



Fastrack
Australia

2024-25 PRE-BUDGET SUBMISSION

JOINT SUBMISSION BY:

AUSTRALIAN HIGH SPEED RAIL ASSOCIATION

AND

FASTRACK AUSTRALIA

January 2024

About Us

This is a joint submission by the Australian High Speed Rail Association and Fastrack Australia.

Australian High Speed Rail Association

The Australian High Speed Rail Association is an independent, non-partisan association established by private citizens with extensive experience in high speed rail. The Association believes that the magnitude and timeframes required to upgrade Australia's existing interstate and regional rail networks to high speed standards requires fundamental changes in the way government undertakes major infrastructure projects. Accordingly, the Association proposes to undertake a comprehensive program of public education, technical investigations and policy development into high speed and fast rail to provide informed, objective advice the Authority and other stakeholders.

<https://www.auhsr.org/>

Fastrack Australia

Fastrack Australia is a not-for-profit advocacy to promote the development of high-speed rail in the southeast of Australia. It will address the impact of urban growth in our capital cities, such as congestion and unaffordable housing, by enabling a more balanced pattern of population and economic growth. Fastrack has published a range of reports to address and provide solutions into specific aspects of high speed rail in Australia. They are original work by the Fastrack authors based on extensive research along with assistance from experts in the fields of engineering, planning, economics and transport systems.

<https://www.fastrackaustralia.net/>

List of Recommendations

Recommendation 1: Settlement Strategy

The Australian Government, in conjunction with State and Territory governments, should develop a national plan of settlement, providing a national vision for our cities and regions across the next fifty years. This plan should become the foundation for rebalancing future growth between existing east coast cities and new regional population centres and should be enabled by long-term, staged development of fast regional and high speed intercity rail networks.

Recommendation 2: Economic Case

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should conduct a study to establish the economic case for a national rail network connecting all regional cities in the southeast of mainland Australia with high speed and interconnected faster rail lines.

Recommendation 3: National Rail Plan

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should develop an overarching national rail plan that provides a strategy for the development of high speed rail and the interconnected expansion regional faster rail in the southeast mainland of Australia.

In accordance with this national rail plan's strategic priorities, the Federal Government should reserve land for new and expanded rail corridors.

Recommendation 4: Extend Planning Works

The High Speed Rail Authority should commence the planning for the next stages of high speed rail to be implemented in the corridors connecting Melbourne to Sydney and Sydney to Newcastle.

Recommendation 5: Direct Route Through Sydney

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should investigate as an immediate priority the potential for a high-speed station at Rosehill,

connected to the Metro West line and the Parramatta light rail line, together with a high-speed corridor through Sydney from Macarthur to Glenfield, Liverpool, Rosehill, Epping and Hawkesbury River.

The investigation should also consider the potential this would provide for further enhancing the redevelopment of the Rosehill area, together with its reinforcement of other centres or potential centres (Parramatta, Liverpool, Epping and Glenfield).

The investigation should also consider options for land value capture and the opportunity this provides to assist in funding the cost of the high speed stations and line through Sydney.

Recommendation 6: Assess Freight Implications

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts, in conjunction with the High Speed Rail Authority, ARTC and the rail freight industry, should undertake a detailed analysis of rail freight in the Sydney – Melbourne corridor, and of the potential to significantly increase rail’s mode share.

Recommendation 7: National Rail Governance

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should commence negotiations with state governments to implement national rail governance arrangements that establishes a single national rail network for both freight and passenger services across Australia and enables its upgrade to support faster services to regional cities from either Sydney, Melbourne and Brisbane, and ultimately high speed services in the Brisbane-Sydney-Melbourne corridor.

Recommendation 8: Funding Via Land Value Capture

The Australian Government should develop cost-sharing arrangements with the State and Territory governments for major transport investments based on land value capture and beneficiary pays principles.

Recommendation 9: National Rail Passenger Operator

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should examine the establishment of a National Passenger Rail Operator to provide regular inter-state regular passenger services. These should include comfortable overnight sleeper trains as well as faster tilt-trains, and in the longer term, high-speed trains.

Recommendation 10: Build The Canberra Spur

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts, in conjunction with the High Speed Rail Authority, the NSW State Government and the ACT Government, establish a project to implement high speed rail from Canberra to Goulburn and Yass, including:

- The planning and construction of new high speed rail infrastructure, including new or upgraded stations;
- The planning and development of a new regional transport hub in Canberra;
- The planning and design of new or expanded business precincts and/or urban areas at stations along the line;
- The introduction of new fast commuter and long-distance passenger services radiating out of Canberra.

Why high speed rail is important

Many people talk about improved, fast and high speed rail as if they are different things. Our organisations both advocate for faster connectivity between the cities of Australia, whether they be capital or regional cities. And high speed rail is the epitome of faster connectivity.

Faster connectivity has proven to be the fundamental driver of economic growth in this century. That is why developed and developing countries all over the world are racing to introduce high speed rail or extend their networks to more regions and other countries in their midst.

People living in regional areas intuitively understand the importance of faster connectivity. Faster and more frequent trains is their number one request for new infrastructure to improve the economy and liveability of their cities and regions. Unfortunately capital city dwellers do not share this understanding, instead focusing on the increasing unaffordability of housing and greater congestion in their cities.

There are many good reasons why Australia’s immigration rate will stay high for the foreseeable future. But there is also plenty of good evidence that spreading the growth out of capital cities and into regional areas is preferable to constantly ‘densifying’ our capital cities.

Clearly capital cities will benefit if they have to cater for fewer new residents. And clearly regional areas will thrive with more people and larger economies. What is not often understood is that Australia’s productivity will also increase, as the cost to service new residents in regional areas is so much lower than the cost for capital city residents. This means our standard of living will be higher, and many more people will be able to live the Australia way of life (detached home, backyard, barbecue, etc.), if we spread our population growth into regional cities.

Faster connectivity is essential to achieve this objective. We all recognise the travel time implications of the 20-minute neighbourhood, the 1-hour daily commute to work and back, and the 2-hour trip to meet or visit friends and colleagues in the same day. Faster connectivity extends the reach achievable in these travel times – it ‘shrinks the distance’ between locations. It expands job markets (commutable areas) and regional economies (same-day visit areas).

And this is what will happen in Australia.

