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KiwiRail: A sustainable and logical transport choice for New Zealand

On the road to somewhere: New Zealand's investment in land transport

Tech signals point to a smarter future for logistics



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ON THE COVER

Hiiwr Rail is the name Arc Infrastructure has given the autonomous, battery powered wagon and its real-world application in Western Australia. Developed with the future Westport in mind, Arc imagines Hiiwr wagons moving containers directly from the future port to intermodal freight terminals, available to customers within hours of the container being unloaded from a ship. This will offer greater efficiency and flexibility in the container supply chain and place Westport as the most technologically advanced port operation in the world. *Photo: Hiiwr*

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In the next edition

The editorial team welcomes expressions of interest for submitting an article for the December 2025 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 December 2025 edition: 14 November.**



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Solar panels have been installed at the new mechanical hub at Waltham, Christchurch, as part of KiwiRail's commitment to decarbonisation. Photo: KiwiRail

KiwiRail: A sustainable and logical transport choice for New Zealand

BY MICHELLE DEELY

TRANSPORT IS ONE OF THE LARGEST sources of greenhouse gas emissions (GHG) in New Zealand and presents a significant opportunity for emissions reduction. Transport contributes 18 per cent of gross emissions, primarily through burning fossil fuels such as diesel and petrol. New Zealand's second Emissions Reduction Plan, released in December 2024, acknowledges the need to reduce transport emissions to meet New Zealand's overall emissions reduction target as well as supporting New Zealand in its quest to become net zero carbon by 2050.

While both the Government and the public rightly have high expectations that rail will play an important role in New Zealand's carbon reduction efforts, our customers are also looking to KiwiRail to help them meet their own sustainability targets through providing a lower-emissions transport option in their supply chain.

In 2024, KiwiRail set a more ambitious carbon emissions reduction target - to reduce our

gross Scope 1 and 2 carbon emissions by 40 per cent by 2035 against a 2018/19 baseline. This ambitious but feasible target supports our long-term goal to be net zero carbon by 2050.

Moreover, KiwiRail enables around 25 million low-carbon passenger trips each year in Wellington and Auckland by providing the metro network on which the commuter services run.

Alongside our rail freight services, this means fewer trucks and cars on the roads, contributing to less congestion and air pollutants, lower road maintenance costs for tax and rate payers, and fewer road accidents. Rail also saves 410,000 tonnes of GHG emissions per year¹. These benefits are quantified in the Benefit of Rail (2024) report published by the Australasian Railway Association.

KiwiRail's ambition is to be the first choice for our customers as a trusted and sustainable partner in moving freight and people. Rail's natural advantage as an energy

efficient and low emissions transport mode is that, today, every tonne of freight moved by rail produces, on average, 60 per cent fewer carbon emissions compared with heavy road freight.

Leveraging KiwiRail's current emissions advantage, we are also developing a pathway to achieving even greater reductions in operational emissions through a series of projects and improvements:

- We are repairing and refurbishing 15 electric freight locomotives, to extend the life of the fleet and reduce operating costs and carbon emissions.
- A substantial investment in rolling stock (\$1.7bn) will also have a positive impact. The 66 new DM class locomotives are more efficient than their predecessors, built to the highest emissions standards (EU stage V) and producing fewer air pollutants per net tonne kilometre of freight carried.

¹ Benefit of Rail | KiwiRail, 2024

- We have completed plans to procure 24 hybrid shunt vehicles with staggered arrivals from 2027 to 2030 and 11 heavy electric shunt vehicles to start operating from 2026. These vehicles will complement the 16 electric shunt vehicles already owned by KiwiRail.
- Our Driver Advice System is a key tool for lowering our rail freight carbon intensity, by helping locomotive engineers to drive trains more efficiently.
- We have installed a remote offline switch on 53 locomotives to help shut down unnecessary trailing locomotives and are trialling other measures to reduce use of second locomotives when these are not needed.
- Continuing improvements to the metro networks in Auckland and Wellington will boost the attractiveness of rail as a commuting option.
 - In Auckland there have been major renewals of the Eastern and Western line, installation of 19km of overhead electric lines from Papakura to Pukekohe, construction of a third main line between Westfield and Wiri and significant signals integration in preparation for City Rail Link.
 - Wellington has seen upgrades to Plimmerton Station, the Hutt Valley and Wairarapa Line and significant progress on new signals system/ integration designed to prepare the lines for faster and more frequent services.
- We are actively working to reduce energy use at our largest facilities: newly installed solar panels at our Waltham Mechanical Workshop in Christchurch provide nearly half (49 per cent) of the site's total electricity demand. In the seven months to July 2025, they have generated around 650,457 kWh of energy.
- Improvements to the sustainability of the infrastructure that we build include reducing the Scope 3 (embodied carbon) in the assets we build and minimising waste from construction. By making changes to our construction practices, we can reduce our environmental impact while also saving money. On the Papakura to Pukekohe Electrification Project, the team replaced 279 concrete foundation piles with driven steel piles. This initiative delivered significant cost and time savings and achieved an overall 13 per cent reduction in carbon emissions from the works, saving 438 tonnes CO₂-e.

- We are close to completing an electrification business case, which is subject to approval of additional funding, looking in detail at how best to electrify more of the North Island network, including the Golden Triangle, between Auckland, Tauranga and Hamilton. The Golden Triangle is critical to the New Zealand economy – most freight imports and exports pass through this area, plus it is where most of New Zealand's population is currently located and where the greatest growth is forecast to occur. New Zealand is a long distance from its markets, so needs efficient, reliable, affordable and low-carbon ways to get goods to the ports, to protect its export income.

While advancing emissions reductions, KiwiRail is also acutely aware of the climate-related risks we face—prompting the development of our first Climate Adaptation Plan.

We know that landslides and river and surface flooding present the greatest risks to the rail network and the occurrence and intensity of these risks are only expected to increase over time. Managing these risks is critical to the resilience and reliability of our physical infrastructure and delivering on our customer promise. Our Climate Adaptation Plan will guide delivery of actions to help us proactively adapt to the changing environment and build resilience into our assets and services.

As a State-Owned Enterprise, KiwiRail has a responsibility to be an organisation “that exhibits a sense of social responsibility by having regard to the interests of the community in which it operates and by endeavouring to accommodate or encourage these when able to do so”.

We take this responsibility seriously and as a sign of our ambition we have re-joined the Climate Leaders Coalition, a coalition of New Zealand businesses who are working together to accelerate the transition towards a zero carbon and climate resilient future.

This year sees KiwiRail's refreshed *Rautaki Whakauka Sustainability Strategy 2025–2028*, where we are committed to being as efficient as possible in all our operations and reducing our own carbon footprint as much as is practicable. Our Carbon Reduction Plan and Climate Action Plans will also be published this year.

Through bold, choiceful investment, strategic innovation, and a deep commitment to sustainability, KiwiRail is not

only transforming its own operations—but helping shape a low-carbon, climate-resilient future for New Zealand's transport sector.

Definitions of GHG emissions scopes

Scope 1: Direct GHG emissions

These are emissions from sources that are owned or controlled by the company. At KiwiRail, examples include fuel combustion by our locomotives, ferries and vehicle fleet.

Scope 2: Indirect GHG emissions from purchased electricity

These are emissions from the generation of electricity, steam, heating or cooling that the company purchases and consumes. At KiwiRail, examples include electricity to power our electric freight locomotives, and our offices.

Scope 3: Other indirect GHG emissions

These are the emissions that occur in the value chain of the company, both upstream and downstream (not included in Scope 2). At KiwiRail, examples include business travel and employee commuting, waste disposal and leased assets.



