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More excellence recognised at the 2025 CILT Awards

New online self-assessment tool boosts freight emissions action

Boosting supply chain productivity

The Chartered Institute of Logistics and Transport

LOGISTICS & TRANSPORT NZ IS THE OFFICIAL JOURNAL OF THE CHARTERED INSTITUTE OF LOGISTICS & TRANSPORT NZ

ON THE COVER

The New Zealand Infrastructure Commission's new National Infrastructure Plan sets out an attempt to shift the country from reactive delivery to disciplined, long-term stewardship. One of the Plan's strongest themes is the need to treat infrastructure as interconnected systems rather than isolated projects.

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In the next edition

The editorial team welcomes expressions of interest for submitting an article for the June 2026 edition of this journal, especially from young professionals (those under the age of 35). Contributors should in the first instance contact the editorial convenor, Murray King (email murray.king@xtra.co.nz) to discuss their article. **Deadline for the June 2026 edition: May 8 2026.**

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More excellence recognised at the 2025 CILT Awards

THE DECEMBER ISSUE OF *Logistics & Transport NZ* highlighted the 2025 CILT Annual Forum and Awards Dinner, which brought together leaders from across New Zealand's transport and logistics sector. This follow-up recognises several additional award winners whose work reflects the importance of research and practical safety leadership in strengthening the industry.

Academic research continues to make an important contribution to the sector. This year's Applied Industry Research Excellence Award was presented to Dr Lahiru Gunasekara and Anh Tuam Pham for work that strengthens the evidence base supporting industry decision-making. Joseph Young received the NZTA Award for Outstanding Research Achievement for a Masters' Dissertation or Thesis.

Research of this kind helps the sector address some of its most pressing challenges, including decarbonisation, productivity pressures, and changing supply chain dynamics. It also reinforces the value of strong links between academic insight and industry practice. See his article on page three.

The Napier Port Safety Made Simple Award was presented to Port of Auckland for its Leadership PPE framework, an initiative aimed at strengthening frontline safety leadership in the port environment.

Ports are complex, high-risk workplaces where operational demands are constant and conditions can change quickly. Recognising this, Port of Auckland set out to simplify how safety leadership is understood and applied across its operations.

The Leadership PPE framework (standing for People, Performance and Environment) was developed collaboratively with staff across the organisation. The goal was simple: create an approach that reflects the realities of day-to-day port operations.

Rather than relying on theory-heavy training or lengthy presentations, the framework focuses on practical principles that help frontline leaders make sound safety decisions in real time.

To support the framework, the port introduced the 'Ngā Ringa Haumaru – In Safe Hands' programme. The three-day course provides leaders with hands-on opportunities to develop and practise safety leadership skills suited to the fast-moving conditions typical of port operations.

Following strong initial feedback, the programme is now being rolled out more widely across the organisation. These awards reflect the depth of capability across New Zealand's transport and logistics sector. From research excellence to practical safety leadership, the winners demonstrate how new thinking and professional commitment continue to strengthen the industry.

Anh Tuam Pham, winner of the Applied Industry Research Excellence Award

Dr Lahiru Gunasekara, winner of the Applied Industry Research Excellence Award

Joseph Young, winner of the NZTA Award for Outstanding Research Achievement for a Masters' Dissertation or Thesis

Port of Auckland won the Napier Port Safety Made Simple Award

Research of this kind helps the sector address some of its most pressing challenges including decarbonisation productivity pressures and changing supply chain dynamics.

What the National Infrastructure Plan means for transport and freight

BY JAMES PAUL

NEW ZEALAND'S transport and logistics sector is accustomed to operating in cycles, whether that is electoral, fiscal, or economic. But infrastructure does not move to three-year timetables. Ports, rail corridors, highways, intermodal hubs, and energy systems are intergenerational assets. When investment falters or priorities shift abruptly, freight flows feel the consequences first.

Against that backdrop, the New Zealand Infrastructure Commission's new National Infrastructure Plan (the Plan) sets out an attempt to shift the country from reactive delivery to disciplined, long-term stewardship. It is not a project list in the traditional sense. Rather, it is a framework for how projects should be identified, prioritised, funded and delivered over decades.

For senior professionals across transport, logistics and supply chain management, the Plan is significant not because it announces new roads or rail lines, but because it seeks to reshape the environment in which those decisions are made.

The Plan is designed to provide a 30-year view of infrastructure needs, risks and capability gaps. It responds to a familiar set of pressures: rapid population growth in some regions, climate adaptation demands, fiscal constraints, ageing assets, and uneven productivity performance.

The Commission's central message is that New Zealand has not consistently planned, sequenced or funded infrastructure in a way that maximises value. Too often, projects have entered the pipeline without clearly defined problems, robust options analysis, or a realistic assessment of delivery readiness.

The Plan therefore focuses on three core shifts: improving asset management of what already exists; strengthening the front-end discipline of project selection; and building delivery capability across the public and private sectors.

For transport and freight, this reframing matters. With tens of billions of dollars' worth of transport proposals circulating, many without confirmed funding, the Commission is signalling that future investment will be judged more rigorously against long-term system outcomes, not short-term political cycles.

From projects to systems

One of the Plan's strongest themes is the need to treat infrastructure as interconnected systems rather than isolated projects. In transport, that means acknowledging the interdependence between state highways, local roads, rail corridors, ports, airports, and the energy and digital networks that support them.

The Commission highlights that a substantial share of major unfunded proposals is transport related. Without disciplined prioritisation, there is a risk of fragmented delivery, building assets that do not integrate effectively with freight hubs, land use planning, or decarbonisation strategies.

For freight operators, this systems view aligns with operational reality. A delay at a regional port gate can ripple through a national supply chain. A weak bridge on a local road can compromise access to a major distribution centre. Electrification of a rail corridor must align with terminal capacity and energy supply.

The Plan encourages agencies to define problems clearly before reaching for capital-intensive solutions. Congestion, for example, may require demand management, land use change or operational improvements before new capacity. That emphasis on problem definition and options analysis is intended to reduce the risk of overbuilding — or building the wrong thing.

Asset management: sweating the balance sheet

A notable feature of the Plan is its emphasis on asset management. New Zealand's public infrastructure asset base is valued in the hundreds of billions of dollars. The Commission argues that better maintenance, renewal planning and performance monitoring can often deliver higher returns than new capital builds.

This focus has been welcomed by asset management professionals. Āpōpō, representing New Zealand's infrastructure asset management professionals, has emphasised that lifting capability in asset management is critical to infrastructure resilience.

In a sector response, Āpōpō noted that "stronger asset management practices are fundamental to getting value from existing networks before committing to new capacity". The organisation has argued that consistent standards, better data, and long-term funding certainty are essential if agencies are to move beyond reactive maintenance cycles.

For transport and freight, the implications are direct. Deferred maintenance on local roads increases vehicle operating costs. Underinvestment in rail track renewals limits speed and capacity. Port infrastructure that is not maintained to modern standards constrains throughput and safety.

The Plan suggests that improving the stewardship of existing assets could reduce the pressure for large-scale capital injections, while improving reliability across networks.

A sharper value-for-money lens

Another central pillar of the Plan is value for money. The Commission calls for more consistent application of cost-benefit analysis, clearer articulation of non-monetised benefits and risks, and transparent assessment of trade-offs.

Industry commentary has broadly supported this direction, particularly in light of recent cost escalations across major transport projects.

Several sector leaders have observed that tighter fiscal conditions make disciplined prioritisation unavoidable. As one senior infrastructure advisor commented: "We can't afford to do everything. The question is

whether we are choosing the projects that genuinely lift productivity and resilience".

For freight and logistics, the productivity lens is critical. Investments that improve network reliability, reduce travel times, and increase modal flexibility can have compounding economic effects. Conversely, poorly scoped projects can tie up capital without delivering system-wide gains.

The Plan also highlights the importance of sequencing, ensuring that enabling works, land acquisition, consenting and utility relocations are aligned before major contracts are let. That front-end discipline is designed to reduce cost overruns and delivery risk.

Funding and financing: confronting constraints

The Plan does not propose a single new funding model. Instead, it outlines principles for sustainable funding: aligning revenue streams with asset lifecycles, providing greater certainty over multi-year pipelines, and exploring alternative financing where appropriate.

Transport funding remains heavily dependent on fuel excise duty, road user charges and general taxation. As the vehicle fleet electrifies and fiscal pressures mount, the long-term sustainability of these revenue sources is under scrutiny.

The Commission signals that clearer user-pays frameworks, congestion pricing, and targeted rates may form part of the conversation. However, it also cautions against over-reliance on financing mechanisms that obscure underlying affordability.

For the freight sector, funding reform carries both risk and opportunity. Road pricing changes could alter modal competitiveness. Greater certainty over rail or port investment pipelines could unlock private co-investment in terminals and rolling stock.

Ultimately, the Plan underscores that infrastructure investment must be grounded in realistic assessments of what the Crown (and ratepayers) can sustain over decades.

Delivery capability and the construction market

Beyond funding, the Plan addresses a persistent constraint: delivery capability. New Zealand's infrastructure programme is delivered by a relatively small pool of contractors, consultants and specialist suppliers. Boom-and-bust cycles undermine workforce stability and productivity.