Initially, faster commuting services to capital cities will expand the jobs market for the capital city. This will encourage population shift to surrounding regional centres, and allow businesses to open plants and facilities in secondary cities. Over time this will create clusters of economic activity linking businesses across the region into a common economy.

As the faster services extend further from the capital cities, more distant regional cities will start to create linkages with cities in the capital city clusters. Over time these will form their own separate economic clusters across regional cities.

Eventually, higher speed intercity services will connect these regional economic clusters together. This will create a ‘network effect’, where greater connectivity increases the economic benefits of business productivity growth and simplifies the provision of services to regional cities. This in turn encourages greater population growth, which further drives economic growth, and so on.

Ultimately, the regional cities in the corridor will establish their own distinct economic and liveability traits in competition to capital cities. The economies in the corridor will merge to a create a linear mega-region that successfully competes with other mega-regions on the world stage.



The primary challenge to achieving this vision is to stop considering high speed rail as a standalone system. Australia needs an integrated network of high speed, faster, improved and standard rail lines that connects all regional and capital cities across Australia. Upgrades and new lines need to be staged so the network grows and expands in the same way that dual-carriageways are being implemented for the road network.

The secondary challenge is for governments to consider the regional rail network as essential infrastructure spanning all states. Australia’s federal system of government means that both Commonwealth and State levels of government have a role in the planning, funding, implementation and operation of rail lines. In particular, it requires the Commonwealth Government to provide leadership in planning the national network, in funding the implementation of rail infrastructure, and in developing the market for intercity passenger rail services.

Our recommendations go to the heart of this challenge. We have identified the key actions the Commonwealth Government should now take to commence the development of a national rail network capable of supporting Australia’s population and economic growth for the rest of the century. The list of recommendations is comprehensive. But each one is critical in its own right. We implore the Government provide the resources needed to get the development of this essential infrastructure underway in FY2024-25.

Develop a national settlement strategy

Recommendation #1:

The Australian Government, in conjunction with State and Territory governments, should develop a national plan of settlement, providing a national vision for our cities and regions across the next fifty years. This plan should become the foundation for rebalancing future growth between existing east coast cities and new regional population centres and should be enabled by long-term, staged development of fast regional and high speed intercity rail networks.

This recommendation draws on key recommendations of Building Up and Moving Out, the 2018 Parliamentary report into the Australian Government’s role in the development of cities by the House of Representatives Standing Committee on Infrastructure, Transport and Cities¹ chaired by John Alexander, former Member of Parliament and current Deputy Chair of the Australian High Speed Rail Association.

The Committee’s final report urged that a national plan of settlement should take into consideration;

- Growth and change in population
- Growth and change in employment
- The economically, socially and environmentally sustainable development of cities and regions
- The relationship between cities and regions on a national, regional and local scale
- Connectivity within and between regions, and between residence and employment
- Resources for implementation of the plan.

Australia’s 2022 population of 26 million is projected to reach between 34.3 and 45.9 million people by 2071, according to the Australian Bureau of Statistics (ABS)². Despite having the world’s sixth largest land mass, Australia’s population is highly urbanised, with over 86% of residents living in large cities. The four east coast capital cities - Sydney, Brisbane, Canberra and Melbourne - are home to 51% of Australia’s population and the states they serve generate 76% of Australia’s Gross Domestic Product (GDP). The combined population of these cities will double by 2071 from 13.4 million to around 24 million, while regional areas will grow from 7 million to over 14 million residents during the same period. Capital cities are projected to absorb 62% of this growth, or around 10 million new residents driven by overseas immigration.

Australia’s dispersed settlement patterns and dated rail networks present unique opportunities and challenging obstacles for achieving long-term, sustainable growth. State and local governments are straining under the cost of retrofitting infrastructure and housing new residents into already crowded capital cities. The recent

¹ https://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/024151/toc_pdf/BuildingUp&MovingOut.pdf

² <https://www.abs.gov.au/statistics/people/population/population-projections-australia/latest-release>

opening of the Roselle interchange in Sydney shows how difficult and expensive updating centuries-old urban infrastructure can be.

At the same time, residents in regional towns and cities face long commuting times to access skilled jobs, specialised medical services and advanced educational offerings only available in capital cities. State government capital spending on infrastructure, particularly transport infrastructure, is heavily weighted towards capital cities in a seemingly endless effort to get ahead of urban growth. This pattern of human settlement fails to take advantage of Australia's natural attributes and is too expensive for many families and communities to afford.

A national plan of settlement is needed to shift the focus of future population growth from crowded and expensive capital cities to lower cost, high-amenity regional areas. The plan should have a long-term strategy to rebalance a greater share of capital city population growth and infrastructure investment to suitable regional areas, enabled by a modern, interconnected regional and intercity rail network.

A national plan of settlement allows policymakers to envision the optimum distribution of future population growth and infrastructure investment based on deliberate, evidence-based strategies, rather than the ad hoc evolution of urban and regional investment based on past trends, short-term solutions and election cycle politics. For example:

- Research by Potterton³ found that only two of 36 sampled towns and cities within 400 km of a major capital and with populations of at least 10,000 are less than an hour by train from capital cities. Upgrades to existing train services to 13 of these locations delivering improved, fast or high speed rail services⁴ would reduce travel times by 30% or more.
- This would put these lower cost regional locations within 1 hour commuting distance of capital cities. Opportunities would emerge to attract more growth to these locations and, in some cases, build new communities within a 1 hour commuting time of capital city jobs and services.
- Following COVID, work patterns have changed, with many people now able to work from home at least half the time, reducing the number of times people have to commute to city centres. This means that many people can live and work in regional cities if they are connected to capital cities with fast rail links, enabling part-time commuting to head office or for business meetings when necessary.
- Fastrack Australia analysed alternative future population distributions in South-East Australia and found that 2.5 million people could live in cities and towns outside the east coast capitals by 2060 if there was a high speed and fast rail network linking those settlements together⁵.
- An integrated network of modern urban, fast regional and high speed intercity rail would collapse travel times and improve travel experiences in many regional markets presently underserved by existing air, bus and rail services; expand current leisure and business markets; and expand rail patronage. For example, the 2013 Phase 2 High Speed Rail Study determined that 19% of travel demand would come from induced travel demand.

