



Association Number A03958 | ABN 64 217 302 489

# AUSTRALASIAN RAILWAY ASSOCIATION

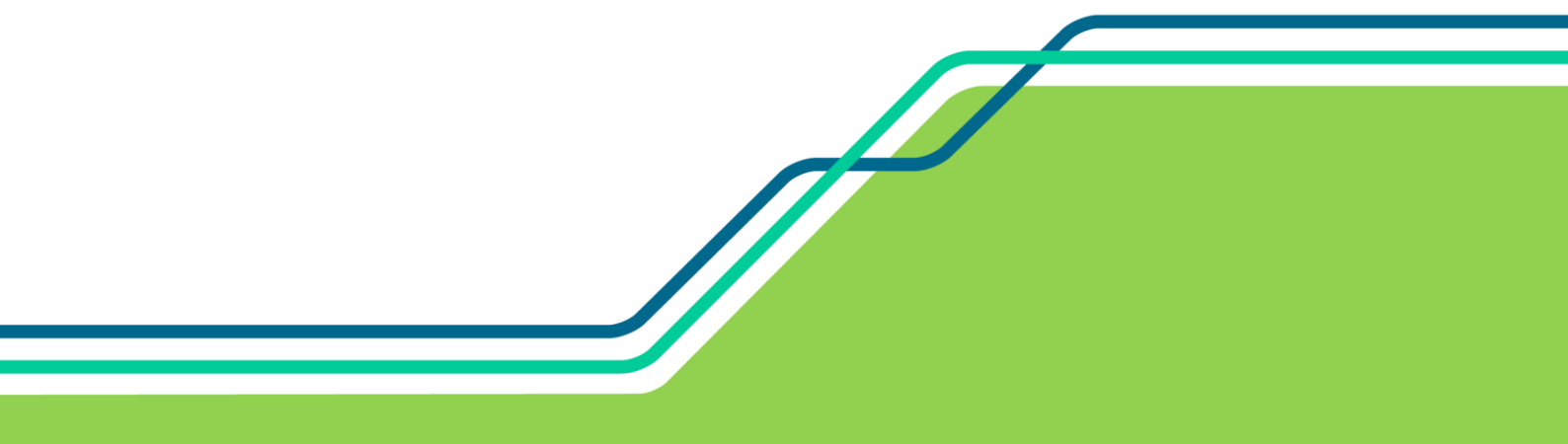
## SUBMISSION

To

The Treasury

On

2020/21 Pre-Budget Submission



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## Background

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The Australasian Railway Association (ARA) is a not-for-profit member-based association that represents rail throughout Australia and New Zealand.

Our 150 members include rail operators, track owners and managers, manufacturers, construction companies and other firms contributing to the rail sector.

We provide one voice for the rail industry by advocating our research and policy positions to the Commonwealth, state and territory governments and other relevant stakeholders.

To support our members, we commission research and develop policy positions that strive to improve the environment for rail now and into the future. We unite our members through committees and working groups to workshop common challenges and create a platform for collective improvements; and we run a variety of events, programmes, conferences and training courses to facilitate networking, professional development, knowledge and information sharing.

We support rail careers by marketing the rail sector to graduates, employees and school leavers, and undertake several initiatives to attract and retain women and young rail professionals under 35 years of age to the industry.

### **Rail in Australia**

Australian railways primarily involve moving urban and inter-city passengers and bulk commodities for export.

Australia's population has grown by 25% since 2000. The current growth rate of 1.5% per year places Australia amongst the highest in the OECD. Australia will have 30.5 million people by 2031, but this growth will not be evenly spread. The majority will be in major cities, with both Sydney and Melbourne expected to grow by around 3 million each by 2060. The population density of these cities will increase because natural boundaries, personal preferences, and commuting constraints will mitigate against growth of the physical footprint.

Cities are increasingly investing in integrated transport systems that link high-capacity metro systems with light rail, regional rail, and other transport modes to encourage active and engaged community-based lifestyles. Rail provides the backbone of public transport systems. Continued improvements through technology, infrastructure investment, research and development and expansion will increase the service and capacity offering, while positioning rail as a viable alternative to the motor vehicle.

In 2017-18 total urban heavy rail patronage was 726.4 million passenger journeys, while for light rail there were 235.4 million passenger journeys. Australia has an estimated 32 900 route-kilometres of operational heavy railways, approximately 10 per cent of which is electrified. There are 314 route-kilometres of operational light railway.

