

### The National Infrastructure Pipeline

The National Infrastructure Pipeline (Pipeline) is New Zealand's national dataset of infrastructure project information. It provides an important evidence base for how New Zealand maintains, renews, and improves the infrastructure services that we all rely on. The forward view of infrastructure project activity the Pipeline presents is used to inform decision-making and coordinate planning within and across regions, between sectors, in our construction markets, and helps us develop the capacity of the workforce that will be needed.

This snapshot report is based on the December 2023 update and includes active and planned projects totalling close to \$108.5 billion in value.

The Pipeline reflects information we receive from our contributors across the infrastructure system

including, central government, local government, and the private sector. Our aim is to keep this information regularly updated with the support of these contributors.

One year on from the 2023 North Island Weather Events we anticipate more projects associated with the recovery to flow into the Pipeline as their planning progresses and funding decisions are made.

To inform good decision-making across the system, it's crucial that the information in the Pipeline represents a complete picture of activity, and that the information is accurate and up-to-date. Please reach out to contribute or update data, or if you have a question regarding the information in the Pipeline: pipeline@tewaihanga.govt.nz

# Research highlight

# Total value in the Pipeline increased by \$13.6 billion to \$108.5 billion

In December 2023 the total value of infrastructure projects in the Pipeline stood at \$108.5 billion. This was up 14.3 per cent from \$94.9 billion in September 2023. Almost 70 per cent (\$71.8 billion) of the \$108.5 billion value comes from projects that have the funding source confirmed. The main drivers of the change in value from September 2023 are outlined in the list below and Figure 1.

#### Increases in Pipeline value:

- \$0.6 billion added from new organisations providing their project data
- \$17.3 billion added from additional projects from existing contributors (86 per cent of these projects are in the planning stages and funding sources are still to be confirmed)
- \$2.3 billion added from an increase in the value of existing projects.

#### Decreases in Pipeline value:

- \$2 billion from projects completed during the quarter
- \$2.3 billion from projects cancelled during the quarter
- \$1.8 billion from a reduction in the value of existing projects.

We are committed to working with Pipeline contributors to improve data quality. Data quality improvements resulted in a decrease of \$0.5 billion in Pipeline value during this quarter.



# Asset value, investment, and depreciation

Discover the first comprehensive view of the value of New Zealand's infrastructure assets, how much we are investing in them, and how fast they are wearing out.



#### Report:

Build or maintain? New Zealand's infrastructure asset value, investment, and depreciation, 1990–2022

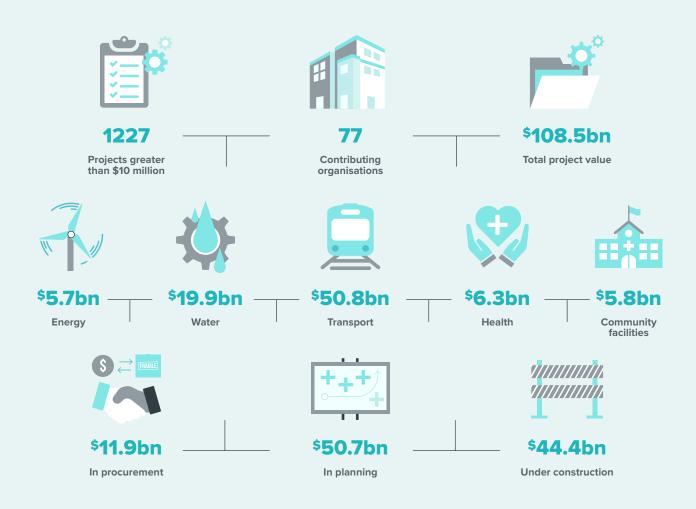
Figure 1:

### Changes in total Pipeline value, September – December 2023



Seventy-seven contributing organisations provided project information to the Pipeline on more than 4900 planned and active projects for 125 infrastructure providers. We achieved our best response rate to date with 94 per cent of contributors providing project updates, making changes, or confirming their information.

Welcome to Kaipara District Council, Northland Regional Council, Mercury, and Unison Networks who joined as new contributors during this quarter. The efforts of all our contributors are appreciated.



### **Using the Pipeline**

The Pipeline is used to inform prioritisation, coordination, and planning decisions amongst infrastructure providers. It's also used by the construction sector to support their planning and investment in capability and capacity to deliver projects. Users can access our insights and tools via the following methods.

- Visit our website to search the Pipeline for projects and their timings, sectors, regions and more
- Register on our insights platform to access an expanding range of insights, including the workforce projections tool.

#### How to register:

- Visit insights.tewaihanga.govt.nz and use the 'Sign in' button on the top right of the page. A window will appear asking for you to sign in.
- 2. Click the 'Sign up now' link under the large 'Sign in' button in this window and follow the process to create a new account.

### **Projected spend by sector**

The projected annual spend by sector for the projects in the Pipeline has been modelled and is illustrated in Figure 2. Project certainty and demand naturally decreases over the planning horizon and varies across our sectors. How far ahead projects are planned within each sector is influenced by factors such as the relative size of an individual project (to the size of the market), project scope, and complexity.

The spend projections will continue to evolve through time as projects are completed, new projects are planned and added to the Pipeline, and as new contributors provide project information.

