewable generation, was highlighted as an overlooked aspect of resilience.

Nature-based solutions and demand side management are beneficial and valid infrastructure solutions. – Urban Development Institute New Zealand

Leadership and technical expertise

The lack of availability of skilled workers and technical expertise was identified as a key barrier to effective infrastructure delivery. Respondents emphasised the need for investment in workforce development, ensuring a pipeline of skilled workers. Better leadership at both local and national levels was also flagged, with calls for stronger governance, executive-level infrastructure leadership roles, and even appointing commissioners where councils lack expertise.

The pipeline of technical experts developed by government agencies such as the Ministry of Works and Development started to dry up in the 2000s. There are some lost skills that are starting to cost us dearly and the people who don't have them don't realise they don't! While we need to improve all phases of our infrastructure delivery, we need to seriously consider how we up skill our delivery workforce and those that manage them to ensure the right treatment selections are being made and optimal whole-of-life performance and costs are being achieved.
– AMSAAM Limited

Procurement processes

Some respondents stated that procurement processes need to be improved to encourage efficiency, innovation, and fair competition. Some respondents also supported breaking down projects into different market sectors to ensure that firms of all sizes can participate. Some also argued that alternative procurement models, such as allowing for more flexible and adaptive contracts, would improve outcomes.

Other considerations

Although not dominant, the following sub-themes also emerged:

- increased investment and focus on digital transformation to enhance maintenance, real-time planning, and asset management
- using electrification, distributed energy solutions, and demand-side management to improve resilience
- expanding the focus beyond climate resilience to encompass biodiversity protection, water quality improvements, and equitable access to services.

The relationship between infrastructure and biodiversity should be considered much more in infrastructure planning.
– Forest & Bird New Zealand

Q6. What changes would enable better infrastructure investment decisions by central and local government?

Key themes identified in the feedback:

1. Strategic investment decisions
2. Transparency and accountability in infrastructure investment decision-making processes
3. Governance and decision-making frameworks
4. Coordination and collaboration between central and local government
5. Communication and transparency with the public
6. Funding and financing models

Strategic investment decisions

Respondents emphasised the need for a long-term infrastructure vision that extends beyond political cycles. They stated that infrastructure planning should look 30 to 50 years ahead to align with future population growth, climate resilience, and economic needs. Many respondents stated that shorter-term, reactive planning driven by election cycles leads to inefficiencies and missed opportunities. Many suggested that cross-party agreements and whole-of-government coordination would help shield major projects from political shifts, ensuring continuity and stability.

Transparency and accountability in infrastructure investment decision-making processes

Respondents advocated for decisions informed by robust business cases, cost-benefit analyses, and lifecycle cost considerations. Improved transparency, including open reporting and post-implementation reviews, was seen as essential to maintaining public trust and ensuring accountability. Respondents highlighted the importance of objective frameworks to prioritise high-value projects and prevent ad hoc or politically influenced decisions.

Accountability for outcomes, through regular, consistent post-completion reviews which track benefits realisation are critical for informing continuous learning for better broader outcomes. Such reviews are encouraged for all projects and programmes of national significance, both for new and existing asset maintenance.
– Infrastructure Sustainability Council

Governance and decision-making frameworks

Many respondents highlighted concerns about inconsistent governance structures across central and local government. They pointed to the need for better oversight, transparency, and accountability in infrastructure decision-making. Suggestions included clearer delegation of responsibilities between central and local government, standardised procurement and governance frameworks, and independent oversight to ensure that investment decisions are evidence-based rather than politically driven. There was strong agreement that improving governance standards would lead to better long-term infrastructure outcomes.

We suggest that the National Infrastructure Plan ensures that the procurement process is not only standardised but also adopted from the initial stages of these projects. This will ensure that stability and consistency may be safeguarded early on, and across both central and local government. Taking the necessary time to plan and understand project options and details at their inception mitigates against the risk of these projects costing more or taking longer to complete than first anticipated.
– Reflective Construction Law

Coordination and collaboration between central and local government

Many respondents agreed that infrastructure planning needs to be better integrated across the transport, housing, water, and energy sectors. They called for a more holistic approach to avoid fragmented projects and ensure that different infrastructure components are aligned. Improved cross-sector collaboration between central and local government, private sector partners, and communities was seen as critical to making investment decisions that provide maximum economic, social, and environmental benefits.

Communication and transparency with the public

Respondents indicated that infrastructure decisions should be better informed by public needs and priorities. They advocated for more meaningful community engagement, particularly with Māori and underrepresented groups, to ensure infrastructure serves a diverse range of users. There were suggestions of co-designing projects with local communities to enhance social and environmental outcomes and improve public trust in infrastructure planning.

Funding and financing models

There was broad agreement that the current infrastructure funding and financing system lacks long-term certainty, resulting in inefficiencies in planning and delivery. Respondents identified short-term and

reactive funding cycles, poor alignment between investment and infrastructure needs, inflexible funding and financing mechanisms, and weak procurement practices as key contributors to inefficiency. Many called for predictable, long-term funding streams, clearer prioritisation frameworks, and stronger governance to ensure funding decisions are evidence-based, strategic, and provide the best long-term value for New Zealand.

