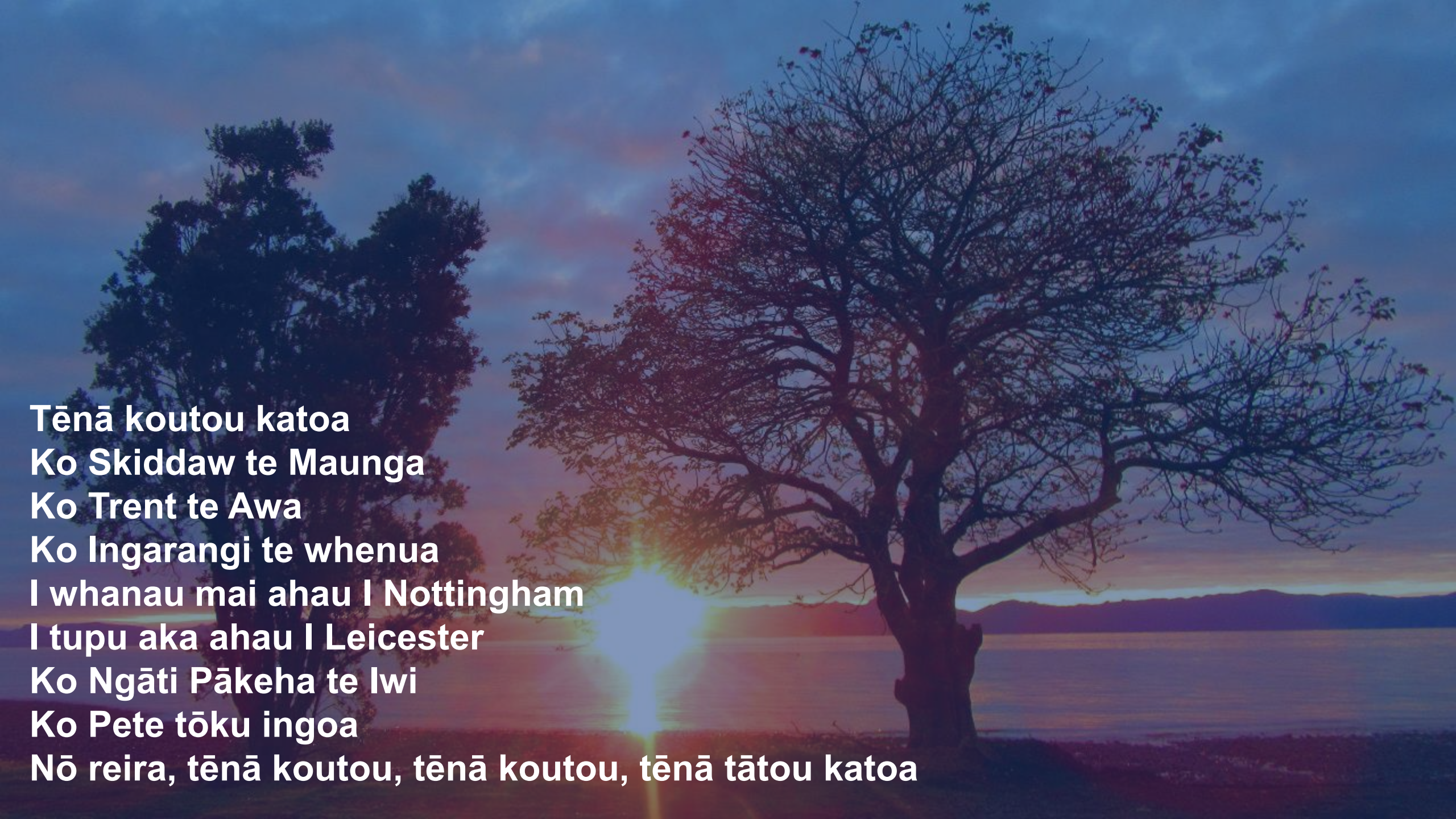


Digitisation and Business Intelligence Supporting Affordable Water Reform

Pete Brooks
Associate Director – Water Engineer
AECOM



water
NEW ZEALAND
CONFERENCE & EXPO
17-19 OCTOBER 2023
Tākina, Te Whanganui-a-Tara Wellington