The Commission calls for more predictable pipelines, better procurement practices, and earlier engagement with the market to shape feasible delivery models.

Contractors have responded positively to the emphasis on pipeline visibility. Industry representatives have long argued that erratic project flow drives up costs and erodes capability. As one contractor spokesperson observed: "Consistency of work is what allows us to invest in people, plant and innovation. Stop-start procurement ultimately costs the country more".

For transport, where projects often involve complex staging, traffic management and utility coordination, stable pipelines are particularly valuable. They enable firms to retain skilled engineers, planners and project managers, capabilities that are not easily rebuilt once lost.

The Plan also highlights the need to strengthen public sector commercial capability. Better client-side expertise in procurement, risk allocation and contract management is seen as essential to improving outcomes.

Climate resilience and decarbonisation

Although the Plan is not a climate strategy, it integrates climate adaptation and emissions reduction as core considerations in infrastructure planning.

Transport infrastructure is both vulnerable to climate impacts and central to emissions reduction pathways. Coastal roads, rail lines and ports face rising sea levels and more frequent extreme weather events. At the same time, freight decarbonisation — through electrification, alternative fuels and modal shift — depends on coordinated infrastructure investment.

The Commission's systems-based approach supports more integrated planning between transport, energy and land use. Electrified rail corridors, for example, must align with grid capacity and generation planning. Port resilience upgrades must consider future climate scenarios over asset lifespans measured in decades.

For logistics professionals, the message is clear: infrastructure decisions taken now will shape the sector's ability to meet customer and regulatory expectations on emissions and resilience.

From plan to practice

The Plan is, by design, strategic rather than prescriptive. Its success will depend on whether its principles are embedded in agency practice and political decision-making.

Implementation will require cultural change as much as technical refinement. Clearer problem definition, stronger business cases, and transparent trade-offs demand discipline in environments where urgency and political pressure are ever-present.

It will also require collaboration across central and local government, regulators, asset owners and private operators. Freight networks do not respect administrative boundaries; nor do supply chains.

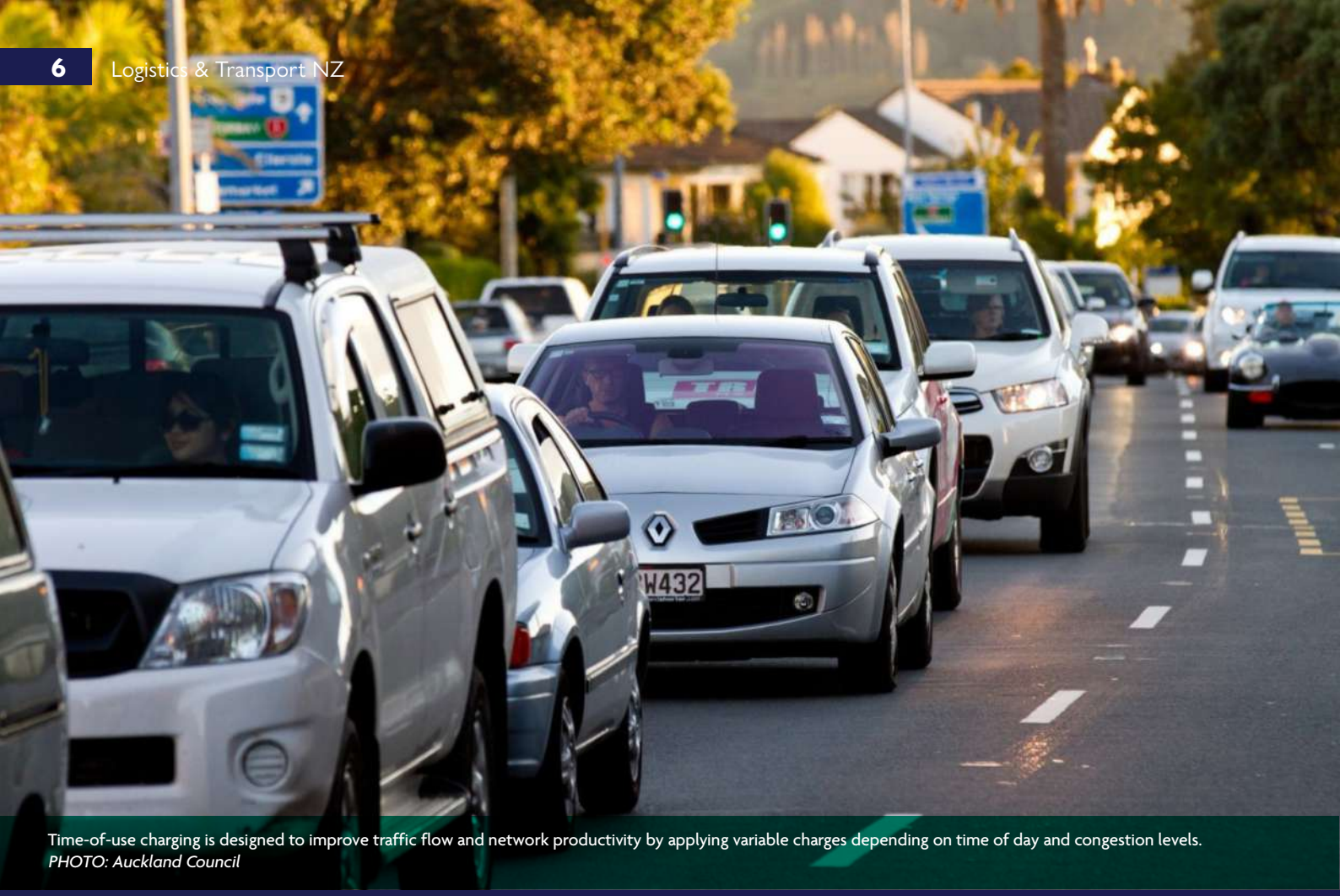
The Plan's emphasis on asset management, value for money and delivery capability resonates with many in the sector. But translating that into consistent behaviour, particularly over multiple electoral cycles, will be the real test.

For transport and logistics professionals, the opportunity lies in engaging early with this framework. Those who can articulate system-wide benefits, align proposals with long-term productivity goals, and demonstrate readiness to deliver are likely to find a more receptive environment.

New Zealand's infrastructure challenges are well understood, constrained fiscal headroom, ageing assets, climate risk, and growing freight demand. The National Infrastructure Plan does not remove those pressures. What it offers is a structured way to confront them.

If implemented with discipline and continuity, it could provide the stable, long-term platform that transport and freight networks require. If not, the sector risks another cycle of ambition outrunning capacity.

The stakes are high. Infrastructure may be built in concrete and steel, but its ultimate purpose is economic performance and social connection. For a geographically remote trading nation, getting it right is not optional.



Time-of-use charging is designed to improve traffic flow and network productivity by applying variable charges depending on time of day and congestion levels. *PHOTO: Auckland Council*

Navigating the road ahead for time-of-use charging

NEW ZEALAND HAS taken a significant legislative step toward congestion pricing, with Parliament passing the *Land Transport Management (Time of Use Charging) Amendment Act 2025*.

The Act establishes a national framework enabling local authorities to partner with the New Zealand Transport Agency Waka Kotahi (NZTA) to introduce time-of-use (ToU) charging in defined regions experiencing persistent congestion. While the legislation has received Royal assent, the charging framework is scheduled to come into force in November 2026, allowing time for scheme design, consultation, and system implementation.

For the transport and logistics sector, the shift moves the conversation from whether congestion pricing will occur to how schemes will be structured, and how freight, public transport, and communities will be accommodated.

ToU charging is designed to improve traffic flow and network productivity by applying variable charges depending on time of day and congestion levels. Peak-period pricing is intended to encourage some trips to shift to off-peak periods, alternative routes, or different modes, thereby reducing pressure on constrained corridors.

The Act makes clear that the primary statutory purpose of any scheme is to improve traffic flow and network efficiency rather than to function as a revenue-raising mechanism.

Under the framework, NZTA and a local authority (or group of authorities) may jointly propose a charging scheme for a defined "scheme region". A dedicated scheme board must then develop the proposal, undertake consultation, assess impacts, and submit the scheme for ministerial approval.

The Government has indicated Auckland is likely to be the first region considered, reflecting long-standing concerns about congestion impacts on economic performance and travel reliability. Previous analytical work, including Auckland's "The Congestion Question" project, is expected to inform scheme design.