High speed intercity and fast regional rail offer the best catalyst for reshaping Australia's growth trajectory and settlement patterns by balancing employment and residential growth between congested urban centres and lower-cost, higher amenity regional areas. Faster, more frequent rail services would better connect our capital cities and regional centres, give more people access to essential services and skilled jobs, reduce population pressures on capital cities, enhance housing supply and affordability, and take advantage of Australia's abundant natural attributes.

³ Potterton, Phil 2023, What policy rationales can underpin high speed, fast and improved rail in Australia?, Australasian Transport Research Forum 2023 Proceedings, 29 November - 1 December, Perth Australia <https://australasiantransportresearchforum.org.au/what-policy-rationales-can-underpin-high-speed-fast-and-improved-passenger-rail-in-australia/>

⁴ Upgrades consisted of improving maximum operating train speeds as follows: improve rail services – 140-160 kph; fast rail services – 200-220 kph; high speed rail – 300-350 kph, with average operating speeds at 75 per cent of these levels.

⁵ <https://www.fastrackaustralia.net/reports>

Establish the case for high speed rail

Recommendation #2:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should conduct a study to establish the economic case for a national rail network connecting all regional cities in the southeast of mainland Australia with high speed and interconnected faster rail lines.

It is now becoming more widely recognised that if we want to divert population growth into regional cities, then we must invest in faster rail services to connect regional cities to their nearest capital cities (see Alan Kohler, *The Great Divide: Australia's housing mix and how to fix it* – Quarterly Essay, 2023).

Australia is returning to a high rate of immigration. Many, such as the Business Council of Australia, want permanent migration to be set as a percentage of the total population. While this will be good for Australia's economy, the negative effects of rapidly increasing settlement in our capital cities are well-known, and likely to produce the same push-back that was evident before the COVID pandemic. Diverting a significant portion of population growth from capital cities into regional areas will help defray the negative sentiment towards population growth.

Faster rail connections are known to promote regional settlement. There are many examples from around the world where governments have built faster rail connections to spread settlement into regional areas. A relatively recent economic analysis of Victoria with and without faster rail connections has shown that there will be increased regional settlement if faster regional rail connections are built⁶. Notably, the study showed that productivity will be 5% greater, and that the regional economic benefits alone are sufficient to justify the cost of the faster rail connections.

A faster rail network progressively connecting all regional cities to a high speed backbone between Brisbane, Sydney and Melbourne will spread Australia's population growth into regional areas. Most Australians will be better off, with greater choice of lifestyle and liveability, that will only be available through the implementation of a faster rail network.

While, given long distances between our largest centres, aviation has a central place in Australia's passenger travel, faster rail will complement aviation in important ways. Firstly, it can offer fast, frequent public transport for the majority of regional centres within 350 kilometres of a major capital where route distances are too short for viable air transport links. And secondly, it can permanently 'future proof' convenient access to and from the central business districts of the major capitals for growing numbers of intercapital day return and other travellers – convenient access that today depends on the capacity limits of airports sited close by.

The Business Case for the Brisbane-Sydney-Canberra-Melbourne corridor should be re-examined to demonstrate that positive regional growth and wider economic benefits will arise from the line. This will provide the evidence to support the vision for a national network connecting all regional cities with integrated high speed and conventional rail lines.

The evidence from this study would reinforce Australians' support for high speed rail. Most Australians say they would like high speed trains in Australia. Many have travelled on high speed trains in a wide range of countries across the world. They love the ability to travel long distances quickly, with more comfort and convenience than with air travel. And they have a natural appreciation of its benefits. It would encourage many to consider relocating to regional cities for a better lifestyle. And it would provide businesses with more options to base their operations.

For further information, see *The case for High-Speed Rail in Australia* - <https://www.fastrackaustralia.net/links>

⁶ National Institute of Economic and Industry Research (NIEIR), Stronger, Together, report for the Stronger, Together Regional Victorian Fast Commuter Rail Alliance, July 2020, <https://nieir.com.au/wp-content/uploads/2020/07/Fast%20Train%20Project%20Macro%20Economic%20Assessment%20July%202020.pdf>

Develop a national rail plan

Recommendation #3:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should develop an overarching national rail plan that provides a strategy for the development of high speed rail and the interconnected expansion regional faster rail in the southeast of Australia.

In accordance with this national rail plan’s strategic priorities, the Federal Government should reserve land for new and expanded rail corridors.

Australia has been investigating high speed rail and faster rail over many decades. Elsewhere, many countries are rapidly building high speed rail networks to boost their economic growth and prosperity.

The current Commonwealth Government has established the High Speed Rail Authority (HSRA) that focusses primarily on a Sydney–Newcastle route. Irrespective of the outcome of this work, Australia needs an overarching national rail plan to ensure that the development of both HSR and interconnecting faster rail is undertaken in a strategically sound manner.

In line with, and as a direct consequence of the national rail plan, is the pressing need to reserve the corridors on which high speed rail could be built. The east coast is already experiencing high levels of population growth which puts enormous pressure on the ability of governments to build infrastructure to cater for resulting demand. This is particularly critical for the outskirts of regional centres and cities and will have significant implications on any future rail or road development, but particularly for high speed rail given its alignment constraints. In this context the alignment for high speed rail is highly vulnerable to encroachment and development which would severely constrain or even prevent high speed rail from being built.

Delaying the preservation of the corridor—even for a short while—would likely result in much higher costs, a sub-optimal alignment or, in the worst case, abandonment of the project altogether.

The other important consequence of early protection of the corridor is that it will allow the immediate commencement of work to integrate high speed rail into long-term transport and land use planning. The earlier this occurs the better, particularly given the impact that such plans have on government funding decisions.

The scope of the national rail plan would be initially the southeast mainland of Australia; notionally extending from the Sunshine Coast to Adelaide. The rail plan should provide for not only the routes for the HSR corridors, but also provide for the future planning of the interconnecting regional faster rail routes.

The rail plan for the balance of Australia could be undertaken at a later date.

The strategic plan from this study would provide a rational blueprint to align and engage all levels of government in the way forward for high speed rail and faster rail in Australia.

Importantly, the national rail plan should also identify the critical rail route preservation and reservation requirements for HSR and faster rail, thus providing clear land reservation actions for government(s) to pursue.

Commence planning of the next stages of high speed rail

Recommendation #4:

The High Speed Rail Authority should commence the planning for the next stages of high speed rail to be implemented in the corridors connecting Melbourne to Sydney and Sydney to Newcastle.

