



Advancing Digitisation of Asset Management

Learnings from the InfraBytes series
(Part 1)

January 2025



A New Zealand perspective on Infratech

New Zealand faces several challenges in infrastructure asset management, including resilience against natural disasters, workforce access issues, and aging assets.

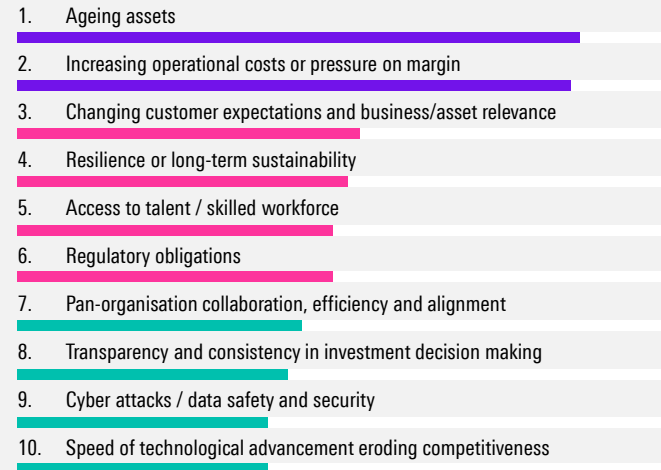
Leveraging digital, geospatial technology and AI could go a long way in combating these issues. The main hurdle? We need better asset data to fully leverage these innovations.

Given our unique location and high cost of capital, there's a clear need for greater efficiency and transparency in infrastructure planning, construction, and operation. This requires breaking down silos and fostering collaborative problem-solving that goes beyond the traditional ways of working.

To explore this in more detail, KPMG and IBM launched InfraBytes, an opportunity for roleplayers in the sector to think about how to leverage infrastructure technology ("Infratech") for better infrastructure management.

What is top of mind for NZ's infrastructure professionals?

In the first event of the InfraBytes series, several key stakeholders from the technology and asset management sectors within transport, energy, property, and education participated in a round table discussion on Infratech. Before the event, attendees were asked to identify their most pressing organisational challenges from a list of 10 key topics. Here are the results:

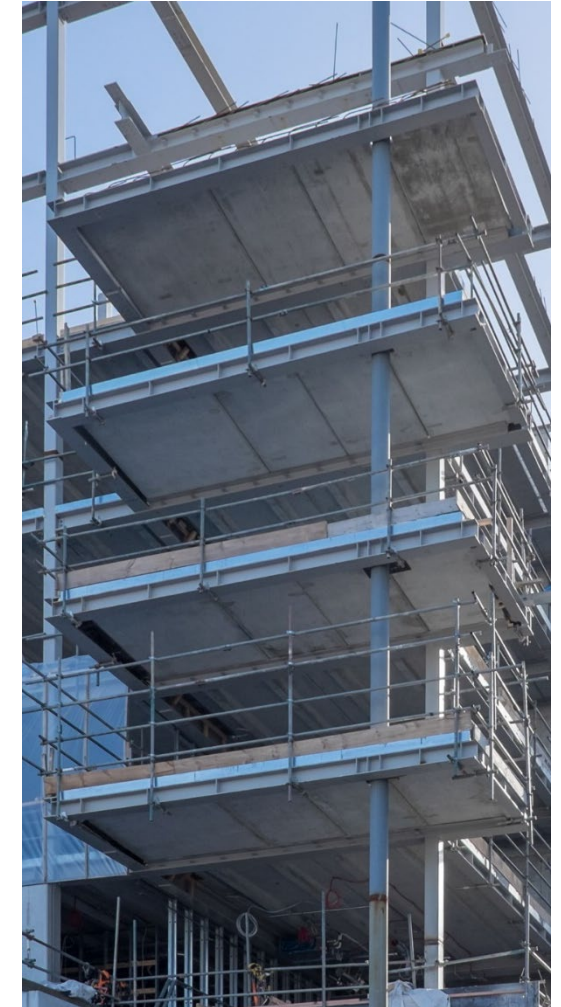


Key:
Top concerns / challenges:
■ Asset related
■ External factors, e.g. market forces and regulation
■ Internal business challenges

Do any of these concerns or challenges resonate with your organisation or industry?

Are these challenges on the agenda of your Board and/or Executive Leadership?

Are you working on a strategy to respond to or address some of these challenges?



Embracing Infratech – key themes

Four key themes were identified in the discussions to summarise the challenges faced by organisations managing large infrastructure portfolios:



Alignment

Developing a shared understanding of asset value across the organisation to help align priorities is essential. Evidence-based investment planning that aligns with recognised value drivers is key to instilling confidence among stakeholders regarding the sustainability and resilience of their asset portfolio. Enhancing asset performance visibility improves confidence, reduces risk, and lowers capital cost.