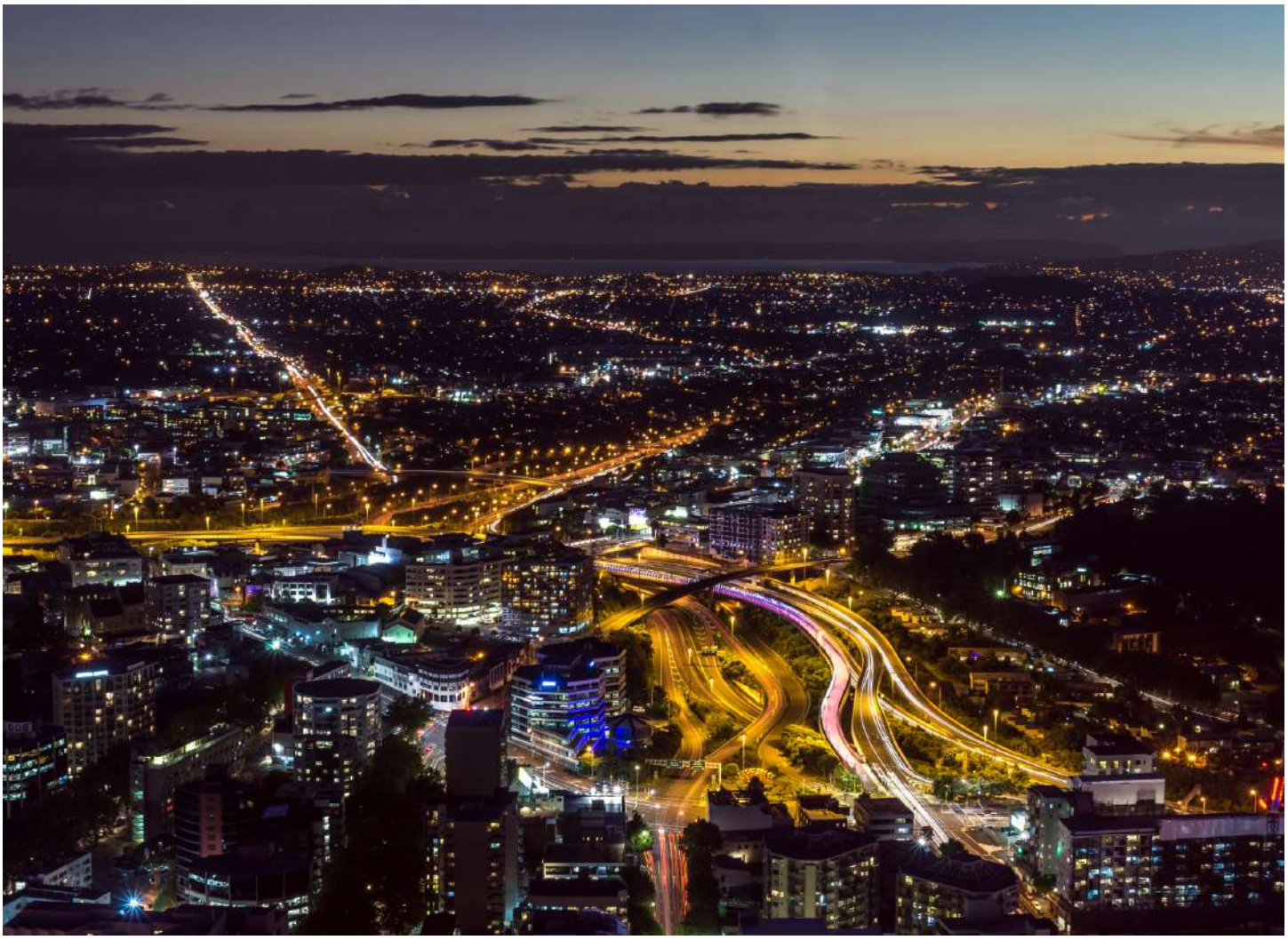
For freight operators, the central issue is flexibility.

Road freight demand is largely determined by customer delivery windows, port operations, retail supply cycles, and just-in-time distribution systems. As a result, the ability to shift trips outside peak periods can be constrained.

Transporting New Zealand has supported the principle of using pricing mechanisms to manage congestion but has emphasised the need for scheme design to recognise freight's operational realities. In submissions during the legislative process, the organisation called for:

- Consideration of freight exemptions or targeted discounts
- Careful treatment of differentiated vehicle charges
- Explicit assessment of supply chain impacts
- Trial periods prior to full implementation

The Act does not mandate blanket freight exemptions. However, it requires scheme-specific impact assessments, including distributional effects and implications for freight movement and supply chains.



This places freight analysis at the centre of scheme development rather than resolving it at the legislative level.

A key design question will be whether pricing signals meaningfully improve corridor reliability for freight (a potential productivity benefit) or primarily increase operating costs where demand is relatively inelastic.

The Bus and Coach Association has similarly supported congestion management objectives while raising concerns about unintended consequences.

School buses are explicitly exempt under the Act. However, broader treatment of Large Passenger Service Vehicles is left to scheme design. The legislation requires proposals to explain how public transport vehicles will be addressed but does not provide a statutory exemption.

The policy balance is clear: congestion charging aims to encourage mode shift, yet applying charges to buses could increase operating costs unless offset through scheme design.

How Auckland, or any future region, resolves this tension will influence both public acceptance and transport outcomes.

Equity considerations featured prominently during the Bill's passage and remain central to implementation.

Charging proposals must include impact assessments addressing affordability and distributional effects. For communities with limited alternative transport options, scheme design will need to reconcile congestion reduction goals with access and cost concerns.

Governance arrangements, including the establishment of a scheme board and structured consultation processes, are intended to provide transparency and cross-agency coordination. International experience suggests public confidence depends heavily on clear objectives, visible performance improvements, and demonstrable reinvestment in transport outcomes.

ToU charging represents a structural change in how New Zealand manages scarce road capacity. Rather than relying solely on capital expansion, the framework introduces demand management as an operational tool.

For the logistics sector, the implications are twofold:

1. Cost exposure risk, particularly where freight schedules are inflexible.
2. Potential reliability gains, if pricing reduces peak-period volatility and improves journey time predictability.

The balance between these outcomes will depend entirely on detailed scheme settings, corridor selection, charge levels, exemptions, and reinvestment decisions.

With the legislative framework now in place and commencement set for late 2026, attention turns to practical design. Auckland's experience will likely set the template for any future regional schemes.

For transport professionals, the focus is no longer theoretical. The next phase will determine whether ToU charging delivers measurable productivity and resilience gains across the freight network or simply redistributes costs within it.

New online self-assessment tool boosts freight emissions action

THE LAUNCH OF THE Ia Ara Aotearoa Transporting New Zealand (Transporting NZ) Green Fleet Self-Assessment Tool gives road freight operators a practical digital resource to benchmark and reduce emissions.

Transporting NZ has launched the Green Fleet Self-Assessment Tool (the tool), a freely available online survey for road freight operators. The simplified assessment covers about ten questions and helps businesses estimate their emissions footprint, identify areas where they are already making progress (such as fuel-efficient driver training, route planning and vehicle procurement), and highlight next steps in their decarbonisation pathway.

Interim Chief Executive Dom Kalasih says the tool allows businesses to identify what progress they've already made and what steps to take next.

"For many businesses, a brand-new zero-emission vehicle isn't feasible just yet, but that doesn't mean there's nothing to be done."

In practical terms, the tool asks about elements such as driver training, back-loading/route optimisation, preventative maintenance and procurement standards. The output gives operators a benchmark and a structured way to improve both emissions and operational efficiency.

This initiative dovetails with the Low Emissions Freight Certificate (LEFC) framework (see more on page 10) that was recently designed by the Sustainable Business Council, the Energy Efficiency and Conservation Authority (EECA) and other partners. Under the LEFC system, freight operators using low-emission technologies (such as hydrogen or electric trucks) generate certificates that can be purchased by freight-using customers to reduce their Scope 3 emissions.

Where Transporting NZ's tool focuses on the immediate practical actions and benchmarking for fleet operators, the LEFC framework provides a market-based mechanism for rewarding clean freight activity and enabling supply-chain customers to shift towards lower-emission freight. By running the two in parallel, the sector can address both operational housekeeping (through the self-assessment) and strategic investment signals (through certificates).

Transporting NZ has launched the Green Fleet Self-Assessment Tool, a freely available online survey for road freight operators.

In practical terms, the tool asks about elements such as driver training, back-loading/route optimisation, preventative maintenance and procurement standards.

Transporting NZ's tool launch also took place at a "Road Freight Decarbonisation Update" event alongside discussion of LEFC and EECA's Heavy Vehicle Fund – highlighting the integrated nature of the work.

Benefits for operators

For freight operators, the tool offers several tangible benefits:

Benchmarking:
Operators can compare their current practices against a decarbonisation pathway, identify gaps and set practical targets.

Cost reduction and efficiency:
Many of the actions supported by the tool (e.g., driver training, route optimisation, preventative maintenance) reduce fuel consumption, which in turn lowers operating cost. As Mr Kalasih points out, "not only do these strategies reduce emissions, but greater fuel efficiency reduces costs".

Supply-chain and customer value:
With increasing demand from customers and procurement teams for greener transport services, operators using the tool can evidence their decarbonisation efforts and meet growing scrutiny on Scope 3 emissions.

Preparation for future investment:
While zero-emission vehicles remain a longer-term play, the tool helps operators prepare the ground (assessing fleet readiness, procurement standards and business processes) ahead of larger investment decisions.

Complement to regulatory/market frameworks:
Using the tool helps operators align with industry-led frameworks such as LEFC and eligible funding instruments (e.g., EECA's Low Emissions Heavy Vehicle Fund).