The full benefits of high speed rail connections won’t be realised in Australia until it connects our capital cities. Of the intercapital corridors, the Sydney-Melbourne corridor has the greatest current demand for rail services and future opportunities for growth. The Sydney-Newcastle corridor has the greatest potential for ridership,

linking Sydney to its largest regional city. Therefore planning for lines in these corridors should be the priority for the newly established High Speed Rail Authority.

The current main interstate rail line between Sydney and Melbourne is double-tracked, except for the section between Junee and Albury. The original line was modified mostly in the early 20th century to reduce gradients, which had become an impediment to the steam engines of the day. At the time rail transport was far more advanced than road transport, and rail was able to haul much heavier loads and still be far faster than road.

However, in the decades since then rail investment has been neglected. Nothing significant has been done to address the steam era alignments on our most important interstate rail corridor. Travel times for both passenger and freight trains have barely improved since the extension of standard gauge tracks from Albury to Melbourne some 60 years ago.

In contrast, the Federal Government has effectively subsidised the creation of the modern, dual carriageway Hume Highway between Sydney and Melbourne. Driving time between the two capitals has reduced to nine hours, providing a shorter and faster route for trucks than for trains.

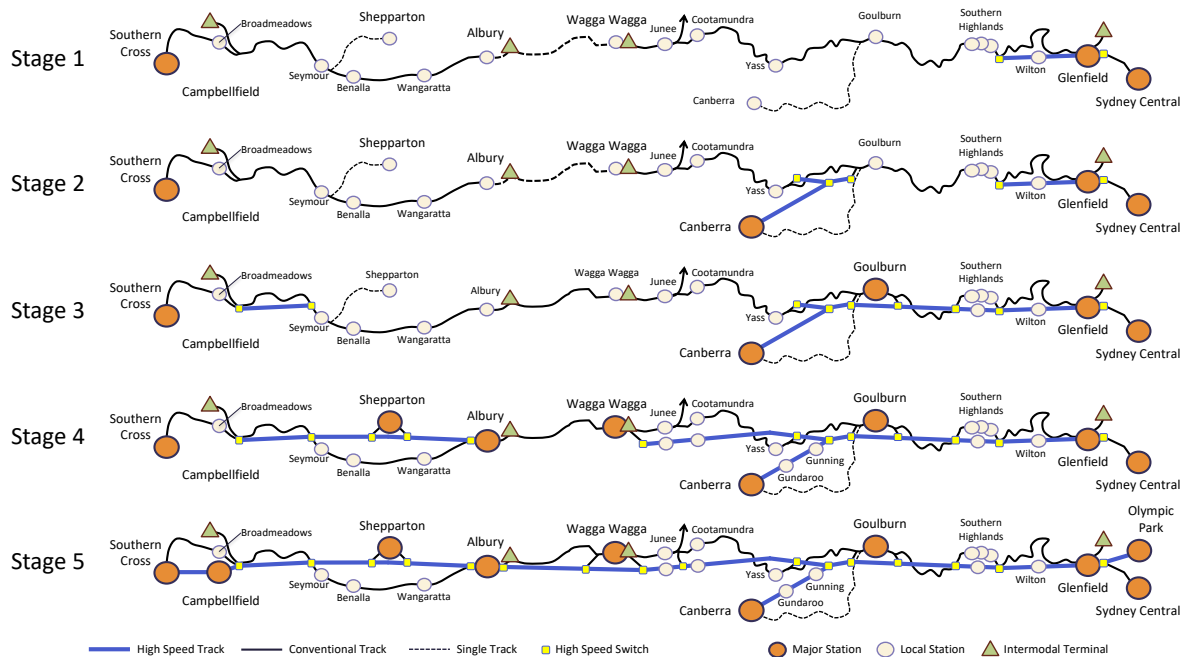
There is substantial potential for growth in rail volumes in this corridor, both freight and passenger, especially if measures are undertaken to reduce travel times by rail to be competitive with road (in the near term) and even with air travel in the future. For example:

- The completion of the Ettamogah Rail Hub near Albury and the commencement of operations at the Sydney Moorebank Intermodal Terminal (with fully automated loading / unloading of containers) is leading to increased volumes of rail freight in the corridor.
- The completion of the Inland Rail between Melbourne and Brisbane is expected to see a significant increase in rail freight between Junee and Melbourne.
- A reduction of rail passenger travel times between Sydney and Melbourne to 9 hours would make it competitive with car or coach travel and would likely lead to a significant increase in demand.
- A reduction in travel time between Sydney and Canberra to 3 hours would enable rail to be competitive with car and coach travel, and likewise lead to substantially increased demand and the need for more frequent services.
- Further reductions in travel times in the corridor would generate additional demand, enabling additional services to be operated, as well as improvements in efficiency.

Upgrading this corridor with high speed rail will open regional cities for growth and development, reduce the population growth pressures in Sydney and Melbourne, and open regional areas for more tourism.

Integrating new high speed rail lines with the existing conventional lines will enable the staged upgrade of the line, and will provide greater operational flexibility in the future. Countries like France, Spain, Germany, Italy, the UK (and now Japan) use this approach to utilise existing tracks to access stations in major cities, and to reach destinations beyond the high speed rail sections of line. It will allow a mix of passenger and freight services to use the high speed line with cross-overs to the conventional line. And it opens the possibility of new types of services, such as fast freight that cross-over from the conventional line to use the high speed line between cities.

Staging of upgrades in the Sydney-Melbourne corridor



Proposed staging of high speed rail in the Sydney-Melbourne corridor

Five stages to upgrade the Sydney – Canberra – Melbourne corridor are suggested. These rail infrastructure improvements should be coupled with the introduction of new types of rollingstock to steadily reduce travel times, improve competitiveness, and generate demand for higher frequency services. These initiatives will eventually accommodate a trebling of rail traffic in the corridor, and enable the full range of services to operate, from high speed passenger trains and fast freight services, to local passenger services and industrial freight.

For further information, see *An Implementation Plan For High Speed Rail In The Sydney-Melbourne Corridor* <https://www.fastrackaustralia.net/hsr-implementation-plan>

Plan a direct route through Sydney

Recommendation #5:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should investigate as an immediate priority the potential for a high-speed station at Rosehill, connected to the Metro West line and the Parramatta light rail line, together with a high-speed corridor through Sydney from Macarthur to Glenfield, Liverpool, Rosehill, Epping and Hawkesbury River.

