



Australian Government

Department of Infrastructure, Transport,
Regional Development, Communications and the Arts

Review of the National Freight and Supply Chain Strategy

Review Report

May 2024



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Table of Contents

Summary	4
Proposed Refreshed Goals and National Priority Action Areas	5
Summary of Recommendations	6
Scope of the Review	7
The Current National Freight and Supply Chain Strategy	8
History	8
Governance	9
Performance to Date	10
Gaps in the Strategy	10
Decarbonisation	10
Supply Chain Resilience	12
Areas to Strengthen in the Strategy	15
Skills and Workforce	15
Productivity	17
Land Use Planning and Industrial Land Use	18
Interoperability	20
Key Performance Indicators	21
Data	23
Proposed National Priority Action Areas	23
Future Governance Arrangements	24
Related Work	26
Appendices	27
Appendix A: Stakeholder Engagement	27
Appendix B: Summary of Government Reviews, Strategies and Plans	34

Summary

Australia's economy is underpinned by the efficient transportation of freight across vast distances and international borders. Our supply chains are critical to the ever-growing freight task, which is projected to grow 26% between 2020 and 2050. This equates to around 756 billion tonne kilometres in 2020 to 964 billion tonne kilometres by 2050. Our domestic supply chains are a critical enabler of Australia's international trade and provide the link between our trade gateways (ports and airports) and the broader economy.

The National Freight and Supply Chain Strategy (the Strategy) is intended to increase the safety, productivity and resilience of freight and supply chains as the freight task grows. The Strategy sets a national agenda for government and industry action across all freight modes to 2040 and beyond. The Strategy is scheduled for review every 5 years.

When the Strategy was released in 2019, it was the first time governments and industry agreed to a national plan for improving the efficiency, effectiveness and reliability of Australian supply chains.

Over the past few years Australia's freight and supply chains faced a rapidly evolving landscape, including the COVID-19 pandemic, extreme weather events, geopolitical shifts and trade disruptions, and worker shortages. The COVID-19 pandemic and extreme weather events highlighted the need for enhanced resilience capabilities.

There have also been positive changes in recent years. A renewed focus on decarbonisation and emerging technologies provide opportunities, but also brings into focus existing challenges, for the freight and supply chain sector. Given these changes and calls from industry, infrastructure and transport ministers agreed to bring forward commencement of the Review of the Strategy (the Review) from 2024 to 2023. The Review is an opportunity to ensure the Strategy meets its objective of supporting Australia's future freight needs.

The Review heard the foundations of the Strategy remain strong and its goals are as relevant now as when it was developed in 2019. However, clear themes emerged from stakeholder consultation.

Stakeholders overwhelmingly want a refreshed Strategy to reflect decarbonisation as a key priority and saw opportunities for the Strategy to be strengthened in the following areas: resilience, skills and workforce, land use planning, productivity, and interoperability.

The Review also heard some strong feedback about the performance and governance of the Strategy. In particular, industry stakeholders felt the Strategy needed more accountability and stronger governance arrangements to better drive outcomes. Generally, stakeholders agreed the Strategy should focus on nationally significant priorities supported by a small number of key performance indicators. However, there was little consensus as to what the KPIs should or could be and many stakeholders suggested further industry/government collaboration to settle this issue.

The Review recommends updating some of the goals in the Strategy to ensure it remains fit for purpose and proposes 4 National Priority Action Areas to form the basis of the next 5-year National Action Plan. These are summarised in Table 1 and Table 2 below.

Acknowledging the cross-cutting nature of freight, the Review worked closely with the leads of a number of other national reviews and related work including the Aviation White Paper, Strategic Fleet Taskforce, Road and Rail Supply Chain Resilience Review, Inland Rail and Infrastructure Investment Program. The Review identified opportunities to leverage the refreshed Strategy and new action plan to maximise the effectiveness of both the Strategy and related reviews and work.

Many of the submissions received through the Review process included information relevant to other national reviews and related work. Consistent with the Australian Privacy Principle 5 Notice on the Department of Infrastructure, Transport, Regional Development, Communications and the Arts' Have Your Say webpage, relevant submissions have been shared across the department to support the 'tell us once' approach.

Proposed Refreshed Goals and National Priority Action Areas

Tables 1 and 2 show the current and proposed goals and action areas. These were formulated in response to consultation with stakeholders and the Review’s targeted Terms of Reference. Further detail on the proposed refreshed goals and national action areas is in the body of the report.

Table 1: Proposed Refreshed Goals

Current goals	Proposed refreshed goals
	Decarbonising the freight and supply chain sector <i>(new)</i>
Improved efficiency and international competitiveness	Improved efficiency, productivity and international competitiveness
Safe, secure and sustainable operations	Safe, secure and resilient supply chains
A fit for purpose regulatory environment	A fit for purpose regulatory environment
Innovative solutions to meet freight demand	<i>(merge into number 2)</i>
A skilled and adaptable workforce	A skilled, portable and adaptable workforce
An informed understanding and acceptance of freight operations	An informed understanding and acceptance of freight operations

Table 2: Proposed Nation Priority Action Areas

Current critical action areas	Proposed national priority action areas
<ul style="list-style-type: none"> • Smarter and targeted infrastructure investment • Enable improved supply chain efficiency • Better planning, coordination and regulation • Better freight location and performance data 	<ul style="list-style-type: none"> • Decarbonisation • Productivity • Resilience • Data

Summary of Recommendations

Recommendation 1

The Review recommends the following amendments to the Strategy's goals:

- i. a new goal on 'decarbonising the freight and supply chain sector'
- ii. an updated goal of 'safe, secure and *resilient supply chains*' and for resilience to be strengthened in the body of the refreshed Strategy
- iii. an updated goal of 'a skilled, *portable* and adaptable workforce' and for skills and workforce to be strengthened in the body of the refreshed Strategy
- iv. an updated goal of 'improved efficiency, *productivity* and international competitiveness.'

Recommendation 2

The National Urban Freight Planning Principles be reflected in the refreshed Strategy.

Recommendation 3

The Review recommends interoperability be expanded and strengthened in the refreshed Strategy to reflect the importance of the issue and to help progress the important work already underway.

Recommendation 4

The Review recommends:

- Resilience and decarbonisation key performance indicators be implemented to measure the refreshed Strategy.
- A government/industry key performance indicators and data working group be established, with its actions to include (but not limited to):
 - developing guiding principles to identify additional indicators and to support consistent data collection and the application of KPIs
 - developing a data plan to more effectively capture and apply data to enhance the National Freight Data Hub and to support development of jurisdictional freight data products.

Recommendation 5

The Review recommends the following areas be agreed as National Priority Action Areas, to replace the Strategy's current Critical Action Areas:

- decarbonisation
- productivity
- resilience
- data

Recommendation 6

- i. The Review recommends the current governance arrangements be retained, with infrastructure and transport ministers to agree a refreshed strategy in 2024 and, pending that agreement, ministers to receive annual reporting under this refreshed Strategy from 2024-25.
- ii. The Review recommends the Freight Industry Reference Panel's role be strengthened to better support the Strategy's implementation. New Terms of Reference, reflecting the Freight Industry Reference Panel's strengthened role, should be developed for infrastructure and transport ministers' consideration.

Scope of the Review

Over the past few years, Australia's freight and supply chains experienced major changes and disruptions, highlighting the need for resilience and adaptability; for example:

- The increasing number and severity of natural disasters due to climate change and the COVID-19 pandemic has led to significant disruptions, causing delays, shortages and increased transportation costs in Australia.
- The freight and logistics industry in Australia, like many other sectors, continues to face a shortage of skilled workers, posing considerable challenges for businesses.
- Geopolitical shifts and trade disputes highlighted the global nature of supply chains and how important resilient supply chains are for the delivery of essential goods and services for Australia as an island nation.

Given these changes and calls from industry, on 9 June 2023, infrastructure and transport ministers agreed to bring forward commencement of the review of the Strategy from 2024 to this year. This is the first review of the Strategy.

Stakeholders have told us the foundations of the Strategy are strong and there is no need for a comprehensive, first-principles review. This feedback helped inform the Review's targeted Terms of Reference, which were agreed by infrastructure and transport ministers.

The Terms of Reference are as follows:

- The Review will:
 - **Assess** if there are gaps in the Strategy's goals to ensure the Strategy remains relevant, such as decarbonisation, supply chain resilience, drawing on lessons learned following significant disruptions (such as floods, bushfires, pandemics and global impacts).
 - **Consider** the performance of Strategy to date and priorities for the next 5-year National Action Plan focussing on nationally significant actions for coordinated implementation across jurisdictions.
 - **Propose** a small number of national, data-driven and high impact national key performance indicators (KPIs) to monitor implementation of the Strategy over the next 5 years.
- The Review will consider the outcomes, findings or principles underpinning related work, including but not limited to:
 - the reviews of Infrastructure Australia, Inland Rail and the Road and Rail Supply Chain Resilience Review
 - work already underway to establish a Strategic Fleet and develop an Aviation White Paper and Infrastructure Policy Statement (IPS)
 - the National Reconstruction Fund's priority investment area of Transport.
- The Review will consider and provide advice on appropriate governance arrangements to support the implementation of the Strategy, including the role of the Freight Industry Reference Panel (FIRP).

The Review commenced on 16 August 2023 and was conducted by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts. Peak bodies, union groups, regulators, industry organisations, governments, infrastructure bodies and academics participated in consultations.

The department held a webinar which provided an overview of the Strategy and the Review process. Approximately 70 stakeholders attended this session on 28 August 2023.

The Hon Catherine King MP, Minister for Infrastructure, Transport, Regional Development and Local Government hosted a Land Transport Industry Roundtable on 30 August 2023, to hear member bodies and industry's views on the Strategy.