**Tēnā koutou katoa
Ko Skiddaw te Maunga
Ko Trent te Awa
Ko Ingarangi te whenua
I whanau mai ahau I Nottingham
I tupu aka ahau I Leicester
Ko Ngāti Pākeha te Iwi
Ko Pete tōku ingoa
Nō reira, tēnā koutou, tēnā koutou, tēnā tātou katoa**

Session Structure

- 1. Context**
- 2. Enablers of Digital Transformation**
- 3. Focus Areas for Digital Transformation**
- 4. Case study**



Nokia 6110 GSM mobile phone from Nokia 1997

1. Context



Definitions

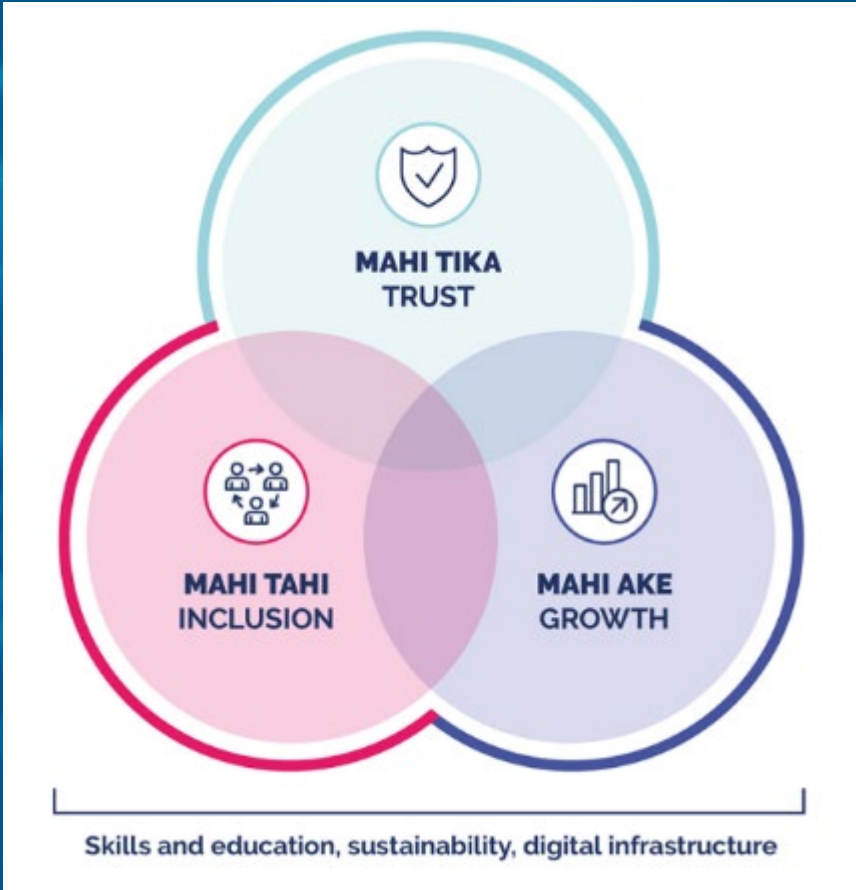
'Digital' means how people use electronic technology to create, organise and process information. Digital is a way of doing things.

'Digital Transformation' is a process by which we embed and integrate technology to drive fundamental change in how we do things.

By investing in the right digital transformation enablers, organizations can improve operations, create new value for customers, and gain competitive advantage.

