



# *FASTRACK AUSTRALIA*

## *Summary*

*October 2023*

# Fastrack Australia

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Fastrack Australia is a not-for-profit association promoting the concept of high-speed rail in South-East Australia.

It operates on a volunteer basis and receives no funding from government or the private sector.

Our approach differs somewhat from earlier proposals in terms of

- Objectives
- Staging
- Services
- Route Details.

Fastrack has produced a range of reports on why high-speed rail is needed, and how it can be implemented.

Fastrack is now engaging in a campaign to improve awareness of these issues with the public and with key decision-makers.



# Key Benefits

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The key benefits from implementing High-Speed Rail are:

- **Enabling more equitable access** to employment, health, education and other services for people outside our three largest capital cities.
- **Addressing key problems** of housing affordability, congestion and the high costs of infrastructure, which originate in the over-concentration of our population in Sydney, Melbourne and Brisbane.
- **Helping decarbonize** both passenger and freight transport by shifting demand from road and air transport to electrified rail using renewable energy.



# High-Speed Rail for Australia



Presentation to Engineers Australia, Southern Highlands

25 May 2023

Dr Garry Glazebrook



www.fastrackaustralia.net

# Key Fastrack Reports

## Summary Presentations

- The Case for High-Speed Rail in Australia Jan 2023
- High Speed Rail in the Sydney-Melbourne Corridor Feb 2023
- High Speed Rail for Australia May 2023

## Major Reports

- High Speed Rail: A New Approach Jan 2021
- Population Trends and Decentralisation Options Jan 2021
- High Speed Rail for Regional Growth in Australia May 2021
- Implementation Plan for High-Speed Rail Jan 2023
- High-Speed Rail for Canberra and the Capital Region May 2023
- Freight and High-Speed Rail. June 2023
- Governance for High-Speed Rail October 2023
- High Speed Rail Through Sydney November 2023

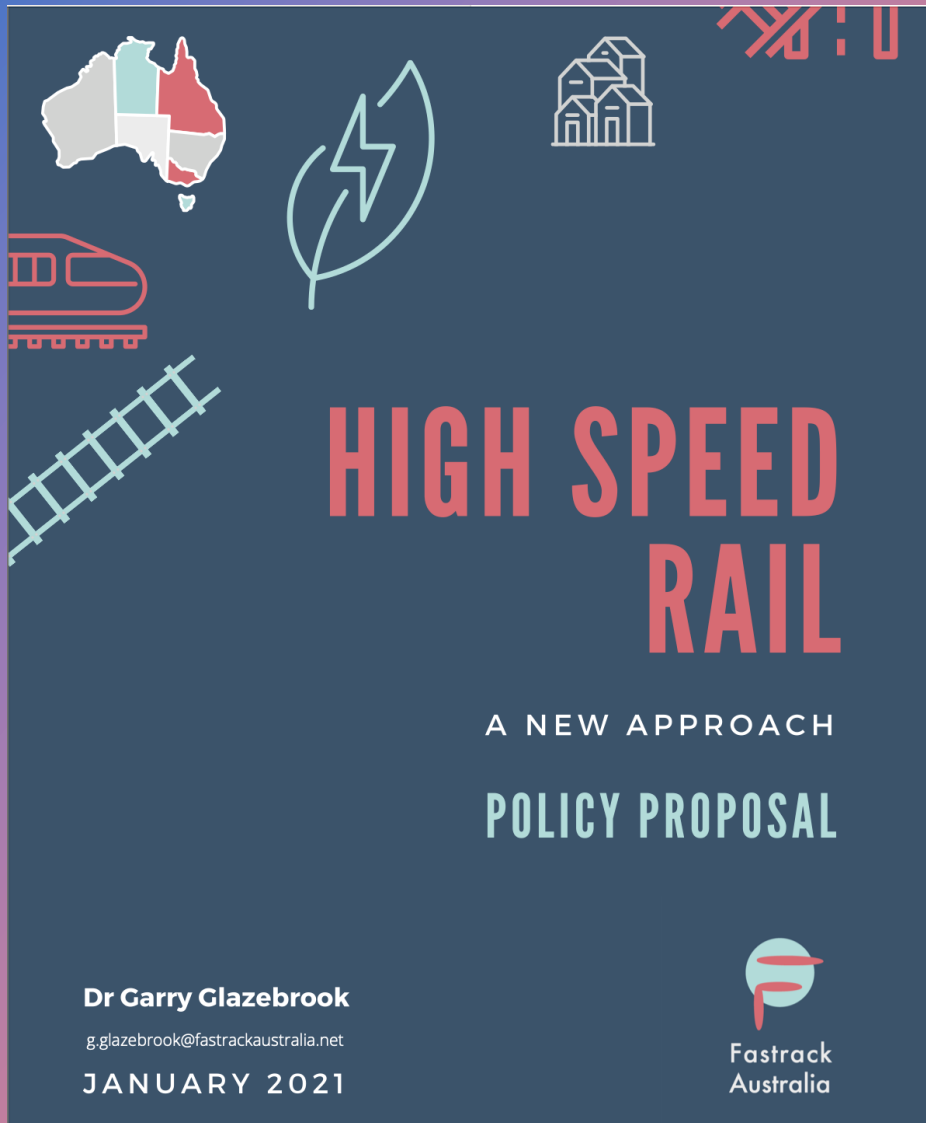
A summary of the major reports is provided in the slides below.