Weekday commuting to central city areas in major cities is the key passenger rail task; while more than one-half of Australian freight transport activity is by rail, primarily founded on the transportation of iron ore, coal and grain primarily to ports for export. Rail is also often central to moving other bulk commodities such as sugar and timber, especially to ports, as well as containerised export agricultural commodities and consumer goods. Rail's mode share of non-bulk freight is highest between the eastern states and Perth.

Rail freight provides a cost-effective, safe, and environmentally sound solution for reducing congestion from heavy vehicles on urban, regional, and interstate roads. Rail freight, as part of a supply chain, will continue to play a greater role in the future to meet Australia's freight task and to maintain our international competitiveness.

The rail industry has an economic contribution to GDP of \$26 billion consisting of \$13.3 billion of direct value and \$12.8 billion in indirect; and supports over 140,000 jobs, consisting of an estimated 53,490 FTE workers employed directly. This will continue to increase with governments around Australia investing some \$200 billion into rail in the coming years.

Rail is a significant regional employer. Fifty-eight percent of rail freight's 13,500 workers are based in regional areas and 46% of railway rolling stock manufacturing and repair services jobs are outside the eight capital cities.

### **Industry Structure**

The Australian rail industry consists of vertically separated and vertically integrated railways.

In vertically separated railways, the railway infrastructure manager does not operate revenue earning rail services. Instead, it sells track access to train operators under an "open access" regime.

Integrated railways manage the network's infrastructure and access while also operating trains on the track. Integrated railway owners may provide "third-party access" to other train operators.

In 2019 there were 29 principal train operators in Australia operating freight or heavy or light rail services utilising an estimated 2000 operational locomotives.

## Executive Summary

Australia's rail industry, like many industries across the country, has been significantly impacted by the COVID-19 pandemic. The ARA's passenger rail operators have reported an average patronage decline of 90 per cent across the country, and our rail freight operators have reported significant delivery delays and increased costs because of international border closures and falls in consumer spending.

A member survey conducted by the ARA in April this year revealed that the most important thing governments could do to support the recovery process was to maintain their project pipelines. Ensuring that there is a steady stream of rail projects in place, combined with strong local content policies and smarter procurement processes, will ensure that the entire rail supply chain and the broader industry will be well positioned for a strong rebound.

The ARA's Pre-Budget Submission (2020-21) focuses on both key infrastructure initiatives, as well as skills, workforce development and innovation initiatives. These proposals are designed to assist the industry recover through projects that generate economic activity and growth. The proposals also ensure the industry has a skilled workforce for the future that is supported by local supplier innovation, competitiveness, and sustainability.

### **The ARA's key recommendations are:**

#### Infrastructure initiatives

- **Faster Rail:** The Commonwealth government honours its commitment from the 2019-20 Budget and completes the following five business cases for faster rail opportunities as soon as possible: Sydney to Bomaderry; Sydney to Parkes; Melbourne to Albury-Wodonga; Melbourne to Traralgon; and Brisbane to Gold Coast.
- **Level Crossing Safety Upgrades:** The Commonwealth Government support the work currently underway by the Office of the National Rail Safety Regulator (ONRSR) to develop a National Level Crossing Portal, by providing any additional resourcing or support needed to streamline the completion of the project and secure the necessary jurisdictional data.

Once completed, it is recommended that the Commonwealth Government work with industry and the detailed data available within the portal to develop a prioritised national list of level crossing removal projects, particularly focussing on high-risk crossings in regional areas. The data available through this historic initiative will, for the first time, allow for a truly data driven approach to improving the rail and road safety outcomes across the country related to level crossings.