Growing momentum in low-emissions freight

The launch of the Green Fleet Self-Assessment Tool is strong evidence that decarbonisation in road freight is moving from theory to practice. It joins a growing range of tools, funds and frameworks that bring together policy, technology and market-based approaches. From the LEFC certificate design to government grants for EV/hydrogen trucks, to this self-assessment platform, the freight sector is building a toolkit for change.

"We know that freight customers are increasingly aware of the emissions impact of transport and that all areas of the supply chain have a responsibility to make a difference," Mr Kalasih says.

For operators of all sizes, the message is clear: even where zero-emission vehicles remain aspirational, meaningful emissions reduction is possible now through smarter operations. That readiness then positions the business to participate in future market-mechanisms (like LEFC), funding opportunities and procurement trends.

For the wider freight industry, the tool provides a low-barrier entry point to measuring and improving emissions performance. Used alongside frameworks like LEFC, it forms part of a broader ecosystem driving freight decarbonisation in New Zealand.

Designed to operate as a market-based instrument, Low Emmissions Freight Certificates could allow freight providers who invest in low-emissions transport to sell certificates that represent emissions savings, while freight receivers could buy them to offset the carbon footprint of their supply chains. *PHOTO: Getty Images*

How freight certificates could support emissions reduction

A RECENT REPORT from the Energy Efficiency and Conservation Authority (EECA) and the Sustainable Business Council is setting the groundwork for a new mechanism to support decarbonisation in New Zealand's freight sector: Low Emissions Freight Certificates (LEFCs).

Designed to operate as a market-based instrument, LEFCs could allow freight providers who invest in low-emissions transport to sell certificates that represent emissions savings, while freight receivers could buy them to offset the carbon footprint of their supply chains.

The concept is not new globally, but in the New Zealand context, this may be the first serious step toward building a functioning certificate-based freight decarbonisation system.

The LEFC Demand Report assesses both supply and demand for certificates, the price points that might make the system viable, and the barriers that still need addressing before a national system can be implemented.

Freight makes up a significant portion of New Zealand's transport-related emissions. While electrification and alternative fuels are advancing, many freight operators still rely on traditional diesel-powered fleets, especially for long-haul and heavy goods movement.

The LEFC model is designed to accelerate the adoption of low-emissions vehicles and support emissions tracking by creating a voluntary market. In that market, freight providers who operate low-emissions vehicles (such as electric trucks, hydrogen fuel cell vehicles, or even conventional trucks running on drop-in biofuels) would generate tradeable certificates.

These could then be sold to freight buyers looking to offset the carbon impact of their freight activity. The system would work in tandem with Scope 3 emissions reporting frameworks, which increasingly require organisations to account for carbon generated in their own facilities and value chains.

Emissions reporting frameworks are increasingly becoming a core component of corporate climate accountability. Under the internationally recognised Greenhouse Gas Protocol, organisations classify their emissions into three categories: Scope 1 (direct emissions from owned or controlled sources), Scope 2 (indirect emissions from purchased electricity), and Scope 3, which includes all other indirect emissions that occur in the value chain.

For freight-dependent businesses, Scope 3 typically covers emissions from third-party transport providers, which can make up a significant share of their total carbon footprint.

Because companies don't directly control these emissions, they must find credible ways to measure, reduce, or offset them, especially as investors, regulators, and customers increase pressure for transparent and complete sustainability disclosures.

LEFCs are designed to provide one such tool. By purchasing certified emissions reductions from freight operators who use low- or zero-emissions vehicles, a company can demonstrate that it is actively managing its Scope 3 freight emissions. This can help

support compliance with emerging climate disclosure standards, including New Zealand's climate-related disclosures regime.

In short, LEFCs offer companies a market-based way to reduce the carbon impact of their supply chains, even if they don't directly own or operate freight fleets, by allowing them to support, and account for, lower-emissions transport elsewhere in the system.

One of the central questions posed by the report is whether New Zealand's freight industry would actually use these certificates. The answer, according to interview findings, is cautiously optimistic. Most organisations involved in the study supported the idea of a certification system and expressed interest in participating either as certificate generators or buyers.

However, support came with important caveats. Many companies said they would need to justify the additional cost of certificates to internal procurement or finance teams. Some said they would only be willing to pay if certificate costs could be passed on to customers. Others suggested they might only participate if there was a co-benefit, such as improved sustainability credentials or easier compliance with emissions disclosures.

These mixed responses reflect the financial pressures already present in the freight and logistics sector. In a cost-competitive market, even a small price premium for carbon reduction can be a difficult sell.

To explore pricing, the report modelled a range of carbon abatement cost scenarios: how much it costs to avoid one tonne of CO_2 equivalent (tCO_2e) using different types of low-emissions freight vehicles. The estimates spanned from $200 to $800 per tCO_2e, depending on the technology used.

Battery electric vehicles were found to offer the lowest abatement costs in many scenarios (around $500/$tCO_2e$), especially for urban and mid-range trips. Drop-in biofuels for diesel trucks, while more compatible with existing infrastructure, offered the lowest overall costs per kilometre driven, but still presented challenges around supply, reliability, and long-term cost stability. Hydrogen fuel cell vehicles (FCEVs) remained at the higher end of the cost spectrum (up to $1,000/$tCO_2e$) due to fuel costs and infrastructure requirements.

A commonly referenced target price for certificates in the report was $50–$100/tCO_2e, a range that several freight receivers said they would consider reasonable, especially when linked to Scope 3 goals.

To put this in perspective, a certificate priced at $100/$tCO_2e$ would add around 0.5 per cent to the retail cost of a washing machine delivered 500 kilometres; 0.1 cents per litre to the cost of supermarket milk transported 400km; and 0.4 per cent to the delivery cost of a kitchen appliance shipped 1,100km.

The report concluded that these marginal increases, while noticeable, are likely manageable for many businesses, particularly if certificate costs are shared among multiple supply chain participants.

The short answer to whether there is enough supply to launch a scheme is yes, at least for a pilot phase. As of April 2025, there were around 58 heavy goods vehicles (HGVs) classified as battery electric, 22 FCEVs, and 550 HGVs running on drop-in biodiesels or other low-emissions fuels.

These numbers remain small relative to the national diesel freight fleet, but the report notes that it is sufficient to demonstrate proof of concept, especially if the system begins with a targeted registry and marketing campaign.

Importantly, the registry would need to account for vehicle verification, fuel source authenticity, and accurate emissions accounting, all of which requires robust data standards and a trusted operating body.

While interest is strong, the report identifies several key barriers to wider adoption of LEFCs. High upfront vehicle costs remain a major obstacle; electric and fuel cell trucks are significantly more expensive than diesel equivalents, often by hundreds of thousands of dollars.

Charging and fuelling infrastructure remains patchy, and concerns persist about payload limitations and range for low-emissions vehicles. Without government endorsement or regulatory linkage, some companies may see the system as voluntary and therefore low priority.

Stakeholders also want assurance that any registry or certificate scheme would be independently audited and not open to greenwashing. Several interviewees highlighted the need for clear rules and reporting frameworks.

And finally, many businesses expressed concern that they'd be unable to recover certificate costs without affecting their competitiveness, particularly in sectors with narrow margins. The report does not prescribe a fixed pathway forward but suggests that a targeted pilot could help overcome market hesitancy and demonstrate proof of concept.

For such a pilot to work, several conditions are likely necessary: clear system boundaries (e.g. defined vehicle classes, pre-approved fuels); transparent pricing and emissions calculations; verified participants and a central registry; and communication support to help businesses understand how certificates can enhance their Scope 3 emissions reporting or align with climate targets.

While many companies said they would prefer direct decarbonisation, investing in low-emissions fleets themselves, the report acknowledges that LEFCs could play a complementary role, especially when technology limitations or cost barriers prevent immediate fleet turnover.

On one hand, LEFCs are a signal that market-based decarbonisation is coming to freight, mirroring what's already occurring in energy and aviation. On the other, it highlights that New Zealand's freight sector is still early in its low-emissions transition.

The LEFC report is a reality check: there is real interest in lowering freight emissions, but willingness to pay will hinge on pricing, simplicity, credibility, and alignment with broader business goals.

Chief Executive of Transporting New Zealand, Dom Kalasih says that the certificate system would enable freight companies and their customers to make meaningful strides towards decarbonisation without compromising productivity.

"Transporting New Zealand supports this initiative from the Sustainable Business Council and DETA. It recognises that freight customers have a key role to play in helping transport companies invest in lower emission technologies."

"These low emission freight certificates allow freight customers to pay a premium for a lower emission product. This will allow further investment in lower emission technology by freight operators."

Mr Kalasih also highlighted practical energy efficiency measures that all road freight companies could investigate.

"While we're excited about the progress on low emission freight certificates, we also want people to know that you don't have to drive a battery electric or hydrogen vehicle to make a difference," Mr Kalasih said.

Transporting New Zealand acknowledges the many barriers to decarbonising road freight, not least high capital costs and availability of charging infrastructure.

"Upgrading New Zealand's fleet to low and zero-emissions vehicles will be costly in the short-term, and most operators cannot make that upfront investment right now. But there are actions that all operators can take.

"Route optimisation, backloading, regular maintenance and utilising larger, higher capacity trucks are all proven methods to increase fuel efficiency and reduce emissions."

