

# ALC 2026-27 Pre-Budget Submission to the Australian Treasury

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# Table of Recommendations

## *Productivity, Regulation and System Performance*

1. **Accelerate the National Automated Access System (NAAS):** Provide federal funding and leadership to expedite the development and national adoption of the NAAS for heavy vehicle road access, enabling automated, rules-based access decisions that reduce delays, improve safety compliance, and unlock productivity from existing road assets.
2. **Establish a national freight regulatory harmonisation taskforce:** Create an industry–government taskforce to prioritise and resolve the most economically damaging cross-jurisdictional inconsistencies affecting freight, including heavy vehicle access, operating conditions, curfews, and planning controls.
3. **Improve freight decision-making through data integration:** Fund the progression of the National Freight Data Hub from pilot to full operational capability, with fit-for-purpose governance, privacy protections and a clear industry value proposition to support evidence-based policy and corridor investment.
4. **Improve urban freight productivity and reliability:** Pilot targeted urban freight productivity measures—including freight-priority lanes, signal priority and first/last-mile access upgrades—on corridors where congestion materially increases cost-to-serve and undermines network reliability.

## *Interconnected Infrastructure and Industrial Land*

5. **Establish a National Freight Corridors Fund:** Create a dedicated funding program to coordinate targeted upgrades on nationally significant freight corridors, focusing on high-impact bottlenecks, first- and last-mile connections, modal interfaces and single-point failures across road, rail, ports, and airports.
6. **Invest in targeted interstate rail corridor upgrades through a rolling, grant-funded program:** Prioritise upgrades on high-volume freight rail corridors, including track strengthening, signalling modernisation, passing loops, and terminal integration, to lift capacity, reliability, and productivity. Align investments within a NIP2 and NIP3 as part of a 10-year rolling infrastructure plan (~\$250 m per year, \$2.5 b total), focused primarily on optimising existing rail track assets.
7. **Strengthen delivery discipline for nationally significant freight projects:** Require Commonwealth-funded freight projects to demonstrate end-to-end freight performance outcomes, interface governance and sequencing discipline to maximise realised productivity and resilience benefits.
8. **Develop a National Freight–Industrial Land Strategy:** Formulate a national strategy that integrates freight corridor protection with land-use planning to safeguard freight-compatible industrial land near ports, intermodals, and gateway precincts, and align with future energy and infrastructure needs.
9. **Streamline approvals for nationally significant freight infrastructure:** Improve approval timeframes and certainty for freight infrastructure and precincts through clearer sequencing, parallel assessment processes and reduced duplication, while maintaining robust environmental and community safeguards.

## *Sustainability, Decarbonisation and Energy Transition*

10. **Accelerate uptake of zero-emission heavy vehicles (ZEHVs):** Reform policy settings to support ZEHV adoption through nationally consistent charging and refuelling standards, updated vehicle safety and access regulations, and corridor-based planning aligned with grid capacity.
11. **Invest in mode shift to rail, including completing Inland Rail:** Support strategic rail investments that reduce road congestion, lower emissions, and improve freight resilience, with priority given to completing Inland Rail to deliver national connectivity and productivity gains.
12. **Build ZEV-ready freight infrastructure:** Prioritise enabling infrastructure upgrades on high-use freight corridors and at logistics precincts, including bridge and pavement upgrades where required to accommodate higher-mass alternative-fuel vehicles.
13. **Bridge the cost gap for zero-emission freight vehicles:** Use time-limited, targeted incentives and risk-sharing mechanisms to address the upfront cost differential of ZEHVs and associated charging or refuelling infrastructure, particularly for high-utilisation fleets.
14. **Modernise heavy vehicle road user charging:** Develop and consult on refined road user charging models (e.g. mass–distance–location based charging) to ensure equitable contribution, manage electrification impacts and provide a sustainable funding base as fuel excise revenues decline.

### **Fuel Security and Energy Resilience**

15. **Strengthen national fuel security settings:** Meet international fuel stockholding obligations and support domestic fuel capability—including refining, storage, blending and distribution—to reduce exposure to global supply shocks.
16. **Support low-carbon liquid fuel supply chains:** Enable the scale-up of renewable diesel, sustainable aviation fuel and other low-carbon liquid fuels through consistent national standards, feedstock development and investment certainty.

### **Resilience and Emergency Preparedness**

17. **Embed freight climate adaptation as a standing infrastructure investment priority:** Establish a dedicated Climate Adaptation Fund for freight that prioritises systematic adaptation of existing, high-utilisation freight corridors and assets—such as flood-prone routes, vulnerable bridges and single-point failures—based on economic consequence and network criticality, rather than post-disaster response.
18. **Formalise national emergency freight coordination arrangements:** Establish standing Commonwealth–state–industry arrangements for emergency freight coordination, including governance, triggers, communications protocols, and pre-agreed regulatory flexibility to maintain supply chain continuity during disruptions.

### **Workforce, People and Capability**

19. **Expand the Wayfinder: Supply Chain Careers for Women program:** Increase funding for *Wayfinder* to expand workforce participation, improve diversity and retention, and alleviate productivity-constraining labour shortages across freight and logistics.
20. **Promote freight and logistics careers nationally:** Invest in a coordinated national awareness initiative to improve labour market information, elevate the profile of freight and supply chain careers, and reduce vacancy-related economic and productivity costs.
21. **Boost freight skills through industry-led micro-credentials:** Support the development and national recognition of short, industry-designed training programs in freight, logistics, digital systems, and energy-transition technologies, to accelerate workforce adaptability, productivity, and technology uptake.
22. **Align migration and workforce classification with freight needs:** Ensure freight and logistics occupations are appropriately recognised in national skills and migration settings, including under OSCA, to support targeted responses to critical shortages.

### **Safety, Technology and Digital Resilience**

23. **Accelerate uptake of heavy vehicle safety technologies:** Support earlier adoption of proven safety technologies—including feasible retrofits—such as AEB, stability control, fatigue monitoring and telematics-enabled safety coaching.
24. **Strengthen baseline digital and cyber resilience across freight:** Support minimum cyber standards, practical uplift measures and recovery planning for freight-critical systems and operators, particularly SMEs, recognising freight as essential economic infrastructure.

## **1. Introduction**

Australia's freight and logistics system is a critical driver of national prosperity. Efficient, reliable freight movements underpin productivity, competitiveness, and cost-of-living outcomes, connecting industries ranging from agriculture and mining to manufacturing, retail, health, and energy. Transport, logistics, and warehousing alone contribute around 5 per cent of Australia's gross value added and employ over 700,000 people<sup>1</sup>, with the broader supply chain sector representing an estimated 8.6 per cent of GDP<sup>2</sup>). In recent years, structural inefficiencies within the freight system have increasingly transmitted costs directly into business margins and consumer prices. Constraints in first- and last-mile access, congestion at capacity-strained gateways, extended dwell times, and chronic shortages of well-located industrial land have reduced system efficiency and resilience. In 2024–25, these bottlenecks became particularly visible in inflation-sensitive sectors, where delivery delays,

<sup>1</sup> <https://www.jobsandskills.gov.au/data/occupation-and-industry-profiles/industries/transport-postal-and-warehousing>

<sup>2</sup> <https://www.infrastructure.gov.au/infrastructure-transport-vehicles/transport-strategy-policy/freight-supply-chains>

construction material shortages, and capacity shortfalls contributed to higher prices for households and retailers.