Asset Intelligence

Quality data and suitable systems are some of the main building blocks for actionable intelligence. At the highest level, this is supported by an information strategy that prioritises critical technology investments. Additionally, encouraging feedback loops from operations is crucial to ensure enhancements not only make a significant impact, but are also sustainable.



Technology Adoption

Maximizing the benefits from Infratech, as functionality and service models evolve, is important for any organization. Adopting new technology can enhance the customer experience and create new value, but it requires a comprehensive understanding of its impact on an organization's operating model.



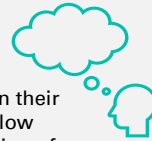
Workforce of the Future

The skills necessary for planning, constructing, and managing infrastructure assets are evolving as the demand for enhanced service levels grows within a constrained resource environment and higher capital costs. Proficiency in utilizing Infratech and artificial intelligence is anticipated to become an essential requirement for the future workforce.

What we heard...

2 out of 3

... felt that people in their organisation has a low level of understanding of their asset management strategy



80%

...indicated that they have a limited view of the risk profile of their critical assets



50%

...are of the view that they are making good progress on their data maturity journey, while the balance are just starting out

70%

...have shown increased maturity over the last 2 years



60%

...still use Excel as a key tool to manage asset data



2014 30%

...indicated their asset management tools have not significantly changed in the last 10 years

Digital and data

Although technology-related topics ranked low among the topics in the poll, respondents indicated that the most significant skills gap is in data and technology

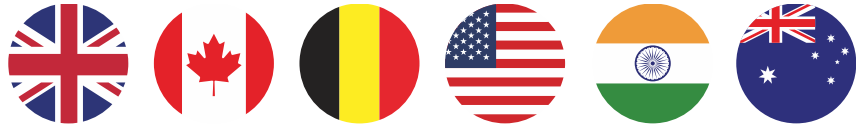
What does this mean for NZ's Infratech maturity?

Low awareness of the strategic importance of assets in the portfolio affects the adequacy and quality of reporting on asset condition and performance. Changing this trend will be essential to establish a strong foundation for infratech, enabling informed decision-making, better resource allocation, and targeted investment where it is most required.

While data collection on assets has advanced significantly, the full potential of Infratech to serve as a guide for investment decisions (e.g. through predictive analytics for demand and scenario modelling) remains largely untapped.

Selecting and implementing suitable infratech remains a challenge. Asset management systems are an essential component of an organisation's technology framework, and modifications often require substantial investment and operational change. This transition must take into account users, processes, and systems.

The composition of the asset management workforce is expected to change. The significance of data and technology skills is on the rise, especially as Infratech integrates into the asset portfolio. Although attracting and retaining local talent poses challenges, advancements in technology are offering new opportunities to utilize global expertise.



We have examined the global evolution of asset management, identifying trends and regions with notable innovation or specialisation. These insights offer key lessons for maximising the value from Infratech in New Zealand:



Create 'Line of Sight' across the value chain:

Seize the opportunity to develop end-to-end asset management objectives, ensure transparency in accountability, make informed key decisions, and align these decisions with relevant data.



Digitally enabled at each step:

Identify your core business processes and supercharge them with digital and technology where it works. Consider all areas, ranging from improved decision-making to human-in-the-loop automation.



Place capability optimisation at the core:

Prioritise investment in people to build high levels of awareness of asset management principles and the adoption of technology. Focus on the why, what, who, when, and how of uplifting maturity, and facilitate transformation activities.



Be clear on the purpose, use cases, and benefits:

Target use cases that will deliver high-quality infrastructure and services, and be explicit on how digital enablement will provide insights and benefits to the organisation.

Our Infratech series follows global asset management practices. Over the next year, we will explore some of the themes in this paper in more detail, highlighting practical uses and case studies of successful implementations in New Zealand.

Insights will be gathered from industry practitioners, stakeholders, and policymakers through interviews, panel discussions, and workshops. We will focus on how market forces, regulations and stakeholders impact success, using local and global examples to showcase best practices and lessons learned.

Get in touch

KPMG and IBM's InfraBytes series aims to bring together New Zealand professionals to address industry challenges collaboratively. This program builds on a 20-year partnership, improving global asset management with user-centric, business-driven approaches.

Our New Zealand and Australia teams, experienced in asset management, use technology to streamline workflows and improve outcomes. We assist public and private sector infrastructure organizations in achieving their objectives efficiently, considering both societal benefits and business advantages.

Contact us to join our network or request assistance with your transformation.



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