Mr Kalasih said Transporting New Zealand are also planning to launch a heavy vehicle decarbonisation resource at the end of October and would release more details shortly.

A new roadmap positions aviation as a driver of innovation, resilience, and sustainable growth

BY JAMES PAUL

NEW ZEALAND'S Aviation Action Plan 2025, released by the Interim Aviation Council, sets a clear direction for a sector that is both economically vital and increasingly challenged. The plan outlines how government and industry will collaborate to strengthen connectivity, decarbonise operations, and build a skilled workforce, while futureproofing infrastructure for new technologies.

For logistics and transport professionals, the plan represents a crucial step in aligning aviation policy with broader supply chain, sustainability, and regional development goals. Acting Minister of Transport Hon James Meager described aviation as "a pillar of New Zealand's economy and communities", highlighting its role in connecting people, enabling trade, and supporting resilience across the country.

Aviation contributes more than 5.6 per cent of New Zealand's GDP and supports over 177,000 jobs. It moves 16 per cent of the nation's exports and 22 per cent of imports by value. Beyond these numbers, the sector is essential for tourism, regional access, and time-critical freight such as fresh produce and pharmaceuticals.

However, the plan acknowledges mounting pressures: higher operating costs, workforce shortages, and global supply constraints on aircraft and parts. These challenges, combined with the public's expectations for affordable flights around the country, make efficiency and cooperation across the system more important than ever.

A key focus is building a regulatory environment that is robust, internationally credible, and agile enough to support both conventional and advanced aviation. The Civil Aviation Authority and Ministry of Transport (MoT) will overhaul rule-making processes to improve responsiveness and enable safe innovation, supported by digital certification systems and automation.

The Interim Aviation Council, which has since become permanent with 14 members from across government and industry, will provide strategic oversight across the aviation system, reporting annually to the Minister and updating the plan every three years.

Its creation follows the 2023 Air Navigation System Review, which called for stronger leadership and a coordinated policy framework for aviation.

Workforce sustainability is another critical priority. The plan highlights that only 22 per cent of those entering aviation in 2015 remained after five years. The Aviation Council, Ringa Hora (the Services Workforce Development Council), and education agencies will develop a coordinated workforce package by the end of this year, including updated pilot qualifications, new training pathways, and stronger initiatives to promote aviation careers.

Encouraging greater participation by Māori and women is also a goal, with the current aviation workforce including just 8 per cent Māori and lower female representation in technical and engineering roles. These actions are aimed at ensuring the sector attracts and retains the skilled people needed for long-term growth.

Infrastructure development underpins much of the plan's ambition. The MoT, Airways New Zealand, and the New Zealand Defence Force will map national aviation infrastructure needs by 2026, ensuring readiness for new fuels, electrification, and advanced air mobility. Air New Zealand will assess jet fuel and electricity requirements for next-generation aircraft and engage with the energy sector to support future investment. Future airspace management will also be redesigned by 2027 to accommodate both traditional and emerging technologies, including drones and uncrewed systems.

Sustainability threads through every aspect of the plan. With aviation recognised as a "hard to abate" sector, the Government and industry have reaffirmed New Zealand's commitment to ICAO's Net Zero 2050 target and a 2030 emissions reduction milestone.

Work will begin later this year on regional collaboration through the 2+2 Climate and Finance Dialogue and Bioenergy Australia's regional sustainable aviation fuel strategy. The plan also confirms New Zealand's continued participation in ICAO's CORSIA carbon offsetting scheme, signalling a shift towards cleaner propulsion and energy use as both an environmental responsibility and an opportunity for innovation.

A key focus is building a regulatory environment that is robust internationally credible and agile enough to support both conventional and advanced aviation.

Maintaining the highest standards of safety and security remains fundamental. The plan commits to ongoing alignment with ICAO recommendations, the maintenance of a National Aviation Safety Plan, and closer coordination between the MoT, the Civil Aviation Authority, and AvSec to improve operational efficiency while maintaining strong security outcomes.

International engagement will remain strategic, with efforts to strengthen ties with Pacific partners, pursue additional capacity where it benefits New Zealand, and continue elevating the country's global aviation reputation.

This plan signals a broader, integrated approach to transport and supply chain development. Its focus on advanced aviation, regional access, decarbonisation, and infrastructure resilience aligns closely with the priorities of the wider logistics and freight sectors.

As the permanent Aviation Council takes shape, collaboration between government, operators, and local authorities will be critical to realising the plan's ambitions.

Ensuring market access: Turning decarbonisation into economic advantage

BY THE AOTEAROA CIRCLE

SHIPPING IS THE BACKBONE of Aotearoa New Zealand's economy. Almost all our trade moves by sea - 99.7 per cent by volume and 81 per cent by value - making the decarbonisation of shipping both a climate imperative and an economic one for our major exporters.

With exports exceeding $74 billion and imports over $80b in the year to March 2025, maintaining competitive, low-carbon access to global markets is critical to our future prosperity.

This challenge sits within a broader shift in how New Zealand thinks about resilience and infrastructure. Increasingly, policymakers and industry leaders are recognising that economic competitiveness depends not only on traditional "hard" infrastructure such as ports, roads and fuel systems, but also on the natural systems that support them.

Approaches that work with nature, restoring coastal buffers, strengthening catchments, and improving ecosystem resilience, can complement engineered solutions while delivering multiple benefits. These include reducing flood and erosion risk, improving biodiversity, and strengthening the long-term stability of the systems that underpin export industries.

For an export-dependent country exposed to climate risks and global supply chain pressures, this integrated thinking is becoming increasingly important. Nature-based approaches can often deliver overlapping economic, environmental and resilience benefits, and can be an opportunity to address infrastructure challenges while supporting the productivity of sectors such as agriculture, seafood and forestry that depend heavily on healthy natural systems.

Recognising the scale of this challenge, The Aotearoa Circle launched a Future Fit Shipping workstream last year to explore how New Zealand can decarbonise its maritime sector while remaining a resilient trading nation. To ground ambition in evidence, The Circle commissioned Deloitte New Zealand to examine the barriers and opportunities for maritime decarbonisation and support a coordinated, cross-sector approach.

The resulting report draws on insights from more than 50 stakeholders across Australasia spanning shipping lines, ports, energy providers, government agencies, iwi, finance and major exporters.

From ambition to action

Vicki Watson, Chief Executive of The Aotearoa Circle says earlier work by The Circle (a public/private partnership) on climate adaptation across agriculture, seafood and tourism consistently pointed to one common challenge; the need for alternative marine fuels if those sectors are to meaningfully decarbonise.

"That's why we established the Future Fit Shipping workstream," she explains. "As an export-led nation at the end of long global supply chains, distance matters. If international measures such as an International Maritime Organization levy are introduced, our exporters will feel that impact disproportionately. Acting early is not just good climate policy - it's good economic strategy."

The report sets out practical pathways for decarbonising shipping, including the increased use of renewable fuels, stronger trans-Tasman partnerships and targeted infrastructure investment. It explores the potential for a green shipping corridor with Australia and presents four alternative fuel roadmaps: biofuels, LNG, ammonia and methanol.

Importantly, Deloitte's economic modelling highlights the cost of delay. Even accounting for the reality that fossil fuels are likely to remain cheaper than low-emissions fuels in the near term, New Zealand could avoid an estimated $17.5b in costs from anticipated International Maritime Organization measures such as a global emissions levy if it keeps pace with global decarbonisation efforts.

John Marker, Critical infrastructure & Real Estate Leader, Deloitte New Zealand says distance is central to the equation. "New Zealand's trading partners are a long way away, and emissions are directly linked to distance travelled. We modelled the potential impact of a flat US$100 per tonne levy over time. Even with conservative assumptions, the avoided cost of taking action on decarbonisation is material," he says. "International shipping lines are already optimising fleets around decarbonisation requirements. We're seeing a bias toward larger vessels in global order books because they deliver significant blue-water efficiency gains. That has implications for port infrastructure, service frequency and supply chain configuration here in New Zealand."

Marker adds that international alternative fuelled vessels are likely to continue relying on established international bunkering hubs, meaning New Zealand ports may not need extensive new bunkering capacity – but they will need to be ready for larger, next-generation ships.

"That aligns with expansion plans already underway at several domestic ports, particularly in container terminals, as they scale to accommodate larger vessels."

Trans-Tasman opportunities

The Australian Commonwealth Government has taken a proactive role in assessing infrastructure requirements for alternative fuel, from technical standards and commodity definitions through to the usability of existing assets. This includes significant funding commitments, and hydrogen investment initiatives, and roadmaps across aviation and marine.

Matthew Walden, Partner, Financial Advisory - Energy Transition & Decarbonisation with Deloitte Australia says there are benefits for both countries to collaborate from policy alignment to energy security across supply chains and economic development through the establishment of new industries and jobs not prevalent today.

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"There is a high level of similarities between the two jurisdictions that we can leverage for our own benefits. Including both countries also having very large agriculturally based economies that can support the establishment of new industries to a large degree."

Since its release, the Future Fit Shipping Report has garnered interest and enhanced discussion with the sector and customers.

Carolyn Mortland, Executive Officer Sustainability, Zespri says the Aotearoa Circle's Future Fit Shipping workstream and report has not only fed into Zespri's work on green shipping, but it has also broadened awareness of green shipping opportunities for our wider economy.