Enablers of Digital Transformation

NZ Digital Government Initiative | Connected Themes



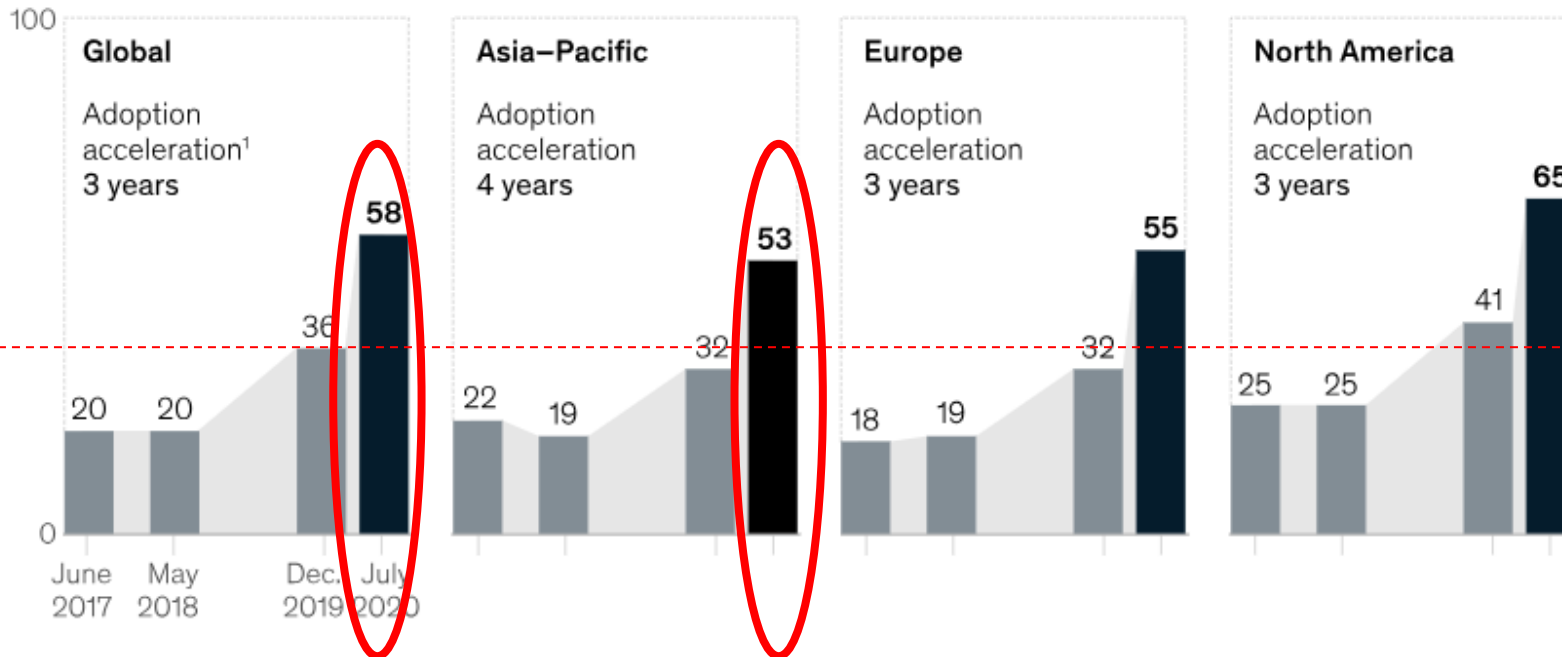
The screenshot shows the Digital.govt.nz website. At the top, there's a 'Latest blog updates' section with three featured articles: 'Ramping up accessibility' (dated 30 June 2023), 'Homegrown advances in digital government – Techweek 2023 showcase' (dated 08 June 2023), and 'Walking the talk: Creating an accessible video about web accessibility' (dated 18 October 2022). Below this is a navigation bar with 'DIGITAL.GOV.TZ.NZ' and links for 'Digital government', 'Showcase', 'Standards & guidance', 'Products & services', 'News', and 'Blog'. The main content area features a large blue banner with the text 'Digital.govt.nz is your guide to information and tools to support digital transformation across government.' Below the banner are several article cards: 'Understanding the mobile experience on Govt.nz', 'NZ Government Cloud First Policy' (dated 23 March), 'Digital Strategy for Aotearoa' (dated 30 October 2022), 'Generative AI in the Public Service' (dated 26 July 2023), and 'Data, Digital & Security Week – 26 July 2023'.

Covid-19 Digital Customer Acceleration

The COVID-19 crisis has accelerated the digitization of customer interactions by several years.

