

Sharing the Load

The Case for Greater Investment
in Freight Moved by Rail



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Acknowledgement of country

This report was written on the lands of the Darug and the Eora Nations.

The McKell Institute acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of Country throughout Australia and their continuing connection to both their land and seas.

The opinions in this paper are those of the authors and do not necessarily represent the views of the Expert Advisory Group that informed this research. Any remaining errors are the sole responsibility of the authors and the McKell Institute.

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Executive Summary

Australia's freight task is growing rapidly, with national freight volumes projected to increase by approximately 26 per cent over the next three decades – a trend reflected in Australia's own freight projections and driven by population growth, export demand and expanding supply chains (BITRE, 2022).

At the same time, global instability and fuel price volatility are reshaping the economics of freight. Recent geopolitical tensions, including conflict affecting global energy markets, are already increasing diesel costs and exposing the vulnerability of Australia's road-dependent freight system (IBISWorld, 2026).

This expansion will intensify congestion, emissions, and safety pressures on the national road network unless a greater share of freight is shifted to rail.

Rail transport is both safer and more energy-efficient per tonne-kilometre, producing significantly fewer accidents and greenhouse emissions than heavy road freight.

Rail freight is widely recognised as offering substantial environmental advantages over road transport, with estimates indicating it is three to four times more fuel-efficient and generates up to 16 times fewer greenhouse gas emissions on a tonne-kilometre basis (NSW EPA 2025).

It is also significantly less exposed to fuel price shocks, providing a form of economic insurance against future global disruptions. Increasing the share of freight moved by rail is therefore not only a transport reform, but a resilience strategy for the Australian economy.

International and domestic case studies demonstrate that targeted, practical interventions can shift freight onto rail. The Port of Fremantle's intermodal subsidy scheme, for example, provides approximately \$50 per container moved from road to rail, paid to the freight customer rather than the operator, directly influencing behaviour at the point of decision. While Australia's geography differs, the principle of targeted incentives is highly transferable.

Despite rail's efficiency advantages, long-term freight forecasts continue to show stronger growth in road freight relative to rail, indicating limited modal shift across key east-coast freight markets (BITRE, 2022)



Successive governments have underinvested in freight rail, in part due to cautious government approaches to significant upfront capital costs for infrastructure where economic, safety and environmental benefits are dispersed across portfolios and over time.

Further adding to the reluctance of governments to invest, freight-to-rail investments have often been evaluated using cost-benefit frameworks that benchmark rail against the relatively low upfront cost of road freight, while undervaluing broader logistics network benefits such as reduced congestion, avoided road maintenance, improved safety and emissions abatement.

Support for increased freight on rail reflects both sound economic theory and real-world Australian experience, spanning government-owned rail operations and commercially driven private-sector freight providers.

As a government-owned freight rail operator, TasRail has demonstrated that public ownership can support a reliable and growing rail freight task, with consistent investment under the Tasmanian and Australian Governments driving high freight availability and improvements in safety, infrastructure quality and on-time performance, while transporting hundreds of millions of net tonne-kilometres of goods across the state each year (TasRail, 2024).

In the private sector, Eurotainer has proven the commercial viability of specialised intermodal freight assets through more than 50 years of

global operations in the tank container leasing industry, offering a diverse fleet and value-added services that streamline logistics for customers across chemicals, food, energy and other sectors (Eurotainer, 2025).

This report presents a comprehensive case for increasing rail's role in Australia's freight logistics network, aligning with sustainability objectives, economic development priorities, and commitment to public safety.

It identifies policy levers, infrastructure priorities, and investment pathways to unlock a safer, cleaner, and more efficient freight logistics network for Australia's growing economy.

This project examines the economic, safety, and environmental case for increasing the proportion of freight moved by rail – particularly on high-volume interstate and regional corridors.

The case for increasing rail freight is not new. It has been consistently advanced by successive governments, industry and independent experts for decades, most recently by the Australasian Railway Association, with the challenge no longer making the case, but delivering it.

Key Findings

KEY FINDING 1

Australia's freight task is rapidly growing.

By 2050, Australia's general freight task is projected to increase by around 98 billion tonne-kilometres. Without policy intervention, almost all of this additional freight is expected to be absorbed by the road network.

KEY FINDING 2

Both road and rail are essential to meet this task.

Without complementary investment across both road and rail, accommodating Australia's future freight task will become increasingly costly.

KEY FINDING 3

Rail freight has environmental benefits.

Rail freight consumes approximately 2.5 times less diesel per tonne-kilometre of freight moved than equivalent road freight.

KEY FINDING 4

Rail freight inoculates the economy against fuel shocks.

When diesel prices increase, road freight costs rise more than twice as fast as rail freight costs.

KEY FINDING 5

A greater share of freight growth on rail will lead to fewer road casualties.

Up to 18 road fatalities per year would be avoided should 30 per cent of future growth of Australia's freight task be carried by rail.

KEY FINDING 6

There is an economic dividend to greater rail freight.

Should rail captured 30 per cent of projected future freight growth, the combined value of the avoided emissions and road trauma alone would reach approximately \$640 million each year by 2050.



Recommendations

RECOMMENDATION 1

Establish a National Freight Logistics Taskforce and Deliver a 10-Year Freight on Rail Action Plan

The Australian Government should establish a National Freight Logistics Taskforce, bringing together the Commonwealth, state governments, rail operators, ports, freight customers and industry representatives to oversee implementation of a ten-year Freight on Rail Action Plan.

THE ACTION PLAN SHOULD INCLUDE:

- measurable national modal shift targets;
- annual reporting on freight rail performance;
- prioritisation of high-volume freight corridors;
- a coordinated pipeline of infrastructure investment; and
- reforms to improve reliability, productivity and network capacity.

A dedicated governance mechanism would ensure rail freight receives the same coordinated national focus that has historically been applied to Australia's road freight network.

RECOMMENDATION 2

Create Stronger Commercial Incentives for Customers and Operators to Shift Freight to Rail

Governments should implement a coordinated package of measures that makes rail freight more commercially attractive for both freight customers and rail operators.

THIS PACKAGE SHOULD INCLUDE:

- a national intermodal incentive scheme, modelled on the Port of Fremantle approach, with payments directed to freight customers or distributors rather than rail operators;
- redistribution of rail access charges for intermodal freight to improve network efficiency and reduce operating costs;
- streamlined planning, approval and regulatory processes for new rail services, terminals and intermodal facilities, reducing unnecessary red tape and accelerating project delivery;
- reducing unnecessary regulatory and administrative burdens on rail operators, while improving interoperability and consistency across jurisdictions to support a more efficient national rail network; and
- a review of Commonwealth climate and industrial policy settings, including the Safeguard Mechanism where appropriate, to ensure emissions reduction policies appropriately recognise the benefits of freight modal shift and do not create unintended barriers to greater use of rail freight.