Skills, Workforce, and Innovation initiatives

- **National Rail Skills Academy:** The Commonwealth Government establishes the National Rail Skills Academy to promote careers, improve pathways into the industry, upskill existing workers, introduce specific rail courses at universities and support employers to train existing workers. The National Rail Skills Academy will require funding of \$10 million over four years to support its activities.
- **Infrastructure Skills Organisation:** The Commonwealth Government establishes the Infrastructure and Built Environment Skills Organisation (IBESO) with a budget of \$30 million over five years to bring industry representative together to improve the skills and employment outcomes for VET students and industry and that the IBESO be modelled on the recommendations contained within the Joyce Review.
- **Smart Rail Innovation Hub:** The Commonwealth Government funds the establishment of a Smart Rail Innovation Hub to the value of \$25 million over 4 years to:
  - Improve the competitiveness, productivity, and sustainability of the Australian rail industry
  - Foster high quality research to solve problems through industry-led research partnerships between industry and research organisations
  - Establish strong links with the next generation of rail professionals through the National Rail Skills Academy
  - Encourage and facilitate small and medium business enterprises' (SME) participation in collaborative research.
- **'COVID Safe' R&D Fund for passenger rail:**
  - The Commonwealth Government, with support from the States and Territories, establishes a COVID Safe Research and Development Fund for the Public Transport Sector.

OR

- The Commonwealth Government utilises the Australasian Centre for Rail Innovation (ACRI) and provides dedicated funding for it to explore technological and innovative solutions for the passenger rail network to minimise the risk of COVID community transmission

**Attachment A – ARA Submission to Infrastructure Australia**

Provided as an attachment to this submission is a copy of the **ARA Submission to Infrastructure Australia** earlier this year. This submission outlines proposals for rail projects and reforms that could be supported by Government to act as economic stimulus for the rail sector and broader economy in the post COVID world. The ARA would recommend consideration also be given to the infrastructure and economy stimulating proposals outlined in that submission in the context of the Commonwealth Budget 2020/21.

## Faster Rail

Faster Rail has been on the Commonwealth Government's agenda since March 2018 when it announced \$20 million to support the development of three faster rail business cases on the east coast.

Today, there are several faster rail project business case assessments underway at a national and state/territory jurisdictional level. Many of these are for completely new rail services, including infrastructure and rolling stock. However, investing in existing infrastructure for incremental improvements that ease existing bottle necks such as signalling, passing loops (to allow passenger trains to pass freight trains), track upgrades, duplications etc could cost effectively increase infrastructure capacity and train speed to deliver faster rail services.

The ARA advocates for a practical approach to faster rail in Australia. Specifically, the ARA advocates that faster rail is achieved in the following three stages:

- **Immediate – existing infrastructure:** The benefits of incremental improvements to increase travel times on existing networks cannot be overlooked. The ARA advocates for the first step in achieving faster rail to be investing in existing infrastructure. Easing existing bottlenecks by modernising signalling systems, adding passing loops (to allow passenger trains to pass freight trains), improving the quality of existing track through track upgrades, removing level crossings and separating freight and passenger rail lines will cost effectively increase infrastructure capacity and speed.
- **Medium term – new rail lines:** The ARA supports the exploration of and commitment to new faster rail lines to improve rail connections from Australian cities into regional areas as a medium-term priority. This will help to decentralise the population and position regional areas as viable places to live and work.
- **Long term – High Speed Rail:** The Commonwealth Government conducted two studies into High Speed Rail along Australia's east coast in 2010 and 2013. At the time, the largest construction cost, 29% was for 144km of tunnels, almost half of which (67 km) were required to get into and out of Sydney. The ARA advocates for the land to be acquired to protect the corridor for high speed rail so that the tunnelling requirements do not continue to increase, and the land is available for the project when the time is right.

In the 2019-20 Budget, the ARA welcomed the Government's commitment to fund an additional five business cases for faster rail in priority corridors. The five new faster rail business cases are on corridors that connect capital cities with major regional centres and warrant investigation due to the opportunity to shift commuter demand from road to rail. Investment in faster rail has the potential to stimulate regional growth and provide access to jobs, services, housing, and amenities.



Unfortunately, it appears that the business cases for these five new faster rail opportunities have yet to be progressed. The ARA believes these should be fast tracked for completion to ensure the economic opportunities that faster rail delivers can be realised as soon as possible.

**Recommendation:** The Commonwealth government honours its commitment from the 2019-20 Budget and completes the previously identified five business cases for faster rail opportunities as soon as possible: Sydney to Bomaderry; Sydney to Parkes; Melbourne to Albury-Wodonga; Melbourne to Traralgon; and Brisbane to Gold Coast.

