Submission by


to the

**Ministry of Transport**

on the

# Draft Government Policy Statement on Land Transport, 2024-34

29 March 2024

**Contact:**
Armin Guttke, Director - Membership, ITSNZ
armin.guttke@itsnz.org
021 0489 162

## INTRODUCTION

On behalf of our members, Intelligent Transport Systems New Zealand (ITSNZ) welcomes the opportunity to comment on the Draft Government Policy Statement (Draft GPS 24) on land transport, 2024-34.

ITSNZ membership consists of over 50 organisations as well as individuals, from government*, private sector, and education entities. Members are involved in research, development, deployment, and support of Intelligent Transport Systems (ITS) and/or transport solutions.

ITSNZ supports, advocates, and promotes the development and adoption of solutions, not only technology, to achieve the outcomes of economic prosperity and efficiency, safety, sustainability and resilience, and wellbeing and liveability. Our submission outlines our views in relation to the content of GPS 24, additional considerations, and examples of solutions and technology applications that could help achieve the desired outcomes within it.

*Government members abstained from contributing to this submission, so the following represents the views of our commercial and academic members.

## KEY POINTS TO THIS SUBMISSION

We are largely supportive of the content within the draft GPS, in particular the extent that it establishes a longer-term planning horizon. The focus on economic prosperity, resilience, reliability and safety will be important to deliver an effective and efficient land transport system.

Given the context of NZ and our inherited infrastructure and its condition and previous underinvestment - we need to be 'smart' in the use of technology in all areas of road, rail, bus and other forms of transport to enable improved and more sustainable transport outcomes for people, communities and business. A sustainable approach is one that also carefully evaluates spend vs real benefits to stretch the economic investment available and achieve more with it across Government.

When we submitted on the previous Government Policy Statement on land transport (GPS 21), we conveyed that while it provided an outcome focused approach supporting the needs of business and the land transport system, it was lacking consideration of technology solutions, research, and investment.

Leveraging technology enabled solutions as part of improving and transforming our land transport system accelerates achievement across all of the identified strategic priorities. Targeted investment based on accurate and available data is an important part of this.

It is reassuring therefore, that GPS 24 includes technology and innovation as a critical enabler for transport system reform and increasing value for money on future investments. However, we still believe that more needs to be explicitly done to encourage, motivate and ensure Government and Local Government agencies actively pursue those opportunities.

We had also previously conveyed that future land transport optimisation would be constrained without increased consideration and clarity on how investment is distributed and how benefits are measured. We are pleased that this GPS provides increased commitment to focusing on this, including how technology can assist with measuring the benefits.

On a different note, GPS 24 notes that the intended emissions reduction policies foreshadowed by the previous Government are being reassessed, and that the final version of GPS 24 will be updated to reflect ERP2 when it is published. We are also aware that local councils are currently completing a mid-term review of their regional LTPs (due in June). While we appreciate this may

present some timing challenges, it is important that alignment across all government plans (central and local) occurs.

Alignment of strategic priorities and investment objectives needs to include alignment of investment in technology and innovation, as an important enabler in achieving the objectives set out by the Government.

## SPECIFIC COMMENTS

Strategic Priority: Economic Growth and Productivity

We agree, as noted under the strategic priority of Economic Growth and Productivity, that the objective of network and service optimisation is likely to lead to greater use of digital infrastructure and information systems. This can be expected to improve national productivity through an enhanced transport system, particularly in the management of New Zealand's supply chain, as well as its public transport network.

We have a generational opportunity to build new roading infrastructure in a smarter way that not only utilises technology as part of the design process but also incorporates it to deliver digitally connected corridors, smarter highways and road networks. We would like to see explicit consideration of this, as in the use of Cooperative-ITS technology(C-ITS), which connects infrastructure, vehicles, and people, and supports all of the strategic priorities.

In relation to demand management solutions, it is encouraging to see road pricing, such as tolling and time of use charging listed as a playing a key role in the delivery of the Roads of National Significance programme, and as part of a wider package of transport revenue and investment tools. The associated suggested reforms including tolling legislation, and those allowing for time-of-use charging can help reduce congestion and maximise use of existing assets if implemented in the right way.