Average share of customer interactions that are digital, %

■ Precrisis ■ COVID-19 crisis

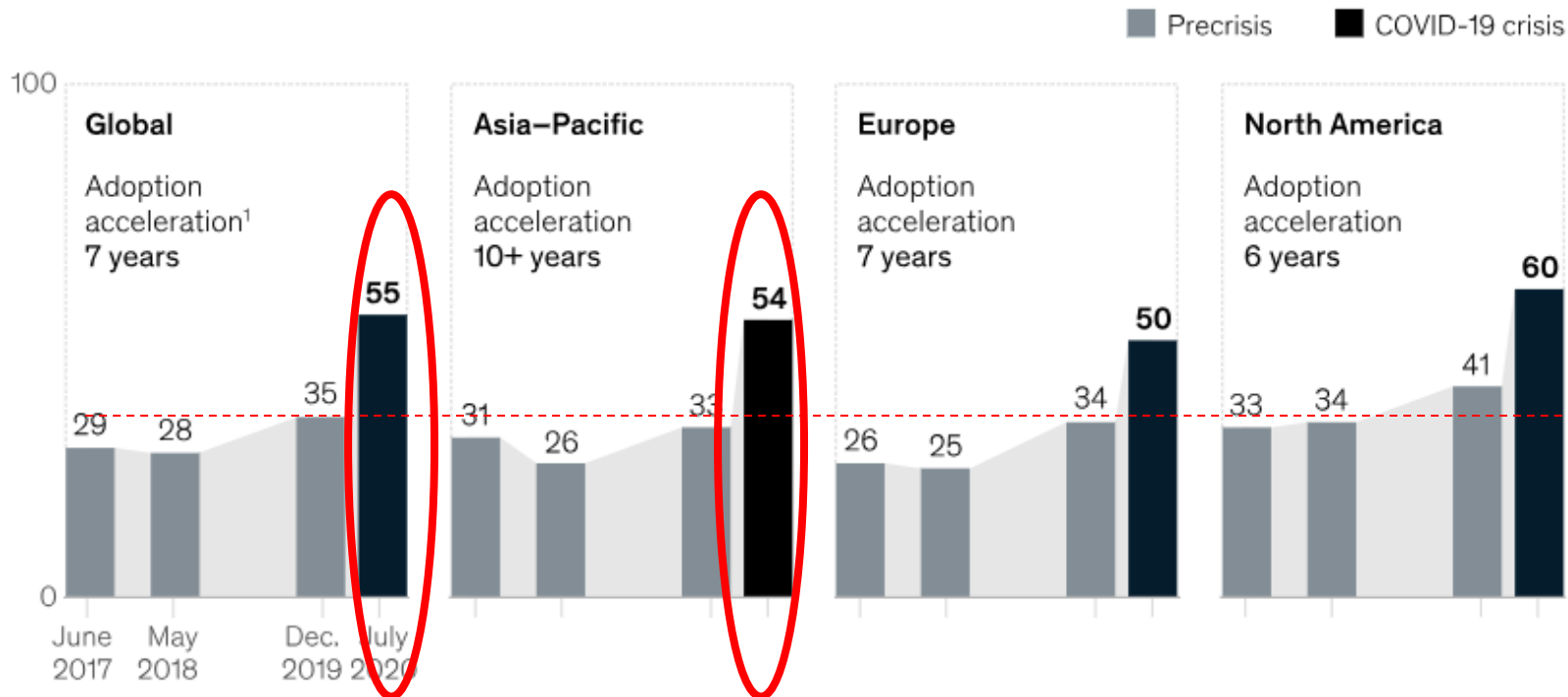


¹Years ahead of the average rate of adoption from 2017 to 2019.

Covid-19 Digitization Acceleration

Across business areas, the largest leap in digitization is the share of offerings that are digital in nature.

Average share of products and/or services that are partially or fully digitized, %



¹Years ahead of the average rate of adoption from 2017 to 2019.