Together, these reforms would improve rail's commercial competitiveness while supporting Australia's emissions reduction objectives.





RECOMMENDATION 3

Support Fuel Transition and Decarbonisation Across the Rail Freight Sector

The Australian Government should develop a national strategy to accelerate the transition of freight rail towards lower-emissions energy sources while maintaining Australia's freight resilience and fuel security.

THIS STRATEGY SHOULD SUPPORT:

- deployment of alternative fuel technologies, including battery-electric, hydrogen, and renewable diesel where appropriate;
- investment in enabling refuelling and charging infrastructure;
- removal of regulatory barriers slowing adoption of new technologies; and
- demonstration projects that accelerate commercial deployment across the national network.

Supporting rail decarbonisation strengthens both Australia's emissions reduction efforts and long-term freight resilience.

RECOMMENDATION 4

Invest in National Intermodal Infrastructure and Freight Rail Capacity

Governments should prioritise infrastructure investments that improve the efficiency and competitiveness of freight rail through better network integration.

PRIORITY INVESTMENTS SHOULD INCLUDE:

- expansion of strategically located intermodal terminals;

- development of infrastructure capable of supporting nationally consistent double-stacked freight operations;
- separation of freight and passenger rail where this delivers significant efficiency improvements;
- continued investment in nationally significant projects such as Inland Rail; and
- improved first- and last-mile freight connections.

Infrastructure investment should focus on removing network bottlenecks that currently limit rail's ability to compete with road freight.

RECOMMENDATION 5

Expand the Use of Rail for Dangerous Goods Freight

Governments should work with industry to expand the movement of dangerous goods by rail, recognising the significant safety, resilience and environmental benefits of reducing heavy vehicle movements on public roads.

PRIORITY ACTIONS SHOULD INCLUDE:

- increasing rail access for dangerous goods movements along major freight corridors;
- investing in appropriately located storage, handling and transfer facilities adjacent to rail terminals;
- reviewing planning and regulatory barriers that limit dangerous goods storage near rail infrastructure; and
- incorporating dangerous goods movements into national freight planning and infrastructure priorities.

Introduction

This report examines the role rail can play in meeting Australia's growing freight task.

It focuses specifically on general freight, rather than bulk commodities that are already predominantly transported by rail.

The report does not advocate replacing road freight. Australia's future freight task will necessarily be carried by both road and rail, with road freight continuing to play an essential role, particularly for first- and last-mile movements, regional connections and time-sensitive deliveries.

Instead, it examines how future freight growth can be shared more effectively between the two modes, ensuring rail carries a greater share of freight where it is most efficient while road and rail operate as complementary parts of an integrated freight logistics network.

Doing so has the potential to improve national productivity, strengthen fuel security, reduce emissions, and support safer, more resilient supply chains.

As Australia's freight task continues to expand, the question is no longer whether road or rail should carry freight, but how both modes can operate as complementary parts of an integrated national freight logistics network.

Ensuring rail is competitive where it is best suited will be essential to accommodating future freight demand while limiting the growing economic, environmental and social costs of an increasingly road-dependent freight system.

It draws on national freight data, economic modelling undertaken by the McKell Institute, government freight strategies, industry literature and interviews with freight operators, industry representatives and policymakers.

Methodological note: Unless otherwise stated, all scenario modelling, estimates, and projections presented in Part 1 of this report have been undertaken by the McKell Institute using publicly available freight, transport, and economic data, including data published by the Bureau of Infrastructure and Transport Research Economics (BITRE) and ABS.

Part One:
The Freight Task

AUSTRALIA'S GROWING FREIGHT CHALLENGE

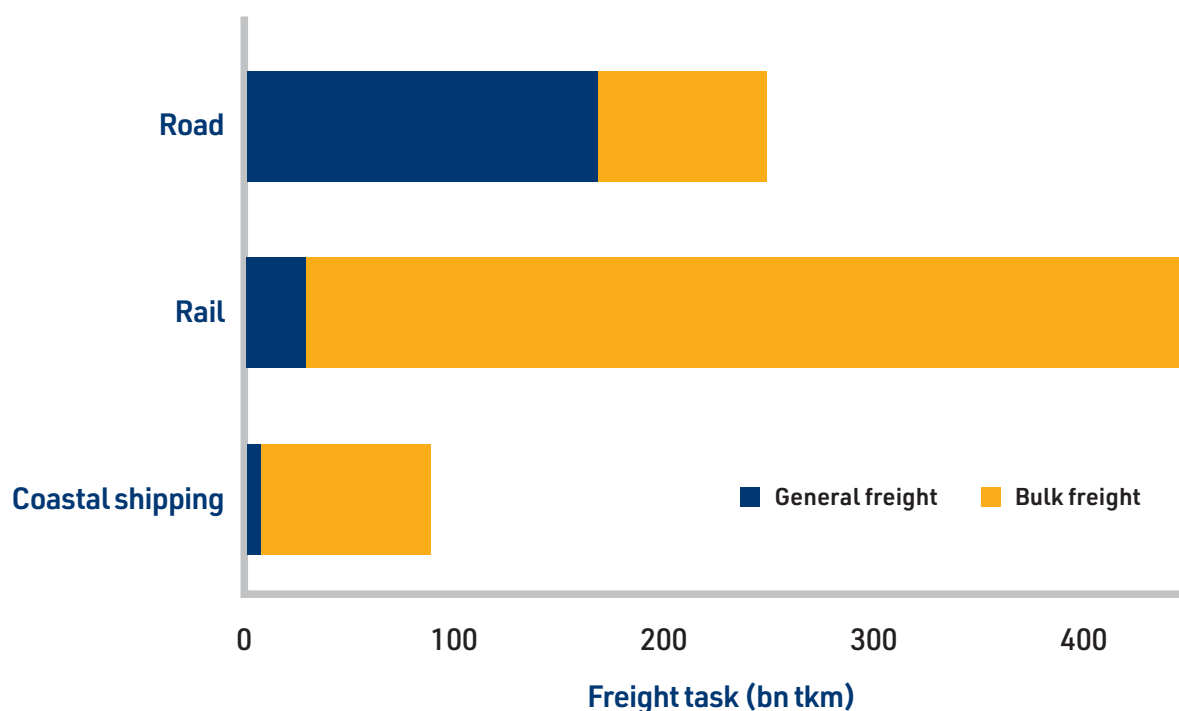
Australia's freight logistics network underpins almost every aspect of the national economy. From food and manufactured goods to medical supplies and industrial inputs, the efficient movement of freight supports businesses, communities, and supply chains across the country. As Australia's population grows and economic activity expands, so too does the freight task. The challenge facing policymakers is not whether freight volumes will increase, but how that growth can be accommodated in a way that strengthens productivity, improves resilience, and reduces long-term costs.