## HSR Database

This is an up-to-date searchable database providing references to over 500 articles on high-speed rail and related developments from around the world. All reports, presentations and the database are available for free download from [www.fastrackaustralia.net](http://www.fastrackaustralia.net).

### HIGH SPEED RAIL DATABASE

Date	Country	Topic	Details
2023-10	Australia	Population	Sydney and Melbourne to need 1.3 million homes by 2040
2023-10	Canada	HSR - Developments	EoI for development of Toronto-Quebec High Frequency Trains
2023-10	Spain	HSR - Developments	Article on high-speed rail in Spain.
2023-10	USA	Driverless Trucks	Trials in US for operating driverless trucks
2023-10	Global	Post COVID - remote working	Trends in working from home and response by employers
2023-10	Austria	Sleeper Trains	Details of first of 33 new "Nightjet" Trains ordered by Austria
2023-10	France	HSR - Rollingstock	Alstom 5th Generation TGV undergoing tests
2023-10	Indonesia	HSR - Lines	Jakarta - Bandung HSR Line Opened
2023-10	Italy	HSR - Rollingstock	Italy buys hydrogen powered regional trainsets
2023-10	UK	HSR - Funding	HSR2 link to Manchester Cancelled
2023-10	Baltic States	HSR - Developments	Construction underway on 870km Rail Baltica HSR line
2023-10	UK	Rail Freight - Major Innovation	Development of Dual-fuel Diesels in the UK
2023-10	Australia	Decarbonising Heavy Haul Rail Freight	International Developments
2023-9	Europe	Rail Freight - Major Innovation	Developments and challenges in Europe
2023-9	Australia	NSW Budget Rail	Metro and other Rail Projects in NSW Budget
2023-9	USA	HSR - plans	Funding for HSR Projects under consideration by Federal Govt
2023-9	Australia	Population	Australian Population growing at record rate
2023-9	USA	Faster Rail - Florida	Brightline opens Miami - Orlando Service
2023-8	Australia	HSR - Plans	HSR Needed for Australia
2023-8	Australia	HSR - economics	HSR in Australia unviable says Alan Kohler
2023-8	Europe	HSR - Developments	Trenitalia looking at international high-speed rail services
2023-8	Switzerland	Rail Safety - Tunnels	Broken Rail caused derailment in Gotthardt tunnel
2023-8	Switzerland	Rail Safety - Tunnels	Gotthardt Base tunnel to close for months after derailment
2023-8	Australia	Air Travel Sydney	Airlines cancelling flights and slot allocations
2023-8	Australia	Metros and Development	Possible Metro West Extension to Green Square (Zetland) in Sydney
2023-8	USA	Driverless Taxis	Waymo and Cruise approved to expand driverless taxis scheme
2023-8	Australia	Land Prices	Reserve Bank Governor complains at high land costs in Australia
2023-8	Australia	Inland Rail	Contractors selected for ILR Victorian projects
2023-8	Indonesia	HSR - Lines	Tests for HSR line delayed till September
2023-8	USA	HSR - Plans	Texas HSR to work with Amtrak to further study feasibility
2023-8	India, Japan	HSR - Training	Japan to train Indian HSR staff



This was first major report by Fastrack Australia. It develops a vision for high-speed rail, analyses why it is needed, and sets out how it can be implemented.

Fastrack's proposal varies from earlier approaches:

- It focuses on decentralization and other benefits, not just on competition with airlines.
- It enables fast freight as well as passenger trains.
- It uses a multi-staged approach to construction and operation by integrating with existing rail.
- It modifies the route into Sydney, Canberra and Brisbane, to save costs.