Submissions were open to all interested persons and groups. The department developed a discussion paper generate views through the submission process and a stakeholder kit for industry organisations and peak bodies to share with their networks. Social media content was distributed via LinkedIn, X (formerly Twitter) and Facebook.

The Review received 71 submissions from a broad range of stakeholders. In partnership with the Australian Logistics Council, the department held 4 in-person and 2 online consultation workshops. Approximately 120 stakeholders participated in the workshops. The Review team thanks those jurisdictions which hosted the workshops.

In addition to the workshops, the Review team:

- held engagement sessions with state and territory governments and the FIRP
- facilitated an Australian Government consultation workshop
- held a number of bilateral meetings with peak bodies and industry representatives. (See Appendix A for further information on stakeholder engagement)

The Current National Freight and Supply Chain Strategy

History

On 18 May 2018, the then Minister for Infrastructure and Transport released the Inquiry into National Freight and Supply Chain Priorities (Inquiry) report. The Inquiry was conducted by a 4 member industry [expert panel](#) to inform the development of a National Freight and Supply Chain Strategy (Strategy) through the Infrastructure and Transport Ministers' Meeting (ITMM).

The Strategy was released in 2019. It outlines a national vision for freight systems and domestic and international supply chains. The Strategy has the following goals:

- improved efficiency and international competitiveness
- safe, secure and sustainable operations
- a fit for purpose regulatory environment
- innovative solutions to meet freight demand
- a skilled and adaptable workforce
- an informed understanding and acceptance of freight operation.

The Strategy is supported by a National Action Plan and jurisdictional Implementation Plans.

The 2019-2024 National Action Plan outlines 4 critical action areas:

- smarter and targeted infrastructure investment
- enable improved supply chain efficiency
- better planning, coordination and regulation
- better freight location and performance data.

The National Action Plan expands on the critical action areas, outlining 13 national actions that jurisdictions can commit projects towards to achieve the goals of the Strategy. Each jurisdictional Implementation Plan outlines these specific projects. Jurisdictions report their progress on these projects annually and there are over 300 projects across all jurisdictional Implementation Plans.

Governance

Implementing the Strategy requires coordination across all levels of government. The current Strategy sets out a framework of roles and responsibilities. The relationship of each group listed below is shown in Figure 1.

Infrastructure and Transport Ministers’ Meeting

ITMM comprises federal, state and territory ministers responsible for transport and infrastructure. A role of ITMM is to oversee Strategy implementation and to facilitate an integrated national approach to freight.

Infrastructure and Transport Senior Officials’ Committee

The Infrastructure and Transport Senior Officials’ Committee (ITSOC) includes the Secretaries (or equivalent) with portfolio responsibility for transport and infrastructure from each jurisdiction. The role of ITSOC is to implement and progress the strategic agenda approved by ITMM.

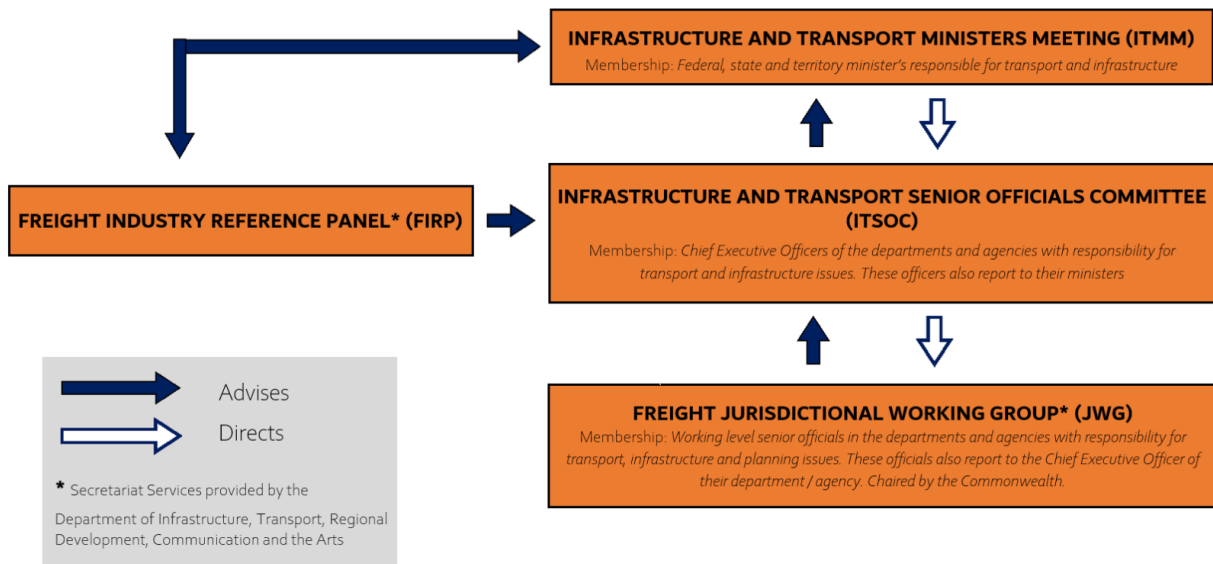
Freight Jurisdictional Working Group

The Freight Jurisdictional Working Group (JWG) consists of working level senior officials in the agencies with responsibility for transport, infrastructure and planning. The JWG manages the reporting and Review process of the Strategy.

Freight Industry Reference Panel

The Freight Industry Reference Panel supports the ongoing implementation of the Strategy and provides independent advice on the delivery of the Strategy’s goals during the annual reporting cycle.

Figure 1: Current Strategy Governance Relationships



Performance to Date

The Review heard the goals of the Strategy remain largely relevant. However, some stakeholders thought the Strategy is not driving significant national improvements while others suggested its performance cannot be effectively measured.

Positively, stakeholders felt a refreshed Strategy could provide real improvements for Australia's supply chains if:

- decarbonisation is incorporated as a priority into a refreshed Strategy
- a number of areas in the Strategy are strengthened, including skills and workforce, land use planning, interoperability, resilience, productivity and data
- implementation of the Strategy focuses on a smaller number of nationally significant actions
- there is better data and Key Performance Indicators to demonstrate the performance of the Strategy
- there is greater accountability and improved governance arrangements to support delivery of actions under the refreshed Strategy.

These issues are considered in later sections of the Review Report.

The Review heard the Strategy's current reporting structure is difficult to understand and does not measure the Strategy's performance. There have been 3 annual reports published since the Strategy was released in 2019, starting in 2019-20. Currently the annual report provides limited quantitative data to measure the Strategy's success.

The most recent annual report (2021-22) reported on over 350 initiatives being delivered under the Strategy by the Australian, state and territory governments. Many stakeholders felt the actions and projects reported against the Strategy were not clearly linked to the Strategy's goals and most stakeholders supported reporting only on a small number of national priorities going forward.

This would ensure governments only report projects which clearly support the proposed National Priority Action Areas. Governments could still report other actions in respective state and territory freight and supply chain strategies or annual reports. See the section: Proposed National Priority Action Areas on page 22 and Recommendation 5 for discussion of proposed National Priority Action Areas.

Gaps in the Strategy

Decarbonisation

Key finding: Decarbonisation should be included as a new goal in the refreshed Strategy. Initiatives under the goal will require coordinated support and delivery across governments to achieve effective national outcomes.

The Review heard strong support for decarbonisation of the freight and supply chain sector to be a new goal in the refreshed Strategy and for decarbonisation be a national priority action area. The Strategy is uniquely placed to provide an overarching and coordinating framework to address barriers to emissions reduction in the freight industry and end-to-end supply chains.

The decarbonisation discourse in submissions and workshops centred around the following themes:

- a fit for purpose regulatory environment across all levels of government to support decarbonisation efforts
- shift towards the use of low emissions transportation methods
- opportunities for technology-led decarbonisation initiatives to help the transport, freight and supply chain sector meet its decarbonisation goals

- targeted investment programs to assist decarbonising road and rail infrastructure.

Stakeholders identified a number of ways in which the freight sector can decarbonise, primarily focused on ways to support emissions reduction in the transport sector.

Rail stakeholders felt strongly the refreshed Strategy should recognise the decarbonisation benefits of shifting more freight to rail. The Review heard rail freight produces 16 times less carbon pollution per tonne kilometre than road freight and generates 92 per cent less PM10 emissions than road freight¹. Submissions from rail stakeholders suggested actions could include projects that incentivise mode shift to rail and rail infrastructure upgrades. Other ideas put forward included policy or planning solutions to rebalance freight needs on rail lines which have shared use with passenger services. Some stakeholders also saw Inland Rail as increasing the rail network resilience which will result in more freight being carried by rail and in turn support decarbonisation.

Some submissions referenced the Safeguard Mechanism and noted the definition of rail transport did not accommodate lower emissions rail transport technologies. In October 2023, the rail sector engaged in the review of the Safeguard Mechanism production variables suggesting changes to the definition of rail transport to allow for the uptake of low emissions technology. The Review notes the suggestions have been included in a draft amendment to the Safeguard Rule to address the sector's concern with the definition.

Submissions also identified a range of other opportunities to help drive decarbonisation including: future fuel types, such as hydrogen, regulatory standards, energy distribution, licensing and encouraging the adoption of sustainable practices, such as onsite renewable electricity generation at large industrial and logistics facilities. Submissions from maritime stakeholders noted digital technologies can play a role decarbonising the shipping industry, including route planning to lower fuel consumption and emissions, or technology platforms to measure carbon footprints.