Australia currently moves approximately 786 billion tonne-kilometres of freight each

year, making freight one of the nation's most significant economic systems (BITRE, 2025). While much of Australia's freight task comprises bulk commodities such as coal and iron ore, this report focuses on general freight—including containerised freight, manufactured goods, agricultural produce, and consumer products—where the choice between road and rail is a central transport policy consideration (BITRE, 2025).

This distinction is important. Much of Australia's bulk freight already travels by rail because it is the most efficient transport mode for those commodities. The opportunity examined in this report is therefore not to replace established bulk rail markets, but to increase rail's share of the growing general freight task, where freight operators continue to rely predominantly on road transport.

FIGURE 1 Most rail freight is bulk; the contestable general freight market moves by road



Source: BITRE Yearbook 2024



Australia's freight task is projected to grow by approximately 26 per cent by 2050 (BITRE, 2022). Under current trends, road freight is expected to accommodate most of this future growth. This reflects the critical role road transport already plays in Australia's freight logistics network, particularly for first and last-mile freight movements, regional supply chains and time-sensitive deliveries.

Road and rail freight are not competing systems, they are complementary parts of Australia's freight logistics network. Road freight will continue to perform functions that rail cannot efficiently undertake, while rail is particularly well suited to moving high-volume freight over longer distances. The opportunity explored in this report is not to replace road freight, but to ensure Australia's growing freight task is shared more efficiently between transport modes according to their comparative strengths.

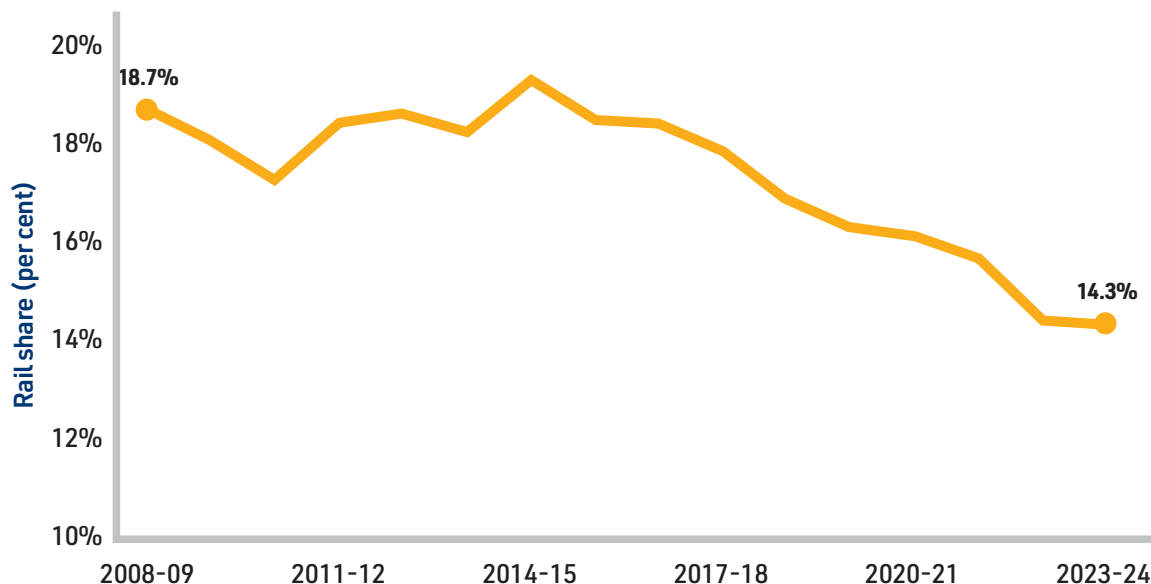
Without complementary investment across both road and rail, accommodating Australia's future freight task will become increasingly costly. Greater dependence on long-distance road freight will increase congestion on major freight corridors, accelerate road maintenance requirements, expose supply chains to greater fuel price volatility and place increasing operational pressures on the road freight sector. Conversely, increasing rail's share of future freight growth offers an opportunity to improve network efficiency while strengthening national productivity, resilience and energy security.

The safety implications of this shift are particularly important on Australia's busiest freight corridors. Roads such as Queensland's Bruce Highway carry a significant mix of heavy freight vehicles, passenger traffic and tourist movements, creating ongoing safety challenges despite substantial investment in

upgrades. In 2021, crashes involving heavy trucks accounted for 15.4 per cent of all Australian road fatalities, while around 18 per cent of all road crash deaths involve a heavy vehicle. Increasing the proportion of long-distance freight moved by rail would not eliminate the need for road freight, but it would reduce heavy vehicle exposure on critical corridors, complementing investments already being made to improve road safety on nationally significant routes such as the Bruce Highway. (BITRE, 2023; National Road Safety Strategy, 2025; Department of Infrastructure, Transport, Regional Development, Communications and the Arts, 2025).

ACCOMMODATING FUTURE GROWTH

While Australia's total rail freight task has grown strongly, that growth has been overwhelmingly in bulk commodities. Rail's general freight task has been broadly flat for fifteen years, and rail's share of the general freight market has steadily declined as road has absorbed almost all of the growth. As a result, rail's share of the general freight market has steadily declined. Australia's freight task relies on both road and rail, each performing different but complementary functions within the national freight logistics network. Road transport provides the flexibility required for first and last-mile freight movements, while rail is particularly well suited to transporting high-volume freight efficiently over longer distances.