The investigation should also consider the potential this would provide for further enhancing the redevelopment of the Rosehill racecourse and Camillia, together with its reinforcement of other centres or potential centres (Parramatta, Liverpool, Epping and Glenfield).

The investigation should also consider options for land value capture and the opportunity this provides to assist in funding the cost of the high speed stations and line through Sydney.

The last major study of high-speed rail (Department of Transport, 2013) proposed that a corridor from Melbourne to Brisbane, with branches to Canberra and the Gold Coast. The route through Sydney involved extensive tunnels from both the north and south-west of Sydney to a 2-level high-speed station at Central. This high-speed route through Sydney was by far the most expensive part of the total corridor in terms of capital costs / km, and consequently using this alignment is a major impediment to achieving high speed rail.

Since 2013 there have however been major changes to Sydney's urban growth and transport infrastructure:

- Sydney is now a multi-centred city, with key office and commercial hubs at Parramatta, Chatswood, North Ryde and other locations, and emerging centres like Olympic Park, Bankstown, and Liverpool.
- The North-West Metro has been completed, the City and South-West Metro is well under construction, and the Metro West and Metro Western Sydney are under construction. These will provide fast east-west links in northern, central and southern Sydney, greatly enhancing movement not only to the CBD but to these other centres.
- As a result, the geographic centres of population and jobs centre are now close to Olympic Park, around 15km west of the traditional CBD.
- Plans for commercial development over Central Station make the use of this station for a longer term high-speed station more difficult.

Fastrack Australia therefore proposed a new, direct HSR route through Sydney in September 2023. This line would run between Macarthur in the south west to the Hawkesbury River in the north. It would include HSR stations at Glenfield, Olympic Park and Epping to connect with the East-West Metros and also heavy rail lines, providing:

- High accessibility to HSR from across the Sydney Region
- Improved connectivity within Sydney and support for Sydney's growth as a multi-centred city.
- Cost savings in the order of \$6 billion from reduced tunnelling and a more direct alignment
- Access to a HSR stabling and maintenance centre at Flemington
- Capacity for fast suburban and commuter trains as well as high-speed intercapital and longer distance trains. It would also facilitate the introduction of fast freight services.

After Fastrack Australia's report was released, the NSW Government announced modifications to the Metro West project, including a new station and associated urban development at Rosehill. This provides an alternative route for the HSR line through Sydney with Rosehill replacing the proposed central station at Olympic Park. This option would therefore have similar advantages to the option via Olympic Park.

Fastrack Australia and The Australian High Speed Rail Association believe this could be a game changer both for high-speed rail and for Sydney's development.

For further information, see *High-Speed Rail through Sydney Discussion Paper and Rosehill update* - <https://www.fastrackaustralia.net/sydney-route>

Assess the freight implications for high speed rail

Recommendation #6:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts, in conjunction with the High Speed Rail Authority, ARTC and the rail freight industry, should undertake a detailed analysis of rail freight in the Sydney – Melbourne corridor, and of the potential to significantly increase rail's mode share through:

- New and expanded intermodal terminals in Sydney, Melbourne and other centres, including those under development (Moorebank, BIFT), those being planned (Western Sydney Intermodal Freight Terminal, WIFT), and specialised terminals for rapid loading/ unloading of intermodal trains carrying semi-trailers, B-doubles and large rigid trucks using new rollingstock used in Europe such as that produced by Modalohr and Cargobeamer.
- Upgrades to the main rail line between Sydney and Melbourne as part of the staged development of high-speed rail, which will enable fast intermodal freight trains to utilise the new line (especially at night) which will free up the existing line for handling more freight trains during the day.

Fastrack Australia has analysed the potential for freight to be carried on a future high-speed rail line between Sydney and Melbourne. Drawing on recent developments both overseas and in Australia, it demonstrates the

feasibility of using the high-speed line to operate fast freight trains, mostly running at night, together with a range of passenger services designed to meet expected future passenger demand.

The study found that:

- Although rail carries a significant volume of industrial freight, it carries less than 10% of the general merchandise freight in the corridor.
- Road freight now carries an estimated 42 million tons pa of freight on the Hume Highway, with up to 10,000 trucks per day in parts of the corridor.
- Rail is three times more energy efficient than trucks but is hampered by the slow alignments of the existing rail line and constraints on rail capacity.
- New intermodal terminals at Moorebank in Sydney and recently approved for Melbourne offer the potential to increase rail's mode share through integrated warehouses and improved logistics. Further terminals are being planned.
- New types of rollingstock being used in Europe (such as Modalohr and Cargobeamer) allow much more rapid transfer of trucks to rail, enabling new types of intermodal operations, enabling fast door-door travel times.
- A detailed timetable analysis indicates that the staged implementation of high-speed rail would enable up to 15 fast freight trains each way (mostly at night) on the high-speed line, with additional freight trains on the existing line as passenger trains are shifted to the high-speed line. This would increase rail's mode share of merchandise freight to reach 50%, with significant economic and environmental benefits, including a reduced need to upgrade highways.

Shifting a significant part of the future freight task from trucks to rail will generate significant economic, environmental, safety and other benefits. It will make our transport systems more sustainable and make the distribution of goods quicker, more reliable and cheaper.

It will also make the economics of the high-speed rail line more compelling. The high-speed line will be highly utilised, with up to 400 trains a day using some sections of the line. This negates the arguments of those who say that Australia's population is too small and its distances too long to justify the implementation of high-speed rail in Australia. Instead, the high utilisation of the high-speed line by both passenger and freight services means it will generate increased revenue to help pay back the significant infrastructure investment needed to build it.

For further information, see *Freight and High-Speed Rail* - <https://www.fastrackaustralia.net/freight-and-high-speed-rail>

Implement national rail governance arrangements

Recommendation #7:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should commence negotiations with state governments to implement national rail governance arrangements that establishes a single national rail network for both freight and passenger services across Australia and enables its upgrade to support faster services to regional cities from either Sydney, Melbourne and Brisbane, and ultimately high speed services in the Brisbane-Sydney-Melbourne corridor.

Previous high speed rail studies in Australia envisaged a separated network between either Sydney and Melbourne or between Brisbane, Sydney and Melbourne. Its purpose was to carry passengers only, primarily between capital cities, with only high speed intercity passenger services running on it. It was also considered that the line could be built and operated as a mega-project by a federal government authority, independent of the current state-based rail authorities.