Michelle Deely

Michelle is the Sustainability Manager at KiwiRail where she leads the delivery of KiwiRail's sustainability strategy and programme, and influences sustainability outcomes across the business. Her primary focus is identifying opportunities in partnership with the business to reduce KiwiRail's carbon footprint. With 15 years' experience supporting and leading decarbonisation and sustainability initiatives across the private and public sector, Michelle has a genuine passion for delivering sustainable outcomes. Her role with KiwiRail is fundamental in supporting New Zealand's transition to a low emissions future.

On the road to somewhere: New Zealand's investment in land transport

BY PETER NUNNS, GENERAL MANAGER – STRATEGY,
NEW ZEALAND INFRASTRUCTURE COMMISSION

INFRASTRUCTURE UNDERPINS a productive economy and high living standards. But it doesn't appear overnight. To get it right, we need a long-term view of future needs, backed by consistent funding and delivery.

The New Zealand Infrastructure Commission is preparing a National Infrastructure Plan that lays out an approach for investment that can meet New Zealand's long-term needs. In June we released a draft Plan for feedback. It focuses on four areas for improvement: securing affordable funding, streamlining delivery, prioritising maintenance, and sizing new investment realistically.

Our recommendations apply across all sectors. But the investment outlook varies by sector depending on existing assets, how demand is changing, the risks they face, and—critically—how investment can be paid for. Here, we take a closer look at land transport and invite those in the sector to test our findings against their own experience.

What we've been spending on the roads

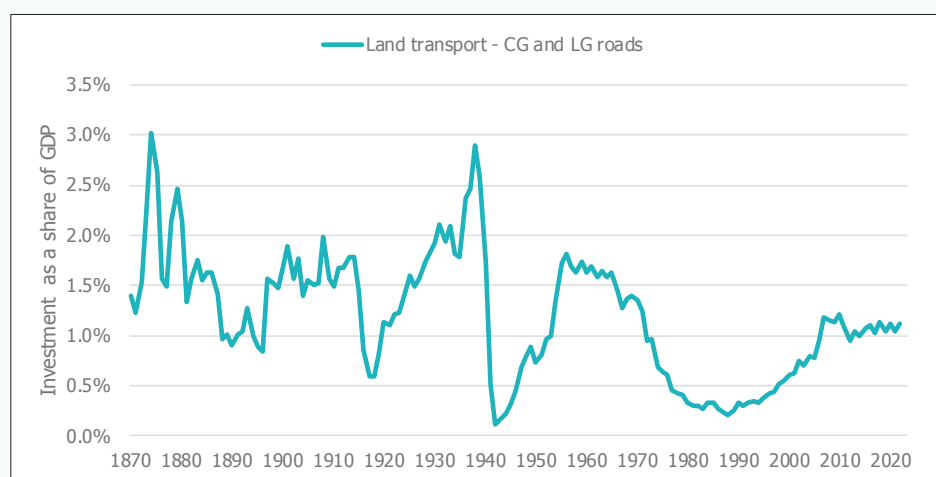
In the late 19th and early 20th centuries, land transport—roads and rail—dominated New Zealand's infrastructure spending. Connecting a geographically challenging country with a small, spread-out population required heavy investment.

We kept investing at a high rate through to the early 1970s, aside from sharp dips in investment during the world wars (Figure 1). We invested an average of 2 per cent of GDP in improving road networks in an interwar investment boom from 1925 to 1940, and an average of 1.6 per cent of GDP in the postwar investment boom from 1955 to 1971.

Over the last two decades, road investment has stabilised at around 1.1 per cent of GDP. That's less than in the expansionary years but higher than the 1980s and 1990s. While that

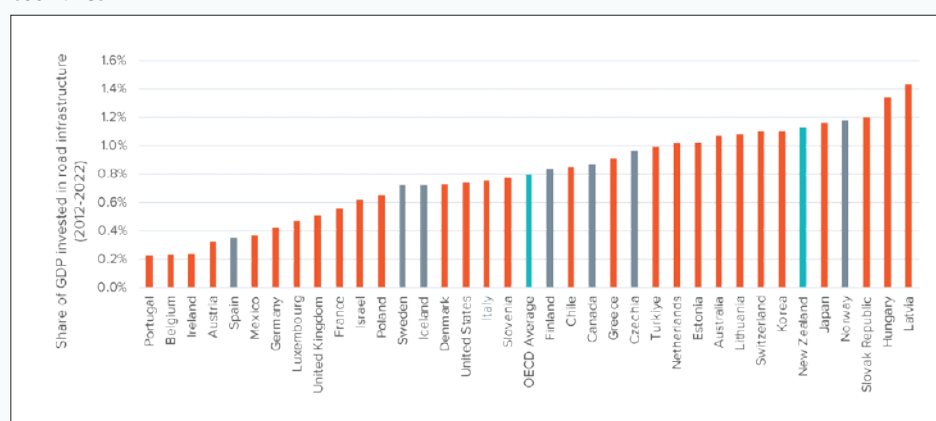
might look modest by historical standards, OECD comparisons show New Zealand now ranks among the highest-spending high-income countries relative to GDP (Figure 2).

Figure 1: Capital investment in roads as a share of GDP, 1870-2022



Source: New Zealand Infrastructure Commission estimates.

Figure 2: New Zealand's current road investment as a share of GDP, relative to other OECD countries



Source: OECD-ITF data. Grey-highlighted countries are those that are most comparable to New Zealand in terms of population size, population density, urbanisation, and topography.

Expanding networks and lifting quality

So, what has that money bought?

Early on, land transport investment was mainly aimed at extending a basic road network throughout the country. By 1925, when New Zealand had 1.4 million people, we already had nearly 75,000 kilometres of road. Today, with 5.2 million people, the network totals just under 100,000 kilometres (Figure 3). In other words, three-quarters of today's network existed when the population was only a quarter of its current size.

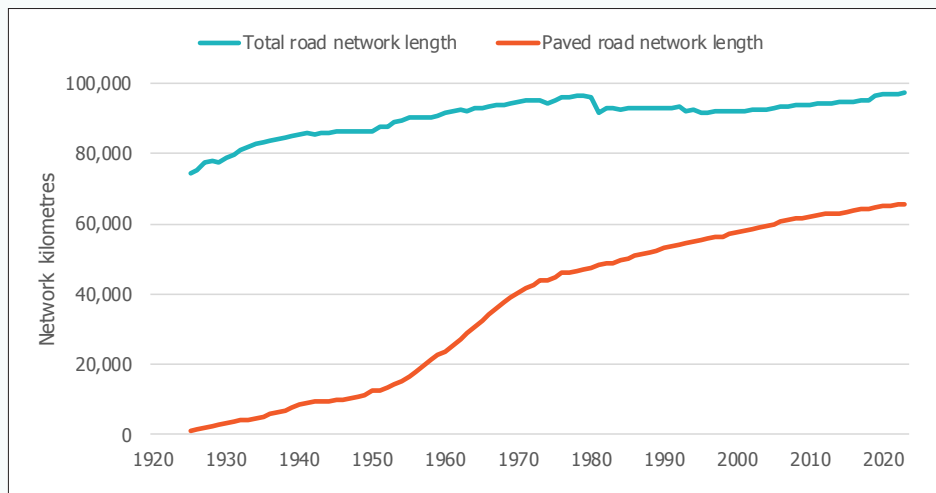


Since then, investment has been less about expansion and more about maintenance and quality. In 1925, fewer than 2 per cent of roads were paved. Today, almost 70 per cent are.

We've also added road capacity in urban areas. Motorway building began in the 1950s. By the early 1970s, we had over 100 kilometres of motorways. After a lull, investment picked up again in the early 2000s, tripling the motorway and expressway network to almost 450 kilometres (Figure 4). The trade-off is that this expansion consumed a large share of investment, limiting what was available for maintenance on state highways and local roads.