The operating environment heading into 2025 and 2026 has further exposed the system's vulnerabilities. Ongoing post-pandemic supply chain volatility, geopolitical instability, and climate-related disruptions have underscored Australia's exposure to external shocks and domestic fragilities. Internationally, conflict in the Middle East and other geopolitical flashpoints have disrupted major shipping lanes, driving higher freight rates, insurance premiums, and transit times. Domestically, repeated extreme weather events have disrupted nationally significant road and rail corridors, with flooding in 2022–23 alone estimated to have caused around \$5 billion in lost economic activity<sup>3</sup>.

At the same time, land-use pressures in Australia's major gateway cities have intensified structural inefficiencies. Chronic shortages of serviced industrial land near ports, airports, and intermodal terminals are pushing freight activities further from markets and gateways, lengthening haul distances, increasing congestion, and eroding productivity. In Sydney, fewer than 4 per cent of industrial-zoned lands—around 564 hectares—remain undeveloped, and industrial vacancy rates have fallen to approximately 0.2 per cent, among the tightest in the world<sup>4</sup>. Similar trends are emerging in Melbourne, Brisbane, and Perth. These pressures are elevating logistics costs across the economy while constraining the system's ability to absorb shocks or accommodate future growth.

Public policy settings heading into the 2026–27 Budget reflect both constraint and opportunity. Federal budget deficits are forecast to persist. The PBO's 2025 Pre-Election Economic and Fiscal Outlook forecasts the underlying cash deficit at around 1.0–1.5 per cent of GDP through the forward estimates, with consolidated national fiscal balances remaining in deficit toward 2027–28<sup>5</sup>. This fiscal environment limits the scope for large new capital programs and places a premium on targeted, high-return interventions. Inflation, while moderating from its 2022 peak of 7.8 per cent<sup>6</sup>, fell to ~4.1 per cent by end-2023<sup>7</sup>, and remained above target into late 2025 (~3.4–3.8 per cent<sup>8</sup>). These figures are all above the RBA's 2–3 per cent target, underscoring persistent inflationary pressure in the economy<sup>9</sup>—continuing to exert pressure on transport, fuel, and construction costs.

These conditions demand a policy response that focuses on maximising the performance of existing assets, improving regulatory efficiency, leveraging private investment, and unlocking latent productivity across the freight system. The Government's Mid-Year Economic and Fiscal Outlook 2025–26<sup>10</sup> emphasised delivery discipline, better use of current infrastructure, and foundational reform over new megaproject announcements. For freight and logistics, this reinforces the importance of reforms in regulation, technology adoption, workforce capability, land-use coordination, and data—areas where relatively modest investments can yield outsized economic returns.

There is now a strong national policy framework to support this approach. In August 2025, Commonwealth, state, and territory ministers endorsed a refreshed National Freight and Supply Chain Strategy (NFSCS/ the Strategy), accompanied by a National Action Plan structured around four priorities: Productivity, Resilience, Decarbonisation, and Data. The Strategy represents a shared, jurisdiction-wide commitment to action rather than aspiration, focusing on governance, access, integration, interoperability, and evidence-based decision-making. It also aligns with the Australian Government's broader shift toward a system stewardship model—using regulatory reform, technology, and coordination to lift performance across the freight market.

The Australian Logistics Council (ALC) is the peak national body representing major companies across Australia's end-to-end freight supply chain, spanning road, rail, sea, air, and intermodal transport, as well as the customers and service providers that depend on efficient logistics. ALC's mission is to enhance safety, efficiency,

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<sup>3</sup> [https://www.aidr.org.au/media/10423/australias\\_riskscape\\_22\\_23.pdf](https://www.aidr.org.au/media/10423/australias_riskscape_22_23.pdf)

<sup>4</sup> <https://www.cbre.com/insights/reports/sydney-industrial-and-logistics-land-supply-2025>

<sup>5</sup> <https://www.pbo.gov.au/publications-and-data/publications/2025-26-National-Fiscal-Outlook>

<sup>6</sup> <https://www.rba.gov.au/publications/smp/2023/feb/inflation.html>

<sup>7</sup> <https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/dec-quarter-2023>

<sup>8</sup> <https://www.abs.gov.au/media-centre/media-releases/cpi-rose-38-year-october-2025>

<sup>9</sup> <https://www.rba.gov.au/inflation-overview.html>

<sup>10</sup> <https://budget.gov.au/content/myefo/download/myefo-2025-26.pdf>

sustainability, and resilience across Australia’s freight networks. In addition to heavy vehicle reform, strategic investment in freight rail—including completing Inland Rail—is critical to national productivity, resilience, and decarbonisation. ALC’s strategic pillars provide an operational framework to translate national priorities into measurable outcomes across

- Productivity.
- Interconnected Infrastructure.
- Sustainability and Decarbonisation.
- Resilience.
- Workforce (People and Wellness).
- Safety.
- Technology; and
- National Integration and Harmonisation.

This submission is structured around those pillars, with each chapter examining recent developments, identifying system gaps, and emerging risks, and proposing specific, budget-relevant measures that the Federal Government could consider in 2026–27 and beyond.

## 2. Productivity

### 2.1 Freight Productivity as a Macroeconomic Lever

Freight logistics is a primary channel through which the Australian economy converts labour, capital, energy, and infrastructure into delivered output. The efficiency of this process directly affects inflation, competitiveness, and household incomes: when freight inputs are constrained by congestion, delay or inconsistent rules, fewer goods are moved at higher unit cost. BITRE data show that urban freight volumes and containerised trade continue to grow faster than population and GDP, while congestion and variability across metropolitan networks are worsening<sup>11</sup>.

The Reserve Bank has observed that distribution and logistics costs have become a persistent contributor to goods price inflation, reflecting structural capacity and reliability constraints rather than temporary shocks. Longer dwell times increase inventory holdings and working capital requirements, while lower vehicle and terminal utilisation raises labour and capital costs per unit moved. The resulting cost pressures flow directly into housing construction, supermarket prices, manufacturing inputs, and export performance. For Australia’s geographically large and trade-exposed economy, freight productivity is therefore one of the most direct and scalable macroeconomic levers available to government.

### 2.2 Structural Sources of Productivity Drag in the Freight System

#### 2.2.1 Fragmented Access and Regulatory Arrangements

Fragmented heavy vehicle access regimes are a well-documented drag on freight productivity and a persistent source of avoidable cost, particularly on high-volume urban and inter-regional corridors. Freight operators routinely encounter a patchwork of local road rules, permit requirements, and approval processes when operating high-productivity vehicles or moving oversize or overmass loads.

A Performance-Based Standards (PBS)–approved B-double, for example, may have as-of-right access in one local government area but require a bespoke permit, engineering assessment or committee approval in the next. Evidence published by the National Heavy Vehicle Regulator and Austroads shows that permit processing times vary significantly between jurisdictions, ranging from days in some cases to many weeks or months in others, with some operators required to accept lengthy detours to secure approval<sup>12</sup>.

The productivity impacts of this fragmentation are cumulative and material. Delays in access approvals reduce asset utilisation, leaving trucks and drivers idle, while detours increase fuel consumption, labour costs, emissions, and vehicle wear, and undermine schedule reliability across supply chains. Inconsistent access regimes erode the productivity benefits that modern vehicle standards are designed to deliver. Harmonising

<sup>11</sup> <https://www.bitre.gov.au/publications/2024/congestion-and-the-australian-economy>

<sup>12</sup> <https://austroads.com.au/infrastructure-technology/transport-and-infrastructure/digital-access/naas>

heavy vehicle access has therefore been repeatedly identified by expert bodies as a national productivity priority. Because these constraints are largely policy-created, they are also policy-solvable.