This approach is not suitable to meet Australia's needs.

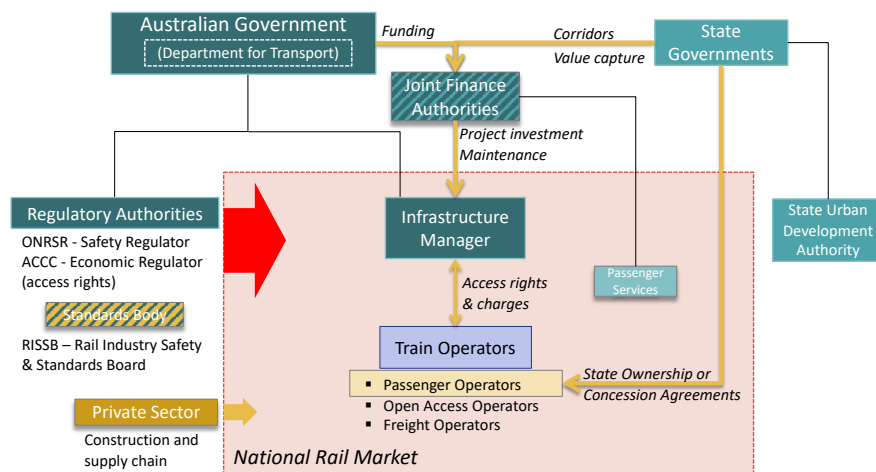
First, the explicit policy objective for introducing faster rail connections should be to encourage greater growth and development in regional areas. This means the rollout of high speed rail must be tightly coordinated with development to achieve the policy objective of ‘shrinking the distance’ to regional cities.

Second, achieving this objective means we need a national rail network that ultimately connects all regional cities in the southeast of Australia. High speed rail should form a central backbone for the network and be connected with the existing rail network to create an integrated national rail system.

Third, a major challenge for high speed rail in Australia is the long distances between highly urbanised cities, with a sparse settlement pattern between them. This means the high speed line should be able to carry a range of regional commuter and long-distance passenger services, plus some freight services (especially at night), in order to maximise its utilisation and the value it delivers for the investment in it.

And finally, Australia’s federal system of government means that both levels of government have a role in the planning, funding, implementation and operation of rail lines. In particular, it requires the Commonwealth Government to provide leadership in planning the national network, in funding the implementation of rail infrastructure, and in developing the market for intercity passenger rail services.

The additional complexity to successfully implement high speed rail in Australia places greater importance on getting the governance structure right. Fastrack Australia has proposed a governance structure that spans both state and federal governments, builds on the current arrangements for the Interstate Rail Network, delivers a national rail system with high speed and conventional lines, and opens the rail market for both passenger and freight services.



Proposed National Rail Governance structure

The proposed governance structure allows state and federal governments to fulfil their accountability to plan and fund infrastructure through Joint Finance Authorities. It establishes a single national Infrastructure Manager to plan, implement and operate a national rail network carrying both passengers and freight. And it opens the rail market for both passenger and freight services.

The proposed arrangements will ensure the successful implementation of high speed rail in Australia places. It provides resilience to changes in state and federal governments that will occur. It directly links the rollout of high speed rail to the national policy objective of increasing growth in regional cities. It ensures that a national rail network integrating high speed and conventional rail can be implemented in a sequence of stages that will occur over many decades. And it establishes a competitive market for the delivery rail services that meet customer needs.

For further information, see *A National Rail Governance Structure - Discussion Paper*

<https://www.fastrackaustralia.net/national-rail-governance>

Ensure land value capture mechanisms are in place!

Recommendation #8:

The Australian Government should develop cost-sharing arrangements with the State and Territory governments for major transport investments based on land value capture and beneficiary pays principles.

Australian and international research and experience demonstrates that investments in transport infrastructure can have a significant impact on land value surrounding a project. A wide range of funding outcomes from the use of land value capture in these situations can be found due to the legislative, social, political, economic, ideological, and historic forces at play in any given jurisdiction. While the efficacy of land value capture is well proven, its effectiveness as a funding mechanism for transport projects is often diminished for these reasons. That is the case in Australia.

Policies are in place by the Australia, State and Territory governments that require proponents of major transport projects to investigate and implement land value capture and other forms of beneficiary pays funding. These arrangements are intended to:

- Provide a more equitable means of distributing the costs and sharing the benefits of publicly funded infrastructure⁷
- Capturing windfall gains from land rezonings from unintended beneficiaries⁸
- Contributing to the cost of urban development intensification from infrastructure and other transport projects⁹.

Recent examples include:

- Western Sydney City Deal between the Australian and NSW governments, which secured \$3 billion in matching Commonwealth funding for the Sydney Metro Western Sydney Airport line; the Western Sydney Special Infrastructure Contribution (Western Sydney SIC) is expected to generate \$150 million towards the cost of the Luddenham and Aerotropolis metro stations from mixed use and industrial development around the stations. A conservative estimate of the capital cost of these stations of \$1 billion suggests that the Western Sydney SIC is contributing around 15% to these costs, with the balance flowing to unknown and unintended beneficiaries.
- Pyrmont Special Infrastructure Contribution (Pyrmont SIC), which will generate \$280 million towards the cost of the Pyrmont metro station in Sydney by charging \$15,000 per dwelling and \$200 per sqm of non-residential development attributed to the station. A conservative estimate of the capital cost of the Pyrmont metro station of \$1.5 billion suggests that the Pyrmont SIC is contributing around 19% to these costs, with the balance flowing to unknown and unintended beneficiaries.
- The Victoria windfall gains tax¹⁰, which applies to all land rezoned by the same planning scheme amendment resulting in a value uplift to the land of more than \$100,000. The tax rate applied to land value uplift is:
 - a marginal rate of 62.5% on the uplift above \$100,000
 - a tax rate of 50% will apply to the total uplift of \$500,000 or more.

These funding methods are constructive but insufficient given public investment required for transport projects, the scale of uplift they typically create, and inconsistencies regarding when and how value capture funding is implemented by federal and state governments. For example, the 2019 Sydney Metro West business case estimated that private land values surrounding eight metro stations on the line would increase by \$7 billion due to the project. However, the NSW government failed to put any value capture mechanisms in place until a ninth station was added at Pyrmont¹¹. Total projects costs are now well above \$25 billion, with value capture generating just \$280 million, or around 1% of Sydney Metro West's total project costs.