These reforms should consider impacts on users of the transport system in order to avoid distortionary effects. For time of use charging in particular, it is recommended that this technology is not implemented as a revenue tool but as a tool to ensure the goal of congestion reduction can be maximised.

From a technology perspective, ITSNZ thinks there will be significant opportunities to rationalise investment, increase benefits and avoid the creation of constraining systems if we take the opportunity to ensure consistent standards not only across NZ but also between C-ITS and tolling and congestion management systems. This will also allow the establishment of robust architecture to support future use cases.

Strategic Priority: Increased Maintenance and Resilience

It is encouraging to see GPS 24 take a new "proactive" approach and increased focus to ensure all investment in maintaining and improving resilience on the state highway, local and rural network is spent in the most efficient manner.

We acknowledge that the Ministry has advised it is difficult to ascertain whether the amount spent on road maintenance is delivering value for money. An increased focus and investment in data intelligence and insights could help provide certainty on investment and policy options and decisions in the future. This could be looked at as part of the proposed Performance and Efficiency Plan.

Strategic Priority: Safety

The increase in deaths and serious injuries despite Government intervention to date is concerning. We are pleased to see an approach that avoids blanket speed reductions and considers risk factors for high-risk parts of the network in reducing these numbers.

We agree that vehicle technology can play a role, such as the example noted of mandatory alcohol interlocks for the most severe offenders and improved automated enforcement. Further to this, the level of connectivity within our vehicle fleet is growing and has been largely untapped. We support additional consideration of vehicle technology and vehicle data as part of the Government's approach to lower cost safety interventions.

Examples of these type of technologies include:

- Vehicle features including lane keeping, adaptive cruise control and oncoming vehicle warnings to make travel on high-speed roads safer
- Intelligent infrastructure and communication with vehicles/drivers (e.g. emerging I2V and V2V technologies)
- E-RUC, as utilizing existing collected data sources from eRUC implementations can provide a targeted view of speed limit adherence and its impact on travel times

It is important that NZ remove barriers and supports the use of these types of technologies. This includes, finally, ensuring that the communication bandwidths are available that suit NZ's fleet and that our standards and regulations support the use of C-ITS and vehicle technologies (e.g. ensuring Warrants of Fitness assess the effective operation of the vehicle technology).

Strategic Priority: Value for Money

We note the key action of "making better use of existing digital infrastructure and information systems where appropriate to help achieve the strategic priorities in this GPS". However, we strongly recommend this be amended to also encourage the use of new digital infrastructure where it will provide value for money. ITSNZ has been informed from our connections internationally, that in the last six years in comparison with similar jurisdictions NZ has under-invested in digital infrastructure. As a result, we have not gained many of the benefits that we could have gained.

Application of technology and technology-based solutions will support optimal use of existing infrastructure, and deferment or elimination of some unnecessary infrastructure investment.

Examples of technology and technology-based solutions that support this include:

- Network / route optimisation based on real-time communication with vehicles
- Individual intersection and corridor optimisation (by different parameter (e.g. people, HVT, emissions, modes)
- Journey Mapping (optimising multi modal options and journeys by offering route selection and travel advice based on real-time traffic conditions)
- Telemetry (utilizing existing collected data sources from eRUC implementations can provide a targeted view of speed limit adherence and its impact on travel times)
- On-demand PT (which has proven to provide enhanced, responsive service for the same $ in trials in New Zealand and overseas)
- Digital Twins (for optimising and future proofing the design, planning, use, and maintenance of infrastructure in the most cost effective)

In reference to our recommendation, we suggest increased alignment with the Statement of Ministerial Expectation which states "NZTA will be required to find efficiencies in the delivery of its services. This includes developing digital electronic systems and processes allowing third parties to bid and operate these services". Consideration of public private partnerships (PPP's) and new

technologies such as artificial intelligence, 5G, and the internet of things could lead to increased productivity for both existing and new systems.