## Level Crossing Safety Upgrades

In Australia, there are over 23,000 level crossings representing a major risk to rail and road safety by exposing train drivers, passengers, pedestrians, motorists, and cyclists to collisions that often result in serious injuries or fatalities, as well as an economic impact. The Office of the National Rail Safety Regulator (ONRSR) reported 100 rail fatalities in the 2018-2019 financial year, 10% of these fatalities involved level crossings, 80% were suspected suicides with the remaining fatalities occurring from rail trespass and falls at railway stations. Over the last four years, from 1 January 2015 to 31 December 2018, there were 119 collisions and 3,168 near misses at level crossings. Upgrading level crossings from passive to active saves lives and accidents.

The costs associated with level crossing removal can be significant, particularly in city and metro environments. This is perhaps most clearly demonstrated by the Victorian Government's initiative to have a total of 75 level crossings removed by 2025 at an estimated total cost of \$8.4 billion.

The ARA believes that the removal of level crossings remains an important public safety issue across the country. In regional Australia, many level crossings are protected by nothing more than a stop sign. Even relatively simple upgrades such as boom gates in these locations could dramatically improve the safety outcome for those communities. The ARA believes the Commonwealth Government has an important role to play in supporting the states reduce the number of safety incidents and fatalities that occur at level crossings across the country every year.

To appropriately address this issue, it is important that to be able to secure and analyse the level crossing safety, incident, and risk data to make an informed decision on prioritising level crossing safety upgrades. There is currently an important initiative underway with the Office of the National Rail Safety Regulator (ONRSR) to develop a National Level Crossing Portal.

This portal seeks to draw data from the Australian Level Crossing Assessment Model (ALCAM) database, as well as other data sources from each jurisdiction to create an online portal that provides a centralised national platform and graphical interface for industry to access and manage critical level crossing safety information. The data available will be very comprehensive



and accessible, with detailed information on the location of level crossings, number and type of incidents, risk rating, current safety measures and much more.

The development of the portal is progressing well, however the main risk to delaying the project is securing the necessary data from each jurisdiction. ONRSR is progressing discussions with the relative stakeholders, however any support or resourcing that could be provided to ONRSR to streamline the process would be very beneficial.

The completion of this portal would provide unprecedented visibility and access to invaluable safety information that could be used to assist governments in prioritising safety upgrades or removals of level crossings at a national level. This would result in a data driven and efficient use of funds, targeted at the locations most at risk and in need of attention.

**Recommendation:** The Commonwealth Government support the work currently underway by the Office of the National Rail Safety Regulator (ONRSR) to develop a National Level Crossing Portal, by providing any additional resourcing or support needed to streamline the completion of the project and secure the necessary jurisdictional data.

Once completed, it is recommended that the Commonwealth Government work with industry and the detailed data available within the portal to develop a prioritised national list of level crossing removal projects, particularly focussing on high-risk crossings in regional areas. The data available through this historic initiative will, for the first time, allow for a truly data driven approach to improving the rail and road safety outcomes across the country related to level crossings.

The ARA has also **consulted with Roads Australia** (the peak body for roads within Australia's integrated transport system) and is pleased to **confirm their support of this proposed initiative**, which will be reflected in their pre-Budget submission.

## National Rail Skills Academy

In May 2018, the Australasian Railway Association (ARA) engaged BIS Oxford Economics to undertake a workforce capability analysis for the rail industry based on planned and forecast rail infrastructure development in Australia over the next 10 years, with implications for a range of rail industry skills across construction, manufacturing, operations and maintenance.

The Report, entitled *Australasian Railway Association Skills Capability Study*, completed in November 2018 found overwhelming evidence that there is a fast-developing skills crisis in the Australian rail industry. With every new rail project announcement, the skills crisis deepens, and the inevitable result will be a substantial blowout in project costs and unavoidable delays in project delivery.

Modelling by BIS Oxford showed that a skilled labour crisis in the rail sector will deliver a substantial blowout in project costs and delivery delays to rail projects in Australia over the next



decade. By 2023, the peak of the construction phase, workforce gaps of up to 70,000 skilled workers across all skill levels have been predicted.

In order to meet these workforce challenges, the ARA recommends the establishment of a National Rail Skills Academy to lead a co-ordinated effort between schools, RTOs and TAFEs, universities, and rail employers to develop improved pathways for students to enter the rail industry. Too often the rail industry hears stories of how our workforce ‘fell into rail’, rather than followed a clear pathway into the industry. The skills crisis is evidence that partnerships between schools, RTOs and TAFEs, universities and the rail industry are needed to develop long-term solutions to skills shortages.

