

## Significance of High-Speed Rail

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Regions of the world with well-established high-speed rail networks intrinsically understand the transformative effect high-speed rail can have on the economic and social development of the cities and regional centres it connects.

The Japanese experience is the gold standard, with almost half a million passengers using the Shinkansen to travel a distance of more than 500km between Tokyo and Osaka alone every day.

Operational for more than half a century, the Shinkansen is synonymous with Japan and has changed how Japan does business, connects its people and shaped its future.

As the only populated continent yet to embark on its high-speed rail future, Australia must draw on the success and experience of others around the world.

One clear lesson is that those who plan well for high-speed rail benefit most from this critical infrastructure.

In Japan, the government planned for future high-speed rail routes over time to ensure the network could continue to grow and develop with the needs of its growing population – and that continues today. In Europe, the French experience also highlights the importance of foresight.

Lille has been a clear beneficiary of high-speed rail connections, in large part because of the regional centre's plan to take advantage of improved connections with Paris.

The establishment of the Euralille renewal area created the focus around high speed rail that was needed to drive new social and economic opportunities.

The area is now the third largest business quarter in France and is driving an innovation culture that comfortably aligns with its high-speed rail origins.

The same can be seen in the UK, where King's Cross has emerged as a new employment hub with rising property values since embarking on a redevelopment program motivated by the fact that it was home to the high-speed rail terminal connecting London with Europe.

These are valuable observations for Australia, where high-speed rail remains a longer term focus. With major city centres spread across vast distances, the potential to introduce high-speed rail between Australia's east coast cities is an appealing prospect.

Naysayers argue that Australia's population is too small and the distances between cities too long to support high speed rail. A 2013 Australian Government high-speed rail study refutes these views.

At 350km/h, high-speed rail between Melbourne and Sydney and Sydney and Brisbane would achieve a CBD to CBD travel time under three hours, the widely recognized time limit required to see a shift from plane to train.

Australia has one of the most urbanized populations around the globe.

The country's three largest cities of Sydney, Melbourne and Brisbane have all been identified as fast growing cities, forecasting population increases ranging from 68-83 per cent in the next 40 years.

By 2075, the demand for efficient, high-capacity transport services between Australia's east coast cities will likely exceed the capacity of existing and planned road, rail and aviation services.

Even with our current population, the air route between Sydney and Melbourne was the second busiest domestic route in the world before COVID-19, carrying more than 9 million passengers in 2019.

Clearly, Australia has the domestic travel demands to support high-speed rail, which would provide a competitive alternative for the many business travellers that make that trip each day.

Just as networks like the Cologne to Frankfurt line in Germany saw a sizeable shift of business travellers to rail, the opportunity to grow modal share in Australia is clearly there.

But despite this obvious potential, the fundamentals must be addressed first.

The rail network in Australia is not governed nationally, but rather at a state level.

Unlike other countries that established clear and long term plans to realise the many benefits of a high-speed network, Australia still has work to do to establish a coordinated, national approach that will make the most of its rail network in the future.

Further, the corridors for high-speed rail are yet to be secured and this remains a clear priority to secure the future growth of the network.

Acquiring land for the high-speed rail corridor will require the collaboration of three levels of Australian government; national, state and local. With the cost of doing so only likely to rise with time, this is an essential and urgent task for Australian governments to address.

Australia's independent infrastructure advisor; Infrastructure Australia has recognised this, adding corridor preservation for east coast high-speed rail to its Infrastructure Priority List in 2016.

Now recognised as a high priority initiative, the Australasian Railway Association has advocated for this to be progressed as soon as possible so high-speed rail can become a reality when the time is right.

In the meantime, national and state governments are looking to faster rail improvements to unlock new value in Australia. Australia's rail connections into the regions and between capital cities is not to global standard in terms of speed, frequency or reliability.

Fast rail has been widely accepted as an essential short term focus to better connect Australia's cities with their surrounding regional centres.

Progressive upgrades to the existing network are being explored to improve speed, frequency and connection times and ensure rail is better competing with road on key strategic routes.

Just as the West Coast Modernisation project delivered significant and tangible gains in the UK, staged and targeted investment to upgrade Australia's existing rail network could make a real difference in the next five to 10 years.

This work would also be a good complement for high-speed rail when it becomes a reality.

With the long term growth projections confirming high-speed rail should ultimately be part of Australia's future, the planning for its introduction must progress now, the first step being corridor acquisition.

And with the international learnings of those that have forged ahead on this path already, there is every opportunity to make that step a highly successful one for our economy and communities.