Respondents also suggested exploring alternative funding and financing models, including greater private sector involvement and user-pays systems, to ensure financial sustainability.

The NIP needs to support more innovative funding and financing mechanisms (e.g. making private financing of public infrastructure more attractive) that will enable more infrastructure to be built.
– Hamilton City Council

Q7. How should we think about balancing competing investment needs when there is not enough money to build everything?

Key themes identified in the feedback:

1. Infrastructure investment decisions
2. Maintenance and renewals
3. Alternative funding and financing mechanisms
4. Innovation and digital solutions

Infrastructure investment decisions

A recurring theme across the responses was the need for a transparent and consistent framework to guide infrastructure investment decisions. Many submissions emphasised the importance of evaluating projects based on factors such as cost, risk, performance, social and cultural benefits, economic returns, and alignment with national priorities. Tools such as cost-benefit analysis and multi-criteria assessment, were frequently cited as effective methods to ensure investments are targeted where they will deliver the greatest value.

Maintenance and renewals

Several responses stressed the importance of prioritising the maintenance and optimisation of current infrastructure before considering new investments. By focusing on extending the lifespan and efficiency of existing assets, governments can maximise the value of previous investments while avoiding costly replacements.

Alternative funding and financing mechanisms

A significant theme was the need to diversify funding and financing sources beyond traditional government allocations. Respondents proposed greater use of public-private partnerships (PPPs), user-pays models such as road tolls and congestion pricing, and asset recycling (selling or leasing underutilised assets to fund new infrastructure). Some also supported leveraging long-term debt financing to fund intergenerational infrastructure projects while ensuring that financial sustainability is maintained.

Innovative financing mechanisms are required to address the funding constraints associated with infrastructure delivery.
– Tauranga City Council

Innovation and digital solutions

Some respondents suggested that investment prioritisation could be improved through better use of digital modelling, data analytics, and emerging technologies. Spatial planning tools, scenario modelling, and predictive maintenance technologies were identified as ways to improve decision-making and optimise infrastructure spending.

Q8. How can we improve leadership in public infrastructure projects to make sure they're well planned and delivered? What's stopping us from doing this?

Key themes identified in the feedback:

1. Long-term infrastructure planning
2. Decision-making and accountability
3. Leadership and workforce capabilities
4. Collaborating with industry

Long-term infrastructure planning

Respondents consistently highlighted the need to reduce the influence of short-term political cycles on infrastructure decision-making. Many noted that frequent changes in government priorities, the revisiting of approved projects, and delays caused by election cycles create uncertainty, inefficiencies, and disruptions to long-term infrastructure delivery. There was broad support for a cross-party, long-term approach to infrastructure planning that provides stability, ensures continuity across electoral terms, and minimises politically driven project delays.

Decision-making and accountability

Some respondents identified governance challenges as a barrier to effective infrastructure delivery, pointing to unclear decision-making processes, a lack of accountability, and governance boards that are not always equipped with the necessary expertise. They emphasised the need for clearer roles and responsibilities, greater transparency, and independent oversight to ensure infrastructure projects remain aligned with long-term objectives rather than being influenced by short-term political pressures.

Leadership and workforce capabilities

There was widespread agreement that infrastructure projects in New Zealand suffer from a lack of experienced and skilled leaders. Respondents stated that many internal agency teams lack the expertise to manage large-scale projects, as business-as-usual (BAU) models do not translate effectively to complex infrastructure delivery. Many suggested targeted investments in leadership training, qualifications, and mentoring programmes to build the necessary skills for project leadership. Additionally, ensuring clear career pathways and attracting diverse talent into the sector were seen as critical for addressing long-term workforce shortages.

While construction sector expertise remains challenged, greater focus needs to be given to the planning, procurement and financing capability that is needed before a project is 'shovel ready'. Ensuring New Zealand has the appropriate expertise in these areas will be integral if the projects in New Zealand's infrastructure pipeline are to come to fruition.
– ASB Bank Limited

Collaborating with industry

A recurring theme in responses was the need to involve suppliers, contractors, and delivery teams earlier in the project planning process. Many respondents believe that procurement and governance structures often exclude those with direct project delivery experience, leading to inefficiencies and cost escalations. Greater engagement with industry experts at the outset of projects was seen as a way to improve feasibility assessments, risk identification, and overall project execution.

Q9. How can we build a more capable and diverse infrastructure workforce that draws on all of New Zealand's talent?

Key themes identified in the feedback:

1. Infrastructure projects pipeline
2. Education and training opportunities
3. Diversity and inclusion
4. Building workforce capabilities

Infrastructure projects pipeline

Respondents highlighted the need for a stable and predictable pipeline of infrastructure projects to retain talent and avoid the detrimental impacts of a boom-bust cycle. A consistent flow of work, paired with clear long-term planning, was seen as essential to provide market confidence and encourage workforce development.