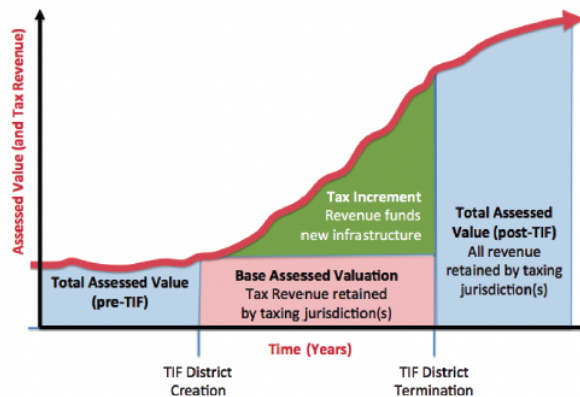
⁷ Smart Cities Plan, Commonwealth of Australia 2016

⁸ <https://www.sro.vic.gov.au/windfall-gains-tax#>

⁹ <https://www.planningportal.nsw.gov.au/Pyrmont-SIC>

¹⁰ <https://www.sro.vic.gov.au/windfall-gains-tax>

¹¹ A tenth station was recently added at Rosehill Racecourse. No cost estimates or funding arrangements have been announced for this station.



Tax increment finance value capture mechanism¹²

In its 2020 Review of Infrastructure Contributions in New South Wales, the NSW Productivity Commission found that the “need for major transport projects is greater than can be funded using existing taxpayer and user-based sources”. Subsequent policy work based on the Review identified several key factors in implementing effective value capture policies. The Australian Government is urged to work with State and Territory governments to align land value capture cost-sharing arrangements for major transport projects around these principles and practices:

- Projects should be conceived as integrated land use – transport investments developed jointly by transport, planning and treasury agencies.
- Projects should be aligned and consistent with long-term regional, district and local plans and strategies.
- Government agencies should develop and publicly notify all stakeholders of land value capture policies, mechanisms, likely charges and timeframes in advance of announcing projects.
- Legislation should be in place to identify, secure and protect transport corridors and precincts from speculative forces that increase land value above its current use value and result in windfall gains to unintended parties.
- Strategic business cases should be prepared which identify transport service catchments, estimate land value uplift associated with the project, propose an equitable sharing of land value uplift between stakeholders and determine the financial impact and feasibility of the project.
- Final business case should be developed and publicly released confirming land use changes resulting from the project in its intended service catchment(s), feasibility studies demonstrating impacts on public and private landowners, the method and value of charges on future development and a financial impact statement for the project.

Establish a national passenger operator

Recommendation #9:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts should examine the establishment of a National Passenger Rail Operator to provide regular inter-state regular passenger services. These should include comfortable overnight sleeper trains as well as faster tilt-trains, and in the longer term, high-speed trains.

Currently inter-state rail services (other than specialised tourist trains) in Australia are a disgrace:

- There are only three return services per day from Sydney to Canberra, taking over 4 hours and averaging less than 75 km/hr, making them uncompetitive with both air and driving. By comparison,

¹² National Academies of Sciences, Engineering, and Medicine. 2016. Guide to Value Capture Financing for Public Transportation Projects. Washington, DC: The National Academies Press. <https://doi.org/10.17226/23682>.

there are 34 daily return services between Stockholm and Gothenberg in Sweden, which have a smaller total population and are further apart, but are served by fast, electrified tilt trains averaging 125 km/hr.

- There are only two return trains per day between Sydney and Melbourne, operated by 40 year-old XPT trains averaging only 80 km/hr, which are uncompetitive with both driving and air.
- There is only one return rail service between Sydney and Brisbane, and the northbound service arrives in Brisbane at 4.53 am and takes 14 hours, averaging just 64 km/hr!
- There are no rail services at all between Canberra and Melbourne, and no daily services between Melbourne and Adelaide, just the Overland service every few days.

This situation is because our interstate rail links have 19th century alignments with many speed restrictions due to curves, and because there is no political or other incentive for State Governments to provide improved services.

In contrast there are now over 20 countries globally with high-speed trains services with top speeds of 250 km/hr or greater, and many more with top speeds of at least 200 km/hr. Where higher speeds have been introduced, passenger rail travel has experienced a major revival, in some cases largely replacing air travel for up to 400 km, and strongly competing with car and air travel for journeys of 400 – 1000 km.

In addition, there is a major trend in Europe back to overnight sleeper trains, which had almost disappeared. These allow comfortable travel between cities 700 km or further apart, with passengers being able to arrive refreshed at their destination in the morning and to avoid overnight accommodation.

A similar revival is possible in Australia with an innovative passenger rail operator and with a staged improvement in rail alignments and infrastructure. However, it is doubtful that a State-based operator will have the right incentives or be able to achieve the economies of an integrated interstate network.

Accordingly, the Federal Government should establish such an operator, to introduce new rollingstock such as sleeper trains and tilt trains, and to work with the High-Speed Rail authority to steadily increase the speed and frequency of interstate passenger rail services. Because rollingstock has a typical economic life of up to 40 years, it should be owned by the Government Operator. However, the actual operation could and probably should be franchised to a suitable passenger rail operator with the necessary experience and track record to launch a new era of passenger trains in Australia.

In the first instance, new daily return services between the major capitals (Sydney, Melbourne, Canberra and Adelaide) should be introduced, including accelerated services with fewer stops using tilt trains to produce travel times competitive with driving, plus overnight sleeper trains where appropriate. Once sections of high-speed line are completed, services would be progressively accelerated and enhanced, with full high-speed services introduced once the first complete corridors were built to high-speed standards.

