



MODAL SHIFT

JULY 2022



About four billion tonnes of goods are delivered across Australia each year – 163 tonnes of freight for every person.ⁱ

In 2020-21, 230 tonne kilometres (TKM) of non-bulk freight was moved using road freight, compared with 111.9TKM moved on rail.ⁱⁱ

Infrastructure Australia has observed growing congestion on roads and railways effects the timeliness and costs to moving freight – a problem only set to worsen with the forecast doubling of Australia’s freight task over the next 20 years.ⁱⁱⁱ

One train can carry as much cargo as 54 trucks and that increasing rail freight would meet predicted demand for, and efficiency of, freight movements, improve congestion, particularly on urban roads and have environmental impacts.^{iv} This underpins the importance of encouraging modal shift for the movement of freight, from road to rail.

A key way that this outcome can be supported is the continued development of Inland Rail. This project holds the promise of moving freight from Melbourne to Brisbane in 24 hours, which could increase the amount of freight moved between Melbourne and Brisbane from 30 percent by rail to 60 percent by 2050.^v

The construction of Inland Rail, which is already underway, is expected to link the Port of Melbourne to the Port of Brisbane. The possibility of providing efficient rail linkages to the ports of Botany, Port Kembla and Newcastle in New South Wales is notable.

Inland Rail will drive modal shift to achieve greater use of rail freight services and help the sustainability of the Australian supply chain through lower emissions, improved safety outcomes and less congestion across the road network.

Recent CSIRO mapping suggests that switching intermodal freight from road to rail can achieve estimated savings of \$90 per tonne (a 44 percent reduction) in the unit cost of transport for freight moving between Melbourne and Brisbane.^{vi} This underlines the importance of developing an intermodal policy for Australia.

The creation of the National Intermodal Corporation to support the delivery of intermodal terminals in Melbourne and Brisbane to maximise the efficiency is a good start. It has been noted that intermodal hubs play a critical role in the freight supply chain – irrespective of whether the destination point is a seaport, inland port or airport, they are key to the efficient movement of goods around Australia.^{vii}

This will become an even more urgent task as businesses reinforce their supply chains through changing from ‘just in time’ to ‘just in case’ inventory systems – bringing goods closer to market so as to manage the risk of having vulnerable supply chains break down, as has recently occurred.^{viii}

Recommendations

1. Inland Rail should be completed, with a design permitting the movement of goods between the Port of Melbourne and the Port of Brisbane within 24 hours.
2. The Australian Government should urge the Queensland Government to advance the next stage of analysis for a link to the Port of Brisbane to confirm the preferred

alignment and begin the planning and approval process. This needs to include all necessary corridor and land acquisitions.

3. The Australian Government should ensure there is an appropriate equity investment into National Intermodal Corporation that will:
 - a. Facilitate the efficient end-to-end operation of Inland Rail, from the Port of Melbourne to the Port of Brisbane
 - b. Allow investment in intermodals and programs that will facilitate the movement of freight on rail rather than road to improve the resilience of other supply chains located in Australia.
4. The Australian Government should continue to support initiatives that encourage the shift in mode from road to rail. This includes:
 - a. The continued development of the Victorian Port Rail Shuttle Network
 - b. The goal of increasing the share of rail freight at Port Botany to 28 per cent, as contained in the Transport for NSW Freight and Ports Plan 2018-2023.

About Inland Rail

What

The Inland Rail project is a new freight rail network between Melbourne and Brisbane, via regional New South Wales and Queensland. This connection will ultimately become the 'backbone' of the national freight network, improving efficiency, safety, and reliability by delivering competitive freight services, to meet the nations increasing freight challenges.

Currently, road freight transport is the most economical option to move freight across the vast distances, between ports and to the various last mile destinations. Rail freight and Inland Rail is not a replacement of road freight, it is complimentary – particularly in our growing freight task. Road freight remains a critical element of the transport supply chain.

The Inland Rail network aims to meet national transport needs by providing a 24-hour transit time between Melbourne and Brisbane with 24/7 operation. The proposed network will meet this challenge by increasing efficiency through double stacking, allowing a 7.2 metre clearance along the entire length of the rail corridor, accommodating for heavier axle loads, and the introduction of advanced train management systems making for a safer, more reliable and more efficient service. The proposed route bypasses the Sydney rail network, reducing delays and transit time. The network will be much straighter than the existing route via Sydney, allowing trains to maintain higher average speeds of 115km/h, whilst also using less fuel. The proposal ensures 98% reliability in the delivery of freight and boasts availability in line with market needs.