Education and training opportunities

Respondents highlighted the need to incentivise training and upskilling through subsidised programmes and by leveraging technical expertise. Enhanced funding and targeted incentives, such as student loan write-offs or fee assistance, were recommended to address skill shortages in priority areas. Partnerships between industry and educational institutions were also seen as essential to align training with workforce needs.

We need to train more Engineers and Project Managers. Industry has proven itself capable of training and delivering skilled workers (builder, roadworkers etc) if there is a visible plan of work ahead of it. However, those with the necessary technical skills to plan and deliver complex jobs are always in short supply.
– Higgins Family Holdings Limited

Diversity and inclusion

Some respondents noted that women, Māori, Pasifika, and other underrepresented groups remain significantly underrepresented in infrastructure-related roles. Respondents emphasised the need for proactive recruitment campaigns, mentorship programmes, leadership pathways, and inclusive workplace practices to address this imbalance. Partnerships with iwi, community organisations, and educational institutions were highlighted as essential to reaching a broader talent pool, alongside incorporating Māori perspectives into training programmes and promoting diversity in leadership roles.

Improving diversity is critical to building the workforce needed.
– Powerco Limited

Building workforce capabilities

Respondents emphasised the importance of dedicated funding streams, such as ring-fenced contributions from project budgets or portions of government funding, to be invested in training, apprenticeships, and career pathways. Investing in education, professional development, and career progression pathways was seen as essential to fostering leadership and sustaining the sector's long-term capability.

Q10. What approaches could be used to get better value from our infrastructure dollar? What's stopping us from doing this?

Key themes identified in the feedback:

1. Procurement and contracting
2. Standardised designs
3. Infrastructure investment pipelines
4. Transparency and accountability
5. Long-term asset management
6. Regulatory processes

Procurement and contracting

Respondents recommended greater use of standard contracts without unnecessary variations, which drive up costs and delay projects. Additionally, moving away from lowest-price conforming tenders and focusing on best value over time was flagged to prevent contractors from underbidding and later recovering costs through variations.

Standardised designs

A recurring theme in responses was the need for greater use of standardised designs, particularly for repeatable infrastructure such as schools, water treatment plants, and roads. Respondents argued that custom designs introduce unnecessary complexity and costs. By adopting modular and scalable approaches, infrastructure projects can be delivered more efficiently.

Greater use of standardised design for repeatable projects: There are many examples – such as schools, water treatment – where there is no need for variation which causes additional costs.
– Engineering New Zealand

Infrastructure investment pipelines

The stop-start nature of infrastructure projects was frequently noted, with respondents highlighting that investment certainty is key to reducing risk pricing and inefficiencies. A steady infrastructure pipeline was supported to improve cost efficiency by giving suppliers confidence to invest in skills, equipment, and innovation.

Transparency and accountability

Respondents highlighted the importance of transparency in project costs, risk allocation, and procurement processes. They argued that better benchmarking against international best practices, improved cost-benefit analysis, and clearer reporting would drive better decision-making. Many respondents also called for infrastructure planning to be more data-driven, leveraging digital tools and modelling to optimise investment decisions.

Long-term asset management

Some respondents stated that there is a need to move away from a lowest-capex approach to infrastructure investment and instead consider whole-of-life costs. Respondents highlighted the importance of long-term maintenance planning and investment in durable, high-quality infrastructure to reduce lifecycle costs. They also advocated for the use of digital tools, such as predictive analytics and asset management technologies, to optimise infrastructure performance and reduce reactive maintenance costs.

Having a clear programme for infrastructure maintenance would be key to extend the lifespan of government's infrastructure investments.
– New Zealand Aged Care Association

Regulatory processes

Many respondents stated that regulatory processes, particularly resource consenting, create unnecessary costs and delays. Many respondents suggested that complexity and inconsistency of consenting across different local authorities lead to inefficiencies and increased project costs. There was strong agreement that streamlining these processes, aligning them with national infrastructure priorities, and removing redundant regulatory barriers would improve outcomes. Additionally, excessive temporary traffic management costs are raised as an area where reform is needed to ensure safety while reducing unnecessary expenditure.

Q11. What strategies would encourage a better long-term view of asset management and how could asset management planning be improved? What's stopping us from doing this?

Key themes identified in the feedback:

1. Whole-of-life asset management
2. Financial resourcing for asset management
3. Data, technology, and digital tools
4. Regulatory and funding and financing frameworks

Whole-of-life asset management

A consistent theme in the responses was the need to move away from short-term infrastructure decision-making and towards a whole-of-life asset management approach. Respondents noted that maintenance is often deferred due to budget constraints and a lack of dedicated maintenance funding streams, leading to higher costs and increased failure risks.