The Review considers including decarbonisation as a new goal in the refreshed Strategy would allow for a joined-up approach across jurisdictions and transport modes to support decarbonisation across the freight and supply chain sector. Decarbonising the freight and supply chain sector is a multifaceted challenge that requires a range of solutions. The Review considers mode shift would support decarbonising portions of the freight task, but alone is unlikely to result in the necessary reduction in emissions needed to meet Australia's decarbonisation goal of Net Zero by 2050.²

All transport modes will need to act to achieve decarbonisation targets. However, the Strategy's focus goes beyond transport modes and covers the end-to-end supply chain. Technological advancements, regulatory environments and state and territory decarbonisation policies can be considered in determining what specific actions could be included in the new National Action Plan.

The Review considers including decarbonisation as a goal and National Priority Action Area in the refreshed Strategy would address a significant gap in the current Strategy. The refreshed Strategy can provide an overarching framework for joining-up collective efforts on decarbonisation underway across multiple jurisdictions. It can play a leadership role in supporting and coordinating decarbonisation efforts across industry and governments. While there are a number of initiatives underway considering how to decarbonise different transport modes, some of which are discussed below, the Strategy can add value in taking a freight and supply chain perspective, complimenting and not duplicating other work.

¹ Value of Rail, ARA, 2020 (from ARA submission)

² RISSB (2022) *National Rail Carbon Footprint Study*

The Review notes there is work already underway at both the Commonwealth and state/territory level to support the decarbonisation efforts. The Strategy will be refreshed in parallel and jointly in alignment with the Infrastructure Policy Statement, and the development of the National Transport and Infrastructure Net Zero Roadmap and Action Plan, Aviation White Paper, Maritime Emissions Reduction National Action Plan (MERNAP) and other policies. This will ensure the Strategy complements the other work and minimises any gaps between transport modes in decarbonising the freight and supply chain.

The Net Zero Roadmap and Action Plan will provide a national strategy to reduce emissions across the transport and infrastructure sectors. It will examine the potential pathways to reduce greenhouse gas emissions to net zero by 2050 across all transport modes (road, aviation, maritime and rail), freight and supply chains, active transport planning, and supporting infrastructure.

The Aviation White Paper Discussion Paper recognises emissions reduction is a key priority for the Australian aviation sector. The Australian Government has established the Australian Jet Zero Council which brings together a cross-section of senior stakeholders from across the aviation industry and its supply chains to help inform the design of policy settings to encourage emissions reduction.

Co-designed with the maritime industry, when complete, the MERNAP will set the strategic direction and recommend actions to decarbonise our maritime transport sector, including ports, as well as contribute towards reducing international shipping emissions. Importantly, the MERNAP will seek to identify opportunities in skills and training, alternative fuels and regulatory approaches to decarbonise and future proof the domestic maritime industry whilst ensuring Australia actively participates in the global net zero maritime transition to avoid jeopardising our important sea trade links.

Sustainability and its contribution to the decarbonisation agenda is also a key strategic theme of the Australian Government's IPS. Under the IPS the Australian Government will look to invest in infrastructure that encourages more sustainable approaches to land use and town planning, more efficient and less polluting networks, supporting changes to the way transport industries operate, and contributing to the decarbonisation agenda³.

Continued dialogue between Governments and industry will be important to deliver on Australia's decarbonisation ambitions. To ensure the Strategy remains fit for purpose, the Review recommends the refreshed Strategy includes a new goal on decarbonising the Freight and Supply Chain Sector, to help Australia realise its national and international commitments on emissions reductions. The Review further recommends actions towards decarbonising the freight and supply chain sector be included in the next National Action Plan.

Recommendation 1.i

The Review recommends the refreshed Strategy incorporates a new goal on 'decarbonising the freight and supply chain sector'.

Supply Chain Resilience

Key finding: Resilience of the freight and supply chain sector underpins the key goals of productivity and decarbonisation, and requires a rethink in the refreshed Strategy.

The need for resilience of the freight and supply chain sector was a key theme raised through consultations, specifically:

³ [infrastructure-policy-statement-20231114.pdf](#) (p4)

- Infrastructure investment should be targeted to support resilient freight routes and should address Australia's future climate needs.
- Critical inputs (such as energy, fuel and diesel exhaust fluid, workers) were needed to support a resilient freight and supply chain sector.
- Decarbonisation of the transport sector was required to support a resilient freight and supply chain sector into the future.

A number of submissions reflected on Australia's recent experiences with extreme weather events and the need for land transport infrastructure to withstand the effects of future climate pressures. Particular focus was made of the need to build road and rail infrastructure to a standard which can withstand repeated flooding events. Submissions called for resilience to be embedded in investment frameworks and major risk assessments.

Some submissions called for more road and rail investment to improve resilience of the freight network as a whole, along with funding to build back better when maintenance and repairs to roads was needed. Delays in road repairs was seen as a key impediment to the sector's resilience. Other submissions called for the Strategy to draw on the lessons learned through the COVID-19 pandemic and consider ongoing investment to provide resilience to current and new infrastructure across the supply chain more broadly.

Some submissions specifically noted the impact of major supply chain disruptions on remote communities, including the impact on food security for remote First Nations communities. These submissions called for infrastructure planning to consider the capacity and resilience of supply chains that service remote communities. They further suggested additional investments in new technology and innovations, such as alternate delivery methods, should be considered alongside building back better to meet the unique needs of remote communities. The Review notes building resilience to supply chain disruptions is expected to be a focus of the National Strategy on Food Security in Remote First Nations Communities being developed by the National Indigenous Australian Agency in partnership with states and territories and First Nations health organisations.

The Review heard reliability of freight is critically important. This requires both reliable and resilient networks, including predictable journey times and availability of alternative routes to minimise impacts of disruption and assets that are able to withstand growing impacts of climate change. This includes both short term impacts such as extreme weather events and longer-term impacts including changing climatic patterns impacting road surfaces and structures over time. It was suggested that a national guidance framework on climate resilience for infrastructure asset owners and operators would help build resilience across the national freight network.

The Australian Government recently released the IPS which includes resilience as a strategic theme. The IPS will support future project selection and sets out the Government's intention to invest in projects that improve the resilience of critical road and rail corridors, including through upgrading existing assets that are vulnerable to risks, enhancing networks to achieve greater redundancy, as well as building and maintaining networks to a higher standard where appropriate to create more resilient infrastructure following extreme weather events.

In light of the significant rail network disruptions in 2022-23, highlighting the challenges of operating and maintaining an ageing rail network, the Australian Rail Track Corporation is developing a long-term Network Investment Program. This Program projects forward to 2050 to set a five-year rolling investment plan, underpinned by climate and hydrological forecasting, as well as consultation with industry stakeholders.

The Review considers the refreshed Strategy should draw on and further progress the outcomes of the Road and Rail Supply Chain Resilience Review which was developed in consultation with industry and took a significant step in identifying the national key freight routes that are critical to the efficient movement of goods and are vulnerable to climate hazards.

Feedback from maritime stakeholders point to substantial challenges and opportunities in terms of supply chain resilience. The development of green energy projects, particularly offshore wind developments,

terrestrial green energy developments and fuel export facilities, is expected to place pressure on port footprints, channel capacities and landside connections. At the same time ports will be moving growing trade volumes. A coordinated, interjurisdictional port planning and infrastructure delivery framework was seen as a potential solution to ensure bottlenecks are avoided and the full advantage of economic development is realised.

Stakeholders raised the importance of ensuring regulatory frameworks provide necessary signals to transport and logistics systems to provide redundancy and surge capacity, and that this is provided in the right locations. This is a step away from traditional market driven, just-in-time models which seeks to minimise redundant capacity and expenditure. This was seen as a reflection of a more complex, variable and contested trade environment and an important lesson from the bottlenecks that arose during the COVID-19 pandemic.

The long-term protection of transport corridors and near-port industrial lands was raised by a number of stakeholders as a critical issue, with housing pressure in particular being seen as putting port operations at risk. The long planning timeframes for ports were flagged as needing consideration, with port corridors seen as an irreplaceable asset needing protection into the very long term. This was seen as important not only for trades such as containerised goods, but also for less frequent trade such as large infrastructure project components. Ensuring Australia's coastal cities and towns can receive these large items provides a broader economic resilience that retains opportunity for economic development that would not otherwise be available.

Within the supply chain, system interoperability and standardisation were seen as critical in increasing resilience. Initiatives such as the Maritime Single Window were noted and the importance of broad adoption and interoperability with other business systems and processes. Previous studies also noted issues with a lack of interoperability between systems in other segments of the supply chain, including for empty container parks.

Outside infrastructure considerations, the Review heard there are a number of other factors affecting the resilience of the sector, including fuel, energy, AdBlue, skilled workers, interoperability and data. Cyber-attacks on supply chains are also increasing. In fact, two-thirds of Australian organisations expect an increase in cybercrime⁴.

The Review notes the current Strategy acknowledges the importance of resilience for freight and supply chains:

*Australia's freight and supply chains need to build resilience to meet emerging issues associated with natural disasters and climate risk, security and cyber threats and increasing community demands to improve safety and environmental outcomes.*⁵

However, resilience is not included specifically in the Strategy's current goals or critical action areas.

A number of submissions called for resilience to either be a standalone goal in the refreshed Strategy, or included as a critical action area. The Review recommends a refreshed Strategy includes resilience more prominently by amending the existing goal of 'safe, secure and sustainable operations' to a goal of 'safe, secure and *resilient supply chains*.'

The Review further recommends resilience be included as a National Priority Action Area in the next National Action Plan.

⁴ PwC 2022 Digital Trust Insights Survey

⁵ Strategy at a Glance page of current Strategy: [National Freight and Supply Chain Strategy \(freightaustralia.gov.au\)](https://freightaustralia.gov.au)

Recommendation 1.ii

The Review recommends the refreshed Strategy include an updated goal of ‘safe, secure and *resilient supply chains*’, and for resilience to be strengthened in the body of the refreshed Strategy.