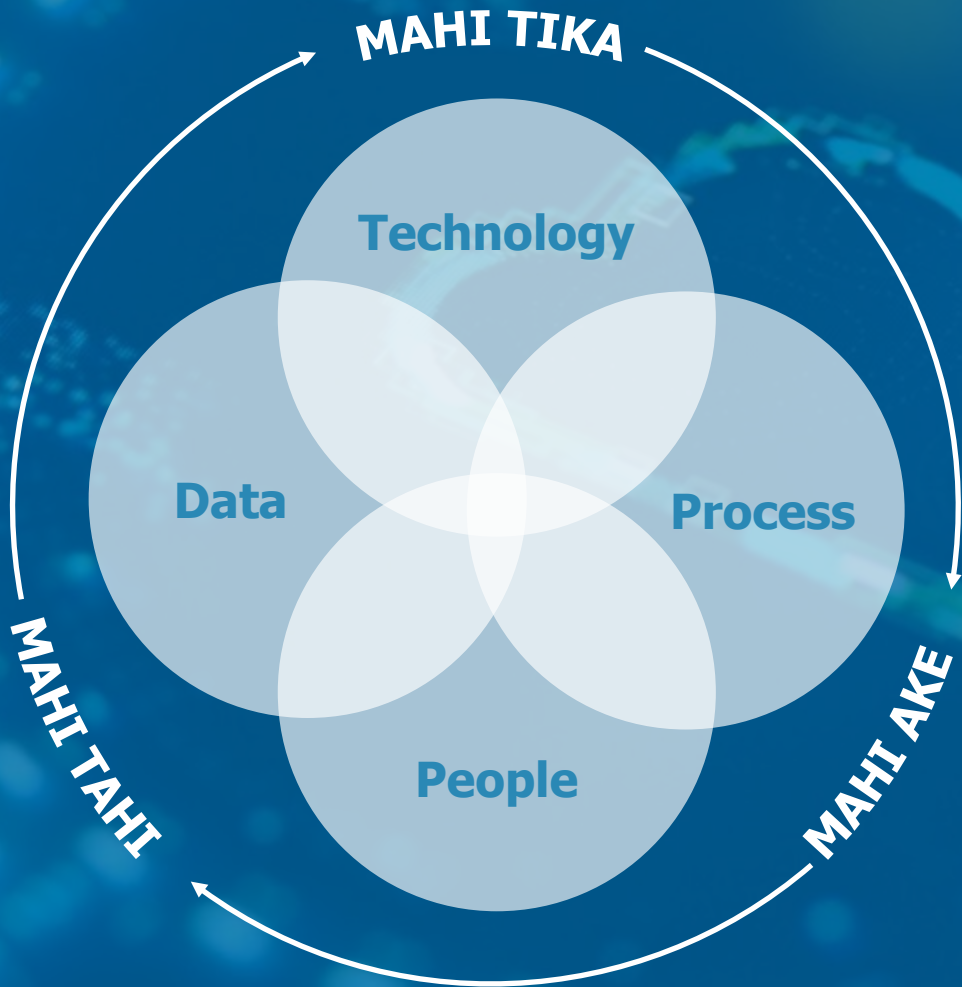


Blackberry phone
Curve 8530 – 2009

2. Enablers of Digital Transformation



Enablers of Digital Transformation



Examples

Cloud Computing

- Satellite-based leak detection solution [Link](#)
- Cloud-Based Asset Management Solutions [Link](#)
- Cloud Contact Center Platform [Link](#)

Digital Skills & Training

- Use of GenerativeAI (ChatGPT) [Link](#)

Examples

Artificial Intelligence

- PipeInsights - [Link](#)
- Landuse mapping - [Link](#)
- Tools for Mathematics - [Link](#)

Data Management & Accessibility

- PlanEngage - [Link](#)



iPhone 3G S 2009

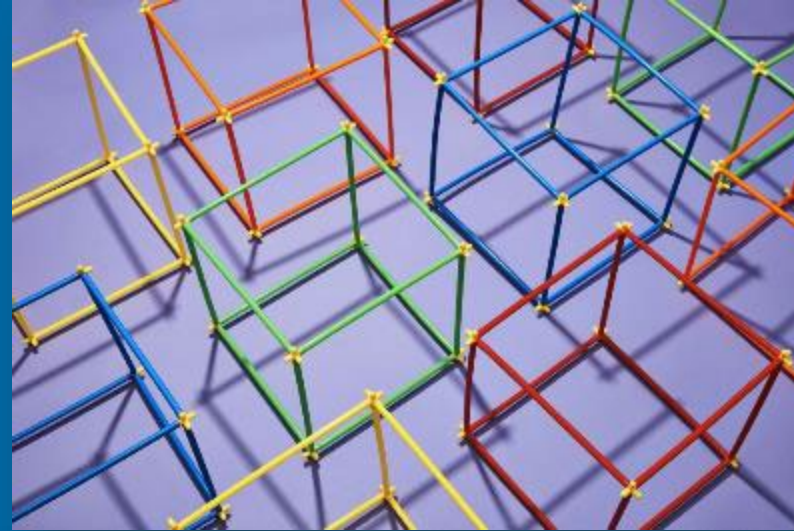
3. Focus Areas for Digital Transformation