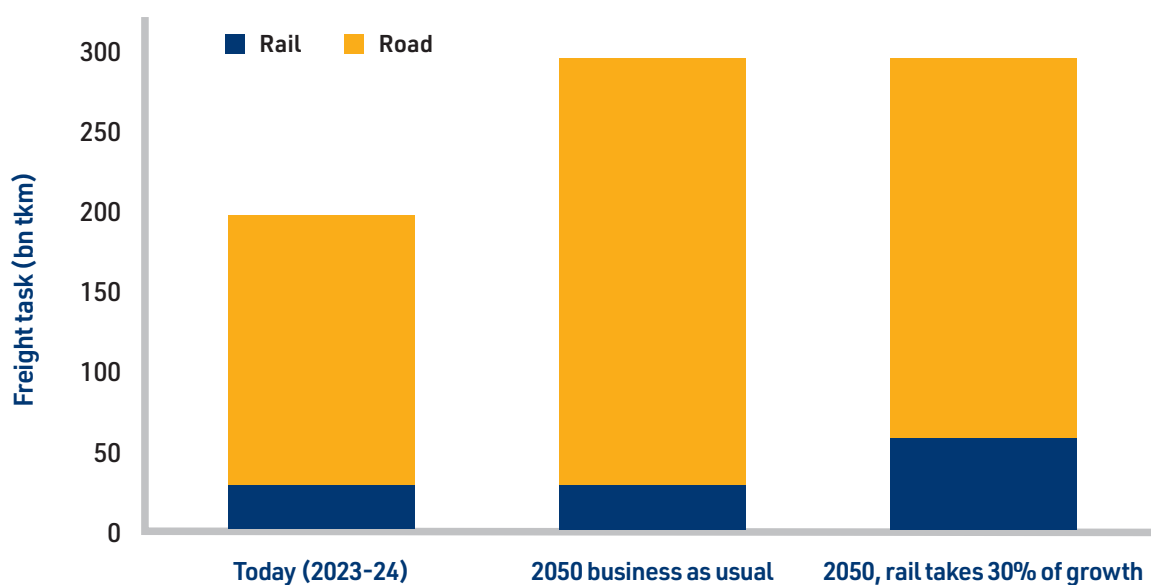
FIGURE 2 Rail's share of Australia's general freight task has fallen from 18.7 to 14.3 per cent

Source: BITRE Yearbook 2024

By 2050, Australia's general freight task is projected to increase by around 98 billion tonne-kilometres. Without policy intervention, almost all of this additional freight is expected to be absorbed by the road network.

FIGURE 3

If rail captured 30 per cent of future freight growth, its general freight task would double by 2050



Source: McKell Institute analysis of BITRE data



Importantly, this report does not advocate shifting existing freight from road to rail on a large scale. Instead, it considers a more practical and economically achievable proposition: that rail captures a greater share of future freight growth.

This approach recognises the continuing importance of road freight while acknowledging that allowing nearly all future growth to default to road risks locking Australia into higher long-term infrastructure costs, greater fuel exposure and increased environmental and safety impacts. By directing a greater proportion of future freight growth towards rail, governments can improve the efficiency of the overall freight logistics network without undermining the critical role road transport will continue to play.

To better understand the potential impact of this approach, the McKell Institute modelled four scenarios in which rail captures between 10 and 40 per cent of projected future freight growth. Rather than assuming freight is removed from existing road operators, the modelling considers the benefits of redirecting a share of the additional freight expected to emerge by 2050.

Achieving this outcome will depend not only on policy reform but also on continued investment in nationally significant rail infrastructure. Inland Rail remains one of Australia's most important freight infrastructure projects because it is designed to provide a faster, more reliable freight connection between Melbourne and Brisbane while enabling double-stacked freight trains across much of the corridor. By increasing train lengths, improving transit times and separating freight movements from congested passenger networks, Inland Rail has the potential to significantly increase network capacity and strengthen the commercial competitiveness of rail freight. Its strategic purpose is to improve the efficiency, productivity, and resilience of Australia's national freight logistics network while creating additional capacity to accommodate future freight growth (Australian Rail Track Corporation, 2024; Inland Rail, 2025).

TABLE 1 Annual benefits of rail capturing future freight growth by 2050

SHARE OF FUTURE FREIGHT GROWTH CAPTURED BY RAIL	TRUCKS REMOVED FROM AUSTRALIAN ROADS	DIESEL SAVED (MILLION LITRES)	CO ₂ EMISSIONS AVOIDED (TONNES)	ROAD DEATHS AVOIDED (ANNUAL)
10%	5,350	134	362,000	6
20%	10,700	267	723,000	12
30%	16,000	400	1.1 million	18
40%	21,410	534	1.4 million	24

Source: McKell Institute modelling

The modelling demonstrates that even relatively modest changes in how Australia accommodates future freight growth produce significant national benefits. Under the central scenario—where rail accommodates 30 per cent of projected future freight growth—Australia's freight logistics network would require the equivalent of approximately 16,000 fewer long-haul heavy vehicle movements each year. Rather than displacing existing freight activity, this reflects a more balanced distribution of future growth between road and rail. The modelling estimates this would save around 400 million litres of diesel annually, avoid more than 1.1 million tonnes of carbon dioxide emissions, and contribute to approximately 18 fewer road fatalities each year.

These outcomes are not simply transport benefits. They represent improvements in productivity, public safety, environmental performance, and national resilience. They also demonstrate that increasing freight on rail is not dependent upon transformational shifts in freight behaviour. Capturing a proportion of future growth, rather than redistributing today's freight task, offers a practical pathway for governments to improve Australia's transport system while supporting continued growth in both road and rail freight.

The economic value of these benefits extends well beyond the freight sector itself. Lower congestion, reduced road maintenance costs, improved safety outcomes, and lower fuel consumption generate savings that accrue across government, industry and the broader community. As Australia's freight task continues to expand, the question is no longer whether additional freight will need to move across the country, but whether Australia chooses to move that freight in the most economically efficient and resilient way.

FUEL SECURITY AND FREIGHT RESILIENCE

For much of the past two decades, the case for increasing the role of rail freight has centred on familiar benefits: lower emissions, reduced congestion, improved safety, and stronger productivity. While these arguments remain compelling, recent geopolitical instability has highlighted another, increasingly urgent consideration—Australia's fuel security.