Areas to Strengthen in the Strategy

Skills and Workforce

Key finding: Freight and supply chain sectors continue to experience difficulties attracting and retaining appropriately skilled workers.

Freight and logistics workforce issues are not new, but are exacerbated by current labour market conditions. The unemployment rate is near record lows and labour demand has surpassed supply since the re-opening of the economy post the COVID-19 pandemic.

There were 3 recurring workforce issues identified by the Review:

- a low supply of appropriately skilled workers
- a poor perception of the sector by prospective employees
- a lack of diversity.

Some unique challenges were also identified, including:

- An aging workforce. The average age of a truck driver is around 48⁶, while the Aviation White Paper heard the average age of Aircraft Maintenance Engineers is 54.
- Workforce shortages are more severe in regional, rural and remote Australia. Interconnected issues contribute to these challenges, including the lack of housing and childcare availability, shortage of training facilities, trainers and assessors, and lack of good quality digital connectivity.

Solutions proposed in submissions generally fit into 3 categories:

- develop better skills, education and training pathways, including harmonisation of skills and training both within and between sectors
- improve workforce attraction and retention
- change and improve migration settings.

Stakeholders called for an assessment of skills gaps and future training needs. Submissions recommended an examination of why Australia’s skills system is not serving the needs of industry. Increased portability of qualifications across jurisdictions, increased allocation of Fee Free TAFE places and importing international training programs were recommended to improve skills pathways.

Stakeholders said industry has difficulty attracting and retaining appropriately skilled workers. Some submissions suggested the refreshed Strategy should support initiatives to improve the awareness, safety and wellness, perception, diversity and inclusivity of the sector to support attraction and retention. However, there was also agreement by stakeholders that industry should lead on improvements to workplace culture, diversity and attractiveness of the sector.

A number of submissions suggested changes to migration settings to increase the supply of skilled workers to the sector. It was argued current migration settings aren’t responsive enough to industry skills needs and sector-specific shortages need to be captured in any reform to migration policy.

⁶ Labour Market Insights: [Truck Drivers \(General\)](#) | [Labour Market Insights](#)

Governments across Australia are working together to implement skills and workforce reform. For example, Commonwealth, state and territory governments have jointly agreed to a new 5-year National Skills Agreement to ensure that the vocational education and training (VET) system provides high quality, responsive and accessible education and training to boost productivity, deliver national priorities and support Australians to obtain the skills and capabilities they need to obtain well paid, secure jobs. The agreement supports governments to work collaboratively while keeping flexibility to align local skills supply with demand.

The Australian Government has also established Jobs and Skills Councils (JSCs) to provide industry with a stronger voice to ensure Australia's VET sector delivers better outcomes for learners and employers. JSCs bring together employers, unions and governments in a tripartite arrangement to find solutions to skills and workforce challenges. The Government has established a national network of 10 JSCs to provide leadership to address skills and workforce challenges for their industries.

Now JSCs are fully operational, they can provide advice to Government on future skills needs and additional training required to meet these needs. This will provide a firm evidence base for use in broader Government planning and skills development.

The newly created JSC for the transport and logistics sector – Industry Skills Australia (ISA) – includes the freight and supply chain sectors of rail, maritime, aviation, transport and logistics and the emerging sectors of omnichannel logistics and distribution and space transport and logistics.

ISA is owned and led by industry, with funding from the Australian Government. ISA will identify skills and workforce needs for its sectors, map career pathways, develop contemporary VET training products, support collaboration between industry and training providers to improve training and assessment practice, and act as a source of intelligence on issues affecting their industries. A key function of ISA is to work with industry to undertake workforce planning. ISA will produce a workforce plan each year that will examine key workforce challenges and propose practical actions to target identified issues.

As part of its workforce plan, ISA will consider skills and workforce issues related to freight and supply chain, including those raised through this review, and incorporate appropriate strategies to help address workforce challenges.

Separate to the Government's skills reform, the department, through recent reviews, has identified a number of actions to address transport worker shortages. For example:

- The Strategic Fleet Taskforce Final Report made a number of workforce related recommendations which the Government has agreed to in full or in principle. These recommendations will be considered by ISA in the context of its Maritime Workforce Plan. The recommendations include:
 - better coordination between governments and industry on maritime training
 - a cadetship or similar scheme be established to provide financial assistance to organisations that provide training berths for cadets and trainees to complete mandatory sea time requirements for qualifications
 - the government mandate a minimum number of training berths be offered on each vessel in the strategic fleet per annum
 - exploring opportunities to better align Defence and civilian maritime training and qualifications.
- The Aviation White Paper will consider aviation specific workforce issues with a particular focus on the future skills needs of the sector.

The Review considered if skills and workforce should be a national priority action area in the refreshed Strategy, but decided against this recommendation for 2 reasons:

- The significant amount of work already underway, which will address many of the issues and recommendations suggested by stakeholders through the Review. The Review notes this work is in its infancy and the benefits will take time to realise.
- The Strategy sits within infrastructure and transport portfolios, meaning there are limitations to its ability to lead skills and workforce initiatives.

However, there is an opportunity to ensure the importance of skills and workforce is better reflected in a refreshed Strategy to reaffirm the commitment from governments this issue will remain a priority. The Strategy could also help drive discrete actions such as:

1. Promotion of work underway:
 - a. Transport and infrastructure departments across Australia have strong existing relationships with freight and logistics organisations. These relationships can be harnessed to promote the work of ISA.
2. Coordination of advice to ISA:
 - a. As referenced earlier, there are areas within the department which plan to harness ISA to help address workforce shortages. The Government's response to the Strategic Fleet Taskforce Report noted ISA 'is in its first year of operations and that implementation of [Strategic Fleet Taskforce recommendations] needs to be managed in line with [ISA's] ongoing establishment activities.' Coordinated advice will help support ISA to identify and progress the highest priority work.
3. Infrastructure and transport skills and workforce projects:
 - a. The department can harness the expertise of ISA, JWG, FIRP, and industry stakeholders to consider smaller projects the transport and infrastructure portfolios could lead and deliver, and to help drive more action with projects underway such as the work Austroads is progressing on heavy vehicle licencing.

The Review team will continue to consult across the department and with industry, JWG, ISA and the Department of Employment and Workplace Relations to ensure the refreshed Strategy supports (and doesn't duplicate) work already underway, and to further consider and refine discrete projects the infrastructure and transport portfolios could potentially deliver.

Recommendation 1.iii

The Review recommends the refreshed Strategy include an updated goal of 'a skilled, *portable* and adaptable workforce' and for skills and workforce to be strengthened in the body of the refreshed Strategy.

Productivity

Key finding: Productivity remains a key focus for industry and governments, and should be strengthened in the refreshed Strategy.

A number of submissions called for the refreshed Strategy to have a stronger focus on productivity, including calls to:

- Explore the role of technology, such as digitalisation, automation and electrification, in boosting productivity for example, implementation of a National Automated Heavy Vehicle Access System.
- Fund targeted productivity enhancing projects, such as fuel bunkering, improved last mile freight movements and infrastructure upgrades on key freight routes.
- Protect freight facilities and adjacent land with consideration of both evolving land use needs and incompatible urban encroachment.
- Adopt global data standards.

Productivity was a theme raised throughout the consultation process in different capacities, highlighting the complex nature of this topic. It was most often mentioned in conjunction with cost reduction techniques, interoperability and technological advances. A number of submissions also linked the need for resilient infrastructure, critical inputs such as AdBlue, and high-risk weather season preparedness as key supporting components of productivity for the sector.

A number of submissions called for productivity and safety to feature more prominently in the Strategy. However, unions in particular cautioned against the pursuit of productivity at the expense of other priorities such as worker safety.

The Review acknowledges the large amount of work already underway to improve freight sector productivity. In particular, the National Transport Commission's work on rail interoperability and harmonisation is seen as a key opportunity to improve productivity in the rail sector. Some participants also noted that the renewed focus on rail issues and attention at a national level through ITMM and National Cabinet is encouraging. A number of submissions pointed to other relevant pieces of work, such as the National Heavy Vehicle Regulator's Heavy Vehicle Productivity Plan and the Productivity Commission's report on the Maritime Logistics System. The Review notes work underway to implement a National Automated Access System for Heavy Vehicles also has the potential to significantly boost productivity of the Heavy Vehicle sector.

The Review heard there is a need for more consistent regulatory environments across jurisdictions. Some stakeholders raised the disconnect between different levels and divisions of government, and a lack of sophisticated understanding of regulatory constraints on the sector. This is causing inefficiencies, decreased productivity and unintended consequences including increased emissions, congestion, safety concerns and cost of living pressures.

For example, some of the examples raised included inconsistent approaches across jurisdictions to delivery curfews, axle weight restrictions and provision of rest areas and truck stops for drivers. Rail stakeholders specifically called out the need for greater harmonisation across jurisdictional regulatory settings which currently impact the rail sector. The Review considers it is appropriate to retain a goal of 'a fit for purpose regulatory environment' in the refreshed Strategy.

While it is a common theme discussed throughout the Strategy, productivity is not explicitly listed in the Strategy's overarching objectives or as a critical action area. The Review acknowledges the importance of productivity in an efficient freight system, and sees a need to strengthen the focus on productivity in the Strategy. The Review recommends:

- Productivity be included as a National Priority Action Area in the next National Action Plan, with tangible, nationally significant actions.
- The current goal be amended to: 'improved efficiency, productivity and international competitiveness'
- The current goal of 'innovative solutions to meet freight demand' be merged into the amended goal of 'improved, efficiency, productivity and international competitiveness'. This will keep the Strategy's goals at a small number of targeted goals, and will complement the new goal on decarbonisation.