Strategic alignment, objectives and investment





Data Strategy and management

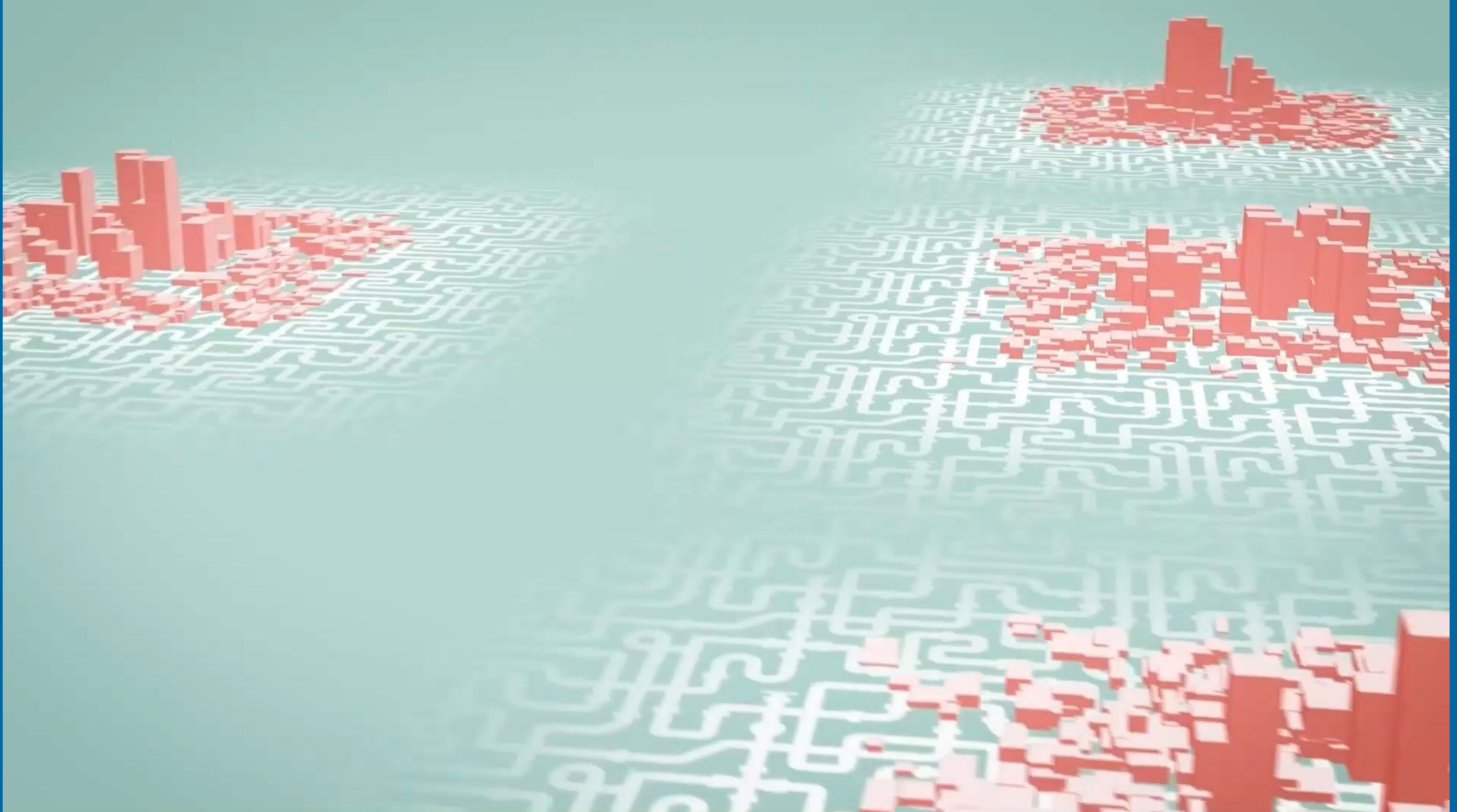


Table of financial data with columns of numbers and symbols (e.g., 0.93, 1.56, 0.5830, 23.000)