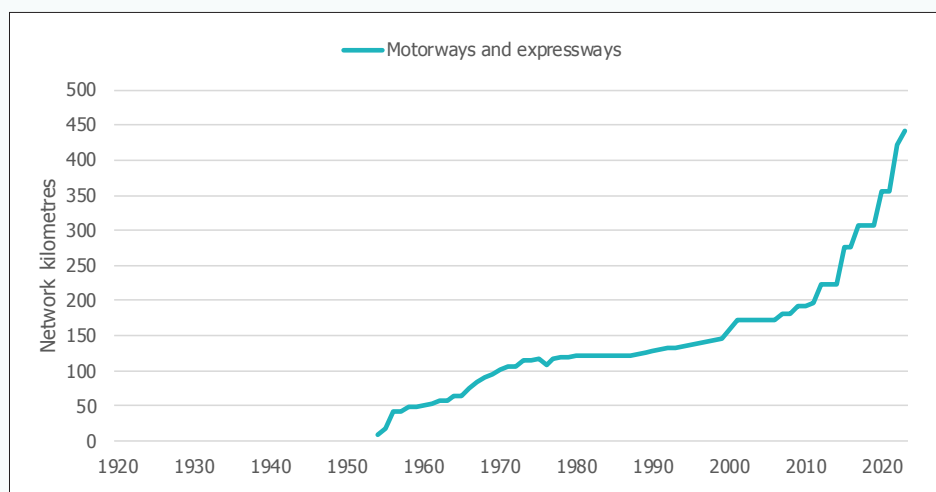
Today, the coverage, usage, and quality of New Zealand's road network is similar to peer OECD countries with similar size and geography, like Sweden, Finland, and Norway. The one clear deficit is safety: our road crash fatality rate remains much higher than our peers.

Figure 3: Length of New Zealand's road network, 1925-2023



Source: New Zealand Infrastructure Commission estimates based on data from NZTA and Stats NZ Official Yearbooks.

Figure 4: Length of New Zealand's motorway and expressway network, 1954-2023



Source: New Zealand Infrastructure Commission estimates based on data from NZTA and Stats NZ Official Yearbooks.

The investment outlook

Transport investment must balance several demands: maintaining and renewing existing assets, managing natural hazard risks, adjusting capacity as freight and passenger needs evolve, and lifting service quality to meet rising user expectations.

The National Infrastructure Plan includes 'forward guidance' on future investment demands, drawing on asset stocks, population trends, and climate scenarios. The key message: the future will not mirror the past.

From the 1930s to the late 1990s, vehicle kilometres travelled (VKT) per person rose nearly 500 per cent (Figure 5). More driving meant more revenue from fuel excise duty and road user charges to fund road investment. But since the late 1990s, per-capita VKT has plateaued. We expect demand growth to remain more subdued in future, due to our ageing population and forecasts of slower income growth.

That means investment will tilt more toward maintaining, renewing, and strengthening resilience in the existing network, relative to building new infrastructure.

Upcoming choices

Here's the crunch. Our aspirations for land transport increasingly exceed our ability to pay.

For most of the past century, land transport investment was funded through user charges—petrol excise, road user charges, fares, tolls—and local government rates. These revenues were typically ring-fenced for transport. When we wanted to spend more, we had to pay more.

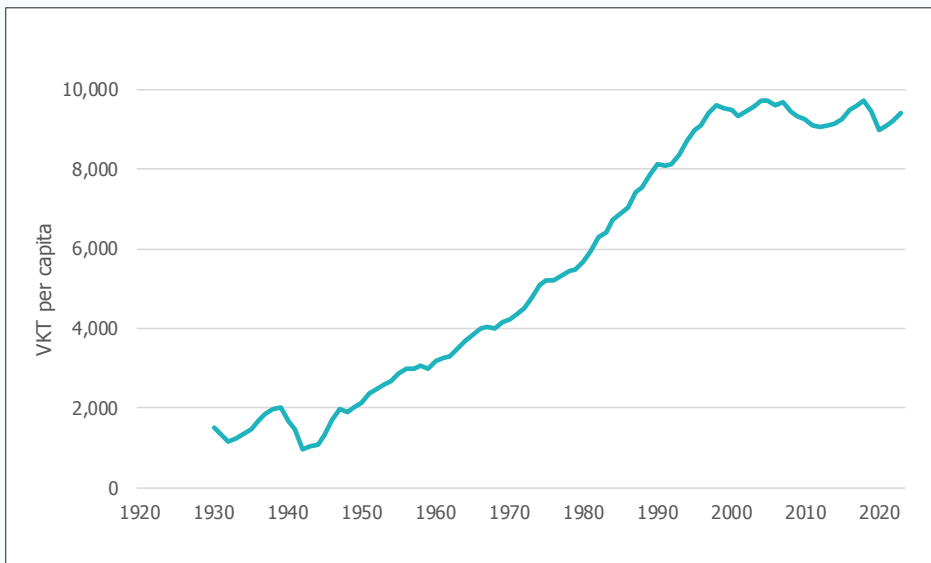
But in the past decade the funding model has sprung leaks. Between the early 2010s and early 2020s, annual National Land Transport Fund (NLTF) spending doubled from around \$3.8 billion to \$7.6 billion (Figure 6). To cover that, local government

contributions rose 80 per cent, petrol taxes road user charges, and vehicle rego increased 30 per cent, and Crown loans doubled. The big shift was Crown grants, which grew 35-fold to almost \$2 billion a year. In other words, general taxpayers now carry a much larger share of road costs.

This approach is hard to sustain relative to other pressures. On top of the NLTF and other agencies' ongoing budgets, the government plans to spend \$3.5 billion a year in new tax-funded capital spending over the next three Budgets.¹ This is money that must also cover new schools, hospitals, courts, defence equipment, and more. If more than half goes to roads, other priorities will be crowded out.

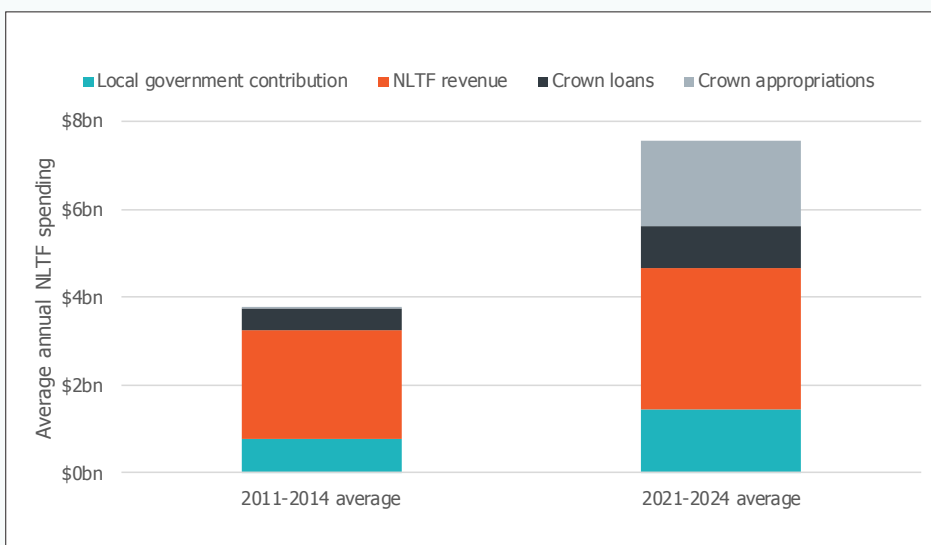
Meanwhile, project intentions data from the National Infrastructure Pipeline suggests that many major transport projects are currently unfunded through the National Land Transport Fund, meaning they require new sources of money if they are to go ahead.

Figure 5: Per-capita vehicle kilometres travelled, 1930-2023



Source: New Zealand Infrastructure Commission estimates based on data from the Ministry of Transport and Stats NZ Official Yearbook

Figure 6: Breakdown of revenue sources for National Land Transport Fund spending in the early 2010s and early 2020s



Source: New Zealand Infrastructure Commission analysis of NZTA transport funding data and Treasury Budget data.