"The report outlines how decarbonising our shipping routes can help protect and expand market access, as the direction coming from key international customers and governments becomes clear. It also shows exporters can't decarbonise shipping by ourselves; we need shipping companies, fuel providers and governments to work together, with government support critical to getting the ball rolling," she says.

Tracy Malone, Logistics & Customer Operations Manager at Indevin Group says the Future Fit Shipping workstream is strategically important for her company with shipping one of the largest contributors to its emissions footprint, accounting for around 43 per cent of its total emissions.

"If we're serious about our sustainability goals and long-term commercial resilience, it is critical to be part of the solution and have a seat at the table. Supply chains today are no longer just about cost, service, and quality – it's resilience, agility and sustainability that are now equally critical, and shipping is an area where progress can have a disproportionate impact," she says.

"More broadly, New Zealand's shipping system is fragmented, with small, competing ports and limited access to newer, more efficient vessels. The Future Fit Shipping work helps shift the conversation from individual interests to what will best serve New Zealand as a whole, really the entire objective of the Aotearoa Circle. This is closely tied with Indevin's purpose of, "Inspired by nature, crafted with care and growing connections" - the shared knowledge and connections is key here. That collective approach is essential if we are to strengthen our social license to operate, reduce our environmental impact, and demonstrate

"If we're serious about our sustainability goals and long-term commercial resilience, it is critical to be part of the solution and have a seat at the table. Supply chains today are no longer just about cost, service, and quality – its resilience, agility and sustainability that are now equally critical, and shipping is an area where progress can have a disproportionate impact," she says.

that emissions reduction and commercial success can go hand in hand for the primary export sector."

Mrs Watson is pleased with the feedback the report has garnered since its release but says continued industry, Government and broader stakeholder discussion is required.

"As customer and regulatory pressure for lower-emissions supply chains intensifies, the message is clear: for a trading nation as distant and export-reliant as New Zealand, future-proofing maritime access, and keeping our export goods competitively priced in market, is both an environmental necessity and an economic imperative."

Vicki Watson

Vicki is the Chief Executive of The Aotearoa Circle which started its work in 2019. The Circle convenes public and private sector partners to tackle complex climate and nature challenges that threaten New Zealand's future economic prosperity. Vicki and the Circle team have grown a significant coalition of the willing, and in collaboration with its partners, have completed over 25 major workstreams across agriculture, energy, seafood, tourism, and transport sectors. Vicki's personal vision - Healthy People, Healthy Planet, Healthy Economy - aligns closely with The Circle's mission, and she is deeply committed to achieving the vision of its founder, Sir Rob Fenwick.

Extending the reach of Mass Rapid Transit through understanding the first mile / last mile problem

BY JOE YOUNG

MY THESIS WAS TITLED "Extending the reach of Mass Rapid Transit (MRT) through understanding the first mile / last mile (FM/LM) problem" and was centred around a proposed Mass Rapid Transit corridor for Christchurch. I analysed trends in public transport (PT) use, conducted a community survey and ran interviews in order to understand how Christchurch residents currently access PT and how this may impact the proposed MRT.

I completed my research as part of the Master of Urban Resilience and Renewal at the University of Canterbury. I was very fortunate to have been supported by two encouraging and knowledgeable supervisors, Professor Simon Kingham and Dr Lindsey Conrow.

A requirement for the Master of Urban Resilience and Renewal is to complete the thesis in collaboration with a community partner. My community partner was Environment Canterbury, who are responsible for providing public transport in the Canterbury region. Environment Canterbury provided me with PT data for Christchurch in order to better understand the commuting habits of residents, while my research was in line with their goal of allowing everyone to have access to a safe and affordable transport network.

Background Information

Christchurch is currently serviced by a PT network of buses and a ferry, complemented by a network of bicycle lanes. The current network operates on a hub and spoke model which provides high-frequency routes along key corridors to the central city. Examples of high-frequency services include the Orbiter, #1 Belfast to Cashmere and #3 Airport to Sumner, which all run at 10-minute intervals during peak times. However, despite intermittent sections of bus lanes scattered around the city, no public transport system in Christchurch has a permanent, dedicated right of way.

MRT is a quick, frequent, reliable and high-capacity PT service that operates on a permanent route that is largely separated from other traffic. The mode of the proposed Christchurch MRT corridor would either be Light Rail or Bus Metro. Stage 1 of the corridor runs from Hornby in the south-west to Belfast in the north, via the central city, shown in Figure 1.

Figure 1: Map of the proposed MRT corridor from Greater Christchurch Partnership

While MRT is a convenient transport option for people who live close to stops, it poses challenges for people who live beyond walking distance, or who are unable to walk.

The FM/LM problem refers to the separation of PT or MRT from the origin or destination of a journey. For example, the 10 minutes I walk from my house to the bus stop and the 5 minutes I travel on a Lime scooter from the bus interchange to my work during the morning commute would be examples of FM/LM journeys. Providing easy to use and accessible FM/LM solutions that effectively link PT or MRT with people's destinations is a necessary step to ensure the viability of PT systems. I found a gap in existing research exploring FM/LM solutions in low-density, car-dominated cities.

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Research Aims

I condensed the aims of my research into six objectives to address the overarching aim of how understanding the FM/LM problem can extend the reach of MRT corridors. Those six objectives were:

1. How does distance from transit stops influence PT/MRT usage?
2. What are the needs of Christchurch residents in terms of accessing PT/MRT?
3. Which FM/LM solutions are feasible at different distances from PT/MRT stops?
4. What international and local examples exist of successful FM/LM solutions?
5. How can the proposed FM/LM solutions be integrated into an MRT system to extend reach and therefore usage?
6. How can the nature of MRT stations, including the surrounding environment and routes, impact the FM/LM journey?

Methodology

A combination of qualitative and quantitative methods were used during my research in order to provide a greater depth and breadth of information than a single methodological process would have.

A literature review was undertaken as the first method of data collection, covering existing MRT corridors, FM/LM modes, and local examples. I identified a major gap in existing literature regarding the implementation of MRT corridors in low-density cities with little existing transport infrastructure. Findings and gaps from the literature review helped shape survey questions, focusing particularly on Christchurch residents and their needs regarding an MRT corridor and FM/LM solutions.

A survey was used as the main method to collect primary data about people's opinions related to MRT and experiences with PT. The survey was supplemented by semi-structured interviews, which allowed for more detailed information to be obtained.

All bus journeys in Canterbury for the month of March 2024 were provided by Environment Canterbury. This data was analysed geospatially in Python and ArcGIS Pro to investigate the relationship between bus usage and distance travelled to bus stops. To understand the use of micromobility as a FM/LM solution, additional secondary data from Lime Micromobility was analysed. Investigating Lime scooter usage around bus stops in Christchurch allowed the research to address the stated research objective and explore trends in scooter and bus usage.

Findings

Christchurch residents, on average, travel 670 m to access a bus stop, a distance which is supported by existing literature that people are willing to travel further than 400 m to access a bus stop. Frequency, reliability and route selection were identified by residents as areas needing the most improvement in the current PT system. A clear negative relationship was found between distance from the most used bus stop and bus usage, as shown in Figure 2.

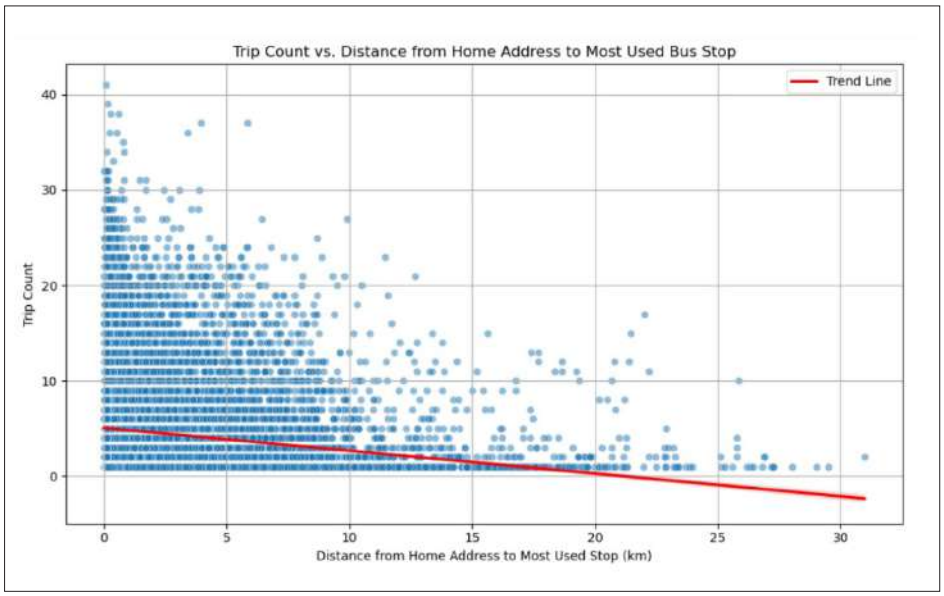


Figure 2: Relationship between number of bus trips for each bus user (trip count) and distance from Home Address to most used stop.