## **2.3 High-Return Priority Productivity Reforms Available to Government**

### **2.3.1 National Automated Access System (NAAS)**

While most jurisdictions now operate within the Heavy Vehicle National Law framework, and reforms to modernise that framework are progressing, significant inconsistencies remain in access decision-making at the local and corridor level. The National Automated Access System (NAAS) represents a flagship reform to address this constraint directly. NAAS is designed to automate route assessments and access decisions through a single digital platform, using rules-based algorithms to assess vehicle attributes against infrastructure limits and network conditions. Austroads modelling indicates that NAAS has the potential to shift access decisions from weeks or months to near-real-time in many cases, while improving consistency, transparency, and auditability<sup>13</sup>. Accelerating the implementation and national adoption of NAAS would deliver productivity, safety, and decarbonisation benefits simultaneously.

By providing predictable and timely access outcomes, NAAS would encourage greater uptake of high-productivity vehicles, including newer and lower-emission models, while ensuring that access is granted only where infrastructure can safely accommodate those vehicles. Importantly, NAAS also exemplifies the Government's stated focus on delivery discipline: it unlocks additional capacity from existing road assets without requiring large new capital expenditure.

**ALC recommends the Australian Government provide federal funding and leadership to expedite the development and national adoption of the NAAS for heavy vehicle road access, to enable automated, rules-based access decisions that reduce delays, improve safety compliance, and unlock productivity from existing road assets.**

### **2.3.2 Regulatory Harmonisation and National System Stewardship**

Regulatory fragmentation extends beyond access permits to differences in operating standards across jurisdictions, including fatigue management, vehicle mass and dimension limits, curfews, and local operating conditions. These inconsistencies impose administrative overheads and prevent freight from being moved using the most efficient configuration on a national basis, eroding productivity across the system.

As outlined in section 2.2.1, fragmented regulatory arrangements undermine the productivity benefits of modern vehicle standards and discourage investment in higher-productivity configurations. Addressing these issues through genuinely national standards would enable point-to-point optimisation of freight movements and reduce compliance costs, particularly for smaller operators.

**To support progress in this area, ALC recommends establishing a national freight harmonisation taskforce with industry representation to identify the most productivity-critical inconsistencies and broker practical solutions across jurisdiction.**

This approach aligns with the refreshed National Freight and Supply Chain Strategy's emphasis on governance, access, and interoperability as enablers of system performance<sup>14</sup>.

### **2.3.3 Data Integration as a Capacity-Unlocking Mechanism**

Beyond regulation, freight productivity can be significantly improved through better use of data and digital integration across supply chains. The sector is inherently data-rich, yet fragmentation between systems continues to limit the effective utilisation of existing network capacity. Digital integration—such as sharing real-time information between trucking companies, rail operators, ports, and distribution centres—can reduce idle time, smooth peak demand, and improve reliability across the system. The National Freight Data Hub provides an important foundation for this approach by enabling consistent measurement of freight performance and network conditions, supporting both operational decision-making and evidence-based policy<sup>15</sup>.

<sup>13</sup> <https://austroads.com.au/infrastructure-technology/transport-and-infrastructure/digital-access/naas>

<sup>14</sup> <https://www.infrastructure.gov.au/infrastructure-transport-vehicles/transport/freight/national-freight-and-supply-chain-strategy>



**ALC recommends funding the National Freight Data Hub so it can move from pilot to full operational capability, with fit-for-purpose governance, privacy protections and a clear industry value proposition to support evidence-based policy and corridor investment.**

#### ***2.4 Productivity as the anchor***

Urban freight productivity is an increasingly important dimension of national performance. Australia's major cities function simultaneously as population centres and freight gateways, meaning congestion within metropolitan networks has a disproportionate impact on supply chain efficiency. Freight movements are particularly sensitive to variability and delay in urban environments. Vehicles delayed in traffic or searching for scarce loading space are effectively non-productive while still consuming labour, fuel, and capital, amplifying cost-to-serve and undermining reliability across supply chains.

Targeted measures to improve urban freight efficiency—such as freight-priority lanes on key corridors, improved signal priority, expanded use of off-peak delivery windows and support for urban consolidation and intermodal hubs—can deliver measurable productivity gains without compromising urban amenity. International experience indicates that well-designed freight-priority initiatives can reduce delivery times, fuel use and emissions while improving overall traffic flow. Pilot programs on strategically important freight routes, particularly those connecting ports, airports, and major logistics precincts, would allow these benefits to be demonstrated in the Australian context.

Lifting freight productivity requires a coordinated package of regulatory reform, digital enablement, and targeted operational initiatives. The economic returns from such reforms are substantial, reflecting their ability to unlock latent capacity from existing assets, vehicles, and labour rather than relying on large new capital investment. Measures such as nationally consistent access arrangements, automated and rules-based decision-making and improved data integration are mutually reinforcing, enabling freight to be moved more efficiently, reliably and at lower unit cost across the network. Together, these reforms align with the Productivity, Technology and National Integration pillars of this Paper and are well suited to the fiscal context facing the 2026–27 Budget, including in freight-intensive urban networks.

**ALC recommends the piloting of targeted urban freight productivity measures—including freight-priority lanes, signal priority and first/last-mile access upgrades—on corridors where congestion materially increases cost-to-serve and undermines network reliability.**

### **3. Interconnected Infrastructure**

#### ***3.1 Freight Infrastructure as an Integrated National Economic System***

Australia's geography and trade patterns demand a freight infrastructure network that functions as an integrated national system across modes and regions. The domestic freight task spans vast distances, with around 786 billion tonne-kilometres of freight moved each year, while more than 99 per cent of Australia's international trade by volume is handled through seaports<sup>16</sup>. This scale, combined with Australia's highly concentrated gateway network, means a relatively small number of corridors, ports, airports, and intermodal terminals carry a disproportionate share of national freight movements. In such a system, weak links have outsized economic consequences.

Congested interchanges, constrained port and airport access roads, missing rail connections or poorly integrated intermodal interfaces can disrupt entire supply chains well beyond their immediate geography. Treating freight infrastructure as a collection of discrete road, rail, port, or airport assets risks underestimating these system-wide effects. Viewing freight infrastructure as an interconnected network instead highlights the importance of sequencing, integration, and end-to-end performance rather than asset-by-asset optimisation.

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<sup>16</sup> <https://www.bitre.gov.au/statistics/freight>

### 3.2 Corridor-Based Investment and First- and Last-Mile Integration

**A core recommendation of this Paper is the establishment of a National Freight Corridors Fund.**

The purpose of a dedicated corridors fund is to establish a ring-fenced mechanism that targets infrastructure investment where it delivers the greatest national productivity and resilience benefits across strategically significant freight routes, irrespective of mode. Unlike general infrastructure programs, a corridors-based approach prioritises projects that improve throughput, reliability, and redundancy along key freight pathways. This includes removing bottlenecks, upgrading first- and last-mile connections to ports and intermodal terminals, strengthening structures on heavy freight routes, improving diversionary capacity for use during disruptions, and addressing systemic constraints that limit end-to-end freight performance. While continued investment in road infrastructure is essential, coordinated upgrades across interstate freight rail corridors—including completion of Inland Rail—offer substantial system-wide benefits that cannot be realised through fragmented, project-by-project funding.