Your insights matter

New Zealand faces choices. Do we return to the traditional ring-fenced model of funding transport, or keep relying on general tax revenues even if it means trade-offs with other infrastructure? Do we expand user-pays mechanisms, or accept slower delivery of big projects? Can we lean on productivity and low-cost solutions to stretch our investment dollars further?

These are not questions that will solve themselves. Answering them will require a clear sense of trade-offs and a willingness to think differently about what is affordable and sustainable.

The Commission is currently finalising the National Infrastructure Plan. We want to ensure our understanding of the land transport sector's needs, challenges, and opportunities reflects reality on the ground.

Although the formal feedback period on the draft has closed, you can still read it (<https://tewaihang.govt.nz/draft-national-infrastructure-plan>) and contact us at info@tewaihang.govt.nz if you'd like to share insights or learn more.

The history of land transport shows that New Zealand has built a strong network over more than a century. The future will be different. The task now is to find a path forward that we can pay for.



Peter Nunns

Peter has a background in infrastructure and transport economics, urban economics, and economic development. At the Commission, Peter has led the Economics team, helped to develop New Zealand's first Infrastructure Strategy, and established the ongoing Research Insights series.

He previously held roles in consultancy, and local and central government, including advisory work on a number of major infrastructure projects and programmes. He holds postgraduate degrees in economics and political science from the University of Auckland and an undergraduate degree in mathematics and political science from Williams College (Massachusetts).

¹ <https://budget.govt.nz/budget/2025/fiscal-strategy-report/capital-allowances.htm>



Te Utanganui is set to grow even further with infrastructure projects like KiwiRail's planned Regional Freight Hub, Palmerston North Airport's expansion, and the Manawātū Regional Freight Ring Road. Photos: Central Economic Development Agency

Te Utanganui: A plan in action

BY ROBBIE WOODS

IN 2020, MANAWATŪ BASED Central Economic Development Agency (CEDA) launched a bold initiative to establish a nationally significant logistics cluster in the heart of the country. The aim: to develop a high-performing, intermodal freight and distribution hub that would boost productivity, strengthen resilience, and unlock the region's potential.

The concept was driven by the rapid growth of the region's distribution and logistics sector, alongside mounting pressure on the national supply chain. It was a timely opportunity to position central New Zealand as a key logistics hub, designed to meet national demand while fuelling regional growth.

Fast forward to 2025, and Te Utanganui – the Central New Zealand Distribution Hub, has taken its place as one of the three critical key nodes in the national freight network, complementing the Golden Triangle in the North and Canterbury in the South. Today, Te Utanganui is a thriving cluster of coordinated investments, public-private partnerships, and national infrastructure that is shaping New Zealand's economic future.

CEDA has led the development of Te Utanganui as part of its core mandate to drive sustainable economic growth in

the Manawātū region. With a focus on unlocking potential, attracting investment, and strengthening infrastructure, CEDA recognised the opportunity to position Manawātū at the centre of the national freight network. By bringing together local and central government, iwi, industry, and infrastructure partners, CEDA has played a pivotal role in delivering a hub of regional and national significance.

A region rallying together for national impact

From the beginning, Te Utanganui has been a showcase in collaborative development. The original strategy was developed in close partnership with central government, local councils, iwi, economic development agencies, business networks, and major investors. This cluster of central North Island stakeholders and agencies spans 22 territorial authorities and four regional councils across the lower North Island, representing a region united behind a shared economic vision.

This North Island collective contributes over 22.4 per cent of New Zealand's GDP, second only to Auckland, and Te Utanganui is perfectly positioned in the centre of this economic powerhouse.

Strategically located, nationally significant

What sets Te Utanganui apart is its geographic advantage and multimodal capability. Located in Palmerston North, the hub is the only place in Aotearoa where road, rail and air freight modes converge side-by-side, unlocking seamless logistics efficiency. With strong strategic ties to Napier and Wellington ports, Te Utanganui acts as a linchpin connecting domestic and international markets. Based in Manawātū, Te Utanganui builds on the region's connectivity, agility, and strategic foresight which have made it a powerful engine for Aotearoa's growth.

It is already a critical servicing point for the central New Zealand regions, including Taranaki, Manawātū-Whanganui, Hawke's Bay, Wairarapa, and Wellington, and hosts one of only three 24/7 national air freight terminals. This interconnectivity provides the resilience, optionality, and future scalability with New Zealand's freight demand set to grow by 60 per cent over the next 30 years.

Coordinated investments driving growth

Strategic infrastructure investment across the Manawātū region is powering business

growth and helping future-proof the economy. Major developments such as *Te Ahu a Turanga – the Manawātū Tararua Highway*, upgrades to *Palmerston North Airport*, and the planned *KiwiRail Regional Freight Hub* are already delivering significant benefits. Looking ahead, projects like the *Manawātū Regional Freight Ring Road*, recently listed in the national Infrastructure Priorities Programme will further enhance the efficiency and resilience of New Zealand's national supply chain.

These initiatives are more than freight upgrades – they're catalysts for innovation, investment, and job creation.

At the heart of this transformation is Te Utanganui – the Central New Zealand Distribution Hub. By integrating road, rail, and air freight infrastructure into a single intermodal precinct, Te Utanganui offers faster, more reliable connections to both domestic and international markets. This connectivity is a game-changer for key sectors such as agrifood, logistics, and advanced manufacturing – reducing supply chain costs and boosting export capability.

Already home to major operators like Toyota NZ, Woolworths, and Foodstuffs, Te Utanganui continues to attract a diverse range of new businesses, including Hiringa Energy, Australian Defence Apparel, and several third-party logistics providers. The momentum is growing – with interest ranging from international stakeholders and national corporates to individual investors seeking to tap into the strength of this high-performing cluster.

From its inception, Te Utanganui has exemplified collaborative development. The original strategy was co-designed by central government, local councils, iwi, economic development agencies, business networks, and major investors. This collective spans 22 territorial authorities and four regional councils across the lower North Island – a region aligned behind a shared vision for sustainable economic growth.

Together, this central North Island economy contributes over 22.4 per cent of New Zealand's GDP – second only to Auckland – and Te Utanganui sits firmly at its centre.

Te Utanganui is not a single development, but a master-planned ecosystem of coordinated infrastructure, industrial precincts, and enabling public works. Together, these investments support a seamless and scalable logistics network.

Key projects include:

- KiwiRail's planned Regional Freight Hub, consolidating freight and shifting volumes from road to rail
- **Palmerston North Airport's** \$43 million cargo upgrade, enhancing air freight capacity
- **Expansion of the North East Industrial Zone**, providing premium land for logistics and manufacturing
- **Expansion of the Kawakawa Industrial Precinct**, opening up many more acres of land ripe for development
- **The Manawātū Regional Freight Ring Road**, ensuring efficient, safe, and uncongested freight movement
- **Te Ahu a Turanga – Manawātū Tararua Highway**, creating faster east-west connections across the lower North Island

In total, more than **\$8 billion** in public and private investment is committed or underway across the region this decade – a clear sign of confidence in the strength, scale, and strategic potential of Te Utanganui.

Anchoring a high-calibre cluster

Within Te Utanganui, three key business zones - Ruapehu Aeropark, North East Industrial Zone, and Kawakawa Industrial Precinct - form an interconnected hub supporting a diverse range of industries. These include third-party logistics providers, warehousing, distribution centres, manufacturing bases, and more.

Te Utanganui is already home to over 100 businesses, from established logistics leaders to fast-growing innovators. Recent additions include Woolworths New Zealand and Foodstuffs North Island, both investing in major new distribution centres. Other notable tenants choosing Te Utanganui as their New Zealand base include Australian Defence Apparel (ADA NZ), Hiringa Energy, Proliant, DKSH, Toyota New Zealand, and many others.

