



ITS Driving for a Better Life
智能交通赋能幸福美好生活

Accelerating Safe, Low-Emission Transport

New Zealand Regional Update for ITS Asia-Pacific Forum, Chengdu, China



New Zealand's key transport priorities

The purpose of our transport system is to improve people's wellbeing, and the liveability of places

Reducing Transport Emissions

Developing a Safe Transport System

Improving Freight Connections

21%

Of GHG emissions in NZ are transport related

38%

Of New Zealanders has used public transport in the past year

319

People died on the roads in NZ in the past year



The Role and Importance of ITS and Technology

Collaboration and partnership between the private sector, academia and government is critical for the ITS sector

Key Transport Objectives

- Climate change
- Road safety
- Mode shift
- Decarbonisation of freight



Key national initiatives with technology as a focus:

- Long Term Insights Briefing on Autonomous Vehicles
- Waka Kotahi Transport Agency Innovation Fund
- Integrated National Public Transport Ticketing System
- Airspace Integration Trials

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Technology and Innovation

New Zealand has a strong foundation for developing and testing new transport technologies.

Attractive investment opportunities:

- Supportive regulatory framework
- Many opportunities for collaboration and partnerships
- Easy to do business
- Simple and fair tax environment
- World class universities and research centres
- Appealing lifestyle and culture

Examples of innovative work:

- Automated vehicles
- Drones and Aerospace
- Micromobility

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Electrification

New Zealand is actively supporting electrification of our transport system to further reduce transport emissions

Funding innovation and long-term thinking:

- Low Emissions Transport Fund (LETF) funds proposals for innovative – and established – EV charging solutions to support wider deployment and market uptake of electric vehicles
 - Including ultra-rapid fast public chargers, destination chargers
- Cross-agency working group coordinates and progresses work across the EV charging system
 - Development of a long-term EV charging strategy (over future emissions budget periods – out to 2035)

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Automated Vehicles

New Zealand is undertaking work to understand the impact that automated vehicles could present when operating on New Zealand's roads

Ongoing work and feasibility studies:

- Producing a Long-term Insights Briefing (LTIB) to better understand challenges and opportunities presented by automated vehicles
 - How equitable will automated vehicles be?
- Affordable, shared ownership models offer the greatest opportunity to improve access for automated vehicles

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Congestion pricing

New Zealand considers the introduction of congestion pricing to reduce congestion, improve the performance of the road network, and further reduce transport emissions

Technology to detect and enforce:

- Work is underway to introduce congestion pricing in New Zealand (starting with Auckland) to change travel behaviour
- Automatic Number Plate Recognition (ANPR) has been identified as most practical and feasible technology to use for vehicle detection and enforcement
- In the future, in-vehicle technology incorporating Global Navigation Satellite System (GNSS) could be used



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Drones and Aerospace

New Zealand recognises the potential of drones and aerospace and their ability to make fundamental positive changes to the transport system and the wider economy

Established testing and trialling ground:

- New Zealand's vision is to enable a thriving, innovative, and safe drone sector
- Flexible, risk-based regulation helped to attract range of domestic and international companies
- Airspace Integration Trials Programme (AITP) supports R&D through portfolio of drone applications
 - Use case examples: high-altitude imaging, agricultural spraying, health logistics, fog dispersal



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Drones and Aerospace – AITP Partners

The partners in the Airspace Integration Trials Programme (AITP) are testing and trialling various use cases that could deliver multiple benefits to New Zealand

Examples of use cases:

- **Dawn Aerospace:** Developing vehicle that can perform multiple flights to and from space per day, while taking off and landing from conventional airports
- **Swoop Aero:** Use of unmanned aircraft to transport and deliver medical supplies to remote and challenging locations
- **Wisk NZ:** Delivering urban air taxi services (electric, vertical take-off and landing)
- **Kea Aerospace:** Use of zero-emission aircraft to acquire and analyse HQ aerial imagery data (20x closer to Earth than satellites)

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Micromobility

New Zealand cities have been quick to adapt shared e-scooters with a number of e-scooter trials operating across the country

Use of data can help realise potential:

- Shared e-scooter use has increased significantly in New Zealand
- Shared micromobility can help meet challenges in the transport system
 - E.g. Solving 'first/last mile' problem, increasing public transport patronage
- Data is used on both local and national level to better understand trends and to ask follow-up questions

3.2M

Shared e-scooter trips have been undertaken in New Zealand last year

7 min

Is how long the average e-scooter trip in New Zealand takes

13

Cities are currently trialling shared e-scooter schemes in New Zealand



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ITSNZ International Knowledge-Sharing Opportunities

ITSNZ hosts events every month which attract audiences up to 200 people, most are free to attend and we welcome international audiences.

We welcome engagement with international speakers from ITS organisations, government and industry to share knowledge and outcomes of research, trials and new technology implementation.



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Chengdu, China 27-29 April 2022