For freight rail, a mature and nationally consistent investment framework already exists through the Australian Rail Track Corporation's Network Investment Program<sup>17</sup>. This program was developed collaboratively with the freight rail sector, including all major freight rail operators, and supported by the Australian Government<sup>18</sup> to identify, prioritise and sequence the highest-value upgrades across the interstate freight rail network. Aligning rail investments under a National Freight Corridors Fund, encompassing a second and third phase to the Network Investment Program (NIP2 and NIP3), would ensure Commonwealth funding is directed to priority existing assets—primarily track infrastructure—using a planned, evidence-based approach that maximises economic, productivity and resilience outcomes, while avoiding ad hoc or duplicative project selection.

By contrast, while the National Freight and Supply Chain Strategy and associated national actions are shaping a more coordinated agenda for freight investment across modes, there is not yet an established, operational, nationally consistent prioritisation framework for road freight corridors or for first- and last-mile freight connections comparable to the Network Investment Program for interstate freight rail. Current initiatives, including the development of National Service Level Standards for Roads and the National Freight Data Hub, are important steps towards improved national consistency in data and performance measurement. However, these arrangements do not yet provide a structured, corridor-level basis for prioritising investment across road freight networks and critical access links. The proposed fund would therefore play a critical role in enabling a genuinely multi-modal, corridor-based investment approach that recognises the interdependence of road, freight rail, ports, intermodal terminals, and logistics precincts within national supply chains.

Past experience demonstrates that fragmented funding decisions constrain the ability to address binding network constraints where intervention would have the greatest impact. In the freight rail network, performance outcomes are largely determined by corridor-level capability settings, including permissible speeds, axle loads, train lengths and signalling capacity. These parameters directly influence throughput, reliability, and asset utilisation across the network. Using a National Freight Corridors Fund with additional phases of the Network Investment Program (NIP2 and NIP3) as the prioritisation framework for rail provides a clear, transparent, and sector-endorsed roadmap for addressing these constraints in a coordinated manner.

Public data underscore both the scale and growth of the rail freight task, with activity reaching approximately 447 billion tonne-kilometres in 2024–25<sup>19</sup>. Even modest constraints on heavily utilised interstate and port-serving corridors can generate material economic impacts across supply chains. Freight rail also produces substantially lower emissions per tonne-kilometre than road freight, reinforcing the productivity and sustainability co-benefits of targeted corridor investment<sup>20</sup>. Priority upgrades include addressing speed and axle-load limitations, enabling longer trains through passing-loop extensions, modernising signalling, and network control systems, and removing known bottlenecks and single-point failures. These investments lift capacity, reliability, and resilience without requiring new corridor development.

<sup>17</sup> <https://proj.artc.com.au/network-investment-program/about>

<sup>18</sup> [https://www.infrastructure.gov.au/sites/default/files/documents/doc\\_2\\_igb25\\_infrastructure\\_released.pdf](https://www.infrastructure.gov.au/sites/default/files/documents/doc_2_igb25_infrastructure_released.pdf)

<sup>19</sup> <https://datahub.freightaustralia.gov.au/explore/rail>

<sup>20</sup> <https://www.climatechangeauthority.gov.au/sector-pathways/transport>



Export-oriented supply chains further demonstrate the importance of sustained corridor investment across modes. Grain supply chains, particularly in New South Wales, rely on coordinated performance across regional freight rail lines, road networks, port interfaces and terminal capacity to move bulk commodities efficiently to export markets. Constraints at any point—whether in regional rail capability, road access, network reliability or port interfaces—can limit throughput during peak harvest periods and reduce Australia’s ability to respond to global demand. A corridor-based, grant-funded approach provides a mechanism to address these issues systematically, rather than fragmenting funding across individual assets or modes.

First- and last-mile connections remain a persistent source of inefficiency across all freight modes. These short but critical links—such as port access roads, freight rail spurs into intermodal terminals, and interfaces between highways and logistics precincts—often determine whether broader corridor investments deliver their intended benefits. Targeted investment through a National Freight Corridors Fund can unlock latent capacity already embedded in major corridors and deliver disproportionately high productivity and resilience returns.

### **3.3 Industrial Land, Planning Coordination and Enabling Infrastructure**

Industrial land availability and protection is an equally critical component of interconnected infrastructure. Well-located freight precincts near ports, airports and population centres enable shorter supply chains, lower transport costs and more reliable service. Conversely, when freight and logistics activities are displaced to more distant locations due to land scarcity or incompatible planning outcomes, haul distances increase, congestion intensifies, and system resilience diminishes. In Greater Sydney, industrial land vacancy has effectively approached zero, with only around 4 per cent of industrial-zoned land remaining undeveloped—a constraint explicitly recognised in recent NSW Government planning strategies<sup>21</sup>. Similar pressures are emerging in other capital city regions. Industrial land scarcity has become a structural productivity constraint rather than a cyclical market issue. Without coordinated intervention, these pressures will continue to erode freight efficiency, undermine the benefits of infrastructure investment, and increase exposure to disruption in Australia’s major gateway cities.

### **3.4 A National Freight–Industrial Land Strategy**

To address these challenges, a coordinated national approach is required. A National Freight–Industrial Land Strategy would provide a framework to identify and protect strategically significant freight precincts and corridors, align planning approaches across jurisdictions and reduce the risk of encroachment by incompatible development.

**ALC recommends the formulation of such a strategy that integrates freight corridor protection with land-use planning to safeguard freight-compatible industrial land near ports, intermodals, and gateway precincts, and align with future energy and infrastructure needs.**

Such a strategy would also support better integration of freight planning with energy infrastructure planning, ensuring that emerging logistics precincts are equipped to support electrification, alternative fuels, and other decarbonisation pathways. By improving certainty around land availability and compatible use, a national strategy would help crowd in private investment, reduce future retrofit costs and support more efficient long-term infrastructure sequencing.

### **3.5 Delivery Discipline, Resilience and Budget Relevance**

While fiscal conditions necessitate discipline in new capital commitments, targeted investment and effective project delivery remain essential to improving network integration. Ensuring that nationally significant projects are delivered in a way that maximises end-to-end connectivity—such as effective interfaces between Inland Rail, ports, intermodal terminals, and regional rail networks—is critical to realising their full productivity potential.

Project delivery and approvals processes also play a leading role in infrastructure effectiveness. Freight infrastructure projects frequently span multiple jurisdictions and regulatory regimes, resulting in long lead times and elevated delivery risk. While rigorous environmental and community safeguards remain essential, there is scope to reduce duplication and improve sequencing through clearer timeframes, parallel assessment processes

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<sup>21</sup> <https://www.planning.nsw.gov.au/policy-and-legislation/state-significant-precincts/industrial-lands-action-plan>

and mutual recognition of approvals where appropriate. Infrastructure Australia has consistently highlighted the importance of prioritisation and delivery discipline in a constrained construction market, noting the scale of competing demand across transport, energy, and social infrastructure<sup>22</sup>

**ALC recommends the Australian Government should require Commonwealth-funded freight projects to demonstrate end-to-end freight performance outcomes, interface governance and sequencing discipline to maximise realised productivity and resilience benefits.**

Interconnected infrastructure is also fundamental to resilience. Networks with multiple pathways and well-integrated modes are better able to absorb and recover from disruption. Recent climate-related events have demonstrated the economic cost of single-point failures on nationally significant freight routes. Building redundancy through targeted upgrades, alternative routes and improved modal integration enhances the system's ability to maintain freight flows during disruptions without requiring wholesale duplication of assets.