Roundtable participants found that a mandatory requirement to take a whole-of-life approach to designing and costing new assets would be useful, particularly in the local government sector. The expense of ongoing maintenance/opex is often given lip-service in the race to deliver the lowest capital cost solution. The current approach generates a legacy of costly maintenance requirements in an environment where maintenance funding is stretched, so assets are sweated to the point of failure.
– Office of the Parliamentary Commissioner for the Environment

Financial resourcing for asset management

Some respondents stated that the lack of skilled asset management professionals within central and local government and across the infrastructure sector is widespread. Some respondents suggested that the capability gap is exacerbated by limited financial resources, making it difficult for agencies to hire and train personnel needed for long-term asset management. Respondents recommended centralised funding for training, competency requirements for asset management roles, and broader workforce development initiatives to build expertise across government and local councils.

Asset management must be viewed as a strategic function, with appropriate skills, resources, and funding.
– New Zealand Defence Force

Data, technology, and digital tools

Some respondents highlighted that poor data quality and a lack of standardised reporting hinder effective asset management. Some respondents called for improved asset data collection, predictive analytics, and digital tools such as digital twins to enhance planning and decision-making.

Developing consistent data standards across the different sectors to ensure this information is reliable and of a consistent standard.
– Otago Regional Council

Where there are not enough skilled workers to maintain roads, tech can provide the ability for project managers to check issues remotely, or to oversee safety in facilities.
– NZTech

Regulatory and funding and financing frameworks

Some respondents noted that regulatory and funding and financing settings do not always support long-term asset management. They highlighted that many agencies are constrained by short-term budgeting cycles, inconsistent regulatory requirements, and sector-specific silos. Respondents suggested things like mandatory asset management plans, clearer prioritisation frameworks, and minimum asset management maturity standards to ensure consistency across sectors.

Q12. How can we improve the way we understand and manage risks to infrastructure? What's stopping us from doing this?

Key themes identified in the feedback:

1. Data collection, integration, and sharing
2. Proactive approach to risk management
3. Governance and coordination
4. Consistent regulatory framework

Data collection, integration, and sharing

Respondents emphasised the need to enhance data collection, integration, and sharing to strengthen infrastructure risk management. A consistent theme in responses was the lack of comprehensive, standardised, and accessible data on natural hazards, asset conditions, and infrastructure interdependencies, which poses a significant challenge to effective risk assessment and mitigation. Respondents highlighted the importance of establishing national standards, frameworks, and platforms to facilitate data sharing and collaborative risk analysis across sectors and stakeholders. Advanced data

capabilities, including digital twins, predictive analytics, and satellite monitoring, were identified as tools that can enhance forecasting and resilience planning.

Risk to infrastructure, like risks to other sectors of society, should be evaluated through a comprehensive understanding of all potential hazards and threats. Although risk assessments are often hindered by limited data and informal processes, it is still crucial to assess risk based on the available information.
– National Emergency Management Agency

Proactive approach to risk management

Many respondents emphasised the need to shift from a reactive to a proactive approach in risk management. There was strong support for embedding resilience into infrastructure planning, ensuring that new assets are designed with redundancy, modularity, and adaptability to withstand future shocks. Some raised concerns that resilience is often treated as an afterthought or an additional cost, rather than an essential investment. Nature-based solutions and ecological infrastructure were recommended as cost-effective and sustainable ways to mitigate risks before they escalate into crises.

Green infrastructure (systems of natural and built components designed to provide a range of ecosystem services, for example, water quality, biodiversity, urban cooling) is not always well captured by business case process or plans focused on conventional, grey utilities. Green infrastructure delivers multiple, non-monetary benefits.
– Water New Zealand Limited

Governance and coordination

A recurring concern was the lack of clear leadership and coordination in managing infrastructure risks. Many respondents highlighted that responsibility for climate adaptation, resilience, and hazard management is currently fragmented across multiple agencies, leading to inefficiencies, slow responses, and missed opportunities for proactive risk reduction. While some suggested that a lead agency or independent body could provide national oversight, others emphasised that the current discussion overestimates the role of central government in managing natural hazard risks.

Respondents pointed out that local government plays a critical role in land-use planning, natural hazard management, and infrastructure investment, yet this is often overlooked in national strategies. Strengthening collaboration between central government, local government, insurers, and private infrastructure owners was seen as essential to ensuring a more effective and coordinated approach to resilience planning – one that recognises and empowers local government to act within a clear national framework.

Consistent regulatory framework

Respondents consistently highlighted that New Zealand's lack of a nationally consistent regulatory framework for risk and resilience is a critical barrier to effective infrastructure planning. Respondents noted that without clear, enforceable national standards, infrastructure continues to be built in high-risk areas, and decision-making is fragmented across central and local government and asset owners. Many respondents called for stronger national policies on climate adaptation, managed retreat, and land-use planning to ensure infrastructure investment aligns with long-term risk reduction rather than short-term development pressures.

Be consistent across regulatory regimes dealing with issues such as emergency management, resilience, and resource management.
– Enable Networks Limited

Q13. How can we lower carbon emissions from providing and using infrastructure? What's stopping us from doing this?