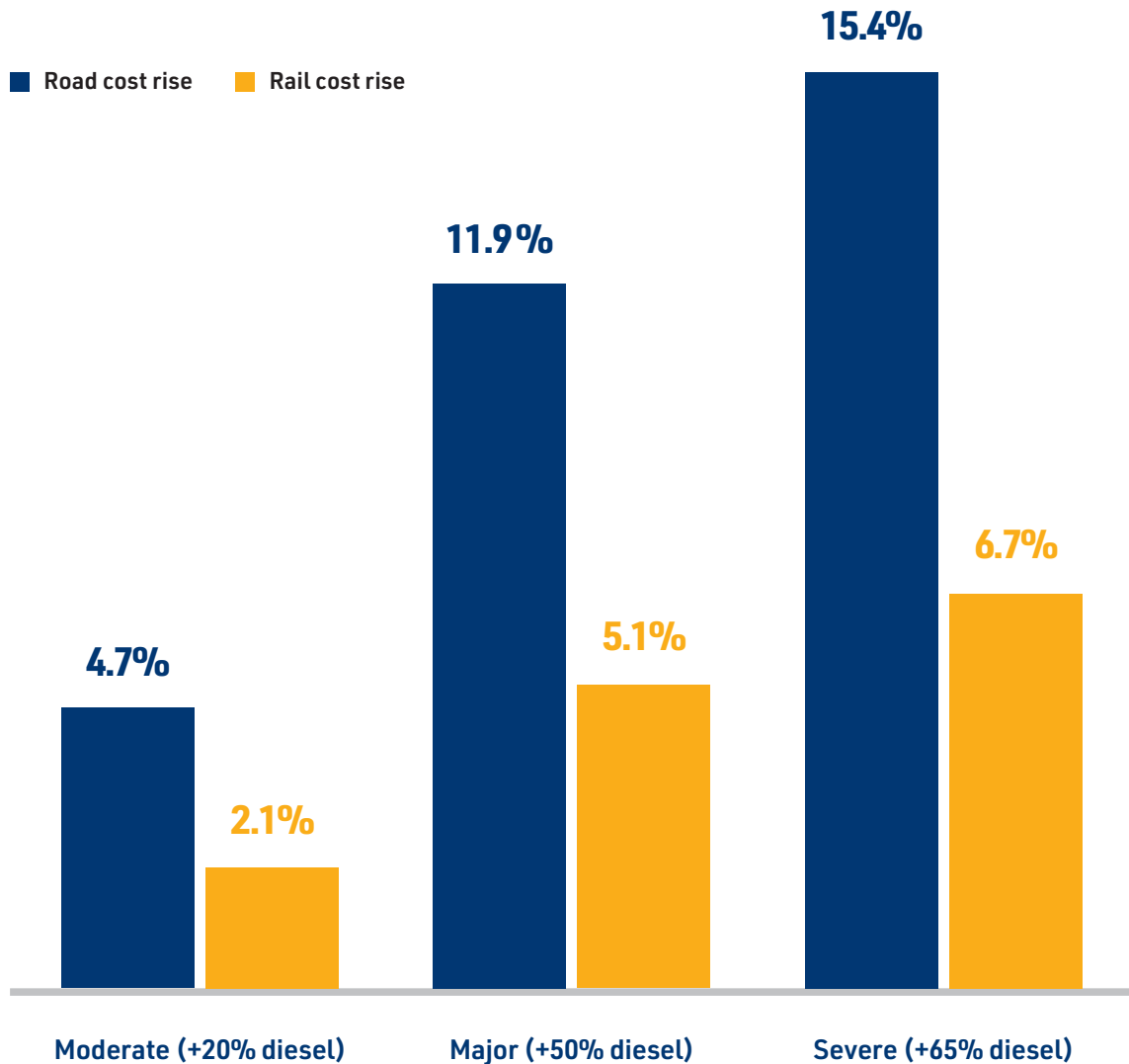
Australia imports more than 90 per cent of its liquid fuel and maintains relatively limited domestic fuel reserves (Liquid Fuel Security Review 2019), leaving the national economy exposed to global supply disruptions and price volatility. Freight transport sits at the centre of this challenge. Every increase in global diesel prices flows directly through Australia's freight logistics network, increasing transport costs for businesses, consumers and essential industries.

Because long-distance road freight is inherently more diesel-intensive than rail, it is more exposed to fluctuations in global fuel prices. This reflects the different roles each mode performs rather than any shortcoming of the road freight industry itself. McKell modelling indicates that rail freight consumes approximately 2.5 times less diesel per tonne-kilometre of freight moved than equivalent road freight. This difference becomes increasingly significant during periods of fuel price volatility, when operating costs rise much faster for road freight than for rail.

The modelling demonstrates that when diesel prices increase, road freight costs rise more than twice as fast as rail freight costs. Under a moderate fuel price increase of around 20 per cent, road freight operating costs increase by approximately five per cent, compared with around two per cent for rail. Under more severe fuel price shocks, the difference becomes even more pronounced, with road freight costs increasing by around 15 per cent compared with approximately seven per cent for rail.