The report recommended:

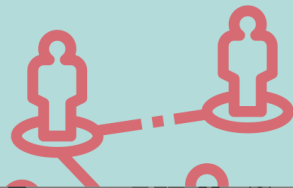
- Integrating the work of the Faster Rail Agency with earlier work on high-speed rail
- Identifying and protecting key corridors
- Establishing an integrated freight strategy
- Developing supportive decentralization policies

TECHNICAL REPORT A:

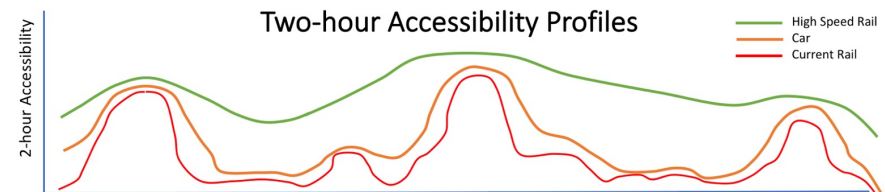
# POPULATION TRENDS AND DECENTRALISATION OPTIONS

## TABLE OF CONTENTS

Executive summary	1
1. Introduction	2
2. Population patterns and trends	3
3. Projections for the East Coast Corridor	5
4. The coronavirus and working patterns	8
5. The potential for decentralisation	10
6. An alternative population scenario	14
7. The role of high-speed rail	17
8. Conclusions	19
References	20



High Speed rail in the Eastern Corridor would transform accessibility for regional cities, by putting everyone in the corridor within 2 hours of a major capital city. This could enable telecommuters and organisations to relocate to regional centres, enhance regional tourism opportunities and make retirement out of the capital cities more attractive.



A combination of telecommunications, high speed rail and supportive decentralisation policies could reduce future population growth in Sydney, Melbourne and Brisbane by 2.5 million by 2065, with a corresponding increase in the population of regional centres

Component of Decentralisation	Primary Jobs	Employment multiplier	Total Jobs	Population Generated
"Teleworkers" Relocating	300,000	2.2	660,000	1,254,000
Government / Higher Education	45,000	2.0	90,000	171,000
Manufacturing / Specialised Services	70,000	2.0	140,000	266,000
Additional Primary Tourism Jobs	90,000	1.8	162,000	307,800
Additional Retirees				500,000
<b>TOTAL POPULATION DECENTRALISED</b>				<b>2,498,800</b>

Our current lack of high-speed ground transport and our reliance on cars and aircraft needs to change if we are to develop a more balanced population pattern in the East Coast corridor.



# HIGH SPEED RAIL FOR REGIONAL GROWTH IN AUSTRALIA

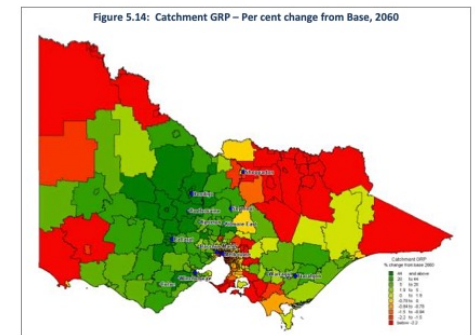
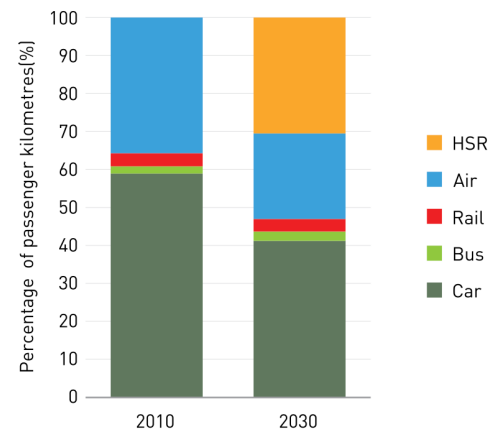


March 2021  
Author: Dr Ross Lowrey

This report examines the relationship between high-speed rail and the economy, with particular emphasis on regional growth.

Experience from overseas and economic modelling from Victoria is used to highlight the connections and the impact which high-speed rail can have on regional and on the wider economy.

**FIGURE III** Change in mode share of east coast corridor passenger travel in 2010, and after five years of HSR becoming available



The percentage change in catchment Gross Regional Product (GRP) for 2060 compared with the Base case is shown in Figure 5.14. Importantly, NIEIR found that 91% of the total statistical areas in Victoria will benefit from the faster regional trains in per capita terms, which is the most appropriate metric for evaluating the project.