Recommendation 1.iv

The Review recommends the refreshed Strategy include an updated goal of 'improved efficiency, productivity and international competitiveness'.

Land Use Planning and Industrial Land Use

Key finding: The needs of freight and logistics should be considered in land use planning.

The Review received numerous submissions and commentary from stakeholders representing all transport modes about the encroachment of incompatible land uses near contemporary and future freight corridors and facilities. Stakeholders called for greater consideration of the need for, and allocation of industrial land in their planning processes to ensure protection is provided for freight corridors in urban planning systems. To effectively support future freight demand, and to improve productivity and competitiveness, stakeholders are seeking assurances that industrial land and corridors are protected.

Stakeholders also called for land use planning considerations to be integrated into broader urban growth decision making including the need for greater consistency in applying land use policy and regulatory decisions across jurisdictions, as supply chains are interconnected and link our regions to export gateways. Consistency in land use policy across jurisdictions is also important as governments and industry consider longer term investments in strategic supply chain infrastructure.

Aviation stakeholders raised the issue of land preservation around major airports as essential to support on-airport freight activities. The integration of freight operations between airports and off-airport freight networks is a key consideration for state and local government land use planning activities. The Review received stakeholder feedback highlighting current challenges involving the alignment of land use planning activities across jurisdictions which can impact the efficiency and round the clock movement of freight at key transport hubs, including airports, ports and intermodal facilities.

Maritime stakeholders referenced the Productivity Commission's Inquiry Report *Lifting productivity at Australia's container ports: between water, wharf and warehouse*⁷, highlighting the findings that 'urban encroachment affects all major Australian container ports except Brisbane.' The report states that 'industrial land around some ports is gradually being redeveloped for higher value commercial and residential uses and this can create conflict with some port users.'

The report describes that 'by 2050 the containerised freight task is forecast to more than triple at the Port of Brisbane, nearly triple at the Port of Melbourne and increase by 2.5 times at Port Botany in Sydney'⁸ and that long-term land use and infrastructure planning is required to accommodate for this expected growth. While ports plan and invest in infrastructure to move goods between ports and the landside logistics system, governments have the primary responsibility for planning and investing in infrastructure beyond the port gate, involving both state and local government planning controls and decision making.

The [National Urban Freight Planning Principles](#) were developed by Commonwealth, state and territory governments, and industry, in response to industry calls for improved consideration of freight in transport and land use planning. The 7 Principles are:

- strategic freight movement planning
- safeguarding freight resilience
- facility planning
- efficient freight movements
- building and precinct design
- rest stops
- emerging technologies.

Integration of the National Urban Freight Planning Principles into the Strategy was suggested by a number of stakeholders as a mechanism for protecting freight and logistics land use activities. Promotion and targeted awareness of the Principles was also suggested by stakeholders as a way to raise awareness of the needs of freight among urban planners.

The Review notes the Australian Government has committed to deliver a new comprehensive National Urban Policy. The National Urban Policy will address urgent challenges facing our major cities – from equitable access to jobs, homes and services, to climate impacts and decarbonisation. It will bring together a vision for sustainable growth in our cities.

The Review notes jurisdictions reported on actions under the National Urban Freight Planning Principles for the first time in the Strategy's 2021-22 Annual Report. The Review recommends the National Urban Freight Planning Principles be reflected in the refreshed Strategy.

⁷ Lifting productivity at Australia's container ports: between water, wharf and warehouse, page 22

⁸ Lifting productivity at Australia's container ports: between water, wharf and warehouse, page 3

Recommendation 2

The National Urban Freight Planning Principles be reflected in the refreshed Strategy.

Interoperability

Key finding: A lack of interoperability, particularly in rail, is a major barrier to resilience and productivity.

Interoperability is referenced in the Strategy, but there has been a much stronger focus on the issue in recent years. Interoperability was not mentioned as regularly as decarbonisation or skills during the consultation process, but a number of stakeholders want the refreshed Strategy to better reflect the importance of interoperability.

Stakeholder consultation tended to reference interoperability as rail interoperability or multi-mode interoperability.

One stakeholder noted the lack or absence of interoperability across the country is the single most significant drain on productivity for the rail freight sector. Other stakeholders noted the lack of interoperability in the rail space not only hindered rail productivity, but impacted resilience, and contributed to skills and workforce issues.

Stakeholders from the rail and ports sectors had similar views on multi-mode interoperability. A number of submissions recommended Australia's supply chains needed to operate as a 'whole supply chain', with port, road and rail infrastructure all interconnecting. A 'whole supply chain' approach would support a more resilient and productive supply chain sector in Australia.

There is a role for governments to improve rail interoperability. Many rail stakeholders argued the different regulatory and operating requirements across jurisdictions hampered resilience and productivity. In saying that, improving rail industry interoperability is a National Cabinet priority. The work is being led by the National Transport Commission, with input from all jurisdictions under the Infrastructure and Transport Minister's Meeting work agenda. On 9 June 2023, infrastructure and transport ministers approved a 4-year work program to progress interoperability work streams for the National Rail Action Plan⁹. The workplan key deliverables are:

- Confirm the best mechanism for setting a small number of interoperability mandatory standards and complementary rules to make rail more competitive.
- Align train control and signalling technology deployment across Australia, starting with the eastern seaboard.
- Reduce the burden on drivers, crew, and maintenance workers to support interoperability through a consistent approach to rail skills training.
- Streamline rolling stock approval regimes and other regulatory burdens for rail operations.
- Deliver workforce solutions to meet future rail skills demand in Australia in the next 5 years.

As referenced in the resilience and productivity sections of the Review report, governments and industry are also focused on improving interoperability between freight modes. Outside of intermodals and rail, governments are progressing work to support easier operability for the heavy vehicle and maritime sectors.

⁹ The National Rail Action Plan is an agreed set of actions that will be undertaken by the Commonwealth, state and territory governments and key members of the rail industry. The plan aims to implement changes to improve delivery of rail infrastructure and improve the safety and productivity of rail operations

All governments have committed to establishing a single seamless National Automated Access System for heavy vehicles by 2026. The NAAS will largely replace the current manual system (of applying for permits from each road manager for heavy vehicle road access) with a system that produces instant, tailored network access maps for each applicant. It will be based on the Tasmanian Heavy Vehicle Access Management System (HVAMS). It will make decision-making on access quick, easy and consistent across jurisdictions, and will promote interoperability through providing the safest possible access for high-productivity freight vehicles.

The Maritime Single Window is a digital reporting platform that will simplify the exchange of mandatory information between industry and government agencies, while supporting the long-term digitalisation of the shipping industry. The Maritime Single Window aims to deliver on the Australian Government's agenda to increase efficiencies and streamline regulation. The development of a Maritime Single Window will also promote interoperability by standardising our trade business systems and processes.

Given the work already underway to address interoperability issues in the freight sector, the Review report does not recommend a new action in this space. However, there is an opportunity to ensure the importance of interoperability is better reflected in a refreshed strategy to reaffirm the commitment from governments this issue will remain a priority.

Recommendation 3

The Review recommends interoperability be expanded and strengthened in the refreshed Strategy to reflect the importance of the issue and to help progress the important work already underway.

Key Performance Indicators

Key finding: There is support for decarbonisation and resilience Key Performance Indicators (KPIs). A government and industry working group can help refine the KPIs, plus identify and develop further KPIs.

Developing KPIs to measure the performance of the Strategy has long proven difficult. KPIs were not included in the Strategy when it was developed in 2019; as the *Inquiry into Freight and Supply Chain Priorities Report* noted, there is a lack of robust performance measurement data to benchmark Australian supply chains across states and with international competitors.¹⁰

There has been progress to address these issues, including work undertaken by the FIRP and the National Freight Data Hub (NFDH). There will still be challenges in developing and implementing KPIs, but the refreshed Strategy and new action plan are an opportunity to help ensure the positive momentum continues.

The Review heard support for the refreshed Strategy to include KPIs measuring decarbonisation and supply chain resilience. The Review worked closely with a range of stakeholders (including industry, the FIRP, NFDH and the Bureau of Infrastructure and Transport Research Economics (BITRE)) to identify a small number of data-driven KPIs which can be reasonably implemented to measure the refreshed Strategy. The Review recommends the following initial KPIs and metrics:

1. **Resilience of the freight network**, including breakage points along transport corridors and movement of freight during severe weather disruptions.
 - a. As part of the Road and Rail Supply Chain Resilience Review, the department modelled the vulnerability of 65 identified key freight routes to major disruptions, including natural and

¹⁰ 2018 Inquiry into National Freight and Supply Chain Priorities Report, p.31

human induced disruptions. Regularly redoing this analysis could provide a measure of the rate of increasing or decreasing resilience over time.

- b. A resilience KPI would support the development of a key freight route climate resilience evidence base that could be used to assess the risks posed to key freight routes by climate events, and compare levels of resilience over time.

2. The rate of decarbonisation of the freight sector

- a. this KPI could consider overall emissions per unit of freight by mode.

As referenced above and detailed below, there remain challenges implementing KPIs for the Strategy. The Review recommends further work be undertaken to expand and refine indicators, identify and address data gaps and to consider other KPIs to measure the refreshed Strategy. To achieve this, the Review recommends establishing an industry/government working group. The working group's role would be to:

- Develop guiding principles to identify additional indicators and to support consistent data collection and the application of KPIs.
- Develop a data plan to more effectively capture and apply data, taking into consideration the commercial sensitivities of some industry data. The updated action plan will include a timeframe for this work to be delivered.