Key themes identified in the feedback:

1. Low-emission transport alternatives
2. Electrification and renewable energy
3. Sustainability in procurement and materials
4. Regulatory settings
5. Digital and smart infrastructure

Low-emission transport alternatives

Some respondents noted that New Zealand's transport system is a major source of emissions, and current investment priorities favour roads and cars over lower-carbon alternatives. Respondents highlighted the need for improved public transport, electrified rail, cycling, and walking infrastructure to provide viable alternatives. Congestion and car dependency were identified as major contributors to emissions, with calls for long-term planning and policy continuity beyond election cycles to ensure sustainable transport solutions.

Given transport emissions is our largest contributor to emissions reduction, it is important to decrease the need for carbon-intensive transportation and improve energy efficiency in the long-term by ensuring quarries are close to their markets, thus significantly reducing transport costs, transport congestion and carbon emissions.
– Aggregate and Quarry Association of New Zealand

Electrification and renewable energy

Respondents highlighted that New Zealand's transition to a low-carbon future depends on expanding renewable energy generation and electrification. Many respondents stressed the need for greater investment in solar, wind, and geothermal energy, but noted regulatory and investment barriers are slowing the pace of deployment.

While the focus is on expanding renewable energy, some respondents raised concerns regarding insufficient planning for backup generation which could threaten energy security. Some respondents emphasised some level of fossil fuel backup may still be necessary to ensure a stable electricity supply during periods of low renewable output, such as dry years.

Sustainability in procurement and materials

Some respondents discussed how infrastructure providers and clients must actively request lower-carbon design alternatives, yet many procurement teams lack the technical expertise to specify these requirements confidently. Respondents noted that this knowledge gap leads to inefficiencies, higher costs, and missed opportunities for emissions reduction.

Another challenge identified by respondents is the absence of standardised guidelines for assessing carbon footprints in procurement decisions, making it difficult for local authorities to align their practices with climate commitments. Respondents suggested that early-stage carbon planning, supported by clear tools and guidance, is essential to integrating emissions reduction into project lifecycles.

Regulatory settings

Some respondents highlighted that regulatory settings do not currently incentivise decarbonisation. In addition, some highlighted that current infrastructure regulations and funding priorities favour emissions-intensive projects, such as expanding road networks.

Some respondents suggested amending the Commerce Act 1986 to integrate climate considerations into economic regulation and argued that natural monopolies, such as electricity distribution and transport networks, are not currently incentivised to prioritise decarbonisation.

Long-term carbon pricing and incentives were seen as necessary to drive systemic change in infrastructure planning and investment.

Vector submits that the Commerce Act 1986 needs to be amended to take climate change into account. Vector's view is that the existing economic regulatory regime was designed in and for a business-as-usual regime and is not fit for purpose to manage the complexity of the decarbonisation transition.
– Vector Limited

Digital and smart infrastructure

Respondents noted that current infrastructure planning does not fully account for the role of digital solutions, and more effort is needed to embed smart technologies, digital planning tools and demand-side management into infrastructure investment decisions. There was also a call for open data policies and improved access to real-time information, allowing infrastructure providers to better measure and manage carbon emissions across their networks.

Q14. Are any changes needed to our infrastructure institutions and systems and, if so, what would make the biggest difference?

Key themes identified in the feedback:

1. Long-term approach to infrastructure planning
2. Coordination and integration across government and sectors
3. Building workforce capabilities
4. Adaptive regulatory settings

Long-term approach to infrastructure planning

There was strong support for a long-term, cross-party approach to infrastructure planning, with less reliance on short-term political decision-making. Many respondents argued that frequent shifts in policy direction undermine stability, particularly in transport and energy sectors.

Critical to the success of the National Infrastructure Plan is bipartisan support to ensure it will endure across political cycles.
– Energy Resources Aotearoa Incorporated

Coordination and integration across government and sectors

Respondents emphasised the need for greater coordination and integration between government agencies to prevent silo mentality, reduce duplication, improve communication, and ensure infrastructure projects are delivered efficiently. They called for clearer role definitions and stronger

collaboration mechanisms across local and central government, infrastructure providers, and regulatory bodies.

The Commission correctly identifies that New Zealand has significant issues with the efficiency of our infrastructure spending. One source of that inefficiency is siloed thinking that arises from individual councils and companies, (who are also often prevented from collaboration by the Commerce Act), making decisions based purely within their own regional boundary.
– Flightplan2050 Incorporated

Building workforce capabilities

There was a recurring concern that infrastructure decision-makers often lack necessary expertise in planning, funding and governance. Respondents emphasised the importance of investing in workplace training and education to ensure the necessary skills and capabilities are in place to deliver effective and sustainable infrastructure projects.

Adaptive regulatory settings

Some respondents noted that current regulatory frameworks can be overly complex, risk-averse, and slow-moving, which can create unnecessary barriers to progress, innovation, and investment. Several respondents showed strong support for planning and consenting reforms to reduce costs and delays, alongside a shift in regulatory priorities to incentivise long-term infrastructure investment. Respondents also highlighted the importance of flexible regulatory models that allow for piloting new approaches and supporting innovation without excessive red tape.