The report also examines a range of other economic impacts of high-speed rail, ranging from impacts on travel patterns and mode share, to the potential from manufacturing of rollingstock etc.

It also examines an integrated approach to regional development.



Fostrack  
Australia

# AN IMPLEMENTATION PLAN FOR HIGH SPEED RAIL IN THE SYDNEY-MELBOURNE CORRIDOR



The staged implementation of high speed rail can power the growth of Australia and its economy. Countries around the world have typically upgraded existing conventional rail networks with high speed rail to increase connectivity that promotes regional growth and economic development.

This paper examines the Sydney-Melbourne corridor to develop an approach that progressively unlocks regional economic benefits through the staged implementation of sections of high speed track along with the rollout of new rolling stock.

Appropriate governance arrangements need to be put in place and coordination with other regional development initiatives are essential to maximise the benefits.

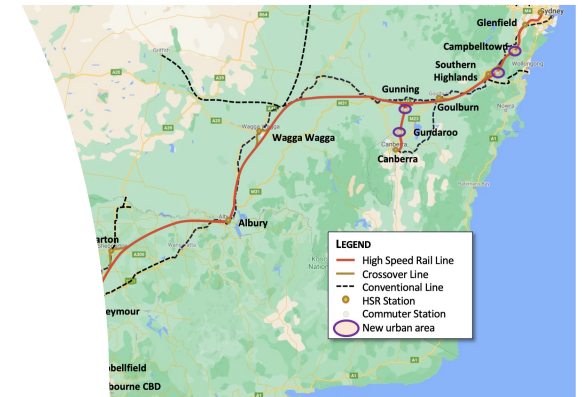
The "Wentworth Deviation" between Sydney and Mittagong, and the section of high speed rail out of Canberra are considered the best starting points for the upgrades to rail infrastructure. They will produce immediate benefits, and can become the foundation for a national rail network across Australia's south east.

Dr. Garry Glazebrook

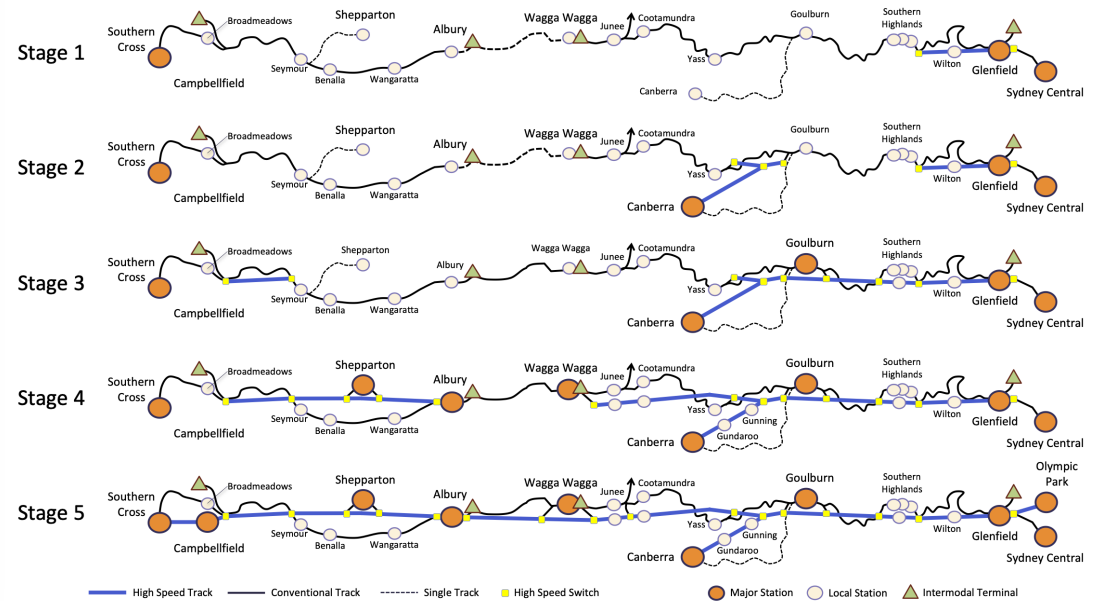
Dr. Ross Lowrey

January 2023

This paper develops an approach to progressively realise regional economic benefits in the Sydney-Melbourne corridor by incrementally implementing sections of high-speed track and rolling out new faster rolling stock.