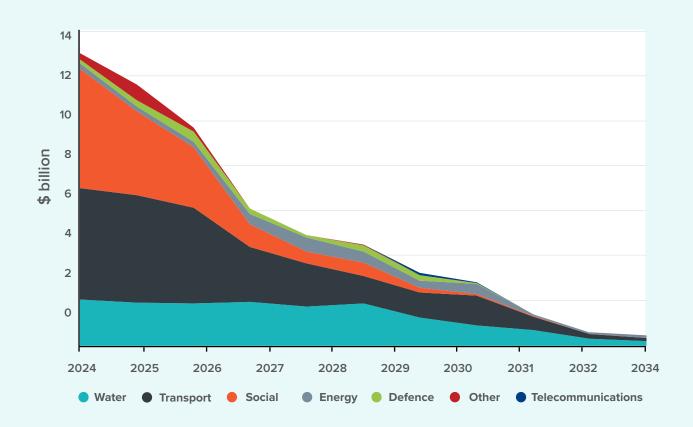
The December 2023 update to the Pipeline shows a total of \$13 billion in projected annual spend for 2024. The projected annual spend for 2025 is currently \$11.6 billion.

Spend in the social sector (including community facilities, education, health, and housing) and transport sector continue to dominate the Pipeline in the near term, with the social sector accounting for \$5.3 billion or 41 per cent of projected spend in 2024 and the transport sector accounting for \$4.9 billion or 38 per cent of total projected spend in 2024. Spend in the transport sector remains above \$1 billion through the years until eventually dropping to \$0.6 billion in 2032, spend in the social sector drops below \$1 billion in 2028 to \$0.5 billion.

The projected value of water project spend in 2024 is \$2.1 billion, or 16 per cent of the total annual infrastructure spend in the Pipeline. Investment in water infrastructure included in the Pipeline remains reasonably consistent, fluctuating between \$2.1 billion and \$1.2 billion until 2030.

Figure 2:

### Projected project spend by sector, 2024 - 2034



# Research highlight

# The workforce needed to deliver the Pipeline

The projected workforce demand to deliver the projects in the Pipeline has been modelled and is illustrated in Figure 3 by occupation group.<sup>1</sup>

This early view of workforce needs supports infrastructure providers to plan, coordinate, and schedule their work. It also helps training institutions and the construction sector to prepare and invest in developing the workforce capability that will be needed.

The workforce numbers presented in the projections include estimates of both workers needed on projects full-time and workers needed on projects part-time. These workforce projections will continue to change in the same way as the spend modelling as new projects are planned across the horizon and this information is submitted to the Pipeline.



## Workforce baseline report

Learn more about the size, dynamics, and occupations of New Zealand's infrastructure workforce.

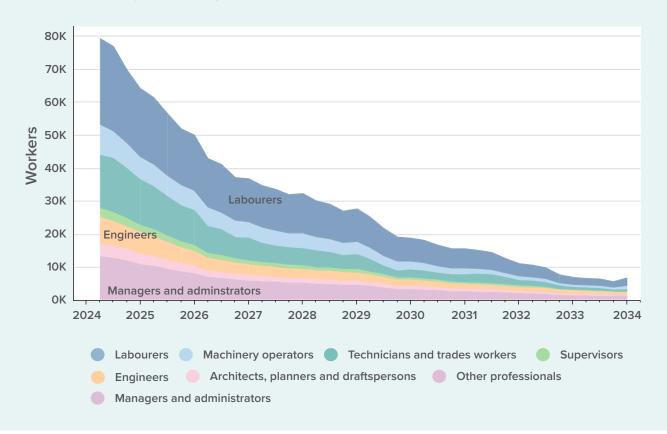


**Report:**Who's working in infrastucture? A baseline report

Figure 3:

### Projected workforce required to deliver Pipeline projects

Workers by occupation group, 2024 - 2034



Our workforce modelling currently uses a different model to the spend modelling and some differences may arise because of this. Over time we will integrate these two models.

Projections of the number of workers needed will generally be larger than the number of full-time equivalents needed due to the presence of workers that are only required for part of the time.

# Research highlight

### Progress towards a complete Pipeline of infrastructure projects

Te Waihanga first published the Pipeline in June 2020 to support statutory functions required under the New Zealand Infrastructure Commission/Te Waihanga Act 2019.

The Pipeline continues to build towards a trusted and complete view of planned and current infrastructure project activity in New Zealand. The Pipeline is used to inform decisions within government, by our infrastructure providers, and within our construction industry.

We invite infrastructure providers not yet represented in the Pipeline to submit their project information as we increase the breadth and depth of the Pipeline. The December 2023 quarter saw our contributing partners reach 77, up 28 per cent on 12 months ago. We thank our partners for their efforts with 94 per cent providing updates.



### Influences on construction costs

Learn more about the global and local factors driving New Zealand construction cost uncertainty.



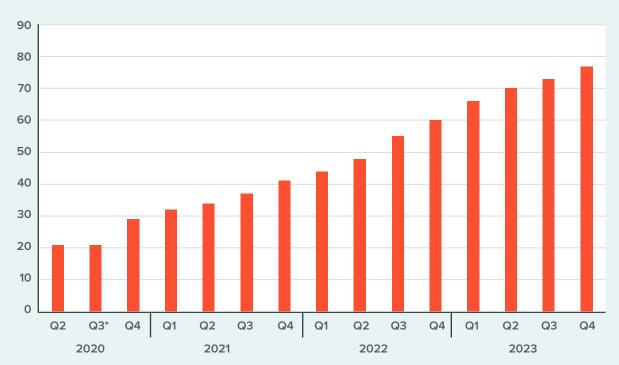
#### Report:

Why do construction input costs change? The role of global and local factors

Figure 4:

#### Organisations contributing to the Pipeline continues to grow

Pipeline contributors, June 2020 - September 2023



\*Pipeline project information was not updated in the third quarter of 2020

#### Are you aware of an infrastructure provider or project that we are missing?

Organisations do not need to be invited to submit their data. If your organisation has project information that is not included in the Pipeline, please contact the Pipeline team on pipeline@tewaihanga.govt.nz. View the Pipeline at www.tewaihanga.govt.nz/pipeline