Strengthening interconnected infrastructure requires a system-level approach that targets the most economically significant freight links, integrates modes, and protects the land and corridors on which future capacity depends. By focusing investment on bottlenecks, interfaces and first- and last-mile connections, government can deliver higher productivity, lower emissions, and greater resilience from existing and planned assets.

The 2026–27 Budget presents an opportunity to advance this agenda by seeding a National Freight Corridors Fund, progressing a National Freight–Industrial Land Strategy and reinforcing delivery discipline across nationally significant freight projects.

**ALC recommends the Australian Government should encourage the streamlining of approvals for nationally significant freight infrastructure through clearer sequencing, parallel assessment processes and reduced duplication, while maintaining robust environmental and community safeguards.**

## 4. Sustainability and Decarbonisation

### 4.1 Decarbonisation as an Economic and Energy-Security Imperative

Decarbonising Australia's freight system is both an environmental necessity and an economic and energy-security imperative. Freight underpins national productivity, but it is also inherently more difficult to abate than many other sectors. Heavy vehicles, locomotives, ships, and aircraft require high-energy-density fuels, operate under demanding duty cycles, and are characterised by long asset lives. As a result, freight decarbonisation must proceed through a staged, multi-pathway transition rather than reliance on a single technology solution.

More than 90 per cent of transport energy in Australia is currently supplied by liquid fossil fuels, most of which are imported. This reliance exposes freight and aviation supply chains to global fuel price volatility<sup>23</sup>, geopolitical disruption and supply risk. The energy transition therefore intersects directly with freight resilience and national security considerations. Policies that support emissions reduction while strengthening energy sovereignty and supply continuity will deliver the greatest long-term economic benefit.

Decarbonisation in freight should be approached as a system-level challenge. Efficiency improvements, mode shift, electrification, alternative fuels, and infrastructure planning must be aligned so that emissions reduction enhances, rather than constrains, freight productivity and reliability.

### 4.2 Enabling the Decarbonisation of Heavy Road Freight

Heavy road transport is a priority focus for early decarbonisation action. Zero-emission heavy vehicles (ZEHVs), including battery-electric and hydrogen fuel-cell trucks, are now entering commercial service globally and in Australia, particularly in urban freight, port drayage and short-haul applications. However, uptake remains constrained by high upfront vehicle costs, limited charging and refuelling infrastructure, grid connection challenges, payload penalties associated with battery weight and regulatory uncertainty around standards and access.

<sup>22</sup> <https://www.infrastructureaustralia.gov.au/publications/market-capacity-report>

<sup>23</sup> <https://www.energy.gov.au/publications/national-energy-security-assessment>

Without coordinated policy intervention, there is a risk that vehicle availability will outpace enabling infrastructure, or that infrastructure investment will occur without sufficient fleet uptake to justify scale. A nationally coordinated approach is therefore required, including the establishment of consistent national technical and safety standards for heavy-vehicle charging and hydrogen refuelling, alignment of planning and regulatory frameworks across jurisdictions, and corridor-based energy planning that prioritises investment along high-volume freight routes and within major logistics precincts.

Targeted public co-investment in charging and refuelling infrastructure can help overcome early-stage coordination failures and crowd in private capital. Physical infrastructure upgrades may also be required to ensure that bridges, pavements, and access routes can safely accommodate zero-emission vehicles, which may be heavier than diesel equivalents without regulatory mass allowances.

**ALC recommends that policy settings should be reformed to support ZHEV adoption through nationally consistent charging and refuelling standards, updated safety and access regulations and corridor-based planning aligned with grid capacity. The Government should also prioritise enabling infrastructure upgrades on high-use freight corridors and at logistics precincts where required to accommodate higher-mass alternative-fuel vehicles.**

Time-limited financial incentives can play a significant role in accelerating early adoption and de-risking investment. Measures such as accelerated depreciation, targeted grants or concessional finance for zero-emission heavy vehicles and associated infrastructure can help offset higher upfront costs during the transition phase. Such incentives should be carefully designed to support high-impact use cases, including high-utilisation fleets and operations in freight-dense corridors, and phased down as technology costs decline and markets mature.

**ALC recommends the funding of such financial incentives.**

Road user charging reform is an essential companion to electrification. As heavy vehicles progressively transition away from diesel, fuel excise will become a less reliable mechanism for funding road maintenance and managing network demand. Developing mass- and distance-based road user charging models will be necessary to ensure equitable contribution across vehicle types and to support efficient network use over time. Well-designed charging regimes can also reinforce broader policy objectives by encouraging cleaner vehicles and better-timed freight movements, while providing a sustainable funding base for road infrastructure.

**ALC recommends that Australian governments develop and consult on refined road user charging models (e.g. mass–distance–location based charging) to ensure equitable contribution, manage electrification impacts and provide a sustainable funding base as fuel excise revenues decline.**

### **4.3 Multi-Modal Decarbonisation Pathways and Fuel Transition**

Decarbonisation pathways for other freight modes are equally important. Rail freight already delivers substantially lower emissions per tonne-kilometre than road freight, particularly over long distances, while maritime and aviation freight face more complex abatement challenges due to energy-density requirements and international operating constraints.

A pragmatic approach to multi-modal decarbonisation recognises that progress will occur at different speeds across modes and corridors. Policy settings should therefore focus on enabling readiness, supporting transitional technologies, and aligning infrastructure planning with long-term decarbonisation pathways, rather than mandating premature technology choices.

#### **4.3.1 Rail Freight Decarbonisation**

Rail freight decarbonisation presents a distinct but essential opportunity within Australia's transition pathway. While rail already offers a lower emissions-intensity option for long-distance freight, much of the national interstate freight rail task remains reliant on diesel traction. This reflects the scale of Australia's non-electrified network, and the long asset lives of locomotives and rail infrastructure. ALC recommends that targeted rail

investments, including Inland Rail completion, be prioritised within national corridor funding frameworks to support both decarbonisation and productivity objectives.

A corridor-based approach is therefore critical. Policy attention should focus on electrification readiness on high-volume freight corridors, deployment of bi-mode and hybrid locomotives capable of operating across mixed networks, and the use of lower-carbon liquid fuels, such as renewable diesel, as mid-term measures. These pathways allow emissions reductions to commence within existing operating constraints rather than deferring action until full electrification becomes viable.

In the short term, improvements in rail network efficiency—such as longer train lengths, improved path utilisation and reduced dwell times—are themselves decarbonisation levers, lowering emissions per unit of freight while lifting productivity and system capacity. Strengthening rail freight’s role in the national freight task also reduces exposure to volatile liquid fuel markets, alleviates pressure on road networks and provides a lower-emissions backbone for long-distance freight movements.

Rail has a key role in reducing transport emissions, but its potential is constrained by current carbon policy settings. Under the Safeguard Mechanism, emissions generated are penalised, while emissions reductions are not recognised. This creates a perverse incentive that can limit the uptake of lower-emission transport solutions. Reforming the Safeguard Mechanism to recognise abated emissions would better support decarbonisation across the transport sector and enable freight operators to make choices that reduce emissions and costs.

#### **4.3.2 Air Freight and Sustainable Aviation**

Air freight, while representing a small share of total freight volumes, plays a critical role in Australia’s economy, connectivity, and resilience. High-value, time-sensitive goods—including medical supplies, pharmaceuticals, critical spare parts, and perishable exports—depend on reliable air cargo capacity, particularly for international trade and the servicing of remote and regional communities.

