

# The Digital strategy supports Waka Kotahi to deliver Te kāpehu and the four Kāhui whetū

The three outcomes of the Digital strategy directly support the Agency to deliver on Te kapehu and the four Kahui whetū.



Our people underpin all that we do. We are committed to developing the Te Aukaha people plan, as we embed the Domain delivery model and agile ways of working.

## What is the digital opportunity at Waka Kotahi?



# Simplifying and modernising our digital ecosystem

- Simple and robust solutions that keep New Zealanders and their data safe.
- Deliver re-usable enterprise platforms rather than bespoke solutions for projects.
- Modern ways of working, automation and technology risk management.
- Leveraging machine learning and Generative Al for system and staff effectiveness across Waka Kotahi – vendor management, data insights, communications etc.



# Digitising transport services and solutions

 Support the Transport System with smart data and digital solutions for asset management, revenue collection and delivery excellence.



## **Customer digitisation**

 Build engaging digital channels to drive operational efficiency, improve customer experience and enable personal interactions and choices about mode shift, climate and safety.



# What are we chasing down?

#### The digital opportunity at Waka Kotahi Digitising transport Simplifying and modernising **Customer digitisation** services and solutions our digital ecosystem Improved security and Service management, Staff and third party Asset management and resilience across automation and In-vehicle technology Customer self service automation and digital engineering strategic platforms workflow including Al workflow Modern ITS network, Data and automation for Modern Enterprise TOC and camera **National Ticketing** transport planning and systems operations management systems Cameras and sensors to improve compliance, safety and congestion Generative Artificial Intelligence

KEY

Waka Kotahi opportunities

Big plays

# Simplifying and modernising our digital ecosystem

- · Simple and robust solutions that keep New Zealanders and their data safe.
- · Deliver re-usable enterprise platforms rather than bespoke solutions for projects.
- · Modern ways of working, automation, security and technology risk management.
- Leveraging machine learning and Generative AI for system and staff effectiveness across Waka Kotahi vendor management, data insights, communications etc.

Improved security and resilience across strategic platforms

Service management, automation and workflow, including Al Modern ITS network, TOC and camera management systems

Modern Enterprise systems





















TBC

Finance Systems TBC

Generative Artificial Intelligence





# Digitising transport services and solutions

- Support the Transport System with smart data and digital solutions for asset management, revenue collection and delivery excellence
- Enable regulatory compliance effectiveness through smart data, automation and technology solutions for system monitoring and enforcement.

Asset management and digital engineering

Data and automation for transport planning and operations

In-vehicle technology

National Ticketing

Cameras and sensors to improve compliance, safety and congestion We have started building the components required to deliver a robust digital asset management and digital engineering capability.

User Interface (Internal)

User Interface (External)

Digital Twins

Digital Twins Digital Twins

**Geospatial Platform** 

BIM and Digital Engineering

Asset Management Register

Asset Management Data Standards

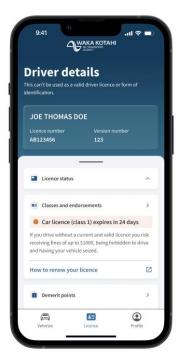


# **Customer digitisation**

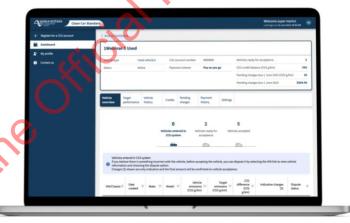
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Customer self service

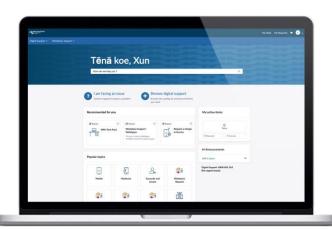
Staff and third party automation and workflow







Clean Car Scheme (Pega)



Digital Support Homepage (ServiceNow)

Consumer Hub



# Strengthening our foundations remains critical to achieving our digital strategy

There is a lot of mahi underway that has set us up strongly into the future.

## Digitally enabled

- Digital platforms with easy to use tools for customers, partners and staff
- Shared data and capabilities for usercentric services
- Learning organisation with a continuous improvement focus.
- Automation reduces risk and improves effectiveness

## Digitally transformed

- Digital ecosystem with many partners sharing and using data/capabilities
- Connected virtual transport network
- Data and digital tools provide improved regulatory, transport, safety and climate outcomes.

## **Strengthen our foundations**

- Simplified and improved digital and technology capabilities
- · Modern and engaging ways of working.
- Risks understood and well-managed.
- Best practice functional skills and knowledge embedded in centres of expertise (design, transport, architecture).
- · Clear accountability for delivery outcomes
- "Smart client" for key vendor relationships

2022 to 2024

2023 to 2025

2025 onwards

## We have identified six industry and global innovation trends relevant to Waka Kotahi:

## **Digital Engineering**

Digital Engineering, Digital Twins, BIM (Building Information Modelling), Smart Business Cases

Digital Engineering is the collaborative way of working using digital processes to enable more productive methods of planning, designing, constructing, operating and maintaining assets throughout their lifecycle.

KiwiRail #

## Partnerships and Ecosystems

Shared platforms and innovation hubs with other agencies, councils, public and private sector, NZ and beyond,

With the speed of evolving technology. organisations need to maximise strategic partnerships to ensure they are able to respond to the pace of innovation. Partnerships help us make use of the best technology solutions while we can focus on our core business.



#### **Smart Cities and Intelligent Vehicles**

MaaS (Mobility as a Service), IoT (Internet of Things), Alternative fuelled Vehicles, Autonomous and Connected vehicles.

A Smart City uses technology to solve city problems - devices and sensors collect data, then use that data to manage traffic, utilities and services to ensure a safer, cleaner and more efficient city.





### **Automation and Digitisation**

Process standardisation and simplification. automation, micro-services

Digitally transforming business by adopting technology with more accurate and reliable outcomes. Using tools to automate processes that have been simplified and standardised. reducing human touchpoints and leveraging real time data automation and configurable business rules.



## **Artificial Intelligence and Augmented** Reality

Generative AI, virtual / augmented reality

Al based-technologies to simulate, replicate and augment human interactions for operational efficiency, risk management, greater insights, training, health and safety, and to support in nonhospitable / non-accessible environments.



### **Modern Data Capabilities**

Open Data, Analytics, Evidence based outcomes, real time data

Data is connected between applications and databases in a way that ensures they are updated in near real time. Data is securely available to other participants of the transport and regulatory ecosystem as well as being available for analysis and machine learning.