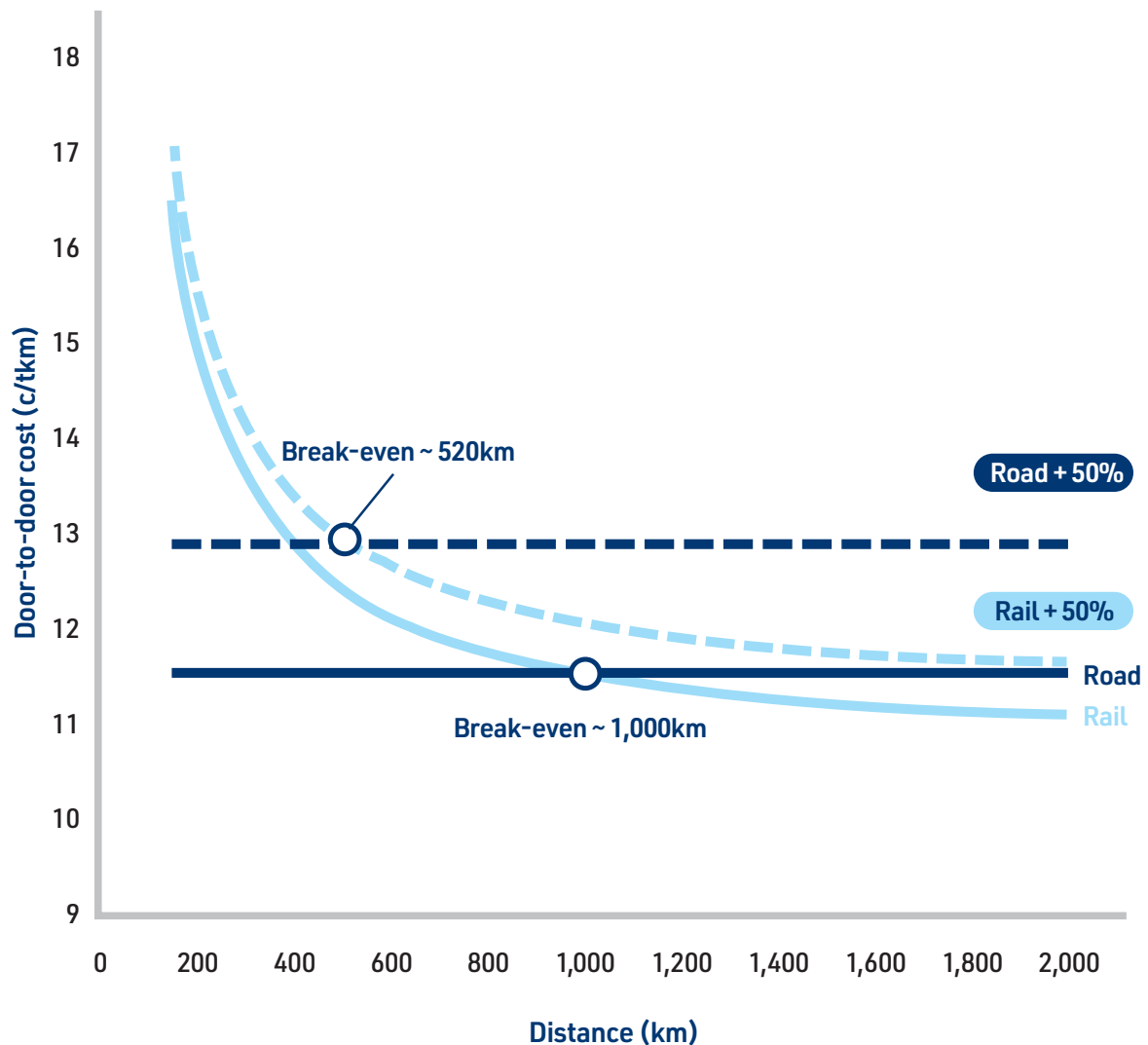


FIGURE 4 When diesel prices spike, road freight costs rise more than twice as fast as rail



Source: McKell Institute modelling

This changing cost relationship has important implications for Australia's freight logistics network. During periods of relatively low fuel prices, rail's commercial advantage is generally concentrated on the nation's longest freight corridors. As fuel prices increase, however, rail becomes increasingly competitive across shorter interstate corridors as well, expanding the range of freight movements for which rail represents the more economically efficient option.

FIGURE 5 Higher diesel prices make rail cost-competitive on shorter corridors (cents per tonne-km)

Source: McKell Institute modelling

In this sense, increasing rail's share of the freight task should not simply be viewed as transport policy. It is also an investment in economic resilience. A more balanced freight system provides Australia with greater protection against external shocks, reducing the extent to which fluctuations in global energy markets translate into higher freight costs throughout the domestic economy.

The importance of resilience has been demonstrated repeatedly in recent years. The COVID-19 pandemic exposed vulnerabilities across global supply chains, while subsequent geopolitical conflicts have highlighted the strategic importance of reliable transport networks and secure access to energy. Together, these events have reinforced that freight policy can no longer be considered solely through the lens of transport efficiency. It is increasingly intertwined with national productivity, economic security, and sovereign capability.



THE NATIONAL DIVIDEND

Fuel security is only one component of the broader economic case for increasing freight on rail. Absorbing a greater share of future freight growth also delivers measurable benefits through lower emissions, improved road safety, reduced infrastructure wear, and stronger supply chain productivity.

Crashes involving heavy trucks account for around one in seven road deaths nationally (BITRE, 2021). Reducing the number of long-distance heavy vehicle movements lowers exposure to serious crashes while allowing road infrastructure to be used more efficiently by freight tasks that are less suited to rail.

The safety benefits become even more pronounced for hazardous freight. Where practical, moving dangerous goods by rail reduces community exposure along major freight corridors while taking advantage of rail's lower incident rates and greater carrying capacity.

The environmental case is similarly compelling. Rail freight produces substantially fewer greenhouse gas emissions per tonne-kilometre than road freight and is approximately 2.5 times more emissions-efficient than heavy vehicle transport. As governments seek practical pathways towards net zero emissions while maintaining economic growth, increasing rail's role within the freight logistics network represents one of the more readily available opportunities to reduce transport emissions without constraining freight activity.

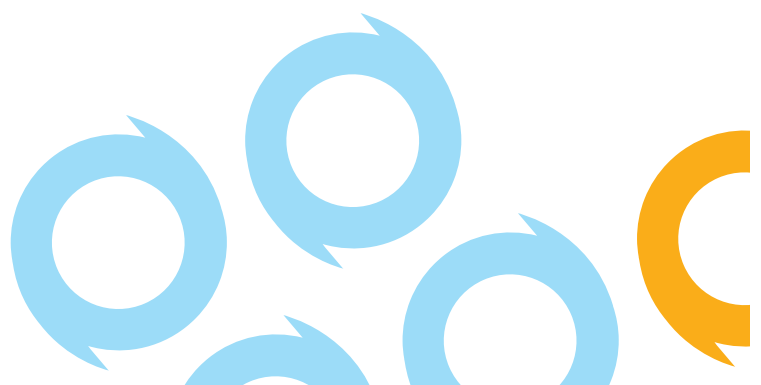
These benefits are cumulative rather than competing. Every additional tonne of freight carried efficiently by rail reduces fuel consumption, lowers emissions, decreases pressure on Australia's road network and improves safety outcomes simultaneously. Rather than requiring difficult trade-offs between economic growth and environmental outcomes, a better-balanced freight logistics network delivers both.

These emissions reductions also have implications beyond the transport sector. As governments continue implementing economy-wide emissions reduction policies, there is an opportunity to ensure that climate policy settings appropriately recognise the emissions benefits achieved through freight modal shift. Better alignment between transport and climate policy would strengthen commercial incentives for lower-emissions freight while supporting Australia's broader decarbonisation objectives.

McKell estimates that if rail captured 30 per cent of projected future freight growth, the combined value of the avoided emissions and road trauma alone would reach approximately \$640 million each year by 2050. These benefits would be shared across governments, freight operators, businesses and the broader community through lower operating costs, avoided road expenditure, improved resilience and safer transport outcomes.

The evidence therefore suggests that the question facing governments is no longer whether increasing freight on rail would deliver national benefits. Those benefits are well established. The more important question is why, despite decades of bipartisan support and repeated recognition across freight strategies, Australia's policy settings have struggled to translate those benefits into sustained growth in rail's share of the freight task.

That question is explored in the next section.





Part Two: The Case for Freight on Rail



There is a clear and growing consensus across Australia's rail industry that increasing the role of rail in the national freight task will be critical to improving productivity, strengthening supply chain resilience and achieving emissions reduction objectives.