Why

Inland Rail has long been considered a critical piece of infrastructure that Australia needs, in order to meet the increasing freight challenges, particularly along the north-south corridor. The proposal of this freight network is fundamentally based upon improved efficiency, availability, and reliability of the movement of freight around our nation and will provide important development opportunities for regional Australia. The movement of freight along this network will be competitively priced with road freight.

The Inland Rail network boasts the ability to meet the growing desire for flexible services, having the capacity to accommodate faster, lighter services and slower, heavier services, whilst still preserving the 24-hour transit time. The flexibility of

services offered by the Inland Rail will be complemented by the connectivity of this network, providing connections to all existing rail networks in Victoria, New South Wales and Queensland. The network will deliver a single standard gauge connection across five states to Australia's busiest ports.

Where

The new rail corridor will span from Melbourne to Brisbane, circumventing the congested Sydney rail network and passing through regional New South Wales and Queensland. It will link capital cities and major centres along the east coast, regional New South Wales and South East Queensland to key regional and metropolitan ports. The creation of new networks will ultimately open up businesses to new and existing domestic and export markets.

A key element of this project is the importance of connecting the Port of Melbourne and Port of Brisbane, as well as linking with the mines of South East Queensland, in order to enhance the quality, efficiency and reliability of freight movement between these key terminals.

The proposed network will utilise much of the existing interstate rail networks throughout Victoria and Southern NSW, upgrading approximately 400km of tracks, as well as creating approximately 600km of new networks throughout Northern NSW and South-East Queensland.

Who

The Australian Government have committed \$14.5 billion to the development of the Inland Rail project and Australian Rail Track Corporation (ARTC) has been appointed to deliver the program.

The Government and ARTC have consulted customers, rail users and key stakeholders regarding the development and implementation of this project and will continue to do so throughout the planning and construction stages as it develops its strategy. The Inland Rail Alignment Study in 2010 and Stakeholder Reference Group Forums in May and October 2014 were established in order to consult those with a vested interest in this project. These results of these forums further accentuated the need for flexibility, interoperability and clearly stated the target for reliability.

When

Work has started and in some sections been completed on the Inland Rail, and work continues. Inland Rail traverses 1,700km across three different states and has been split into 13 individual projects. Each section has completion timelines and will progress as per the schedule, The Parkes to Narromine section in New South Wales was commissioned in late September 2020 and is now operational.

ⁱ <https://www.freightaustralia.gov.au/what-is-the-strategy/why-we-need-action>

ⁱⁱ <https://www.bitre.gov.au/sites/default/files/documents/Bitre-yearbook-2021.pdf> Table 4.1b: 81

ⁱⁱⁱ <https://www.infrastructureaustralia.gov.au/sites/default/files/2019-08/Australian%20Infrastructure%20Audit%202019%20-%205b.%20Freight%20Transport.pdf>: 339

^{iv} As indicated in the NSW Auditor-General's report *Rail Freight and Greater Sydney* (2021): 13 -

https://www.audit.nsw.gov.au/sites/default/files/documents/Rail%20freight%20and%20Greater%20Sydney_0.pdf

^v http://www.artc.com.au/library/IRAS_Final%20Report.pdf: 60

^{vi} <https://www.inlandrail.gov.au/sites/default/files/documents/Inland%20RailSupply%20Chain%20Mapping%20Key%20Findings.pdf>: 4

^{vii} <https://www.theaustralian.com.au/special-reports/a-freight-revolution-is-unpacked-as-intermodal-hubs-enter-the-chain/news-story/423ecd219407864ebee2797451c67aa9>

^{viii} 28% of respondents to the AI Group *Australian Supply Chain: State of Play* Australian CEO Survey 2021-2022 indicated that building up inventories was their number one plan to ensure inputs are available and in stock when needed to improve the reliability and resilience of their supply chain: https://www.aigroup.com.au/globalassets/news/reports/2021/supply_chains_state_of_play_dec2021.pdf: 9