In our view regulatory settings across economic and environmental perspectives need to remove risk of duplication, such as relitigating options when considered under the Commerce Act and the Resource Management Act; and a greater use of more flexible and adaptive codes of practice rather than prescriptive rules.
– Transpower New Zealand Limited

Q15. How can best practice network pricing be used to provide better infrastructure outcomes?

There was broad agreement among respondents on the importance of network pricing in improving infrastructure outcomes. However, there were a range of views on how it should be applied in practice as described below:

1. **Cost-reflective pricing:** several submissions emphasised the importance of implementing cost-reflective pricing that ensures users pay the true cost of infrastructure use, promoting efficient usage and investment.

2. **The need for a balanced approach between user-pays and equity:** while there was recognition that user-pays models can improve efficiency, respondents emphasised they must be carefully designed to prevent affordability and access issues, particularly for essential services like water, transport and electricity.

While road tolls and the user-pays model can effectively raise funds, they may also create barriers for some individuals trying to access new infrastructure. Also, most infrastructure spending tends to focus on the same areas, leaving many parts of New Zealand without investment. This is particularly problematic for high-deprivation communities, which often include populations with lower levels of physical activity – groups we aim to engage through our work.
– Sport New Zealand

3. **The need for transparency and public trust in pricing mechanisms:** there was clear agreement that metering, road pricing and other charges require public buy-in, which some respondents stated can only be achieved through clear communication, accountability and independent oversight.

4. **The extent of user-pays models:** while many agreed that user-pays approaches can be beneficial, there was debate over where they should be applied (e.g., toll roads, water services) and the balance between direct user charges and socialised costs.

5. **Exploring alternative funding and financing mechanisms**: there was recognition that relying solely on Crown support is not feasible, and alternative funding options, like tolling, and financing options, such as PPPs, should be explored to address infrastructure needs. However, some respondents noted that private sector involvement needs to be carefully managed to ensure long-term public benefit and avoid excessive cost burdens on users.

We believe that land transport investment should be funded, to a large extent through a combination of PPPs, tolling and time of use charging, while PPPs should be considered as possibilities for investments in other classes of public infrastructure.
– Business New Zealand

Q16. What regulatory settings need to change to enable better infrastructure outcomes?

Key themes identified in the feedback:

1. Consenting process
2. Spatial planning
3. Private sector involvement
4. Sustainability and resilience in regulatory settings
5. Specific regulatory changes

Consenting process

A dominant theme among respondents was the need to simplify and accelerate the consenting process, particularly under the Resource Management Act (RMA). Many stated that the current system is overly complex, slow, and inconsistent across different councils, leading to unnecessary costs and delays in infrastructure delivery. There was strong support for simplifying and accelerating consenting processes, ensuring consistency across councils, and reducing duplication in approvals. A portfolio approach – approving multiple projects under a single consent – was suggested to improve efficiency.

One of the key barriers to the efficient delivery of telecommunications infrastructure is the resource consenting process under the Resource Management Act 1991.
– Connexa Limited

Spatial planning

Respondents advocated for legislated spatial planning to improve infrastructure outcomes. There is support for a more strategic, cross-sector approach to infrastructure planning, bringing together local and central governments, iwi, and private sector stakeholders. Many highlighted that the absence of a structured, nationwide planning framework has led to fragmented decision-making, with infrastructure investments often being reactive rather than strategically planned.

Many respondents highlighted that poor coordination between agencies and misaligned funding cycles – such as the disconnect between Government Policy Statement on Land Transport (GPS-LT), the National Land Transport Plan (NLTP), and local authority plans – result in inefficiencies, project delays, and increased costs. Some respondents noted that regulatory duplication, where infrastructure projects must navigate multiple, often conflicting, approval processes, further exacerbates inefficiencies and undermines investment certainty. Many respondents stated that spatial planning would be a solution to these challenges.

The absence of a legislated spatial planning layer in the resource management system has no doubt impacted on the provision for infrastructure.
– New Zealand Planning Institute Incorporated

Private sector involvement

Respondents advocated for regulatory changes to encourage more private sector investment in infrastructure. This included enabling more PPPs, reducing barriers to investment, and improving access to project finance. Some submissions suggested reviewing economic regulations, such as the Commerce Act 1986, to better facilitate long-term infrastructure funding and allow for innovative financing models.

Sustainability and resilience in regulatory settings

Several submissions called for regulatory settings to better integrate resilience and sustainability in infrastructure planning and delivery. This includes strengthening carbon pricing mechanisms, mandating sustainability standards in infrastructure projects, and ensuring new infrastructure is designed to withstand climate impacts and extreme weather events.

Specific regulatory changes

Outside of key themes, respondents provided detailed recommendations on specific legislative and regulatory changes that would enable better infrastructure outcomes.