Walking, cycling and PT connections were all popular modes with Christchurch residents to connect to MRT. Figure 3 shows that the majority of respondents to my community survey would be willing to walk between 400m and 1km to access MRT. Facilities at and around stations were found to be important, particularly connecting cycleways, safe bike parking at stations and the ability to take bikes on MRT. Residents expressed a desire for an integrated system through which multiple modes can be accessed and easily used for a journey, while the proposed MRT corridor must consider both able-bodied residents and users with accessibility issues.

Figure 3: Distances respondents would be willing to walk to access MR**T**

At shorter distances (under 1.5km), Christchurch residents would prefer to access MRT primarily through walking, but also through cycling and PT connections. However, as distance to the nearest PT stop increases, driving becomes a more prominent mode, particularly for those living more than 1.5km away from a stop. Figure 4 shows the relationship between modal choice to access MRT, and how far away from a stop survey respondents lived.

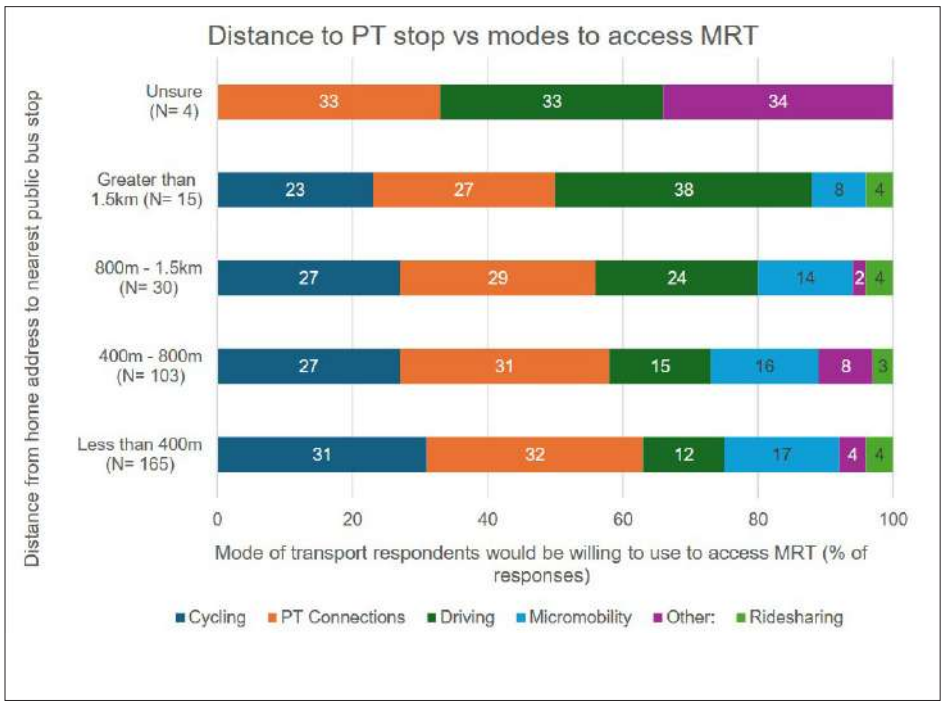


Figure 4: Distance from home address to nearest public bus stop versus modes of transport (aside from walking) survey respondents would consider using to access MRT

Joe Young

Joe is a Graduate Transportation Planner at Abley. He earned a Bachelor of Science and a Master of Urban Resilience and Renewal from the University of Canterbury. Joe's thesis, titled "Extending the Reach of Mass Rapid Transit through Understanding the First Mile/Last Mile Problem", was recognised with the Outstanding Research Achievement for a Masters' Dissertation or Thesis from the Chartered Institute of Logistics and Transport NZ, and the Student Transport Planner of the Year award from the Transport Planning Society NZ. Joe is passionate about transport and is motivated by the opportunity to improve transport outcomes across New Zealand.

Integration

A prominent example of an MRT system implemented locally is the Auckland Busway. The Auckland Busway is a Bus Rapid Transit system that serves the northern suburbs of Auckland and provides a link to the CBD. The opening of the busway substantially reduced bus travel times (initially by around a third from Albany to the CBD) and improved bus reliability. These improvements, together with increased bus frequencies and higher capacity buses, have resulted in high bus patronage growth in the corridor.

PT Connections and cycling were found to be the two most popular modes with Christchurch residents (aside from walking) to use to connect to MRT. Given these findings, it is essential that any future MRT corridor in Christchurch is supported by an integrated bus network and expanded cycleway network that complements the MRT route. While over 75km of separated cycleways are already present in Christchurch, further investment and development is necessary to ensure that cycling is an attractive and safe way to travel. 70% of survey respondents said that more convenient routes could influence them to begin using public buses in Christchurch. If an MRT system is implemented, a reconfigured and more efficient connecting public transport network should be considered to extend the reach of the system and increase overall usage.

Conclusion

The FM/LM problem is a complex issue, and one that has no 'silver bullet' solution. Without convenient FM/LM solutions, PT or MRT will struggle to rival the speed, directness and comfort of the private car. However, steps can be taken to ensure that PT or MRT is an attractive transport option, and the FM/LM problem is an important part of that.

By providing integrated solutions to the FM/LM problem that cater to residents with different needs living at different distances from stops, it is possible to extend the reach and therefore increase usage of MRT.

Supply chain technology shifts signal a more adaptive decade ahead

AS NEW ZEALAND'S SUPPLY CHAINS continue to adjust to geopolitical volatility, climate risk and rising customer expectations, attention is turning to how technology will shape operational resilience through 2026.

Rather than a single breakthrough, the next phase appears defined by a steady integration of digital tools, a theme that is emerging from recent industry analysis by Middlebank Consulting Group.

For a country distant from major markets and heavily reliant on transport-intensive trade, the implications are material. Technology adoption is no longer about efficiency gains alone; it is increasingly tied to continuity, credibility and the ability to respond when assumptions fail.

One of the clearest shifts is the growing maturity of artificial intelligence in operational decision-making. AI tools are moving beyond forecasting and recommendations into more autonomous roles, such as adjusting inventory settings or re-routing freight in response to disruption. Yet the emphasis, Middlebank notes, is not on removing people from the loop. In practice, organisations seeing the greatest benefit are those pairing algorithmic insight with operational oversight — using AI to surface options quickly, while relying on experienced practitioners to test whether those options make sense on the ground.

That same balance is evident in warehousing and distribution. Automation, robotics and digital twins are becoming more common, particularly as labour constraints persist. Digital twins allow operators to simulate layout changes or process adjustments before committing capital, while autonomous systems take on repetitive, high-volume tasks. The underlying lesson, however, is that automation performs best where teams are encouraged to challenge system outputs and refine them. Productivity gains are incremental, built through iteration rather than wholesale redesign.

Across transport networks, technology is reinforcing the value of flexibility. Real-time tracking, dynamic routing and closer data-sharing with carriers are improving visibility, but they do not eliminate uncertainty — particularly in last-mile delivery, where congestion, weather and customer availability remain variables. Here again, technology is most effective as an enabler of faster decisions rather than a substitute for them.

Network design itself is also evolving. Dual sourcing, nearshoring and modular supply chains are increasingly standard responses to disruption, rather than contingency plans. Digital tools help model trade-offs and stress-test scenarios, but the strategic shift is cultural: organisations are accepting that disruption is structural, not exceptional. The ability to pivot quickly is becoming as important as cost optimisation.

Sustainability considerations are reinforcing this trend. Emissions reporting, energy use and packaging efficiency are no longer peripheral metrics; they are feeding directly into network design and partner selection. The changes highlighted by Middlebank are often modest in isolation — route optimisation, facility energy management, packaging redesign — but collectively they influence both cost structures and licence to operate, particularly as customers scrutinise Scope 3 emissions more closely.

The role of logistics partners is similarly under review. Technology capability matters, but recent experience has elevated softer attributes such as transparency under pressure and the ability to adapt when systems are strained. Digital integration may enable faster data exchange, but trust is still built on how partners perform during disruption rather than during steady-state operations.

Workforce implications cut across all of these themes. As automation absorbs routine tasks, the value of people is shifting towards coordination, exception management and continuous improvement. Middlebank's analysis suggests organisations that frame technology as a support tool — rather than a headcount substitute — are more likely to see higher engagement and better operational insight. The constraint is less about tools than about capability: ensuring teams have the skills and confidence to interrogate data and intervene when required.

Taken together, the technology trends pointing towards 2026 suggest a more pragmatic phase of digital adoption. The focus is not on transformation for its own sake, but on building systems that can absorb shocks, scale selectively and recover quickly. For New Zealand supply chains, operating at the edge of global networks, that pragmatism may be the most important innovation of all.

Boosting supply chain productivity

BY CHRIS MONEY – NZ ECONOMICS AND TRANSPORT LEADER, EY PARTHENON

PRODUCTIVITY LIES at the heart of economic performance, shaping a country's competitiveness, living standards, and long-term prosperity. This article amplifies some ideas he presented at the CILT Annual Forum last year. New Zealand's productivity challenges are widely talked about, and indeed are a critical priority for the government, but are often not well understood and, worse, reduced to simplistic concepts such as "working smarter not harder" with few actionable insights and a clear plan to move forward. The freight and logistics sector is a key part of the New Zealand economy, where improved productivity would genuinely increase national wellbeing. But the issues holding us back are baked into the way we do things and require government, firms and workers to make genuine changes to how we've traditionally done things to improve outcomes for all.