For aviation, sustainable aviation fuel (SAF) represents the most scalable decarbonisation pathway over the medium term. SAF can be deployed within existing aircraft fleets and airport infrastructure, enabling meaningful emissions reductions without compromising operational reliability or payload capability. Policy settings that support domestic SAF production, align certification and blending standards with international frameworks and enable airport precincts to accommodate SAF storage and distribution will be central to decarbonising air freight while maintaining Australia’s global trade links.

Energy and infrastructure planning at major freight airports will also be increasingly important. As airports function as multimodal logistics hubs, integrating air cargo operations with road freight, warehousing, and time-critical distribution, coordinated planning for energy supply, landside access and ground-equipment electrification will help ensure that decarbonisation efforts enhance, rather than constrain, freight performance.

### **4.4 Fuel Security, Resilience and Transitional Energy Pathways**

Fuel security is inseparable from freight decarbonisation and system resilience. Australia remains heavily reliant on imported liquid fuels, leaving freight and aviation supply chains exposed to global shocks. Meeting the International Energy Agency’s 90-day oil stockholding obligation remains a critical benchmark for managing this risk<sup>24</sup>, alongside maintaining sufficient domestic refining, storage, and distribution capability.

**ALC recommends the Government should ensure it is meeting Australia’s international obligations.**

Low-carbon liquid fuels, including renewable diesel and sustainable biofuels, offer an important near-term bridge for freight decarbonisation. These fuels can often be used in existing vehicles and infrastructure, delivering immediate emissions reductions while reducing reliance on imported oil. Supporting domestic feedstock development, production capacity and consistent national standards can help scale these fuels responsibly and avoid fragmented regulatory outcomes that deter investment.)

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<sup>24</sup> <https://www.iea.org/reports/oil-market-report>

**ALC recommends the Government should adopt policy settings that will enable the scale-up of renewable diesel, sustainable aviation fuel and other low-carbon liquid fuels through consistent national standards, feedstock development and investment certainty.**

Strengthening fuel security during the transition period will require continued attention to storage capacity, supply diversification and contingency planning, even as electrification and alternative energy pathways develop. These measures support not only emissions reduction but also the continuity of essential freight movements during periods of disruption.

#### **4.5 System-Wide Benefits and Budget Relevance**

Decarbonisation delivers broader system benefits beyond emissions reduction. Zero-emission vehicles reduce local air pollution and noise, particularly in urban freight corridors and gateway precincts, supporting community health and amenity. Mode shift from road to rail can reduce congestion and accident exposure while improving network efficiency. Coordinated planning of freight, energy and land-use infrastructure can minimise future retrofit costs and ensure that logistics precincts are equipped to support emerging technologies. When aligned with productivity and resilience objectives, decarbonisation becomes a source of competitive advantage rather than a constraint.

The 2026–27 Budget presents an opportunity to accelerate progress by supporting enabling infrastructure, de-risking early investment, advancing road user charging reform and strengthening fuel security alongside emissions-reduction objectives. Done well, decarbonisation will reinforce freight productivity, resilience, and national economic performance.

## **5. Resilience**

### **5.1 Freight Resilience as a Matter of National Economic Security**

Australia's recent experience has underscored that freight and supply chain resilience is a matter of national economic security. Disruptions to freight networks transmit rapidly across the economy, affecting food availability, construction timelines, export performance and community wellbeing. In this context, resilience refers to the capacity of freight systems to anticipate, absorb and recover from shocks—whether acute events such as floods and bushfires, or chronic stresses such as fuel market volatility, labour constraints and cyber risk.

While market forces can optimise efficiency under stable conditions, large-scale disruptions expose the limits of fragmented decision-making and require coordinated public–private action. Freight networks carry a disproportionate share of nationally essential goods and inputs, meaning that failures have immediate and economy-wide consequences. Building resilience into freight systems is therefore not a contingency exercise, but a core requirement for sustaining productivity and economic stability in an increasingly volatile operating environment.

Climate-related disruption has emerged as the most persistent and systemic threat to freight resilience. The increasing frequency and severity of floods, fires and extreme heat have repeatedly compromised nationally significant road and rail corridors. Recent east-coast flood events disrupted both north–south and east–west freight movements for extended periods, demonstrating the economic cost of single-point failures on corridors that carry a disproportionate share of the national freight task. As climate risks intensify, resilience must be treated as a design objective rather than an afterthought.

### **5.2 Targeted Adaptation, Redundancy, and Infrastructure Resilience**

Targeted adaptation of existing freight infrastructure represents one of the highest-return resilience investments available to government. Strengthening assets that already carry high freight volumes can materially reduce the frequency and duration of disruptions while improving day-to-day reliability.

Priority measures include flood-proofing and elevating road and rail formations in known risk areas, upgrading drainage and culverts, reinforcing bridges and embankments, and protecting port and terminal equipment against extreme weather. Proactive maintenance and monitoring are equally important. Enhanced asset-

condition monitoring, using sensors and predictive analytics, can identify emerging failures before they result in corridor closures, improving both resilience and operational performance.

Redundancy within the freight network is a critical enabler of resilience. Where alternative routes or modes exist, freight can be re-routed during disruptions, limiting economic loss. In many parts of Australia, however, redundancy is limited or non-existent. Targeted investment in secondary routes, alternative alignments and intermodal connections can provide essential fallback options when primary corridors fail. This approach does not imply duplicating entire networks, but rather identifying high-consequence failure points and ensuring viable alternatives are available.

Modal diversity further strengthens resilience. The ability to shift freight between road, rail and, where appropriate, coastal shipping provides flexibility in crisis conditions and reduces dependence on any single network element. Investments that improve interoperability between modes therefore deliver resilience benefits alongside productivity gains.

### **5.3 Fuel Security, Emergency Coordination and System Continuity**

Fuel availability is a critical dependency for freight continuity. Australia's reliance on imported liquid fuels means that supply disruptions or allocation failures can rapidly constrain freight movements during emergencies. The fuel-security framework outlined in Chapter 4 provides the foundation for managing this risk, including stockholding, supply diversification and contingency planning.

Operational resilience also depends on effective emergency coordination. The COVID-19 pandemic demonstrated that rapid regulatory flexibility, clear communication and close collaboration between government and industry can maintain supply continuity under extreme conditions. Formalising these arrangements would reduce reliance on ad hoc responses in future crises.

Standing emergency freight coordination mechanisms should clarify governance, decision-making responsibilities, and communication protocols, and provide for rapid activation of regulatory relief where appropriate. Ensuring that essential freight movements can continue during disruptions protects access to food, medical supplies, fuel, and construction materials, and limits broader economic damage.

**ALC recommends that the Government should establish a standing Commonwealth–state–industry arrangements for emergency freight coordination, including governance, triggers, communications protocols, and pre-agreed regulatory flexibility to maintain supply chain continuity during disruptions.**

### **5.4 Workforce, Digital Resilience and Budget Relevance**

Workforce resilience is an essential dimension of freight system performance. Skilled and adaptable workers underpin the operation of trucks, trains, ports, aircraft, and intermodal terminals, particularly during periods of disruption, including extended hours, network interruptions, or emergency events. Building workforce resilience therefore requires cross-skilling, contingency planning, and flexible workforce deployment mechanisms, reducing the economic cost of unplanned downtime and supporting uninterrupted supply chain performance.