In addition, including a focus on system integration, data sharing, and data consolidation could lead to increased benefits from the use of existing and new technology, such as improved operational decision making, efficiency and performance. As an example, ensuring integrated ticketing is delivered in such a way that it can link with wider ITS systems including Mobility as a Service applications in their broader sense enhances flexibility and convenience to system users, and in the pricing structures and revenue collection.

In relation to temporary traffic management, we agree that the Government and its Road Efficiency Group should review the efficiency of expenditure on temporary traffic management. However, this needs to recognise the Health and Safety at Work Act (H&SWA) regulatory requirement for a person conducting business or undertaking (PCBU) to achieve the lowest reasonably practicable total risk (i.e. safety for road workers and road users). Lowering the cost of temporary traffic management will require consideration of when, how, and what work is completed to facilitate the work with a 'right sized' traffic management plan. A risk-based approach as prescribed by the H&SWA and subsequent WorkSafe and NZTA publications provides opportunities including the use of technology to meet regulatory safety requirements and improve the cost-effectiveness of temporary traffic management.

We note that electric vehicle charging infrastructure has been identified as part of the projects and programmes for crown funding. Implementation of charging infrastructure should be future proofed much as practicable to reduce future costs including upgrades and replacements. The use of smart chargers and application of smart charging standards should be evaluated as part of this. Technology platforms supported by open access protocols and data agreements can enable cost effective integration of e-transport with a connected journey experience across a large number of charging locations. This may include EV roaming as part of a PPP model to deliver an interoperable and seamless access and payment service to users and for revenue collection.

We note the intention to reinvigorate the Road Efficiency Group to focus on driving efficiency into the road and highway maintenance. We support that initiative but believe that group could be part of a wider Transport Efficiency Group that would consider how NZ can drive efficiencies into the whole transport system across planning, implementation, operations and maintenance. One of the focus areas for this group could be the role of technology in delivery value for money and improved outcomes across the transport system.

Lastly, we suggest further focus on research and trials to ensure the best technology from local and international markets can be assessed and implemented with the New Zealand context in mind. This will help future proof our transport network in the most cost-effective way.

<u>Investment in Land Transport</u>

We encourage consideration of the following to support all strategic priorities:

1. A dedicated Activity Class for vehicle technology and ITS. An example of the investment under this Activity Class could be:

    - Development and operation of a "center of excellence", a model adopted by international governments, that encourages and facilitates collaboration between Government, industry and academia. Some examples include:
        i. Australia (AIMES)
        ii. UK (Connected Places Catapult, formerly Transport Systems Catapult)
        iii. Singapore (CETRAN)

- Design of long-term regulatory requirements for vehicle safety technology, connected vehicle technology, ITS and emissions

2. Including research and development across all Activity Classes by providing guidance and an expectation that a certain % of funds (e.g. 1.5%) be allocated per activity class for operational research, demonstration trials, monitoring, data analytics and evaluation to inform future transport system implementation. Incentivising this will support adoption of better measurement, tools, and capability.

On a separate but related note, in relation to New Zealand's infrastructure investment, it is promising that the National Infrastructure Agency is expected to work with the NZTA to develop a 30-year plan. Upfront inclusion of technology within the plan will support outcomes that are geared toward future proofing our transport system. This should include long term policy objectives and goals that plan for future technologies. Examples may include connected and autonomous vehicles (both land-based and other), 5G and the internet of things.

## CONCLUSION

The nation has a significant generational opportunity to deliver a land transport system that is fit for purpose and future proofed to achieve the desired strategic priorities outlined in GPS 24. Investment should also be future proofed where possible, and this should include things such as the right choice of technology, as well as multi-year appropriation where possible to avoid regrettable spend due to changes in Government and other factors.

We are confident that the Draft provides a good basis for delivering the desired outcomes, and we look forward to seeing the implementation of what it seeks to deliver. Including the right technology mix in a connected and integrated way will be critical to understanding the best path to that future, implementing required actions to achieve it, and measuring the outcomes.