Smart water and digital investment





Community engagement and education

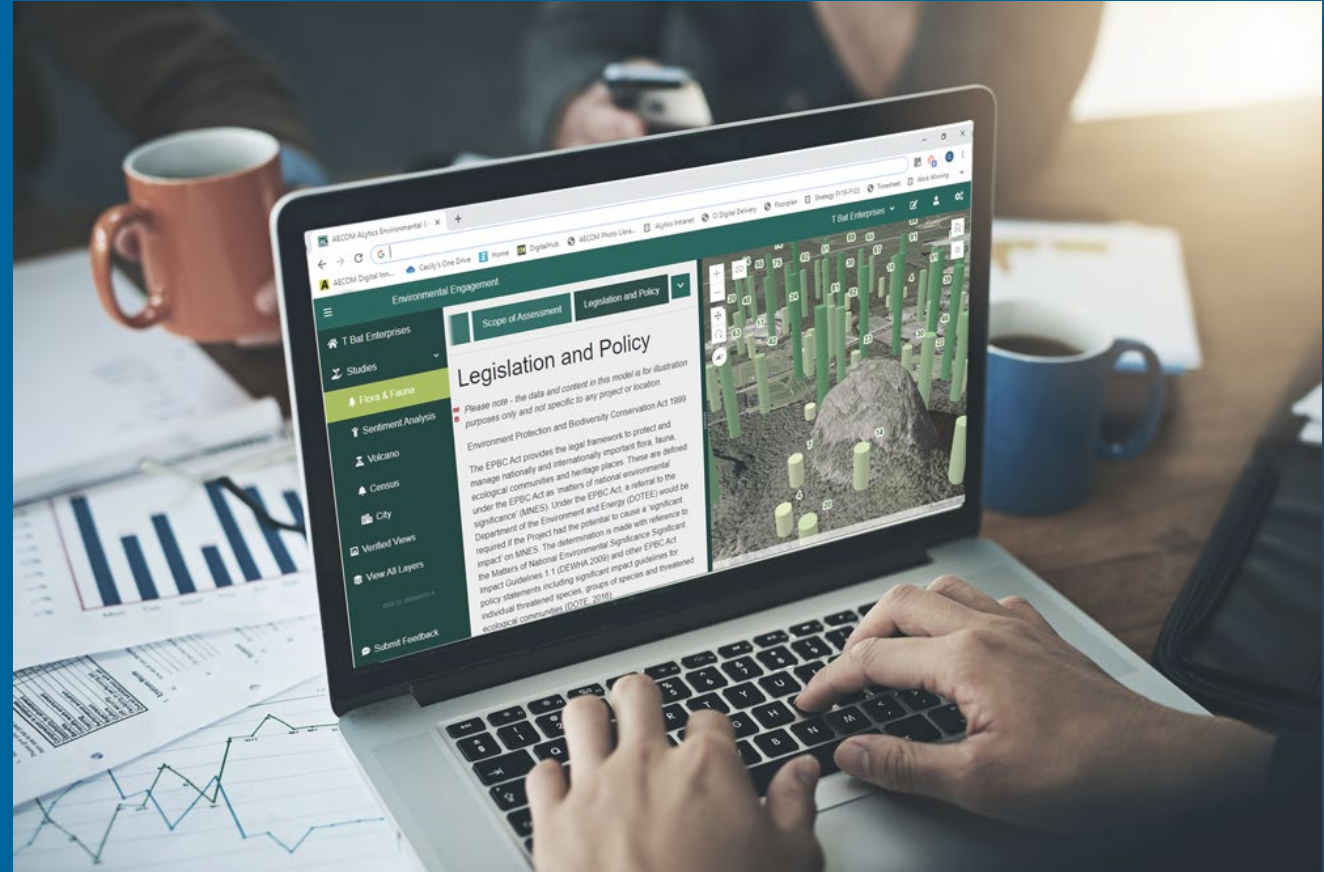
TE WAIORA
THE LIFE-GIVING WATERS

Waiora originates at the puna (the sources or springs), of Rangihūi and Papatōhūku and flow continuously within te hiriānga wai (the water cycle), carrying life-giving properties to the taiao (the environment), to the animals, and to the people within. Kō te wai te ora o ngā mea katoa. Water is the life source of all things.

Labels:
 Pūkōhu FOG/ MIST
 Hīkūwai HEADWATERS
 Ngāhere FOREST
 Wāirene WATERFALL
 Hōpua POND
 Wāhapū ESTUARY
 Ngūtūwā RIVER MOUTH
 Takutāi COASTLINE