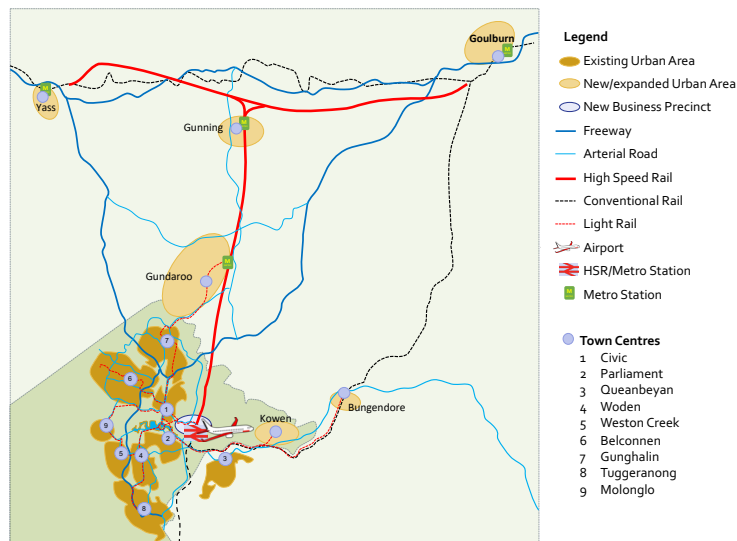
Start implementation of the Canberra spur of high speed rail

Recommendation #10:

The Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts, in conjunction with the High Speed Rail Authority, the NSW State Government and the ACT Government, establish a project to implement high speed rail from Canberra to Goulburn and Yass, including:

- The planning and construction of new high speed rail infrastructure, including new or upgraded stations;
- The planning and development of a new regional transport hub in Canberra;
- The planning and design of new or expanded business precincts and/or urban areas at stations along the line;
- The introduction of new fast commuter and long-distance passenger services radiating out of Canberra.

Implementation of high speed rail track has to start somewhere. The section of high speed rail from Canberra out to Goulburn and Yass has many strategic advantages why it should be the first high speed track to be implemented.



Canberra spur of high speed rail

The Canberra spur’s primary advantage is it can be constructed as a standalone project that is about the same size as many of the current major transport projects in Sydney, Melbourne or Brisbane. That means it does not face any challenges not already encountered in Australia. This contrasts with sections of the line from Sydney to Newcastle which will take longer to complete due to greater engineering risk, and have greater operational risk in integrating with services using the current network within Sydney.

The primary benefits of this line are the facilitation the growth of Canberra and the Capital Region as well as enabling faster passenger services to Sydney. In addition, it requires all elements for the provision of high speed rail services in Australia to be addressed. Therefore it is best placed to serve as an early foundation for a national high speed rail network in Australia.

The features of this section of high speed line that stand out to make it the first section built include:

STANDALONE SCOPE

The Canberra section of the high speed rail line is largely a self-contained project that is worth doing in its own right. It can be treated as a “no regrets” project. It will open the opportunity to introduce faster intercapital and regional commuter services. These will increase travel from Sydney and Melbourne by significantly reducing travel times and open the corridor for future urban expansion of Canberra. These benefits are not dependent on the addition of future stages of high speed rail, or the completion of the full Sydney-Melbourne high speed line. The relative success of these services, and the wider regional economic benefits they bring, will be important factors in justifying the implementation of further stages of faster or high speed rail line.

URBAN DEVELOPMENT

This section of line is essential infrastructure to open the potential for the ongoing growth of Canberra. The line opens two new areas for expansion of the urban area north of Canberra that need faster rail connections to be considered as suburbs of Canberra. It is unlikely that this population growth will occur without the implementation of this section of high speed line.

It also frees the existing rail line to Bungendore, allowing Canberra’s light rail network to be expanded to connect Queanbeyan, and on to a third proposed urban renewal area (Kowen) and Bungendore (potentially using tram-train rollingstock).

NATIONAL RAIL INFRASTRUCTURE

The high speed line crosses the border between NSW and the ACT, which makes it national infrastructure. In fact, it is unlikely to proceed without federal leadership, backed by both the ACT and NSW governments. It is therefore an opportunity to implement national rail governance for both freight and passenger services, that shares responsibilities equably between the state and federal governments.

This section of line is unique in needing new rail governance arrangements to be put in place, that will carry on for all future stages. It is proposed the new high speed line would be owned and built by the Australian Government on land reserved by the relevant state/territory governments. This arrangement can be achieved by creating new financing joint ventures for each section of track. It also creates the need for the High Speed Rail Authority to acquire the skills and expertise needed to build and manage high speed rail infrastructure.

NATIONAL PASSENGER OPERATOR

The new services using this line will cross state borders, opening the opportunity to create a national rail carrier. It is proposed that this new carrier should offer commuter services between Goulburn and Yass to Canberra, and long distance passenger services using the existing conventional line to Sydney and Melbourne (and other major regional cities on the line).

The introduction of new services from a national carrier will also enable transition to improved rail technologies. In particular, it is recommended that new tilt trains using hydrogen fuel cells or batteries should be acquired. This will leverage the proven ability for tilt trains to improve the performance of services on this route, plus seed the transition to renewable energy in the rail industry.

NATIONAL RAIL STANDARDS

This section will ultimately carry high speed Canberra-Sydney and Canberra-Melbourne services, potentially operating at up to 350km/h. Therefore the track should be built to the appropriate standards to support these services. Not only does this require the establishment of an Infrastructure Manager with the appropriate capabilities, but the standards set for this section of track will continue to be applied across all future sections when they are implemented.

CANBERRA/REGION ECONOMIC DEVELOPMENT

There are a range of development opportunities that should be undertaken in conjunction with the rollout of high speed rail to Canberra. The new station in Canberra should be designed to support its central role in a future national integrated rail network. It should be designed as a transport hub connecting intercity and commuter services on the high speed line with other regional services to the south and east, and with the light rail network connecting it to all town centres within Canberra. It should also be planned as a mixed business and tourism precinct that could evolve into a major activity centre as part of Canberra's long term growth.

Other opportunities include the potential for rail stabling, maintenance and training facilities, perhaps to the north of Canberra. This area could also be a good location for a 'technology park' with mixed business and research facilities including cleaner advanced manufacturing facilities, capable of attracting business in the rail, defence and high technology industries.

For further information, see *Implications of High Speed Rail for Canberra and the Capital Region* - <https://www.fastrackaustralia.net/canberra-implications>

Conclusion

The Australian High Speed Rail Association and Fastrack Australia are grateful for the opportunity to provide our recommendations for the 2024-25 Commonwealth Budget.

The recommendations and suggestions made in this submission are practical steps to commence the development and implementation of an efficient national rail network providing faster connectivity essential for a modern economy in the 21st century.

If you require any additional information, please feel free to contact Joe Langley on 0458 053 520, or via email to joe.langley@auhsr.org.

Yours Sincerely

Joe Langley

Director – Australian High Speed Rail Association

Ross Lowrey

Fastrack Australia