The National Rail Skills Academy would include partner schools, RTOs and TAFEs, universities and rail companies working together to promote careers, improve pathways into the industry, upskill existing workers, introduce specific rail courses at universities and support employers to train existing workers. The National Rail Skills Academy would be virtual, bringing existing entities under the umbrella of the Academy to deliver coordinated education and skill solutions.

The rail industry and government would provide funding to support the implementation of the National Rail Skills Academy and its activities, which may include:

- Science, technology, engineering, and maths (STEM) camps and programs for students in academy partner schools
- Trade skills development camps for students in academy schools
- Teacher professional development opportunities such as industry placement and tours
- Train the trainer programmes to grow the number of trainers in key areas such as signalling, which is experiencing significant skill shortages
- Common curricula delivered in academy schools, RTOs and TAFEs, and universities to provide a rail context across subject and course offerings
- Rail engineering challenges delivered in academy schools by partner universities
- Direct pathways for academy students into partner TAFEs, RTOs, and universities to grow the number of people in rail courses and subjects
- Introduction of rail specialist courses in partner universities
- Career presentations to students
- Work placement opportunities for students in academy schools, universities, and RTOs
- Cadetships for university students to expand their knowledge and skills in rail and improve job readiness
- Scholarships and sponsorship for academy students
- Introduction of common curricula and courses across partner universities for rail engineering
- Introduction of common teaching materials across partner TAFEs and RTOs to ensure consistency in teaching trades leading to employment in the rail industry
- Facilitating meetings between trainers and lectures from academy partners to develop national approaches to teaching, content, and assessment to improve consistency of training outcomes.



The Academy would be led by a board consisting of industry, training organisation and university representatives. Based on the costs of similar initiatives in other industries, the funding of the National Rail Skills Academy would require \$10 million over the next four years.

**Recommendation:** The Commonwealth Government establishes the National Rail Skills Academy to promote careers, improve pathways into the industry, upskill existing workers, introduce specific rail courses at universities and support employers to train existing workers. The National Rail Skills Academy will require funding of \$10 million over four years to support its activities.

## Infrastructure Skills Organisation

The Commonwealth, state and territory governments have announced some \$200 billion in rail projects through to 2030. This investment includes building new infrastructure projects and upgrading existing rail infrastructure.

Currently the national arrangements for developing the qualifications that support infrastructure development, construction, rail, and road are split across various Industry Reference Committees and Skills Service Organisations in the national Vocational Education and Training (VET) system. These existing arrangements will not support the development of the necessary skills to deliver the announced infrastructure project pipeline.

One of the recommendations made by the *Expert Review of Australia's Vocational Education and Training System* (the 'Joyce Review') was to establish industry-owned and government-registered Skills Organisations that would take responsibility for training packages and qualification development processes for their industries, as well as adopt additional functions that would connect them to all parts of the VET system.

Whilst the Australian Government Department of Employment, Skills, Small and Family Business is currently piloting three Skills Organisations and is expected to tender for the establishment of further Skills Organisations in the future, there is an urgency to the establishment of an Infrastructure and Built Environment Skills Organisation (IBESO) that exceeds these processes. Without urgent action to address the skills challenges across infrastructure-related industries, the enormous forward pipeline of infrastructure work is at risk.

The ARA recommends the Commonwealth Government establish the IBESO to replace and bring together the existing Rail Industry Reference Committee (IRC), Construction, Plumbing and Services IRC and the Civil Infrastructure IRC under one skills organisation to focus on building and construction, infrastructure, rail and roads.

The IBESO would bring together key employers and their industry associations to develop the qualifications to build, train and upskill the workforce to deliver on governments' pipeline of infrastructure projects.

The IBESO Board would consist of senior representatives from key membership organisations and unions with an independent chair appointed to lead the Board. There has been a long tradition in training that a bipartisan approach between industry and unions is adopted and this would be built into the IBESO constitution.

Three sub-committees to support the Board would be formed to provide specialist advice on skills and training packages. Each Committee would be chaired by a relevant Board member. These Committees would focus on:

- Construction and built environment
- Rail
- Infrastructure.