## Staging of upgrades in the Sydney-Melbourne corridor



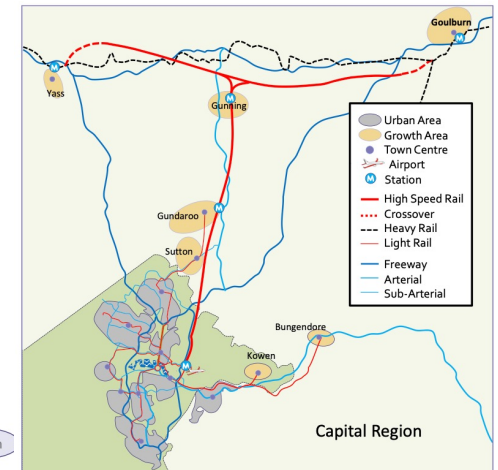


# Implications of high speed rail for Canberra and the Capital Region



High speed rail will accelerate the growth and development of Canberra and the capital region  
 Planning should start now to facilitate urban and economic growth while maintaining the best qualities of the region

Dr Ross Lowrey  
 May 2023

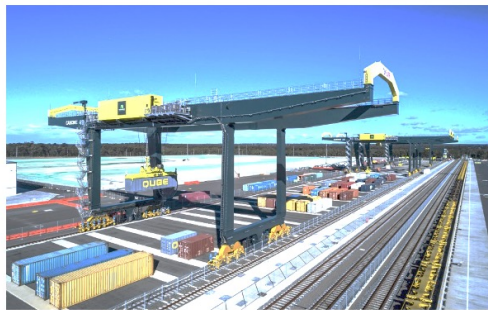


This report identified strategies for maximizing the benefits of HSR for the ACT and surrounding areas, based on international experience, including:

- Involvement of local stakeholders,
- Establishing a City Accord between the Federal, ACT and NSW Governments
- Integrating HSR with urban development
- Stimulating growth in economic sectors through station precinct development



## FREIGHT AND HIGH-SPEED RAIL



Dr. Garry Glazebrook

June 2023

This report examines how **high-speed rail can improve freight transport.**

Topics covered include:

- Freight Rail developments both overseas and in Australia, including in rail technology and intermodal terminals.
- Current road and rail freight movement in the Sydney-Melbourne corridor, including detailed surveys of truck movement on the Hume highway and analysis of freight movement on the Sydney – Melbourne rail line.
- The potential to operate fast freight trains on both the existing rail line and new high-speed rail infrastructure (especially at night)

The report concluded that high-speed rail coupled with new integrated logistics terminals, inland rail and new types of rail service could enable rail to capture 50% of the future freight movement in the Melbourne – Sydney – Brisbane corridor by 2060, compared with less than a third of all freight currently, and less than 10% for intermodal freight.

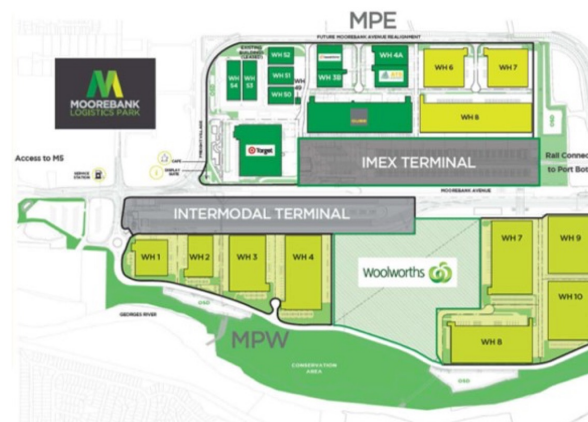
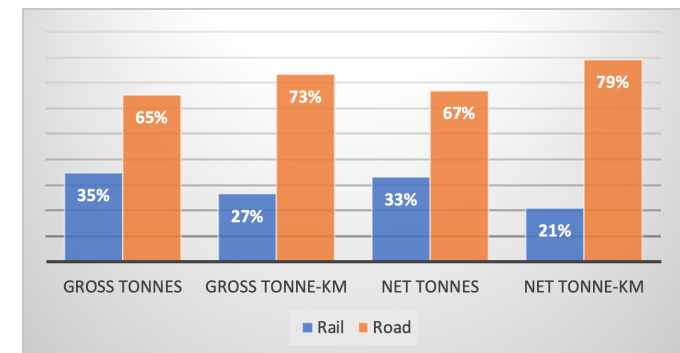