This concentration of logistics, transport, and supporting services is accelerating productivity, reducing delivery times, and creating new economies of scale. It also gives rise to a true cluster effect: businesses benefit from co-location, shared infrastructure, talent access, and innovation spillovers.

With scalable industrial land, strong utilities, and access to a growing labour force, Te Utanganui is also attracting innovation-focused businesses in renewable energy, agri-logistics, circular economy, and more.



Driving economic, environmental and social benefits

Te Utanganui is not just a logistics project, it's a nation-building initiative delivering significant economic, environmental, and social benefits. By boosting national freight productivity, opening new export pathways, attracting investment, and creating skilled jobs, it supports a resilient and diversified regional economy. It also strengthens the resilience of New Zealand's freight network, providing alternative routes and modes to keep communities and businesses connected when disasters or disruptions occur. Environmentally, it promotes a shift from road to rail, lowering emissions through sustainable design and greener freight movement. Socially, it builds workforce capability while enhancing safety and efficiency across the transport network, strengthening communities and businesses alike.

The environmental and social benefits are equally significant. Te Utanganui supports a shift from road to rail and promotes smarter, lower-emissions freight movement, aided by green infrastructure and sustainable design. Socially, the project is creating high-quality jobs across logistics, infrastructure, and related sectors, building long-term capability in the regional workforce. It is also enhancing safety and efficiency across the transport network, strengthening communities and businesses alike.

Socially the project is creating high-quality jobs across logistics infrastructure and related sectors building long-term capability in the regional workforce.

The opportunity ahead

The freight and logistics sector is facing massive change. Population growth, shifting consumer patterns, digital transformation, and climate goals are all reshaping the landscape. Te Utanganui is ready.

Whether you are an investor seeking long-term returns, a government agency looking to enable productive infrastructure, or a regional leader searching for a proven model of collaborative development – Te Utanganui is your case study in action.

It is a place where strategy meets delivery, and where the future of New Zealand's freight network is already being built.



Robbie Woods, Programme Director, Te Utanganui

Robbie Woods is the Programme Director for Te Utanganui, spearheading the development of Central New Zealand's multimodal logistics hub. With extensive experience in infrastructure delivery, Robbie holds an Honours Degree in Civil Engineering and has managed projects ranging from short-term assignments to large, complex, intergenerational programs, bringing a versatile and expert approach to every stage of development.

Rail on board with the future

BY JOHN GARDINER FENGNZ

WHILE SOME OF THE TECHNOLOGY

behind railway engineering and operations has been around for many years, the sector continues to evolve to address challenges including decarbonisation, digitisation, asset management and safety, and the risks of climate change.

Rail engineering and technology is one of the earliest of the industrial era engineering disciplines. Though steel wheels on steel rails still form the core – and deceptively simple – technology, railway engineering and operation continue to embrace modern technologies across a broad range of engineering and other disciplines. This includes an ever-improving understanding of the interface between wheel and rail to reduce wear and improve performance. This continues to improve efficiency and productivity as well as helping operators meet the changing requirements of the freight and passenger market. Additional challenges arise from the long life of the assets. For example, some bridges on the New Zealand network date back to the Vogel era of the 1870s, and decisions made now will influence performance for generations.

Improving productivity

One of the key aspects of rail economics, particularly in freight, is the need for larger and heavier trains to improve operating and asset productivity.

Engineering has delivered this through a range of technologies and asset management practices both “above the rail” and “below the rail”.

Starting at the head of the train, locomotive productivity has been achieved through locomotive designs including technologies to improve tractive effort (grip) using sophisticated software systems which control and optimise wheel slip (the low rolling resistance that makes for energy efficiency also provides a limit on the tractive forces), as well as the use of AC traction motors.

Train capacity has been progressively increased by metallurgical and design improvements. They have increased the capacity of drawgear and vehicles to take the significant longitudinal forces arising



Rail engineering and technology is one of the earliest of the industrial era engineering disciplines.
Photo: WSP



Snapshot of the Wairarapa Level Crossing Simulator produced by the Gamification team. Photo: KiwiRail

from the traction and braking as well as transient loads set up by the complex interactions of vehicle mass and up and down grades. These improvements have been assisted by technologies which provide guidance to the driver about optimum driving patterns which also reduce energy consumption, and in some cases provide automation of the train.

Operating productivity is also improved with higher axle loads. This involves both the wagon and track structure and formations (including bridges) to be able to take the point loads imposed, particularly in the steel-to-steel interface between the wheels and rails. New vehicles and structures can be designed to take the loads – existing structures need considered structural analysis to provide safe uprating of capacity.

Reducing risk

Rail is the safest of land transport modes, but expectations are high and with little or no tolerance from public and regulators to accidents (compared with the tolerance often extended to road operators). One of the biggest gains has come from improvements in signalling technology. First generation signals relied on the driver observing and acting on visual commands such as red lights (as does most road transport today). Progressively, this human interface is being minimised by direct use of the signal commands to control the train or override the driver if they fail to action the command. One of the latest technologies is the European Train Control System, known as ETCS, a standard for train control that integrates line side and cab

Cont. on page 12

equipment. KiwiRail and local metro operators are introducing the system for equipment used in higher density routes in areas such as Auckland. Challenges remain in lowering the risks where rail and cars and pedestrians meet.

New technologies

Digitisation of infrastructure, in particular signalling and communications with a systems engineering approach, have improved safety outcomes as well as operational management with an increased ability to manage complex networks and rapidly respond to incidents and keep people informed through realtime information delivery. The Internet of Things and other technologies have opened the extension of the integrated digital world to locomotives and rolling stock.

The next step is the use of AI. Like all parts of the economy, rail recognises the potential value of AI and the sector is now working through how to apply the data from the digital rail world to assist with, and even make, decisions.

The use of digital twins is becoming increasingly established, with realtime examples giving project sponsors confidence in the value of investing in the upfront costs being returned through reduced project risk and lifecycle asset management.

Climate change considerations

Rail represents a significant part of the solution to the world's climate change challenge. The low rolling resistance of steel on steel is the most fuel efficient (and hence the lowest CO₂ emissions) of land-based transport. Rail, like all forms of transport, is currently working through the options to decarbonise the sources of traction through a mix of hybrid energy sources, battery, hydrogen and direct electrification through overhead.

What is becoming apparent is that there is no global solution, and specific solutions are likely to be very nation- and route-specific. What is also clear is there are many equipment supply companies pushing their particular technologies – a challenge for engineers to keep analysis to the fore in the face of sales pitches to management. However, rail – like all land-based infrastructure – is subject to the impact of more frequent and intensive weather events and higher sea levels. A lot of effort is being put into making routes more resilient by reducing the risk of landslips near rail routes and improving storm driven water flows near railway embankments and structures.

This article was first published in the June 2025 issue of EG magazine and reprinted with permission.

Innovation in the fundamentals of rail

MURRAY KING

JOHN GARDINER, writing elsewhere in this issue, notes a number of key improvements in technology that continue to make rail competitive. Not far from home, there are other major technological changes that could also improve the service offered by rail.

Automation

One of these is train automation. Around the world there are a number of driverless, automatic metro systems. But these are closed systems without externally generated obstacles, and the challenge is to automate a more open system, including freight trains. Already in Western Australia Rio Tinto has driverless automatic trains delivering iron ore from mine to port – in 28,000 tonne, 240-wagon trains. The Australian outback has some advantages for such operations, with exceedingly sparse population, and few obstacles in front of the automated trains.

New Zealand routes, with multiple level crossings and other interaction with people make it unlikely that fully autonomous freight trains would be permitted here, but there will always be spin off lessons that we can apply. These trains are controlled by systems very close to the ECTS that Gardiner notes, and ECTS level 2 has elements of automation built in, though the driver remains – e.g. making sure the train stops where it should, avoiding collisions with other trains, and keeping speed within appropriate limits

Autonomous wagons

Gardiner mentioned the need for longer and heavier trains to improve productivity. With such trains, the driver and the locomotive are made more productive by hauling more freight with the same resources. But entrepreneurs with Parallel Systems in the US suggest doing away with both will also improve productivity, and service levels. Longer trains can equate to fewer trains, with potentially poorer service to individual customers.