The Australasian Railway Association's 2026 report, *Future of Rail*, argues that rail will play an increasingly important role in meeting Australia's growing freight task while improving national productivity, strengthening supply chain resilience and reducing emissions (ARA 2026).

It argues that unlocking this potential will require coordinated, long-term government investment, improved interoperability across the national rail network, stronger intermodal connections and policy settings that enable rail to compete more effectively with road freight (ARA 2026).

Importantly, the report reinforces the value of viewing rail as more than simply a mode of transport, recognising its broader role in supporting national productivity, economic growth, resilience and decarbonisation. Realising these benefits will require sustained government focus and long-term investment in the infrastructure needed to support Australia's future prosperity (ARA 2026).

The strategic case for strengthening the role of rail within Australia's freight logistics network is well established. Successive Commonwealth and state governments have consistently identified rail as an important component of improving productivity, reducing congestion, strengthening supply chain resilience and supporting emissions reduction. The Australian Government's *National Freight and Supply Chain Strategy 2025* reinforces this position, identifying

a more integrated, multi-modal freight system as critical to meeting Australia's future freight needs (Australian Government, 2025). Likewise, Queensland's *Moving Freight* strategy and *Queensland Freight Action Plan*, together with contemporary freight strategies in New South Wales and Victoria, all emphasise the need for stronger rail connectivity, competitive freight services and investment in intermodal infrastructure (Department of Transport and Main Roads, 2013; Queensland Government, 2020; Transport for NSW, 2025; Victorian Government, 2025).

The central challenge is therefore not establishing the value of rail freight, but translating longstanding policy consensus into coordinated implementation. Progress has frequently stalled between strategy and delivery, with infrastructure investment, operational reforms and stronger network integration often failing to keep pace with the ambitions set out in successive freight plans. As Infrastructure Australia has observed, current policy settings do not consistently recognise the broader public benefits generated by rail freight—including reduced congestion, lower road maintenance costs, improved safety and greater resilience—which can limit commercially efficient freight outcomes (Infrastructure Australia, 2021).

Implementation also requires ensuring that broader Commonwealth policy settings support, rather than inadvertently constrain, greater use of rail freight. While transport and





freight strategies consistently recognise the emissions and productivity benefits of increasing rail's share of the freight task, climate and industrial policy settings do not always explicitly recognise the system-wide emissions reductions that can be achieved through modal shift. Where emissions reduction mechanisms influence investment decisions, there is value in ensuring they appropriately account for the broader public benefits generated when freight moves from road to rail.

Recent geopolitical instability and fuel market disruption have reinforced, rather than changed, this policy direction. As demonstrated in Part 1, rail's lower fuel intensity makes it increasingly competitive during periods of fuel price volatility, further supporting a freight logistics system in which road and rail each perform the tasks to which they are best suited, allowing future freight growth to be accommodated more efficiently across both modes

The changing strategic environment adds further urgency to this longstanding policy agenda. As demonstrated in Part 1, rail's lower fuel intensity means it becomes increasingly cost-competitive during periods of fuel price volatility. Rather than creating a new case for rail freight, recent geopolitical uncertainty and fuel market disruption have reinforced the importance of implementing policies that allow Australia's freight logistics network to make better use of both road and rail according to their respective strengths.

INTERMODAL INFRASTRUCTURE: UNLOCKING THE NEXT STAGE OF FREIGHT GROWTH

Intermodal terminals sit at the centre of an integrated freight logistics network. Rather than competing with road freight, they enable each transport mode to perform the task for which it is best suited. Rail provides an efficient long-haul freight solution between major centres, while road freight performs the essential first and last-mile movements that connect businesses, ports, distribution centres and consumers. Well-designed intermodal infrastructure allows these complementary strengths to operate as a single freight system rather than as competing modes (Commonwealth, 2025).

Across Australia, governments and industry have invested in intermodal facilities to improve the efficiency of freight transfers between road and rail. Major developments such as the Moorebank Intermodal Terminal in Sydney, Queensland's Acacia Ridge and Bromelton precincts, and the Beveridge Intermodal Freight Terminal in Victoria demonstrate growing recognition that intermodal infrastructure is essential to improving national freight productivity (ARTC, 2024; Moorebank Intermodal Company, 2024; Australian Government, 2025).

Construction of the Beveridge Intermodal Freight Terminal marks an important step in preparing Australia's freight network for Inland Rail. Located north of Melbourne, the terminal has been designed to accommodate double-stacked freight trains, increasing the efficiency of long-distance container movements between Melbourne, Perth, Darwin, and Adelaide with the current Inland Rail construction, while strengthening connections between road and rail. The project illustrates how strategically located intermodal infrastructure can unlock the productivity benefits of nationally significant

rail investments by improving freight transfers, increasing network capacity and reducing reliance on long-distance road freight (Australian Government, 2025).

Aurizon's \$200 million investments in Queensland intermodal upgrades demonstrates private sector confidence in rail's economic potential, fostering job creation and economic activity in regional hubs like Rockhampton and Mackay (Queensland Government, 2024). These investments bolster Queensland's agricultural and mining sectors, which rely on efficient freight logistics networks to remain globally competitive.

Intermodal investment alone will not deliver meaningful mode shift. Its effectiveness ultimately depends on the performance of the underlying rail network. Upgrades such as additional passing loops, track straightening, improved flood resilience and greater network capacity are essential to improving reliability and ensuring freight can move efficiently between terminals and major freight corridors.

There is also a clear opportunity to expand electric haulage for freight between Brisbane and Rockhampton, which has been identified as an underutilised corridor capable of delivering both environmental and strategic benefits. Electrification along this corridor would reduce emissions, lower operating costs over time, and strengthen network resilience in the face of fuel price volatility, reinforcing rail's comparative advantage over road freight.

Beyond traditional freight tasks, intermodal hubs also provide an opportunity to better manage emerging and complex freight streams, particularly waste and hazardous materials. Waste transport is a growing logistical challenge across Australia, and the development of waste-to-energy facilities presents a clear opportunity to integrate rail into these supply chains.



However, current operational and regulatory settings significantly constrain this potential. Limited availability of dedicated dangerous goods storage near rail terminals restricts the ability to stage freight efficiently, while regulations requiring delivery within narrow time windows prior to departure create avoidable bottlenecks. In practice, this reduces asset utilisation and can result in inefficient outcomes, including containers being moved long distances due to a lack of available storage at their destination. Further constraints, such as requirements preventing containers from being unloaded off trailers for safety access, compound these inefficiencies.