The working group will address the following issues heard through the review:

- further work between industry and governments is necessary to ensure we have the right data to measure the Strategy's success (further information on data needs is in the chapter below).
 - The FIRP's submission noted without appropriate data it will be impossible to measure progress of the Strategy against its objectives.
 - Data is also critical to guide decision making regarding investment, innovation, planning and other factors critical to delivering Australia's freight and supply chains.
 - BITRE noted there are currently challenges measuring productivity and decarbonisation. In particular, data sources for decarbonisation are in their infancy for freight. The Aviation White Paper also noted it is difficult to determine airfreight decarbonisation indicators as the bulk of freight is moved in passenger planes. However, the Review notes the refreshed Strategy and new action plan is an opportunity to harness industry and government willingness to look at ways to effectively capture decarbonisation data for freight.
- Many of the KPIs recommended through submissions are results based KPIs focused on industry performance. It is difficult to quantify how the Strategy influences industry performance as the causal relationship between them is unclear. The working group will consider indicators which measure the success of the Strategy rather than industry performance.

Consideration should be given to leveraging the Freight Data Hub Industry Advisory Panel and the expertise of the Freight Industry Reference Panel in taking this work forward.

Recommendation 4

The Review recommends:

- Resilience and decarbonisation KPIs be implemented to measure the refreshed Strategy.
- A government/industry KPI and data working group be established, with its actions to include (but not limited to):
 - developing guiding principles to identify additional indicators and to support consistent data collection and the application of KPIs
 - developing a data plan to more effectively capture and apply data to enhance the National Freight Data Hub and to support development of jurisdictional freight data products.

Data

Key finding: The NFDH has progressed good work to address data needs, but more needs to be done.

Good freight data is critical in supporting key performance indicators that will help track the progress and implementation of the Strategy as well as helping to guide investment decisions and identify areas for improvements and efficiency gains. Data will help track the progress of decarbonisation of the transport sector, resilience of key freight routes and productivity of the freight sector – areas that were a significant focus of many of the submissions to the Review.

The Strategy has delivered a key achievement in the data space with the establishment the NFDH under critical action area 4 of the current Strategy: ‘better freight location and performance data’. The NFDH’s aim is to capture, improve, standardise and share freight data which will in turn be used to improve the efficiency, safety, productivity and resilience of the freight sector.

Submissions broadly acknowledged the NFDH has been an important and welcome first step to improving freight data availability and quality. However, there is more work to be done to consolidate the NFDH and ensure its full potential is realised. It was noted there are challenges in the NFDH being able to access and collect data from industry and government. These include the lack of standardised datasets across industry (as referenced in the KPI section of the report), a lack of publicly available data and data sharing arrangements and the commercially sensitive nature of some industry data. There was also mention that there was no incentive for freight and logistics operators to provide data.

Without adequate industry data, the NFDH is limited in its capacity to provide industry and government with strong and useful metrics. Improved data sharing will ensure NFDH can produce additional and more complete datasets which will enhance investment and policy decision making for both governments and industry. The Review recommends a data plan be developed to more effectively capture and use data to support the ongoing resilience of the freight and supply chain sector (see recommendation 4). This work will enhance the NFDH and also enable freight data products across jurisdictions that contribute to the Strategy.

Proposed National Priority Action Areas

The Review heard a consistent view from a majority of stakeholders that governments had not effectively used the Strategy to drive meaningful change under the Strategy’s Critical Action Areas. Through consultation workshops and across multiple submissions the view expressed was that while over 350 actions were reported on in the annual report, these actions were often tangential to the objectives of the Strategy. A number of submissions called for industry to be consulted on how governments implement the Strategy; and for greater accountability of how projects are selected for reporting on in annual reports. The Review notes that to date, there has been no formal selection process for the inclusion of projects in annual reports and it has been the responsibility of individual jurisdictions to include projects they deem suitable in addressing the Strategy’s Critical Action Areas.

Under its Terms of Reference, the Review is asked to consider priorities for the next 5-year National Action Plan focussing on nationally significant actions for coordinated implementation across jurisdictions. Four key areas were consistently raised through consultations and submissions as being of higher significance for the freight and supply chain sector. The Review considers the following should be agreed by governments to be areas of focus for the next 5-year National Action Plan:

- decarbonisation
- productivity
- resilience
- data

Given these areas are broad in scope, the Review recommends governments and industry work together to identify specific actions for each National Priority Action Area. Working collaboratively will ensure actions are appropriately focused and will help build transparency around how projects are included in reporting.

In determining actions for inclusion in the next 5-year National Action Plan, consideration should be given to what is 'nationally significant'. The Review notes the recently announced Australian Government Infrastructure Policy Statement includes a definition of what characteristics land transport projects need to meet to be considered nationally significant. The Review considers it would be useful to for a similar approach to be taken to guide the inclusion of actions in the next National Action Plan under the Strategy. The Review recommends '**nationally significant**' be defined as those actions which would benefit from a multi-jurisdictional focus, rather than actions which can be delivered by a single jurisdiction and/or actions which require joint government/industry collaboration to realise. These actions should aim to achieve whole-of-network outcomes as much as possible. The Review recommends annual reporting against the new National Action Plan is focussed on these agreed, nationally significant actions.

Recommendation 5

The Review recommends the following areas be agreed as National Priority Action Areas, to replace the Strategy's current Critical Action Areas:

- decarbonisation
- productivity
- resilience
- data

Future Governance Arrangements

Key finding: The governance of the Strategy is sound, however Strategy's complex structure and lack of key performance indicators makes it difficult to identify responsibility and accountability.

The Review posed 2 key questions around the governance of the Strategy:

- Are the current governance arrangements appropriate to support the effective implementation of the Strategy going forward?
- What role, if any, should the FIRP have to support the implementation of the Strategy?

The submissions received were largely supportive of the current governance structure as being appropriate, or suggested similar structures. However, there were some concerns raised about the lack of clarity around the roles and responsibilities of each group in the current governance structure and how that has impacted progress under the Strategy.

The Review heard commentary that some of the issues facing the freight and supply chain sector were broader than the remit of infrastructure and transport ministers such as the lack of appropriately skilled workers, land use planning and protection of freight corridors. For this reason, there were suggestions that other ministers or groups should have a role in implementing actions such as ministers with responsibility for planning. Some stakeholders suggested more formal consultation mechanisms between jurisdictional transport agencies and other agencies are required, including agencies involved in planning, finance, and industry.

Some stakeholders told the Review that while the current governance structure outlines the roles and responsibilities of each group, it has not translated to sufficient oversight and driving of progress under the Strategy. There were a number of suggestions to remedy this, including industry having more input into the governance of the Strategy and that the Strategy should be a standing agenda item for either ITSOC or ITMM to help raise the profile of the Strategy and to drive progress.

There were also concerns raised that while freight and supply chain issues are nationally significant there is not sufficient visibility of these issues by National Cabinet. Some submissions called for the Strategy to be raised as an item for consideration by National Cabinet as a standing item, or for ITMM to report to National Cabinet, to ensure these issues are considered at the appropriate level. Some stakeholders identified and supported the model of rail interoperability being a National Cabinet priority and suggested this could be mirrored for the Strategy.

The Review considers the current governance arrangements under ITMM the most appropriate forum as these portfolio ministers are primarily responsible for a majority of issues affecting the freight and supply chain sector. However, the Review notes the Strategy is not currently one of the ITMM priorities which are:

- market capacity constraints affecting the construction industry
- improving interoperability of rail systems
- decarbonisation of infrastructure
- decarbonisation of transport
- heavy vehicle productivity
- road safety.

If the refreshed Strategy is focused on a smaller number of nationally significant actions, these could be elevated to ministers which will allow for better oversight and visibility by ministers through targeted annual reporting. With a reduced number of actions to monitor and implement, and the development of key performance indicators, it would be more straightforward to assign responsibility and accountability.

Some stakeholders called for funding incentives to drive compliance with the strategy and felt that a stronger relationship between funding and the delivery of the Strategy's objectives would achieve this. The Review considers funding of individual actions under the Strategy should be considered on a case by case basis and the success of the Strategy should not rely on separate incentives.

Freight Industry Reference Panel

At present, the FIRP's Terms of Reference explicitly state it is not a decision-making body but it provides feedback, encourages industry sponsorship of Strategy actions and comments on freight priorities at the request of ministers or senior officials.

There were a number of submissions that were unable to ascertain the value of the FIRP as it currently operates. A number of submissions suggested the FIRP should have an expanded role to be involved in the implementation, delivery and ongoing performance measurement of the Strategy. The Review notes that the FIRP's Terms of Reference were due to be reviewed every 2 years from initial endorsement, and while a review was commenced, it was not finalised prior to this Review commencing. The Review considers the FIRP's Terms of Reference should be comprehensively reviewed as part of refreshing the Strategy, and thereafter when future Reviews of the Strategy are conducted.

Some submissions also suggested membership of the FIRP needed be more representative of the freight and supply chain industry and that the FIRP should be provided with dedicated resourcing in the department to help with an expanded role.

Recommendation 6.i

The Review recommends the current governance arrangements be retained, with infrastructure and transport ministers to agree a refreshed strategy in 2024 and, pending that agreement, ministers to receive annual reporting under this refreshed Strategy from 2024-25.

Recommendation 6.ii

The Review recommends the FIRP's role be strengthened to better support the Strategy's implementation. New Terms of Reference, reflecting the FIRP's strengthened role, should be developed for infrastructure and transport ministers' consideration.

Related Work

As mentioned throughout the report, there is a range of related national work which will support freight and supply chain resilience, decarbonisation and workforce. The Review team will continue to consider this work when developing the refreshed Strategy to: identify gaps in other work and where new action plan can address these gaps; identify further opportunities for the Strategy to be leveraged to drive the national priorities; and to ensure the Strategy and other national priorities compliment.