Technology is central to this resilience. Digital tools, including remote monitoring, automated operations in controlled environments, and dynamic workforce allocation, enable the freight system to maintain productivity when physical access or labour availability is constrained. As Australia's freight system becomes increasingly data-driven and interconnected, digital resilience assumes critical importance. Cyber incidents affecting logistics operators, ports, or transport systems can disrupt freight flows as severely as physical infrastructure failures. Strengthening baseline cyber resilience—particularly among small and medium operators—requires minimum vendor standards, coordinated information sharing, and robust backup and recovery arrangements for freight-critical systems.

Collectively, these measures provide both economic insurance and productivity protection. A resilient freight system experiences fewer unplanned disruptions, recovers swiftly when incidents occur, and provides greater certainty for businesses, governments, and communities. The 2026–27 Budget presents an opportunity to embed resilience systematically through targeted infrastructure adaptation, strengthened emergency coordination, and enhanced workforce and digital preparedness.



## 6. Workforce, People and Wellness

### 6.1 Workforce Capability as Enabling Economic Infrastructure

Australia's freight and logistics system ultimately depends on its people. Workforce skills, capability, and availability directly determine system performance and, by extension, the efficiency of the broader economy. Workforce capability should therefore be considered enabling economic infrastructure, alongside physical assets, and technology. Without a sufficient, skilled, and supported workforce, productivity reforms, infrastructure investment, and technology adoption cannot deliver their intended economic benefits.

The sector faces acute and structural pressures: labour shortages, an ageing workforce, evolving skill requirements, and limited diversity. Freight-related occupations—including heavy vehicle drivers, train drivers, and terminal operators—experience persistent recruitment difficulty, reflecting both growing freight demand and demographic change. Rising retirement-driven attrition threatens productivity, network flexibility, and operating cost efficiency, amplifying supply chain disruption during peak demand or emergencies. Workforce capability is therefore inseparable from freight system efficiency, resilience, and national economic performance.

### 6.2 Workforce Supply, Diversity and Skills Transition

Expanding workforce participation represents both a challenge and a strategic opportunity. Women remain significantly under-represented in operational freight and logistics roles, representing a substantial untapped labour pool at a time of chronic sector-wide shortage. In 2024, only 5.5 % of truck drivers and 4.4 % of crane/hoist operators were women<sup>25</sup>.

Initiatives such as ALC's **Wayfinder: Supply Chain Careers for Women** program illustrate the value of structured entry pathways, mentoring, and visibility. *Wayfinder* provides practical exposure to freight and logistics roles, connects participants with employers across the supply chain, and supports longer-term retention through peer networks and industry engagement. Scaling proven programs of this kind would materially expand workforce supply while improving diversity, inclusion, and retention outcomes, generating measurable productivity gains and cost efficiencies.

**ALC recommends that Government increase funding for *Wayfinder* to expand participation and address workforce shortages.**

The workforce is simultaneously being reshaped by technological change and the energy transition. Automation, digital fleet systems, advanced safety technologies, and low-emissions vehicles are changing the nature of work and increasing demand for skills in electric and hydrogen vehicle maintenance, systems integration, digital operations, cyber awareness, and advanced safety technologies.

Traditional training pathways are often too slow or inflexible, particularly for mid-career workers. Micro-credentials and modular training programs offer rapid, targeted upskilling while minimising time away from employment. National recognition of these credentials supports workforce mobility across jurisdictions and modes, addressing skills gaps efficiently and optimising productivity.

The road freight sector faces a particularly acute demographic challenge. Nearly half of Australia's heavy vehicle drivers are aged 55 or older, while only 5–6 per cent is under 25, creating a projected shortfall of tens of thousands of drivers<sup>26</sup>.

Transitioning to a national competency-based licensing framework enables capable operators to progress safely and efficiently, addressing shortages while maintaining safety<sup>27</sup>. This reform strengthens supply chain resilience, reduces recruitment and training costs, and mitigates economic risk.

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<sup>25</sup> <https://www.industryskillsaustralia.org.au/driving-change-women-powering-future-australias-transport-and-logistics-industry>

<sup>26</sup> <https://www.abc.net.au/news/rural/2025-05-08/declining-young-truckie-rates-prompt-calls-for-intervention/105262334>

<sup>27</sup> <https://austroads.gov.au/drivers-and-vehicles/registration-and-licensing/heavy-vehicle-driver-competency-framework>

**ALC recommends Government support both competency-based licensing reforms and nationally recognised, industry-designed short courses in freight, logistics, digital systems, and energy-transition technologies to accelerate workforce renewal and economic productivity.**

### **6.3 Workforce Wellbeing, Migration and Budget Priorities**

Perceptions of freight and logistics careers continue to influence workforce supply. Despite offering stable employment, diverse pathways, and increasing technological sophistication, these careers are frequently undervalued. A coordinated, industry-led national careers initiative would attract new entrants, expand the labour pool, and reduce the economic costs associated with unfilled roles.

**ALC recommends the Government invest in a coordinated national awareness campaign to elevate the profile of freight and supply chain careers and attract new entrants, including young people and career-changers.**

Migration policy remains a complementary lever. While domestic workforce development must remain the priority, skilled migration can address acute shortages in specialised or regional roles, supporting continuity, efficiency, and resilience across supply chains. Freight occupations should be clearly recognised and aligned in the Occupation Standard Classification for Australia (OSCA) and reflected consistently across skills, training, and migration policy, enabling targeted interventions during periods of tight labour supply.

**ALC recommends freight and logistics occupations are appropriately recognised, described, and assessed within the new Occupation Standard Classification for Australia (OSCA), and reflected consistently across skills and migration settings, will support targeted responses during periods of tight labour supply.**

A capable, diverse, and future-ready workforce is essential to maximise economic efficiency, strengthen productivity, and maintain supply chain resilience. Investment in workforce development enables faster technology adoption, improved infrastructure utilisation, stronger safety outcomes, and greater adaptability to economic shocks. Treating workforce initiatives as productivity investments aligns with fiscal and economic priorities.

For the 2026–27 Budget, priority measures include:

- Scaling proven diversity programs, such as Wayfinder, to increase workforce supply, retention, and productivity.
- Supporting micro-credential development and nationally recognised short courses in digital, energy transition, and operational skills.
- Strengthening freight careers awareness to expand labour supply and reduce vacancy-related economic costs.
- Supporting competency-based licensing reforms to accelerate the entry of heavy vehicle drivers and maintain supply chain resilience.
- Ensuring workforce policy settings, including skills and migration measures, reflect the strategic and economic importance of the sector.

Collectively, these measures secure the skilled, adaptable, and future-ready workforce required to sustain Australia's freight task, protect economic productivity, and support resilience through growth, technological transition, and volatility.

## **7. Safety**

### **7.1 Safety as a Prerequisite for Productivity and Community Trust**

Safety is a foundational pillar of Australia's freight and logistics system and a prerequisite for sustained productivity and community trust. As freight volumes continue to grow, ensuring that goods are moved without harm to workers, other network users and communities is both a moral obligation and an economic imperative. Poor safety outcomes impose direct costs through injuries, fatalities, asset damage and insurance premiums,

and indirect costs through network disruption, loss of workforce capacity and diminished public confidence in freight activity.

## 7.2 Vehicles, Infrastructure and Regulatory Settings

Vehicle technology has become an increasingly powerful tool for improving freight safety. Advanced driver-assistance systems—such as autonomous emergency braking, electronic stability control, lane-departure warning, and fatigue-monitoring technologies—have been shown to significantly reduce the risk and severity of crashes involving heavy vehicles, with reductions in serious incidents of 20–40 per cent depending on the technology and operating environment.