So Parallel Systems have developed an independently powered single wagon that is autonomous – it can move along the track and through the system under battery power without a driver. Braking (electronically controlled hydraulic brakes – and regenerative – rather than pneumatic) is quicker than in a conventional train, as it is applied to every wagon at the same time. The wagon's control systems are compatible with the Positive Train Control system, a US equivalent of ETCS.

Parallel System's mission is to deliver a safer, more efficient and sustainable alternative to short-haul trucking. The company notes its autonomous wagon system delivers significant benefits, including:

- enables railways to grow by increasing their role in shorter-route transport
- makes America's busiest roadways safer for motorists by decongesting;
- reduces the costs of moving freight;
- creates high-skilled, high-wage jobs;
- reduces pollution.

According to the Federal Highway Administration (FHWA), congestion means longer travel times, increased costs, and less reliable pick-up and delivery times for truck operators. To compensate, truckers typically add vehicles and drivers and extend their hours of operation. Over time, most of these costs are passed along to shippers and consumers. The FHWA estimates that increases in travel time costs shippers and carriers an additional \$25 to \$200 per hour depending on the product carried. The cost of unexpected truck delays can add another 50 percent to 250 percent.

Parallel Systems exists to enable the railway industry to address this societal issue. The company's innovation allows railways to offer faster, more regular, and cost competitive service by eliminating the need for large batch sizes in rail services today.

A single wagon can be despatched from a customer to its destination without waiting for enough wagons to make up a train. But they can also move together in a “platoon” of 10 to 30 wagons, without coupling them. So far, the prototypes have worked and have got safety clearance from the Federal Railroad Administration (FRA) for the first commercial pilot on the main line, on 260 km of two lines in Georgia, in conjunction with the Genesee and Wyoming (G & W) railway company. The lines connect the Port of Savannah to major arterial distribution operations serving the East Coast. “Georgia stands to realise significant benefits from decongestion of local highways and increased freight transportation availability for communities in southern Georgia”, said Parallel’s CEO and founder Mat Soule.

Initially the trials will focus on a 5 km section without any level crossings, and will gradually extend over 7 steps to longer routes and more diverse situations, including at the end of the programme, concurrent operations with conventional trains. Later stages include level crossings, and all level crossings must be protected by flagmen during the trials.

The FRA approval suspended a number of its regulations for the trials. As they say in their approval letter: “Many of the suspensions are necessary because the newly designed equipment does not have certain conventional mechanical elements to which the regulations apply. For example, the vehicle does not have a cab and does not couple to other equipment. Similarly, there is no need for handholds, ladders or other safety appliances”. This underlines how radical the system is. It is however required to have a horn and front and rear indicator lights for each direction of travel.

Meanwhile the idea has taken hold in Western Australia, where the state track owning company, ARC Infrastructure, has formed a company named Hiiiv, and acquired a Parallel wagon (for 1435mm gauge). This has been run on the main line for testing in October 2024, at speeds of up to 30 km/h. It is being integrated with the ARC train control system, and accreditation with the Office of the National Rail Safety Regulator is being sought. ARC has ownership links with G & W.

Use of the autonomous wagon system was designed with the new container port at Kwinana south of Perth in mind. The sorts of duties envisaged for it include movement of containers from the port to adjacent intermodal freight terminals, a potential use for them in New Zealand too, though there would need to be work to adapt them to our narrower gauge.



A company named Hiiv has acquired a Parallel wagon (for 1435mm gauge), and has been run on the main line in Western Australia for testing in October 2024, at speeds of up to 30 km/h. Photo: Hiiv



Parallel Systems have prototypes - seen here on the Association of American Railroads test track in Pueblo, Colorado - that worked and have got safety clearance from the Federal Railroad Administration for the first commercial pilot on the main line. Photos: Parallel Systems



Parallel Systems' innovation allows a single wagon to be despatched from a customer to its destination without waiting for enough wagons to make up a train. Photo: Parallel Systems



A new report focusing on Australian and New Zealand logistics operations highlights that successful logistics operators are turning to technology not just to keep up, but to get ahead. *Photos: Canva*

Tech signals point to a smarter future for logistics

BY JAMES PAUL

THE LOGISTICS SECTOR has long balanced on the tightrope between rugged operational reality and fast-moving technological possibility. But in 2025, the signals are clear: successful logistics operators are turning to technology not just to keep up, but to get ahead.

That's the central message in the Origin Logistics Tech Outlook 2025, a new report focusing on Australian and New Zealand logistics operations. The Chartered Institute of Logistics and Transport is a supporter of Origin, a supply chain software company.

Drawing on insights from industry players across freight forwarding, third-party / fourth-party logistics providers, and transport operators, the report identifies five "Big Signals" that will shape the next wave of logistics transformation. For professionals in the transport and supply chain space, this is more of a call to prepare, rethink, and reposition, rather than a forecast.

Signal 1: Complex integration is the new norm

The first signal is clear: integration is no longer a bonus; it's baseline. According to the report, logistics companies are now managing dozens of systems at once. Transport management software, warehouse platforms, customer portals, customs systems, financial tools, IoT sensors – it's a crowded tech stack.

"Technology decisions no longer live in silos. To win, logistics companies need joined-up systems that let data flow securely, consistently and in real-time," the report states.

This shift towards deeper integration is not just about visibility; it's about enabling collaboration. Operators want systems that talk to each other, adapt to customer platforms, and plug into government infrastructure seamlessly.

The implications could be wide-reaching: more IT budget going toward API and EDI integration, shorter tolerance for "manual bridges" between systems, and greater pressure to maintain a real-time source of truth.

Signal 2: Platform thinking is replacing process thinking

Historically, logistics businesses thought in terms of "jobs": a consignment to move, a pallet to store, a delivery to dispatch. But now, the smartest operators are zooming out. They're building platforms that serve multiple business models, locations, and service types, and all from the same digital foundation.

Growth-focused logistics companies are shifting toward platform-based systems that support multiple business models and scale with them, and avoiding the need to constantly "rip and replace" technology as

they grow.

Platform thinking enables businesses to quickly onboard new customers, integrate partner workflows, and manage complex, multimodal chains under one umbrella. It's a response to the "swiss army knife" challenge faced by logistics firms: the need to deliver a variety of services, flexibly, and with minimal duplication.

For the Australian and New Zealand logistics markets, this means the age of overly bespoke, brittle systems is ending. Instead, modular, cloud-based platforms are rising, often blending off-the-shelf reliability with fast, high-impact customisation.

Signal 3: Visibility is shifting from 'nice to have' to 'need to have'

The phrase "real-time visibility" has long been a buzzword in logistics circles. But Origin's report suggests 2025 is the year it becomes truly non-negotiable.

"What used to be a nice-to-have – knowing where something is – has become central to commercial confidence and customer experience," the report states.

Customers now expect to see not just where their freight is, but when it's likely to arrive, what the exceptions are, and what's being done about them. Internal teams, too, need instant access to financial performance data – what Origin calls "micro-visibility", like job profitability or driver idle time.

The report cites strong uptake in configurable customer portals, digital proof of delivery, and AI-enabled exception handling tools. The cost of poor visibility? Higher support calls, failed deliveries, and damaged trust.

Signal 4: The Battle for talent is pushing tech to the forefront

Perhaps the most human of the five signals, this one cuts to the heart of today's logistics labour crisis. With driver shortages, dispatcher turnover, and a tight IT talent market, companies are using technology as a tool to attract and retain staff.

"The freight industry is in a war for talent."

Examples include guided workflows for dispatchers, automated invoicing for finance teams, and cleaner user interfaces across driver apps. Increasingly, logistics companies are realising that outdated systems are a barrier not just to efficiency but to recruitment.