Under the Review's Terms of Reference, the Review is required to consider the outcomes, findings or principles underpinning related work (refer Appendix B) including but not limited to:

- the reviews of Infrastructure Australia, Inland Rail and the Road and Rail Supply Chain Resilience Review
- work already underway to establish a Strategic Fleet and develop an Aviation White Paper and Infrastructure Policy Statement
- the National Reconstruction Fund's priority investment area of Transport.

The Review notes the report largely includes Australian Government led work and is not intended to be a comprehensive summary of all work being undertaken across governments.

Throughout the Review, stakeholders reinforced the importance of avoiding duplication, and many submissions referenced one or more of the above processes. Throughout these reviews and policy responses, there are clear themes which are consistent with the feedback received through this review process. These themes include:

- decarbonisation and emissions reduction of the transport sector
- infrastructure investment
- urban planning
- resilience
- sustainability
- efficiency and productivity
- skilled workforce
- emerging technologies.

The Review considers many of the submissions received provide useful views and information which should inform and complement these other processes. Consistent with the Australian Privacy Principle 5 Notice on the department's Have Your Say webpage, relevant submissions have been shared across the department in order to support the 'tell us once' approach.

Appendices

Appendix A: Stakeholder Engagement

The Review was announced by the Australian Government Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Catherine King MP, on 16 August 2023.

The Department of Infrastructure, Transport, Regional Development, Communications and the Arts held an introductory webinar on 28 August 2023.

Minister Catherine King hosted a Land Transport Industry Roundtable with key industry and union stakeholders on 30 August 2023.

A series of 6 consultation workshops were conducted in partnership with the Australian Logistics Council, involving 2 online and 4 face-to-face sessions.

Date	Engagement Type	Approximate Number of Industry Stakeholders
28 August	Introductory Webinar	16
30 August	Land Transport Industry Roundtable	70
19 September	Consultation Workshop – Perth	14
21 September	Consultation Workshop – Online	10
27 September	Consultation Workshop – Melbourne	23
28 September	Consultation Workshop – Brisbane	9
28 September	Consultation Workshop – Online	38
3 October	Consultation Workshop – Sydney	23

The Review thanks the following state departments for hosting the face-to-face consultation workshops:

- Western Australian Department of Transport
- Freight Victoria – Department of Transport and Planning
- Queensland Department of Transport and Main Roads
- Transport for NSW

In addition to the above, bilateral meetings were held with peak bodies, government and interested stakeholders.

Consultation Workshop Attendees

Workshop	Stakeholders who registered attendance
Perth	Aurizon
	CBH Group
	Centurion
	Coles
	Department of Jobs, Tourism, Science and Innovation (WA)
	Department of Planning, Lands and Heritage (WA)
	Department of Primary Industries and Regional Development (WA)
	Department of Transport (WA)
	Freight and Logistics Council of WA

	Independent Food Distributors Australia (IFDA)
	Main Roads WA
	Matt PB Consulting
	Mid-West Ports Authority
	Perth South West Metropolitan Alliance
	Pleiades Consulting
	Public Transport Authority
	SITE Planning and Design
	Startrack – Australia Post
	Watco Australia
	Western Roads Federation
Online Workshop 1	Accenture
	Australian Food and Grocery Council (AFGC)
	Australian Rail Track Corporation (ARTC)
	Chamber of Minerals and Energy of Western Australia
	Coles
	Extract Industry NT
	HERE Technologies
	HVIA
	LOGOS Property
	National Transport Insurance
	Ports Australia
SA Freight Council	
Melbourne	Accenture
	Australia Post
	Australian Rail Track Corporation (ARTC)
	Container Transport Alliance Australia
	Freight Trade Alliance
	Graingrowers
	GS1
	Kilgariff Advisory
	Linfox
	Maribyrnong City Council
	National Transport Research Organisation (NTRO)
	One Road
	Origin Energy
	Patrick Terminals
	Port of Melbourne
Smedley Technical and Strategic	
TOLL Group	

	University of Melbourne
	Victoria International Container Terminal
Brisbane	Accenture
	Aurizon
	Australian Rail Track Corporation (ARTC)
	CHEP
	Department of Transport and Main Roads (QLD)
	Freight Trade Alliance
	GS1
	National Transport Research Organisation (NTRO)
	QLD Transport and Logistics Council
	Volvo Group
	ALGA
	Alinta Energy
	AMIC
	ARC Infra
	ARTC
	Australian Food and Grocery Council (AFGC)
	Bechtel
	Canning, WA Gov
	Cement
	CMA, CGM
	Coles
	CSR
Online Workshop 2	DP World
	ECU
	Inform Software
	Infrabuild
	KY Valley Dairy
	Linfox
	Luckens
	NFF
	NTSC
	Port of Brisbane
	Ports Australia
	QUBE
	Rail Systems Australia
	University of Sydney
	WA Gov Transport

	WA MainRoads
	Web Fleet
	WSACO
Sydney	ABB Australia
	Accenture
	Amazon
	Arcadis
	Australian Rail Track Corporation (ARTC)
	Blue Arcadia
	Booktopia
	Coco-Cola Europacific Partners (CCEP)
	Freight Industry Reference Panel (FIRP)
	Infrastructure Partnerships Australia
	Metcash
	National Intermodal
	Namoi Cotton
	NSW Ports
	Rail, Train and Bus Union
	Shipping Australia Ltd.
	Team Global Express
	University of Wollongong
Webfleet Solutions	
Woolworths / Primary Connect	

Consultations with Government Agencies

In addition to the 6 consultation workshops, the Review team held an additional consultation workshop with relevant Australian Government departments and agencies to discuss the review of the Strategy. The agencies that attended the workshop include:

- Australian Border Force
- Australian Small Business and Family Enterprise Ombudsman
- Department of Agriculture, Forestry and Fisheries
- Department of Climate Change, Energy, the Environment and Water
- Department of Education and Workplace Relations
- Department of Health and Aged Care
- Department of Home Affairs
- Department of Industry, Science and Resources
- National Emergency Management Australia
- National Indigenous Australian Agency

The Department also held bilateral meetings with the following government agencies:

- Australian Local Government Association
- Department of Education and Workplace Relations
- Department of Transport and Planning Victoria
- Food and Grocery Group (TISN)

- National Reconstruction Fund (Department of Industry, Science and Resources is the policy lead)
- Transport for NSW
- WA Department of Transport

Bilateral Meetings

The department held a number of bilateral meetings over the public consultation period with key targeted stakeholders. The bilateral meetings are as follow:

- Australasian Railway Association
- Australian Logistics Council
- Australian Trucking Association
- Freight on Rail Group
- National Heavy Vehicle Regulator
- NSW Ports
- National Transport Commission
- Ports Australia
- Industry Skills Australia

Jurisdictional Working Group

Consistent with the Review’s Terms of Reference, the Review was conducted by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts in collaboration with state and territory governments. The JWG met on Tuesday 10 October 2023, Thursday 2 November 2023 and Thursday 16 November 2023 to discuss the Review and report.

Submissions

The Review received 71 submissions.

The following organisations and individuals made submissions to the Review. Publicly available submissions can be found on the department’s Have Your Say webpage <https://www.infrastructure.gov.au/hys-nfscs>. Submissions marked * were provided to the Review on a confidential basis and have not been published. *Organisations that provided a confidential submission gave permission to be listed in the appendix.*

Author – in alphabetical order
Aurizon*
Australasian Railway Association and Freight on Rail Group (ARA and FORG)
Australia Post
Australian Airport Association (AAA)
Australian Food and Grocery Council (AFGC)
Australian Logistics Council (ALC)
Australian Rail and Track Corporation (ARTC)
Australian Small Business and Family Enterprise Ombudsman (ASBFEO)
Australian Trucking Association (ATA)
Ben Blackburn Racing
Business Council of Australia (BCA)
Cambridge Gulf Limited
CBH Group
Cement Industry Federation

Climateworks Centre
Department of Transport and Main Roads (QLD)
DP World
Ernst & Young (EY)
Freight and Logistics Council of WA
Freight and Trade Alliance (FTA)
Freight Industry Reference Panel (FIRP)
Gascoyne Gateway
Glenelg Shire Council
Grain Trade Australia
GrainGrowers
Green Triangle Freight Action Plan Implementation Monitoring Group
GS1 Australia
Heavy Vehicle Industry Australia (HVIA)
HERE Technologies
Indian Ocean Territories Regional Development Organisation and Christmas Island Business Assoc
Individual - Dr Phillip Laird
Individual - Edward Barnett
Individual - Eric Wilson
Individual - K Edwards
Infrastructure Australia*
Infrastructure Partnerships Australia
Intermodal Terminal Company*
Mainroads WA
Maritime Industry Australia Ltd (MIAL)
Maritime Union of Australia (MUA)
Medicines Australia
Mildura Regional Development
Mov3ment*
National Farmers Federation (NFF)
National Heavy Vehicle Regulator (NHVR)
National Intermodal
National Transport Research Organisation (NTRO)
NatRoads
NSW Farmers
NSW Ports
NT Dept of Infrastructure, Planning and Logistics
Pacific National
Port of Melbourne
Port of Newcastle

Ports Australia
Qube
Queensland Transport and Logistics Council (QTLC)
Property Council of Australia*
Rail Freight Alliance
Rail Futures Institute
Rail, Tram and Bus Union (RTBU)
RDA Tasmania
Remote Food Security Working Group*
Shipping Australia Ltd*
South Australian Freight Council (SAFC)*
The Municipal Association of Victoria (MAV)
Toll Group
Toyota
Transurban
University of Melbourne
Woolworths Group

Appendix B: Summary of Government Reviews, Strategies and Plans

Under the Review's Terms of Reference, the Review will consider the outcomes, findings or principles underpinning related work, including but not limited to:

- the reviews of Infrastructure Australia, Inland Rail and the Road and Rail Supply Chain Resilience Review
- work already underway to establish a Strategic Fleet and develop an Aviation White Paper and Infrastructure Policy Statement
- the National Reconstruction Fund's priority investment area of Transport.