RMA reform: amend the RMA to simplify and accelerate infrastructure consenting to:

- address inconsistencies in the RMA and freshwater regulations
- recognise waste infrastructure under the RMA
- modify the role of the national policy statements (NPS), for example, expand the National Policy Statement on Renewable Electricity Generation to include battery energy storage systems and introduce regulatory settings that prioritise non-network energy solutions.

WM considers that the current approach under the Resource Management Act 1991 (RMA) fails to properly recognise the essential nature of network waste services to the functioning of modern New Zealand society.
– Waste Management NZ Limited

Addressing inconsistencies in the RMA and freshwater regulations would provide greater certainty and consistency in consent conditions, enabling better infrastructure planning.
– Irrigation New Zealand Incorporated

Building Act and Building Code updates: standardise building consent processes nationwide, reduce the number of Building Consent Authorities (BCAs), and update the Building Code to include modern sustainability and resilience requirements.

Commerce Act 1986: update the Commerce Act and the Commerce Commission's mandate to better account for the changing infrastructure landscape, climate change, and the transition to more flexible, efficient, and sustainable infrastructure solutions.

Government should amend Part 4 of the Commerce Act to require the Commerce Commission to incentivise all Part 4 price-regulated monopoly businesses to undertake cost-effective climate mitigation and adaptation actions.
– Clarus

Align funding cycles in the **GPS on Land Transport** and **NLTP** and **Regional Land Transport Plans** to improve investment certainty.

Q17. Do you have any additional comments or suggestions that you would like us to consider as we develop the National Infrastructure Plan?

Areas where submitters recommended a greater focus in the Plan:

- omission of community infrastructure
- lack of reference to the role of the private sector
- the importance of waste infrastructure
- omission of regional deals
- importance of integrated energy planning and coordination between infrastructure providers to support decarbonisation and electrification goals
- need for a clear implementation pathway with specific timeframes and successful metrics, alongside regular progress reporting to maintain accountability
- need for more focus on quality outcomes in infrastructure planning, emphasising the need to integrate quality considerations into cost-benefit analyses
- challenge of balancing safety and cost in temporary traffic management
- further clarification needed on role of the National Infrastructure Funding and Financing Limited and its relationship with the Infrastructure Commission
- underrepresentation of the role of digital transformation in the discussion document and the need to integrate digital considerations more explicitly particularly around enabling digital connectivity, embedding digital thinking in infrastructure planning and ensuring workforce has necessary digital skills
- concerns over road surfacing skills and long-term costs
- looking beyond road transport to include a multi modal approach to future transport investment and including aviation in the thinking around overall transport resilience.

Note: There were only a few responses to this question and most of the above are based on a single submission.

Conclusion

In late 2024, we sought stakeholder feedback on the discussion document *Testing our thinking: Developing an enduring National Infrastructure Plan*. The feedback period, which ran from 5 November to 10 December 2024, provided an opportunity for early engagement to shape the development of the National Infrastructure Plan.

Over **100 responses** were received from a broad range of stakeholders, including **central government**, **local government**, **private sector**, **peak bodies**, **NGOs, research organisations** and **others** (see Appendix A). The consultation was structured **around 17 targeted questions** (see Appendix B) to capture perspectives on infrastructure priorities, challenges, and opportunities.

Key findings

While responses reflected a range of perspectives, several key themes emerged as systemic challenges across infrastructure planning, funding and financing, delivery, and governance.

- **Strategic infrastructure planning** – A recurring theme with respondents was the need to reduce the impact of short-term political cycles on infrastructure decision-making to ensure long-term, strategic, and effective infrastructure planning.
- **Resilience and adapting to climate change** – Some of the feedback received called for a focus on preparing infrastructure to better adapt to climate risks and ensure greater resilience.
- **Workforce and capability** – Some respondents stated that there is a need to address the ongoing, long-term concern regarding the availability of the right skills and capability to deliver infrastructure projects, particularly in engineering, construction, and digital infrastructure.
- **Funding and financing** – There were calls for stable, long-term funding and financing mechanisms, including alternative funding/financing models.
- **Asset management** – Some of the feedback focused on prioritising better use and maintenance of existing infrastructure, before committing to new developments.
- **Transparency and accountability** – Some respondents called for clearer governance structures and more transparent decision-making processes.
- **Regulatory and institutional frameworks** – Some respondents highlighted the need to reform complex regulatory processes, such as those under the Resource Management Act (RMA), to streamline project delivery.
- **Data, technology, and innovation** – Some of the feedback received called for improving infrastructure planning through better use of digital tools, data collection, and standardisation.
- **Collaboration and coordination** – Some respondents stated the need for stronger integration across central and local government, iwi, and private sector stakeholders.

Next steps

The feedback received on the discussion document will help to inform the development of the Plan. We'll be sharing our thinking by presenting at events around the country, hosting workshops and webinars, and sharing updates through our website, newsletter and on social media.