This shift is also driving investment in configurability: rather than waiting for software vendors to make changes,



Examples include guided workflows for dispatchers automated invoicing for finance teams and cleaner user interfaces across driver apps. Increasingly logistics companies are realising that outdated systems are a barrier not just to efficiency but to recruitment.

operators want the power to adapt tools internally, at speed.

Signal 5: Readiness is the differentiator

The final signal is perhaps the most strategic: companies that treat technology as a competitive edge – not just an operational expense – are breaking away from the pack.

"Our research shows a clear divide opening between those who see tech as a growth engine and those still treating it as a cost centre."

This readiness mindset includes better data governance, clearer system roadmaps, and stronger cross-functional involvement in tech decisions. At its core is a cultural shift: an embrace of continuous improvement, supported by modern tools and open infrastructure.

So, what do these five signals mean for logistics in New Zealand? First, they signal a turning point in digital maturity. It's no longer enough to digitise operations in isolation.

Systems must integrate, scale, and empower people (from drivers to execs) to do their jobs smarter and faster.

Secondly, logistics leaders will need to become fluent not just in operations, but in platform thinking, data flow, and user-centred design. The Chief Information Officer, possibly once seen as a backend technologist, is becoming central to commercial strategy.

And thirdly, the Australia and New Zealand region, long known for logistical ingenuity, has a chance to lead. With our size, proximity to Asia-Pacific trade routes, and appetite for innovation, we can turn complexity into competitive advantage.

The logistics companies that thrive in the coming years won't be the ones with the biggest fleets or cheapest rates. They'll be the ones who build systems that work the way they do, and position them to change when the market does. For logistics, transport, and supply professionals, the next differentiator is digital.



Unlike this driver, every year in New Zealand, thousands of people cross railway tracks illegally. Last year alone, rail staff reported almost 650 trespass incidents and of those, 60 were near misses with pedestrians. These are just the events we know about - the real number is undoubtedly much higher. Photo: KiwiRail

Beyond fences: Why behaviour change is key to preventing rail tragedies

BY MEGAN DRAYTON,
FOUNDATION MANAGER, TRACKSAFE NEW ZEALAND

IT IS A TRAGIC REALITY that more than 180 people have died on the New Zealand rail network in the past thirteen years. Every one of those deaths was a life cut short. Every one resulted in lasting trauma for all those involved.

The ripples spread outwards from those most affected – the whanau and friends of the victims – to the wider communities, the affected rail staff, the first responders and to those who were simply in the wrong place at the wrong time and ended up witnessing the horror of a death on the tracks.

TrackSAFE's mission is simple: to prevent harm on the railway network. And yet, even after almost twenty years of awareness-raising, education, and advocacy, we still see the same behaviours putting people at risk; shortcutting across tracks, walking along railway tracks, jumping off railway bridges, and perhaps assuming trains can stop.

Although rare, accidental deaths on the network are not isolated. The coroner has recently released findings on the death of a teenager in the South Island in 2023 who was hit while walking on railway tracks on his way to work. A rail enthusiast was killed in 2013 while photographing a Mainline Steam train. In Napier in 2014, a woman died while walking her dog on railway tracks. Two young people have died in separate incidents in Matamata. And two children have died on the Ngāruawāhia Bridge since 2002. This issue spans both geography and generations.

There are often calls for more fencing, and we can understand that instinct. When tragedy strikes, we look for immediate, tangible solutions and in some cases, fencing is warranted. But we believe the issue of rail trespass can't be solved by infrastructure alone. Fences may help in some high-risk locations, but with almost 4,000 kilometres of tracks in this country, we cannot fence our way out of the problem.

We need a national shift in understanding and behaviour.

The scale of the problem

Every year in New Zealand, thousands of people cross railway tracks illegally. Last year alone, rail staff reported almost 650 trespass incidents and of those, 60 were near misses with pedestrians. These are just the events we know about - the real number is undoubtedly much higher. In some towns throughout New Zealand, crossing the tracks to take a shortcut is seen as normal.

Crossing railway tracks anywhere other than a formed level crossing is not only unsafe, but also illegal. Under the Railways Act 2005, the only lawful place to cross tracks is at an official crossing point. Doing so elsewhere can carry fines of up to \$10,000, but this sanction is rarely used.

This is where we face our greatest challenge: not just ignorance of the law, but a deeply

ingrained complacency about the risks of trains. Maybe people wrongly believe they'll hear a train coming. Or that they can judge its speed. Or that they have time to cross. They might assume trains are on a fixed schedule. None of these assumptions are true.

Trains can appear at any time whether they are expected or not. They travel faster than they appear to and take much longer to stop than people realise. A fully loaded freight train can take up to a kilometre to come to a complete stop after the emergency brake is applied. Electric trains, like those used in Auckland and Wellington, are almost silent.



Every one of us has a role to play in preventing harm on our railway. Speak up when you see unsafe behaviour. Model safe habits. Advocate for better education especially in communities where rail runs close to schools or homes. Support the efforts of organisations to get into schools share stories and shift the narrative around railway safety.

The human toll

We often hear about the impact on victims and their families, and we cannot underestimate the pain and trauma caused by a death on the rail network. But these events also leave a lasting mark on our rail community, particularly locomotive engineers, on board staff, rail incident controllers and the emergency workers who deal with the aftermath. I've spoken to many drivers over the years who have experienced near misses and collisions. Some never return to work. Others carry the emotional toll for the rest of their careers. One driver returned to work after a collision, only to experience another fatality on his first day back. These are the human consequences that are so often hidden behind the statistics.

So, what works?

There are some practical steps that can be taken. Using train horns, putting up signs, thinning out vegetation to improve visibility, selective fencing and pedestrian pathways are all positive, practical steps. However, to prevent further tragedies, we need to move beyond relying on rules, penalties, and

fences. We need to change the way people think about rail safety. But changing attitudes is not easy. It takes time, repetition, and community buy-in.

Every one of us has a role to play in preventing harm on our railway. Speak up when you see unsafe behaviour. Model safe habits. Advocate for better education, especially in communities where rail runs close to schools or homes. Support the efforts of organisations to get into schools, share stories, and shift the narrative around railway safety.

At TrackSAFE we do not want to write about another fatal collision. We do not want another locomotive engineer to carry the trauma of an avoidable incident. And we do not want another family to receive that devastating knock on the door.

Together we need to change the culture that makes trespassing on railway tracks feel normal. And that might build the most powerful barrier of all.

This opinion piece was first published in The Post in August 2025 and is reprinted with permission.



Megan Drayton

Megan Drayton has managed the TrackSAFE Foundation in New Zealand for the past fifteen years, having started her career in rail with Tranz Rail in the early 2000s. Her current role involves promoting public safety around the New Zealand rail network, including managing high-profile rail safety campaigns such as Rail Safety Week. She engages widely with all sectors of the rail industry and advocates for safety improvements based on risk. TrackSAFE is supported by KiwiRail, NZ Transport Agency, Auckland One Rail, Transdev Wellington, Greater Wellington, Auckland Transport, John Holland and Stantec. Megan also works closely with TrackSAFE Australia, sharing knowledge and resources for a common purpose. She is passionate about reducing harm and making a difference and believes that the best way to improve safety outcomes is by working together.

Biggest change to RUC in 50 years

ON 6 AUGUST 2025, Minister of Transport Hon Christopher Bishop announced the next steps for transitioning all light vehicles from fuel excise duty (FED) to road user charges (RUC). This reform aims to create a fairer funding system for the land transport network, ensuring that all drivers contribute based on their road usage.

The rationale

A long-standing principle in land transport policy is that road users contribute to the costs of maintaining and improving the network. Most light vehicle drivers currently contribute through FED. However, FED is an imperfect proxy for road use, as how much people contribute varies significantly due to differences in a vehicle's fuel efficiency. This disparity will grow as more fuel-efficient petrol vehicles enter the market, making the current revenue system less fair.