Why productivity matters

At its core, productivity measures the relationship between **outputs**—the goods and services produced—and **inputs** such as labour, capital, land, and technology. While this concept is simple, its implications are profound. Higher productivity enables organisations to create more value with the same or fewer resources, improving profitability and enabling reinvestment. At a national level, productivity underpins wage growth, fiscal capacity, and social wellbeing.

Productivity in supply chains is not merely an economic statistic but a behavioural and strategic focus. The challenge for leaders is to identify levers within their control and build the conditions for sustained improvement.

The five big challenges in NZ supply chain productivity

There are five structural challenges that constrain New Zealand's productivity performance:

1. Distance to markets compounded by geopolitics

New Zealand's geographical isolation is not new, but contemporary geopolitical volatility intensifies its impact. Freight disruption, shifting security alliances, and fragile global trade patterns expose exporters and importers to greater uncertainty. The OECD estimates that our distance to market imposes a 10% penalty on New Zealand's GDP.

For a nation that relies heavily on international trade, long shipping routes and limited proximity to major markets impose inherent costs. Productivity improvements must therefore focus on operational efficiency, port performance, digitalisation, and transport optimisation to compensate for distance related disadvantages.

2. Lack of capital intensity

Investment in capital, namely equipment, infrastructure, machinery, and technology, is a key driver of productivity.

Low capital intensity means workers often operate with outdated or insufficient tools, limiting their potential output.

New Zealand, relative to other OECD countries, has had some of the lowest capital intensity rates, since the early 1980s. Major events in the last 20 years such as the Canterbury earthquakes (where insurance payouts would have allowed for modernisation) and the pandemic (where technology investment became even more critical, have barely shifted the dial on our capital investment rates. Worse, in the last 2 years we are investing less than we have in past 50 years, as shown in the graph below:

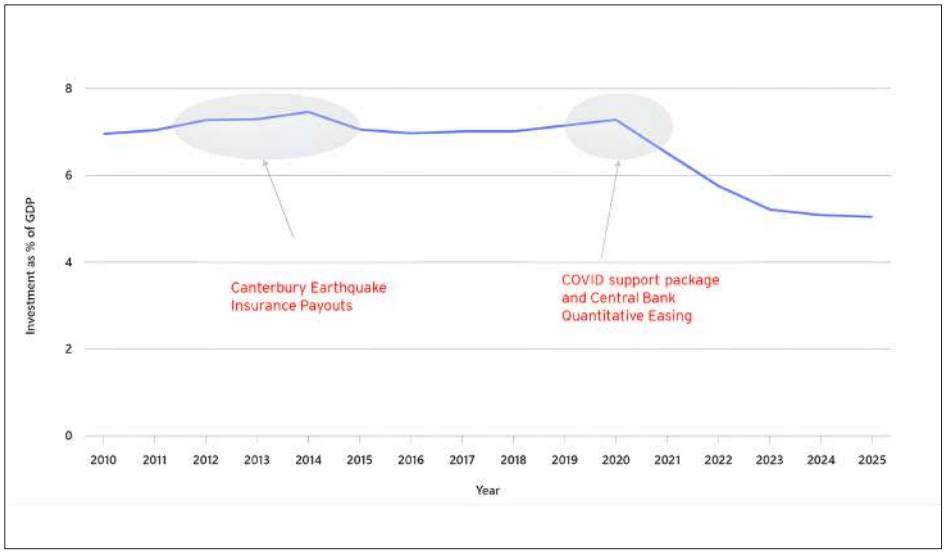
Modernising plant, digitising logistics systems, building intermodal freight connections, and automating routine tasks represent opportunities to close this gap. However, achieving sustained improvement requires long term investment appetite and policy stability.

3. An ageing and highly competitive labour market

New Zealand's freight and logistics workforce is older than the national average. Transporting NZ undertake regular monitoring and their most recent data is sobering:

- 10 per cent of truck drivers are over 65
- Up to 25 per cent of staff will retire within five years
- The average age is 46
- The industry is currently short around 3,500 drivers

This creates productivity vulnerabilities that impact cost, capability, and continuity. Labour scarcity forces firms to compete aggressively for talent, leading to wage pressure and operational challenges. The freight and logistics sector in 2026 has deep structural constraints in matching labour supply to economic demand.



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Workforce renewal will require training pathways, immigration settings that recognise acute shortages, better working conditions, and technology adoption that reduces physical strain and increases job attractiveness. Without intervention, demographic trends will continue to suppress productivity.

4. Rising input costs

The freight and logistics sector, like most parts of the NZ economy, has faced rising cost pressures, particularly around fuel and (as noted above) labour. Rising fuel expenses affect everything from domestic freight to international air cargo, challenging operators to find efficiency gains elsewhere. Fuel price volatility from the war in Ukraine to the current conflict with Iran will likely continue in the medium term.

Persistent cost escalation pressures logistics firms to embrace:

- Route optimisation
- Fuel efficient fleets
- Modal shifting
- Predictive maintenance
- Contractual arrangements that anticipate volatility

5. Sustainability and Scope 3 Emissions

Sustainability is increasingly central to supply chain productivity. Customers, regulators, investors, and global partners are demanding decarbonisation, transparency, and emissions reduction—particularly for Scope 3. These expectations reshape procurement, asset planning, and freight choices. Firms must integrate sustainability into their operating models or risk losing access to markets, capital, and social licence.

Rising to the productivity challenge

One of the most pragmatic issues when talking about the productivity challenge is it sounds big. It sounds like something that governments, public servants and industry bodies like CILT and Transporting NZ worry about when they think about tax policy or trade agreements or environmental and labour market regulation.

But for companies, operators and workers, the productivity challenges are something experienced every day, in real time. They aren't abstract concepts to be debated in the halls of power. So, what are three key actions those working in the logistics and transport sector can take to shift the productivity?

1. Focus on the things you can control

Rather than becoming overwhelmed by structural limitations, look to identify areas where you can exert influence—process design, technology adoption, workforce development, and organisational culture. By narrowing the scope to controllable factors, firms can make meaningful gains even within a challenging environment.

2. Take time and space to think and plan

Strategic reflection is often sacrificed to short term operational pressure. There is a "price of inaction" that we often don't realise. It's also important to recognise failing to plan can be costlier than making imperfect decisions. Building structured time for scenario planning, investment evaluation, and innovation is fundamental to improving productivity.

3. Don't do it for your country, do it for you

Productivity is not a patriotic duty but a business imperative. Improving performance strengthens organisational resilience, profitability, and competitiveness. Firms that approach productivity for their own benefit—rather than as a national obligation—are more likely to commit to sustained improvement.

But there's no need to start from scratch: What are the key global trends reshaping the productivity investment landscape

It shouldn't be lost on anyone in the sector that change takes time and money – so, in the short-term, rising to the productivity challenge actually implies a short-term drop in productivity.

A key message for NZ in the freight and logistics sector is the need to fight to remain competitive globally, because even fighting to keep up entails a step change in productivity and capital investment compared to what we are doing now.

With that in mind, the key global trends from EY Pathenon's global freight sector scan include the following:

Road transport trends

In road, there is increasing rapid deployment of **automation, digitalisation**, and **predictive analytics** in modernising logistics systems. Key themes include:

1. Carrier detection and tracking
2. CO_2 emissions calculations
3. Shipment notifications
4. Load optimisation

Automation tools are freeing up labour capacity, reducing costs, and enhancing speed and reliability. The data suggests that global investment in emerging road technologies, such as advanced telematics, supply chain control towers, and autonomous vehicles, is accelerating, with clear benefits for visibility and decision making.

Rail transport trends

The rail we see four global trends:

1. Enhanced signalling
2. Digital train inspection
3. Positive train control (PTC)
4. Predictive maintenance using Artificial Intelligence and Machine Learning

Data shows rail intermodal freight expected to grow significantly, driven by lower emissions and congestion reduction benefits. New Zealand's rail network, while smaller than those in major markets, stands to benefit from adopting similar digital innovations.

Shipping trends

In shipping, the growing dominance of large alliances and the trend toward consolidation, a process long underway, continue to be the key trends. By merging or collaborating, shipping lines have captured scale efficiencies, reduced operational costs, and enhanced market reach.

The evolution of average vessel size across major alliances shows substantial increases, reflecting investment in capacity and the pursuit of economies of scale. These developments influence port requirements and reshape global freight flows.

Final Reflections: Shaping the future with confidence

In a world defined by volatility, supply chain productivity becomes a central determinant of resilience and long term success. With that in mind:

- Productivity is not abstract. It is a strategic choice.
- Global trends show what is possible with investment and innovation.
- New Zealand faces structural constraints, but none are insurmountable.
- Leaders must cultivate the space to plan, invest, and adapt.

By focusing on controllable levers, embracing global best practice, and committing to sustained improvement, New Zealand freight and logistics, as a sector can rise effectively to the productivity challenge.