

**10 November 2021**

## **Towards a Digital Strategy for Aotearoa: Submission of Infrastructure New Zealand**

### **1. Introduction**

- 1.1 This is Infrastructure New Zealand's submission on the discussion document titled *Towards a Digital Strategy for Aotearoa*.
- 1.2 Infrastructure New Zealand is New Zealand's peak industry body for the infrastructure sector. We promote best practice in national infrastructure development through research, advocacy and public and private sector collaboration. Our members come from diverse sectors across New Zealand and include infrastructure service providers, investors and operators.
- 1.3 This submission is informed by attendees at the Infrastructure New Zealand Leaders Lunch event with Hon Dr David Clark held in August 2021. Minister Clark expressed his interest in attendees' views on a digital strategy.
- 1.4 Please direct enquiries to Claire Edmondson, General Manager, at [claire.edmondson@infrastructure.org.nz](mailto:claire.edmondson@infrastructure.org.nz).

### **2. General**

- 2.1 Infrastructure New Zealand welcomes this opportunity to make a submission on the discussion document regarding a national digital strategy for New Zealand.
- 2.2 Infrastructure New Zealand commends the Government's efforts to develop a national digital strategy.
- 2.3 A national digital strategy is long overdue. The last substantial digital strategy New Zealand had was the 2005 Digital Strategy which was updated in 2008 and renamed Digital Strategy 2.0.
- 2.4 Technology has advanced rapidly since then and the way we consume technology has changed.
- 2.5 We agree that a Digital Strategy for Aotearoa (**the Strategy**) will need to respond to the social, economic, education and cultural opportunities from digital technology, along with the risks that these technologies can bring.
- 2.6 Infrastructure New Zealand supports the proposed vision of *Enabling all of Aotearoa New Zealand to flourish and prosper in a digital world* in principle. We also support the themes of trust, inclusion and growth.
- 2.7 We note and agree with the Infrastructure Commission's views in its draft Infrastructure Strategy that in developing a National Digital Strategy, the Government should:
  - a. Prepare New Zealand for realising the full benefits of a connected digital society, establishing regions where 21st century talent wants to live.
  - b. Fix digital black spot areas and ensure universal access to digital services and skills that remove the limitations of physical distance from major markets nationally and internationally.
  - c. Leverage changing social and economic patterns arising from COVID-19 and rising urban house prices to support the development of regional areas.
  - d. Identify and set out a plan to resolve key telecommunication system resiliency issues.

- e. Review infrastructure standard requirements for affordability across regions and infrastructure sectors. Broaden requirements to allow for on-site solutions and other low-cost design when similar service levels are possible.

### Inclusivity

- 2.8 We support the aspiration of moving New Zealand towards becoming a fully digitally inclusive society.
- 2.9 The discussion document discusses the provision of free or subsidised internet subscriptions, devices, and digital skills training, to those people who need it most. We caution the Government against requiring commercial businesses to subsidise services to avoid market distortions. This is a salient point given when the Government is starting to move away from cross-subsidisation e.g. phasing-out low fixed charge tariff regulations.

The low fixed charge tariff regulations were introduced to provide electricity plans with a discounted fixed charge that aimed to reduce power bills for low-use, low-income households.

However, as the regulations are poorly targeted, it only helped some low-use households while pushing others into greater energy hardship, including many low-income families with high electricity use. The low fixed charge tariff regulations have also had unintended effects on households' electricity use, created barriers for industry to distribution pricing reform and increased complexity and confusion for consumers.

*Ministry of Business, Innovation and Employment*

<https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-consultations-and-reviews/electricity-price/phasing-out-low-fixed-charge-tariff-regulations/>

- 2.10 We encourage the Government to consider other options to supporting New Zealanders who cannot afford adequate access to digital technology.

## 3. Need for emphasis on infrastructure

- 3.1 Infrastructure is essential to many aspects of our lives. It shapes and influences how we live, work and play. It is therefore vital that the Strategy places an adequate focus on infrastructure, beyond just as an input to facilitating end-user consumption.
- 3.2 The Strategy needs to:
  - reflect the role of digital technology in economic growth and development
  - recognise that digital technology plays a significant role in infrastructure solutions, e.g. digital twins
  - provide a guiding framework on the growth and direction of infrastructure technology
  - identify how New Zealand can harness the opportunities digital technology provides to enhance infrastructure outcomes and help address issues such as the country's infrastructure deficit.
- 3.3 We agree with Infrastructure Commission's position that a national digital strategy will serve as a powerful lever for shaping a more intelligent and technology-enabled infrastructure system.

### Digital engineering

- 3.4 Digital engineering will play a key role in addressing the country's infrastructure deficit and the way we manage our assets.

Digital engineering is the art of creating, capturing and integrating data using a digital skillset.

From drawings to simulations and 3D models, engineers are increasingly using advanced technologies to capture data and craft design in a digitised environment. Through progressive applications, the art of digital engineering enables designers to explore possibilities and develop innovative solutions in a virtual environment.

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- 3.5 The Strategy needs to reflect the role of digital engineering in supporting the theme of growth so as to ensure New Zealand is not left behind.
- 3.6 In doing so, the Strategy needs to recognise the opportunities and challenges around digital engineering, particularly around data access, data sovereignty and technology agglomeration. To this end, we attach the below think pieces:
- (i) Unlocking the Value of Data: Managing New Zealand’s Interconnected Infrastructure
  - (ii) The Need for a Digital Strategy – Infrastructure 4.0.
- 3.7 The two papers, prepared by Infrastructure New Zealand and Building Innovation Partnership, respectively, provide insights into how digital technology/engineering is a key catalyst for enhancing infrastructure-related outcomes. The papers are included as [Appendices 1](#) and [2](#), respectively. Amongst others, Appendix 2 recommends the development of a National Digital Infrastructure Model, which we submit should be considered.

## 4. Delivery and implementation

- 4.1 Infrastructure New Zealand submits that the Strategy needs an implementation plan and a monitoring framework to gauge success, especially in regards to measuring progress towards achieving the goals.
- 4.2 We also submit that the Strategy needs to be a living document in order to remain relevant. A monitoring framework would thus also need to be able to signal what (periodic) updates need to be made to the Strategy.
- 4.3 We further submit that the successful implementation and achievement of the Strategy and its aspirations will require a multi-agency effort.
- 4.4 There is thus a need for the Strategy to make use of *futures thinking* to be able to better understand long-term issues and challenges as well as being better placed to respond to disruptions.

## 5. Conclusion

- 5.1 Infrastructure New Zealand is grateful for the opportunity to make a submission on discussion document regarding a national digital strategy.
- 5.2 We anticipate significant work will be required before the Strategy is able to be finalised. Infrastructure New Zealand would welcome the opportunity to engage further in drafting the Strategy.

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