The Review notes there is significant work underway in relation to these priorities. An overview of these areas of work is provided below.

Infrastructure Policy Statement

The Infrastructure Policy Statement (IPS) was released on 14 November 2023 and defines the Australian Government's role, objectives and expectations for significant investment in land transport projects.

The IPS states the Government's commitment to delivering nationally significant infrastructure, which is defined as projects that either have a minimum Australian Government contribution of \$250 million, align to the priorities articulated in the IPS, is part of the National Land Transport Network, and or supports other emerging or broader national priorities.

Moving forward, the Australian Government's investment in land transport infrastructure will focus on three strategic themes: productivity, sustainability and liveability.

The IPS will support strategic decision making by prioritising investment proposals that are supported by evidence, long-term strategic plans and robust business cases.

A revitalised Infrastructure Australia, which will contribute its expertise to appraise projects as part of the Government's Budget process, will also be involved in delivering this approach.

Infrastructure Australia Review

The Australian Government announced an independent review of Infrastructure Australia (the Review). The Review was commissioned to consider Infrastructure Australia's role as an independent adviser to the Commonwealth on nationally significant infrastructure priorities and advise on what changes may be needed to Infrastructure Australia's focus, priorities and, if necessary, legislation.

The Review made 5 key findings, 16 recommendations and provided one consideration to Government.

The Government's response to the Review was published on 8 December 2022. Of the 16 Review recommendations made, the Government stated that it supported 7, supported 5 in principle and supported 4 in part.

On 22 March 2023, the Minister for Infrastructure, Transport, Regional Development and Local Government introduced the Infrastructure Australia Amendment (Independent Review) Bill 2023 (the Bill) in the House of Representatives, and tabled an Explanatory Memorandum.

The Bill will amend the *Infrastructure Australia Act 2008*, which establishes Infrastructure Australia as a Commonwealth statutory corporation. The Bill seeks to redefine Infrastructure Australia's principal purpose and functions, and to establish a new governance structure.

The Bill was passed by both Houses of Parliament on 6 December 2023.

Infrastructure Investment Program Strategic Review

The Australian Government conducted an independent Strategic Review of its investments across Australia through its Infrastructure Investment Program (IIP) and announced actions it would take in response to the findings on 16 November 2023.

The purpose of the Strategic Review was to:

- assess projects (not yet under construction) funded under the IIP and make recommendations on the merits of projects continuing
- make recommendations for transitioning the IIP to a sustainable 10-year rolling pipeline that targets appropriately costed, nationally significant infrastructure projects
- make recommendations on reforms to ongoing and terminating infrastructure investment sub-programs
- consider other relevant projects or matters.

The key finding of the Independent Strategic Review was that the national pipeline of land transport infrastructure projects was congested, unaffordable and was contributing to unsustainable pressures on construction materials and skilled labour. Furthermore, it found that if the current situation continued, the Government would not have the capacity to add any new projects to the infrastructure pipeline until the year 2033. It identified projects with funding that did not demonstrate merit to continue, lacked strategic rationale and did not meet national investment priorities. The Review report and [Executive Summary](#) provided 15 recommendations suggesting significant reforms to how the IIP is managed.

In response to the Independent Strategic Review, the Australian Government took decisions as part of 2023-24 MYEFO to ensure the pipeline remained within its existing \$120 billion funding envelope, and the projects were deliverable and aligned to Government priorities. The Government announced [key project outcomes for the IIP](#) in November 2023.

Independent Review of the National Partnership Agreement on Land Transport Infrastructure Projects

An Independent Review of the National Partnership Agreement (NPA) on Land Transport Infrastructure Projects was completed in September 2023. The review considered the extent to which elements of the NPA have worked well, which elements could be improved and what opportunities could be pursued in negotiating a replacement agreement.

The review made recommendations relating to improving priority setting to ensure strategic alignment, reviewing relevant legislation, and improving governance, risk, reporting and financial management. The final report of the [Independent Review of the National Partnership Agreement on Land Transport Infrastructure Projects](#) was published on 16 November 2023.

The outcomes from this review and the IIP Strategic Review will help to inform negotiation of a new Federation Funding Agreement Schedule to replace the NPA from 1 July 2024.

Inland Rail

The Minister for Finance and the Minister for Infrastructure, Transport, Regional Development and Local Government appointed Dr Kerry Schott AO on 7 October 2022 to assess the planning, governance and delivery of the Inland Rail project. Dr Schott's report, *The Delivery of Inland Rail: An Independent Review*, identified issues relating to the management, cost and schedule of the project, making 19 recommendations to improve the delivery of Inland Rail.

Inland Rail remains an important national project to meet Australia's growing freight task, improve road safety and to help decarbonise the economy. The Australian Government is taking a staged approach to the construction of the project with the southern section, between Beveridge in Victoria and Parkes and Narromine in New South Wales to be completed in 2027. A number of stakeholders' comments included the recognition of Inland Rail as an important part of this country's interconnected freight logistics infrastructure future and the need for resilience in supply chain networks.

Stakeholders also wanted assurance that appropriate industrial lands were protected on the Inland Rail corridor to support access and regional growth as further stages of the project are delivered. The Government, in responding to Dr Schott's Review, has agreed to recommendation 19, recognising the importance of regional development and committing to work with its state counterparts to focus on maximising the benefits of the project in the areas through which it passes.

Stakeholders also referenced the Inland Rail project in their submissions and acknowledged the opportunities Inland Rail will have on Australia's decarbonisation efforts.

The Review report recommends decarbonisation as a new goal, and for resilience and skills to be strengthened in the refreshed Strategy. Delivery of Inland Rail will help support decarbonisation and resilience of Australia's freight sector, while addressing skills and workforce issues in the transport sector will similarly support delivery of Inland Rail.

The Inland Rail project was included in the National Action Plan developed in 2019 under Action 1.1: Ensure that domestic and international supply chains are serviced by resilient and efficient key freight corridors, precincts and assets and will remain a focus for government.

Road and Rail Supply Chain Resilience Review

Phase one of the Road and Rail Supply Chain Resilience Review was developed in consultation with industry and took a significant step in identifying the national key freight routes that are both critical to the efficient movement of goods, and vulnerable to climate hazards. The report presented BITRE's findings and was released in February 2023.

The report:

- Identified 8 road and 5 rail routes that are critical for freight movements, and that have high or very high levels of vulnerability to a range of hazards.
- Found that supply chains in north and central Australia are most vulnerable to climate risks, with flooding the highest risk due to its likelihood and potential to disrupt supply chains across large areas.

Strategic Fleet Taskforce

The Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Catherine King MP, released the Maritime Strategic Fleet Taskforce (Taskforce) report and the Australian Government's response on 8 November 2023.

The Government is committed to delivering a strategic fleet that will help Australia build resilience to freight disruptions and support Australia's sovereign capabilities. The fleet will comprise up to 12 privately owned and commercially operated Australian flagged and crewed vessels that can be requisitioned by Government in times of national crisis and emergency.

The strategic fleet will help Australia by providing a range of shipping capabilities that could service domestic and international trade for the transportation of essential goods.

The Taskforce's report explored the current maritime landscape and what a strategic fleet can mean for Australia, while giving guidance on how to establish the fleet, overcome key challenges and attract vessels to take part. The Taskforce found that there are strategic freight needs where a strategic fleet of 12 vessels could

have material impact including responding to supply chain disruption events, supporting sovereign industries and assisting Defence. The strategic fleet will also contribute to non-freight strategic needs including development of Australia's maritime workforce.

The Taskforce's advice and recommendations were informed by research, analysis, and broad stakeholder consultation across the maritime industry.

The Government agreed or agreed in principle to 12 of the 16 recommendations in the report, and commits to further exploration of the remaining 4 recommendations. The Government will implement recommendations and seek to establish the fleet as quickly as possible.

Aviation and the Aviation White Paper

Aviation is referenced in the current Strategy as part of transport multiuser networks which carry some of Australia's highest value freight. However, air freight only accounts for 0.1% of the national freight task by volume. This low market share may be the reason why only one aviation industry submission was provided to the Review. Equally, the Review notes the significant amount of work underway to deliver the Aviation Green and White Papers.

The Aviation White Paper will explore the likely future trends in aviation over the period to 2050 and articulate long-term policy directions to set the scene for the next generation of growth and innovation in the aviation sector.

National Reconstruction Fund Corporation

The Review notes the National Reconstruction Fund Corporation (NRF) was established on 18 September 2023 and is still currently in its set-up phase, including developing formal processes to evaluate financing proposals.

The NRF can invest in 7 priority areas of the Australian economy by providing finance in the form of debt, equity and guarantees to support Australian projects that drive high-value industry transformation.

The NRFC will enhance Australia's resilience by strengthening local manufacturing capabilities, improve Australia's ability to capture value adding opportunities, create secure jobs and support the commercialisation of Australian innovation and technology.

The Australian Government has committed \$15 billion to establish the NRF to facilitate investment that will help reinforce supply chains and support the development of strategically important industries through targeted investments in the following priority areas:

- renewables and low emissions technologies
- medical science
- transport
- value-add in the agriculture, forestry and fisheries sectors
- value-add in resources
- defence capability
- enabling capabilities

The Review notes there are opportunities for further collaboration between industry, the Department of Industry, Science and Research and the Department of Infrastructure, Transport, Regional Development, Communications and the Arts to develop the transport co-investment plan. These plans will identify high-level investment opportunities and broader reforms to support growth across priority areas.