We intend to present the Minister for Infrastructure with the draft National Infrastructure Plan mid-year. At that time, we will also publish the draft Plan on our website and seek feedback.

We plan to present the final National Infrastructure Plan to the Government in late December 2025 for their response.

Appendix A. List of organisations that provided written submissions

We had responses from 23 individuals and 78 organisations. Organisations included:

ACE New Zealand
Adapt Research Limited
Aggregate and Quarry Association of New Zealand
Air New Zealand
AMSAAM Limited
Āpōpō
ASB Bank Limited
Auckland Airport Limited
Aurecon New Zealand Limited
BECA Limited
Business New Zealand
Christchurch City Council (staff submission)
Clarus
ConCOVE Tūhura
Concrete New Zealand Incorporated
Connexa Limited
Department of Internal Affairs
Downer New Zealand Limited
Electricity Engineers' Association of New Zealand
Electricity Networks Aotearoa
Enable Networks Limited
Energy Resources Aotearoa Incorporated
Engineering New Zealand
Flightplan2050 Incorporated
Fonterra Limited
Forest & Bird New Zealand
Globaltraid Limited
Government Chief Digital Office
Guardians of New Zealand Superannuation
Hamilton City Council
Higgins Family Holdings Limited
Infrastructure New Zealand
Infrastructure Sustainability Council
Irrigation New Zealand Incorporated
Islands for the Future of Humanity
Local Government New Zealand
Mercury NZ Limited
Ministry of Business, Innovation and Employment
National Emergency Management Agency (NEMA)
Natural Hazards Commission
Nelson Regional Development Agency Limited

New Zealand Aged Care Association Incorporated
New Zealand Defence Force
New Zealand Geotechnical Society Incorporated
New Zealand Planning Institute Incorporated
New Zealand Recreation Association Incorporated
New Zealand Telecommunications Forum
New Zealand Utilities Advisory Group
NZ Airports Association Incorporated
NZTech
NZ Transport Agency Waka Kotahi
Office of the Parliamentary Commissioner for the Environment
Orion New Zealand Limited
Otago Regional Council
Packaging Council of New Zealand
Positive Money New Zealand Incorporated
Powerco Limited
Property Council of New Zealand
Public Service Commission
Queenstown-Lakes District Council
Raukawa Charitable Trust
Reflective Construction Law
Rewiring Aotearoa
Richard Mowll Consulting Limited
Rubix Limited
Sport New Zealand
Straterra
Taituarā Charitable Trust
Tauranga City Council
The New Zealand Initiative
Transpower New Zealand Limited
Tuatahi First Fibre Limited
Urban Development Institute of New Zealand
Vector Limited
Waikato Regional Council (staff submission)
Waste Management NZ Limited
Water New Zealand Limited
WSP New Zealand Limited

Appendix B. Submission questions

Section one: Why we need a National Infrastructure Plan

1. What are the most critical infrastructure challenges that the National Infrastructure Plan needs to address over the next 30 years?
2. How can te ao Māori perspectives and principles be used to strengthen the National Infrastructure Plan's approach to long-term infrastructure planning?

Section two: Long-term expectations

3. What are the main sources of uncertainty in infrastructure planning, and how could they be addressed when considering new capital investments?

Section three: Existing investment intentions

4. How can the National Infrastructure Pipeline be used to better support infrastructure planning and delivery across New Zealand?

Section four: Changing the approach

5. Are we focusing on the right problems, and are there others we should consider?

Theme one: Capability to plan and build

Investment management: Stability, consistency and future focus

6. What changes would enable better infrastructure investment decisions by central and local government?
7. How should we think about balancing competing investment needs when there is not enough money to build everything?

Workforce and project leadership: Building capability is essential

8. How can we improve leadership in public infrastructure projects to make sure they're well planned and delivered? What's stopping us from doing this?
9. How can we build a more capable and diverse infrastructure workforce that draws on all of New Zealand's talent?

Project costs: Escalation means less infrastructure services

10. What approaches could be used to get better value from our infrastructure dollar? What's stopping us from doing this?

Theme 2: Taking care of what we've got

Asset management: Managing what we already have is the biggest task

11. What strategies would encourage a better long-term view of asset management and how could asset management planning be improved? What's stopping us from doing this?

Resilience: Preparing for greater disruption

12. How can we improve the way we understand and manage risks to infrastructure? What's stopping us from doing this?

Decarbonisation: A different kind of challenge

13. How can we lower carbon emissions from providing and using infrastructure? What's stopping us from doing this?

Theme 3: Getting the settings right

Institutions: Setting the rules of the game

14. Are any changes needed to our infrastructure institutions and systems and, if so, what would make the biggest difference?

Network pricing: How we price infrastructure services impacts what we think we need

15. How can best practice network pricing be used to provide better infrastructure outcomes?

Regulation: Charting a more enabling path

16. What regulatory settings need to change to enable better infrastructure outcomes?

Section five: What happens next?

17. Do you have any additional comments or suggestions that you would like us to consider as we develop the National Infrastructure Plan?