Figure 30: Freight Mode Shares on the Sydney – Melbourne Corridor





## DISCUSSION PAPER

# A NATIONAL RAIL GOVERNANCE STRUCTURE

*A proposed governance structure  
to facilitate the introduction of high speed rail  
into a national rail network*

*Fastrack Australia argues that high speed rail will be instrumental in improving the lives of Australians. It will enable greater regional population settlement, provide better connectivity for regional centres, take pressure off our capital cities, improve economic efficiency and reduce carbon emissions. We agree with Infrastructure Minister Catherine King when she said:*

*"It is essential the HSRA takes the time now to establish a robust foundation on which to build".*

*Fastrack believes that a clear vision for the ultimate network and a sound process for implementing it are fundamental to deliver the network and achieve its broader policy objectives. Our view is that the ultimate vision should be to implement a national rail network that connects all regional cities with passenger and freight services using both high-speed and conventional rail lines. Our rationale for this has been published in "Implementation Plan for High-Speed Rail" and "Freight and High Speed Rail".*

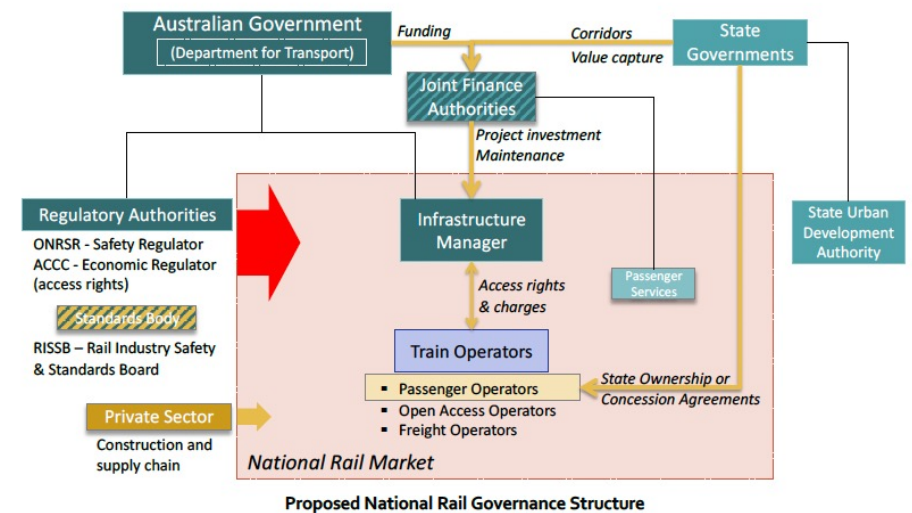
*This paper addresses the governance structure to deliver both the national rail network and its associated policy objectives. Our proposed governance structure is based on the current Interstate Rail Network as a base, modified using proven approaches primarily from the UK and China governance models as references. Fastrack also proposes a phased approach to transition from the current arrangements as sections of high speed rail are implemented and new passenger services are introduced.*

Dr. Ross Lowrey

Dr. Garry Glazebrook

September 2023

- This discussion paper examines the current governance structure for rail in Australia, and how it could be modified to accommodate high-speed rail.
- The proposed HSR network will link Queensland, NSW, Victoria and the ACT (and potentially South Australia). A national approach is therefore needed.
- HSR will need to accommodate fast-freight as well as passenger trains. It will need to enable integrated operations with existing rail networks, which are currently controlled by ARTC as well as State-based Organizations.
- Future governance arrangements will need to enable several different rail operators to share tracks. Technical standards around safety systems and other areas will need to be compatible and integrated.
- Finally, governance arrangements will also need to facilitate shared funding of infrastructure , and arrangements for land value capture mechanisms.
- The paper explores all of these issues and proposes a strategy for migrating from the current governance structure to a truly national and flexible system capable of maximizing the benefits of high-speed rail.



## Discussion Paper

# High Speed Rail Through Sydney

Dr Garry Glazebrook

V7: September 2023



This discussion paper proposes a new HSR route through Sydney via Olympic Park instead of Central, as previously proposed. This takes advantage of Sydney's emerging new east-west metro network.

Key benefits include:

- Lower costs, by around \$6 billion.
- Better connectivity to the Sydney Region and to the Central Coast.
- Provision for fast suburban and commuter as well as high-speed long-distance services.
- Ability for freight trains to use parts of the high-speed line, especially at night.
- Reinforcement of Sydney's evolution as a multi-centred city, with key opportunities at Epping, Olympic Park, Lidcombe, Bankstown and Glenfield.

The study includes detailed analysis of:

- alignments
- station locations and designs
- future operations