Australia has progressively mandated some of these technologies on new vehicles; however, fleet turnover remains slow, with heavy vehicles often remaining in service for two decades or more. As a result, safety benefits accrue gradually unless adoption is actively accelerated.

**ALC recommends the Government encourage the earlier adoption of proven safety technologies (including feasible retrofits) such as AEB, stability control, fatigue monitoring and telematics-enabled safety coaching.**

Targeted measures to support earlier uptake of safer vehicles can therefore deliver safety improvements more rapidly than reliance on natural fleet replacement alone. Incentives for early adoption—including feasible retrofit options where appropriate—can help bring forward proven safety benefits while avoiding blanket mandates that may impose disproportionate costs on smaller operators.

Infrastructure design and condition are equally critical determinants of safety outcomes. Freight-relevant road infrastructure—particularly intersections, high-risk curves and gradients, rest areas and level crossings—shapes both crash likelihood and crash severity. BITRE estimates that road crashes cost the Australian economy more than \$27 billion per year in lost productivity, health costs and property damage<sup>28</sup>. Targeted investment in freight-relevant black spots, safer intersections, grade separations, heavy-vehicle-appropriate road geometry and rest infrastructure consistently delivers strong safety and productivity returns, particularly on corridors with high heavy-vehicle volumes.

For rail freight, safety risk is concentrated in lower-frequency but higher-consequence events. Outcomes are intricately linked to the condition and design of network assets, including signalling systems, level crossings and rollingstock interfaces. Continued investment in level-crossing upgrades, improved signalling, and initiative-taking asset-condition monitoring reduces the risk of catastrophic incidents while supporting more reliable network operations.

Regulatory settings remain central to safety performance. The Heavy Vehicle National Law, including the Chain of Responsibility framework, has shifted Australia toward a systems-based approach that allocates safety responsibility across the entire supply chain. Consistent interpretation and enforcement across jurisdictions are essential to maintaining a level playing field and ensuring that commercial pressures do not undermine safety outcomes. Evidence-based reforms currently under consideration—including greater use of electronic work diaries and more flexible fatigue-management options for compliant operators—offer a practical pathway to further improve safety while better aligning regulation with operational realities.

## 7.3 Workforce Culture and Budget Relevance

Safety outcomes ultimately depend on how safety systems, rules and technologies are applied in practice. Continuous training, mentoring and supervision are critical to ensuring that safety controls are understood and consistently followed. Programs that integrate telematics data with coaching and feedback have been shown to reduce risky behaviours and serious incidents when implemented within a strong safety culture that emphasises learning rather than punishment.

Health and fatigue management are integral to safety performance. Effective fatigue controls, sleep-disorder screening and early intervention reduce crash risk, particularly in safety-critical freight roles. Investment in safe

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<sup>28</sup> <https://www.bitre.gov.au/publications/2024/cost-of-road-crashes-in-australia>

facilities, rest areas and amenities supports compliance with fatigue requirements and reduces pressure on operators to make unsafe trade-offs.

Safety investment delivers economy-wide benefits. Fewer serious incidents mean fewer network closures, lower congestion from incident response, reduced insurance costs and stronger public confidence in freight activity. For the 2026–27 Budget, continued support for proven safety initiatives, targeted freight-relevant infrastructure upgrades and consistent regulatory reform will reinforce the link between safety, productivity, and community trust.

## 8. Technology and Digitalisation

### 8.1 Digital Capability as a Productivity and System-Enabling Asset

Technology is a critical enabler of modern freight systems, allowing physical networks to operate more efficiently and transparently. As supply chains become more complex and time-sensitive, the ability to collect, share and act on high-quality data increasingly determines system performance. For Australia, accelerating technology adoption in freight is essential to lifting productivity and effective network capacity without proportionate increases in infrastructure expenditure.

Digital fragmentation remains a key constraint. While many operators deploy advanced systems internally—such as telematics, terminal operating systems, and warehouse automation—interoperability between systems is limited. This fragmentation results in avoidable delays, idle assets, and manual workarounds across supply chains. Evidence cited in the National Freight and Supply Chain Strategy indicates that improved digital coordination and interoperability could lift effective network capacity by around 10–15 per cent<sup>29</sup> without new physical assets.

Digital capability should therefore be treated as enabling infrastructure. When deployed at scale and in an interoperable way, technology improves asset utilisation, reduces variability, and supports more reliable freight movements across the national network.

### 8.2 Data Platforms, Automation and Connectivity

The National Freight Data Hub represents a foundational step toward a more efficient and transparent freight system. By securely aggregating standardised data on freight volumes, network performance, and operational conditions, the Hub enables evidence-based policy-making and informed operational decisions. It directly complements the productivity reforms outlined in Chapter 2, further reinforcing the case for full funding to realise its potential.

Digital access systems such as the National Automated Access System further illustrate the productivity potential of data-enabled freight networks. As detailed in section 2.3.1, NAAS demonstrates how rules-based automation can improve consistency, transparency and timeliness of access decisions when underpinned by interoperable infrastructure data.

### 8.3 Cyber Resilience and System-Wide Benefits

Cybersecurity is an emerging systemic risk. High-profile cyber incidents affecting logistics operators and ports in Australia and internationally have demonstrated the potential for digital disruption to halt freight movements entirely. Supporting baseline cyber resilience across the freight sector — particularly for small and medium operators — should be treated as part of national critical infrastructure protection. This includes minimum standards, information-sharing mechanisms, and recovery planning.

Technology underpins every other pillar of this Paper. When deployed strategically and interoperable, it enables higher productivity, safer operations, faster decarbonisation, improved resilience, and a more attractive workforce proposition.

**ALC recommends the Government support minimum cyber standards, practical uplift measures and recovery planning for freight-critical systems and operators (particularly SMEs).**

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<sup>29</sup> <https://www.infrastructureaustralia.gov.au/publications/2024/infrastructure-market-capacity-report>

## 9. Conclusion

Australia's freight and logistics system is at a decisive point. Structural pressures—from infrastructure constraints and workforce shortages to energy transition and climate risk—are intensifying, yet the opportunity to lift national productivity through targeted, system-level reform is unprecedented.

Freight and supply chain policy is economic policy. Efficient, reliable freight underpins housing delivery, export performance, regional development, health supply chains, and national security. The eight strategic pillars outlined in this submission—Productivity; Interconnected Infrastructure; Sustainability and Decarbonisation; Resilience; Workforce; Safety; Technology; and National Integration—are mutually reinforcing, designed to deliver high-return outcomes in a fiscally constrained environment.

The measures proposed focus on unlocking the potential of existing assets, improving regulatory efficiency, leveraging private investment, and strengthening system capability rather than relying on large new capital programs. The economic dividends are substantial: lower logistics costs, reduced inflationary pressure, stronger competitiveness, enhanced resilience, and a more sustainable freight system.

The Australian Logistics Council and its members stand ready to partner with government in the detailed design and delivery of these reforms. Through ongoing dialogue, data sharing, and collaboration, industry can ensure that policy intent translates into practical, on-the-ground outcomes.

Budget 2026–27 represents a decisive opportunity to move from strategy to execution. By adopting these measures, the Government can secure a freight system that is productive, resilient, sustainable, and nationally integrated—providing a strong foundation for Australia's economic prosperity and wellbeing in an increasingly uncertain world.