Ultimately, increasing rail's share of Australia's freight task is not simply a matter of building additional rail infrastructure. It requires coordinated investment in rail corridors and intermodal terminals, policy settings that improve rail's commercial competitiveness, efficient regulatory frameworks, and stronger integration between road and rail. Together, these reforms provide the practical foundation for the successful freight rail initiatives examined in the following chapter.



Part Three: Where it Works





Across Australia, a number of commercial and government-run freight rail operating models demonstrate that, where policy, investment and governance are aligned, rail can successfully capture and retain a larger share of the freight task.

Interviews with industry experts and current and former political representatives reinforced a consistent finding: where governments combine long-term infrastructure investment with coordinated policy settings and commercial incentives, rail is capable of capturing and retaining a significantly larger share of the freight task.

The growth of freight on rail for TasRail, the Tasmanian Government-owned rail freight operator responsible for managing and running the freight rail network across Tasmania, provides a practical example of how sustained government intervention, network investment and industry partnership can rebuild rail's competitiveness in markets traditionally dominated by road freight.

In September 2009 the Tasmanian Government re-acquired the state's entire freight rail network and operations from Pacific National, establishing TasRail (Tasmanian Railway Pty Ltd) as a vertically integrated, state-owned rail freight business responsible for both infrastructure and services (Tasmanian Department of Treasury and Finance, 2023).

TasRail was established under the *Rail Company Act 2009* to acquire and operate Tasmania's rail business, beginning operations on 1 December 2009 (Tasmanian Department of Treasury and Finance, 2023).

Coordinated government investment programs, from both the state and federal level, have been critical to delivering measurable increases in rail freight performance.

The Tasmanian and Australian governments jointly funded the multi-tranche *Tasmanian Freight Rail Revitalisation Program*, directing over \$200 million toward track renewal, bridge and culvert upgrades, level crossing improvements and rollingstock enhancements (Australian Government, Department of Infrastructure, Transport, Regional Development and Communications, 2024).

As a result of this revitalisation effort, TasRail has maintained a high level of freight activity, moving around 485 million net tonne-kilometres of freight in 2022-23, with ongoing performance in subsequent years remaining above long-run averages (Tasmanian Department of Treasury and Finance, 2023).





The business now carries around one-third of Tasmania's freight task, equating to roughly 3 million tonnes per annum, which has contributed to fewer heavy trucks on regional roads and in turn lower emissions lower road maintenance costs, and improved safety outcomes.

The state's targeted policy and investment approach has also supported freight customers in sectors such as bulk commodities, containers, timber and mineral products, particularly along key corridors like Burnie to Hobart (Tasmanian Department of Treasury and Finance, 2023).

Importantly enhanced rail capability has supported local supply chains and regional economic activity by offering a more reliable and cost-effective alternative to road transport, a key consideration for the Australian context.

For export-oriented industries particularly new and emerging industries in locations not currently serviced by the existing logistics network, reliable rail access to ports improves competitiveness by lowering transport costs and reducing exposure to road congestion, fuel price volatility and labour constraints.

At a regional level, these improvements support economic activity by connecting regional producers more efficiently to domestic and international markets, sustaining industrial activity and improving the attractiveness of regional areas for investment and employment.

Tasmania's TasRail experience demonstrates that public ownership paired with long-term strategic investment can stabilise and grow rail freight volumes, even in challenging geographic settings—providing valuable lessons for other jurisdictions considering modal shift and infrastructure renewal objectives.

International experience points to similar conclusions. Switzerland has maintained the highest rail freight mode share across the Alps in Europe, with rail carrying around 70 per cent of trans-Alpine freight. This outcome has been achieved through sustained investment in dedicated freight infrastructure, continued support for combined transport, and the Heavy Vehicle Charge, which more closely reflects the infrastructure and environmental costs of long-distance road freight. Together, these measures demonstrate that durable modal shift is most effectively achieved through coordinated investment, pricing reform and long-term policy certainty rather than any single intervention (Swiss Federal Office of Transport, 2025).

A further practical example can be seen in Western Australia. The Port of Fremantle intermodal subsidy scheme provides a direct payment of approximately \$50 per container moved from road to rail. Importantly, the payment is made to the freight customer or distributor rather than the rail operator, ensuring the incentive directly influences freight transport decisions. The scheme demonstrates how relatively modest, targeted incentives can encourage measurable modal shift while complementing broader investment in rail infrastructure and intermodal facilities. It also highlights the importance of designing incentives that reward behavioural change rather than simply subsidising operators.

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Conclusion

Australia does not lack evidence demonstrating the value of a stronger rail freight logistics network. For more than two decades, successive Commonwealth and state governments, industry bodies and freight operators have consistently recognised the role that rail can play in improving productivity, strengthening supply chains, supporting regional industries and reducing pressure on the national transport network.



What has been missing is not strategic intent, but sustained implementation. Unlocking its economic, environmental and productivity benefits will require governments with the foresight and resolve to make long-term investments that anticipate Australia's future needs rather than simply respond to today's pressures.

As Australia's freight task continues to grow, the cost of inaction will also increase. Accommodating almost all future freight growth on the road network alone will place increasing pressure on transport infrastructure, expose supply chains to greater fuel price volatility, and reduce opportunities to improve productivity across the freight system. By contrast, a more integrated freight logistics network, one that better utilises the complementary strengths of both road and rail, offers a practical pathway to strengthening Australia's economic resilience while maintaining the flexibility and reliability that businesses depend on.

The challenge for governments is therefore not to develop another freight strategy. The strategic direction is already well established. The priority is to identify and deliver the highest-value investments and policy reforms that enable rail to accommodate a greater share of future freight growth, while continuing to support the indispensable role of road freight within an integrated national transport logistics network.

This requires an approach that is ambitious but disciplined. Early success matters. Carefully selected investments in intermodal infrastructure, logistics network capability, and operational reform can demonstrate the commercial and operational benefits of a more balanced freight system, providing confidence for further public and private investment.

The experience of TasRail demonstrates the value of coordinated action between governments and industry. Sustained investment, combined with a clear long-term vision, helped transform the role of rail within Tasmania's freight network. While every jurisdiction faces different challenges, the principle remains the same: strategic investment, implemented progressively and in partnership with industry, can deliver enduring improvements in freight productivity, resilience and national prosperity.

Australia's growing freight task presents a significant challenge, but also a significant opportunity. The question is no longer whether rail has a greater role to play. The evidence suggests that it does. The challenge now is ensuring that future freight growth is accommodated by a freight system that is more productive, more resilient, and better equipped to meet Australia's long-term economic needs.

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