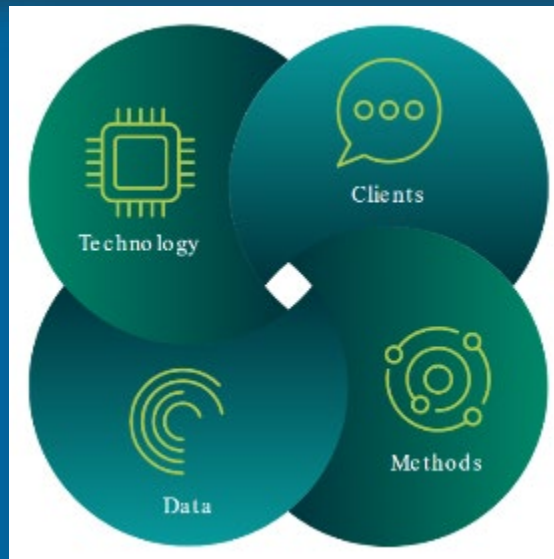
Labels:
 Kapua CLOUDS
 Pae Maunga MOUNTAIN RANGE
 Puna Wai SPRING
 Au CURRENT
 Ropo WETLAND
 Wai Mānawa MANGROVES
 Ngaru WAVES
 Toka ROCKS

Logos: water NEW ZEALAND, TE WIKI O TE REO MĀORI Māori Language Week 11-18 MARCH 2023, Scan to explore Te Waiora Author





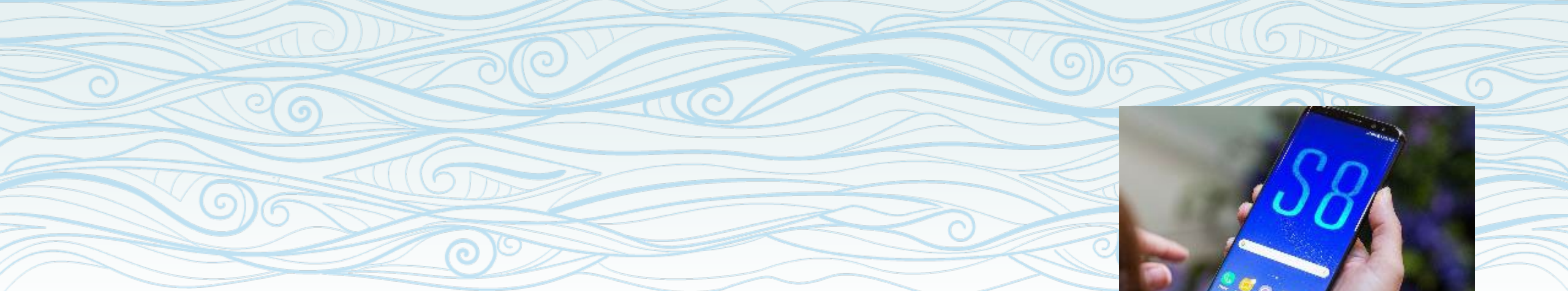
Sustainability and environmental impacts





Continuous improvement and change management





Samsung Galaxy
S8 2017

4. Case study



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What does Digitisation and Business Intelligence bring to water reform?



Summary



Thank you and acknowledgments