The current FED system means drivers of many fuel-efficient petrol vehicles contribute less per kilometre than drivers of diesel, electric, and larger petrol vehicles. Transitioning the entire fleet to a distance-based system is a more principled and fairer way to raise revenue, ensuring everyone pays their share based on their road use.

During the Select Committee process for bringing electric vehicles (EVs) into the RUC system, the fairness of the revenue system was a key issue raised in submissions. EV owners currently pay more through RUC than drivers of fuel-efficient petrol cars through FED that still produce emissions. The Select Committee agreed that moving all vehicles to a single system based on distance travelled is a fairer approach, as it ensures all light vehicles contribute based on their road use, regardless of their technology or fuel type, and aligns with the principle that all road users should contribute their fair share.

The existing RUC system

The RUC system was originally introduced in 1977 to ensure fairer competition between road and rail freight. Railways, which had to maintain their own networks, argued that fees paid by heavy road freight vehicles at the time did not cover the

road wear they caused, creating an uneven playing-field. The RUC system's main purpose was to ensure heavy vehicles paid for their impact on the roads.

At the time, there were almost no light diesel vehicles in the fleet, so it was designed with heavy vehicles in mind. Today, 1.3 million vehicle owners pay for their road use through the RUC system, and of these about 1.1 million are light diesel vehicles and EVs.

The system is based on the "fourth power rule", an engineering principle where road wear increases exponentially with a vehicle's axle weight. The system has over 80 different rates that incentivise operators to use vehicles that cause less damage to the network. The rates mean that heavy vehicles are responsible for covering almost all costs of maintenance needed as a result of damage to the roads.

For most light vehicles, there is only one rate. This is because light vehicles contribute a minimal amount to pavement wear, and the administrative complexity of multiple rates for minor weight differences would outweigh any benefit.

The light vehicle RUC rate is currently \$76 per 1,000 kilometres including GST. Only about \$1 of that rate relates to weight-based pavement wear, with the rest contributing towards costs of running the transport network, such as weather- and age-related maintenance, new infrastructure, road policing, and public transport.

The light petrol fleet

While transitioning just over 100,000 EVs into the RUC system was reasonably straightforward in 2024, moving 3.5 million light petrol vehicles is a much larger and more complex task. The existing RUC system needs to be reformed and improved before it can accommodate the light petrol fleet.

For most road users, the RUC system is largely manual, requiring users to monitor their odometers and pre-purchase paper licences. This manual system is not well-suited for the entire light fleet transitioning to RUC. Relying on the manual system would pose challenges

to public acceptance, compliance, and revenue collection. Drivers of petrol vehicles would be moving from a seamless system that they do not need to think about and cannot avoid (fuel excise duty) to one with an administrative burden. A user-friendly payment system is needed.

The existing electronic RUC system (eRUC) is also unsuitable for most light vehicles. It is used by very few private motorists or light vehicles that are not part of a commercial fleet. eRUC is commonly used by heavy vehicles. Installation and service costs are high due to the need for devices to meet specific requirements, including the need for an outward-facing display instead of a label.

Instead of shifting all light vehicles to the existing manual system, the government will first modernise both the manual and eRUC systems. This includes legislative reform to allow the private sector to develop and deliver user-friendly services that are better suited to light vehicles.

Legislative reforms announced

The government plans several legislative changes:

- Removing the requirement to display and carry a RUC licence – this will enable more affordable eRUC solutions that do not have a screen.
- Reforming the requirements for distance recorders – this will enable a broader range of distance-recording instruments and technologies, including existing in-vehicle technology installed by manufacturers.
- Enabling flexible payment options – this will allow third parties to provide, for example, road user accounts with features like monthly post-payment, estimated billing, and automated payments.
- Clarifying the regulatory role of the RUC Collector – this will ensure a levelled playing field between the New Zealand Transport Agency Waka Kotahi and third-party providers.

The government is committed to ensuring any changes to the road user charges system respect privacy. Officials are working with the Office of the Privacy Commissioner to



ensure protections are in place and upheld. This includes building on the existing privacy provisions in the Road User Charges Act 2012, which already limit what information the government can access and for what purpose. As is the case now, drivers will continue to have the choice of using either an electronic system or a manual option.

Third parties (private sector and otherwise), such as the Automobile Association (AA), have long been part of the RUC system. Private companies have been providing electronic RUC services in New Zealand since around 2008, and over half of the heavy vehicle fleet now uses their services to purchase and manage RUC.

The New Zealand Transport Agency's existing system is not designed to provide functionality such as eRUC, flexible payment options, or road user accounts. Rather than building a new

government system that can manage RUC for the entire light vehicle fleet, we will focus on relaxing regulations to allow the private sector to deliver more user-friendly solutions. The government aims to create the conditions that enable a competitive retail market for RUC management services, similar to those that exist for broadband or electricity.

The full transition to RUC of the petrol fleet, and the abolition of FED, will follow once a market in systems for light petrol vehicles is available. This is a complex undertaking that will require significant further work, additional legislative change, and close engagement with the public and stakeholders. A specific date for the switch has not been set, as its progress will be influenced by the development of RUC retail market and is a separate decision.

Next steps

The staged approach will help ensure the new system is ready for the entire fleet and a smooth transition. The government plans to pass legislation by 2026 to modernise the RUC framework.

The Ministry of Transport will be running a market engagement process later this year. This will provide an opportunity for interested parties to learn more about the government's approach and provide feedback on how they might be involved in the future RUC system. We have already received interest from several additional third parties interested in being involved in the collection of RUC.

By 2027, the new system will allow private providers to offer a broader range of solutions to the existing RUC fleet (diesel, heavy, and electric vehicles).



Welcome Ian Smith FCILT, Our New Secretary General

CILT INTERNATIONAL is pleased to announce the appointment of Ian Smith FCILT as its new Secretary General, effective July 2025.

Ian brings a wealth of leadership experience from across the aviation, transport, charity, and public service sectors. A long-standing Fellow of the Chartered Institute of Logistics and Transport, Ian has played an active role in CILT UK, particularly in the London Region, and is well known for his commitment to supporting events and professional development within the Institute.

Ian's career spans over four decades and includes senior leadership roles across a range of sectors, including aviation, security, consultancy, and not-for-profit work. He has significant experience in governance, compliance, risk management, and operational leadership in both public and private settings.

In his new role, Ian will work closely with the International President, Chief Teete OWUSU-NORTEY FCILT FGIPS, the Council of Trustees, and the International Secretariat. He will support the Institute's global mission to unite professionals across the supply chain, logistics, and transportation sectors, and lead strategic initiatives that strengthen our global impact.

Speaking on his appointment, Ian said:

"I'm honoured to serve as Secretary General of CILT International and to support the Institute's global mission. I look forward to working with our international community to strengthen our impact across the supply chain, logistics, and transportation sectors."



CILT Annual Forum and Awards Dinner

IN PARTNERSHIP WITH CONTAINERCO

WHEN: Thursday, 6 November 2025

WHERE: Wellington

The CILT Annual Forum and Awards Dinner events will provide you with a great opportunity to be inspired, build connections, and be part of shaping what's next.

We are pleased to confirm the attendance of Hon Chris Bishop, Minister of Housing, Infrastructure, RMA Reform, and Transport, alongside Simon Court, Parliamentary Under-Secretary for Infrastructure and RMA Reform, at this year's Awards Dinner.

Andy Foster, Chair of the Transport and Infrastructure Select Committee, will also be joining us for the dinner.

Their presence highlights the significance of the event and the industry's critical role in shaping New Zealand's future.



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Making it Work: Challenges in Transport and Logistics in the next Decade.

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Thursday 6 November

12:00pm – 4:15pm | Ministry of Transport, 3 Queens Wharf, Wellington



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