In line with the recommendations of the Joyce Review and the draft Pilot Skills Organisation principles developed by the Department of Education, Skills and Employment, the proposed Skills Organisation (SO) will take responsibility for an integrated set of functions that will service the skill and workforce development needs of the following industry sectors:

- Infrastructure - including road construction and maintenance, plant operation, pipeline construction and pipe laying, trenchless technology, bridge and marine, sewers, water treatment systems and dams, piling, foundation work, tunnelling and railway construction, general civil construction operations, and preparatory site works for engineering, construction and infrastructure development
- Construction and built environment - including engineering and technical services, building structures, building completion services, residential building construction and non-residential building construction, land development and site preparation, building installation services, architectural and other construction services.
- Rail – including track protection, shunting, rail track vehicle driving, tram or light rail infrastructure, customer service, rail driving, rail track surfacing, signalling, electric passenger train guard, track protection, heritage locomotive assistant or steam locomotive fireman, train driving, safety investigation, network control, safety management, tram/light rail control and rail operations management.

It is recommended that \$30 million over five years be provided by the Commonwealth Government to establish and implement the IBESO. An independent review in the third year of operation would be conducted with recommendations adopted in the fourth year of operation.

**Recommendation:** The Commonwealth Government establishes the Infrastructure and Built Environment Skills Organisation (IBESO) with a budget of \$30 million over five years to bring industry representative together to improve the skills and employment outcomes for VET students and industry and that the IBESO be modelled on the recommendations contained within the Joyce Review.

## Smart Rail Innovation Hub

The ARA recognises the importance of investing in technology development and innovation for the rail industry's success and longevity. Enhancing the capability of the local supply chain is critical in continuing to provide enhanced value and to compete internationally. Research and Development (R&D) is a crucial component of innovation and a key factor in developing new competitive advantages. R&D contributes to innovation, innovation to improved productivity, and improved productivity to economic and jobs growth.

Yet, investment in R&D in Australia remains relatively low compared to other OECD countries. This no doubt influences the performance, and in turn, competitiveness of the local rail supply chain. To support the significant growth in the Australian transport sector and continued investment in rail, it is crucial that governments support R&D and commercialisation activities undertaken by local suppliers, and that procurers invest in new technologies in supporting the local supply chain, so generating more efficiencies in Australian rail construction and rail network operations.

Rail-related Cooperative Research Centres have existed since 2001 providing opportunities for collaboration between researchers and industry. The current Rail Manufacturing CRC (RMCRC) recently concluded in June 2020. The void created from the conclusion of the Rail Manufacturing CRC is expected to be significantly felt by rail manufacturers and suppliers. Several the RMCRC's projects have potential commercial opportunities, with six new technologies likely to yield commercial returns in the two years. The RMCRC has also worked closely with industry to address a number of opportunities the rail sector has identified in relation to future digital technologies and future workforce needs.

Research and innovation programs like the RMCRC have contributed to an improved culture within the rail manufacturing supply chain, resulting in a better understanding of the benefits of collaborative research and development. As a result, greater engagement from the rail sector with universities and research institutions has been achieved. There is further opportunity to work closer with operators and purchasers, based on their technology roadmaps. This would enable both rail organisations and research providers to better understand Australian rail innovation needs and challenges.

The Smart Rail Route Map developed by the Australian rail industry in 2019 is a strategic framework to support the adoption and deployment of digital and communication technologies and maps a series of objectives and initiatives to address key challenges for the rail sector over the next 30 years, through which next generation rail technologies can be integrated and supported efficiently in the Australian rail environment. The ARA believes the establishment and funding of a *Smart Rail Innovation Hub* focussed on continued innovation and collaboration between industry and researchers would ensure the next wave of innovation and technology would be developed domestically.

Where the Smart Rail Innovation Hub would differ from a traditional CRC, is that it could have direct links to the proposed National Rail Skills Academy. This would provide an opportunity for



students to engage with the latest research and development initiatives within the industry and provide an insight into the exciting opportunities and breakthroughs they could be involved in. By linking the latest in research and development with a newly established skills pathway into the rail sector, the industry could help foster a new generation of highly skilled and passionate local talent to bring Australia's rail network up to global standards.

The impact of COVID-19 on global supply chains has demonstrated the importance of maintaining local capability and capacity. To stimulate the economy in post-COVID times, the ARA recommends the Commonwealth Government consider policy positions and support mechanisms to rebuild investment that facilitates long-term job growth. The ARA suggests that purchasers reconsider the approach of lowest cost off-shore procurement, and to prioritise in-sourcing by increasing local content provisions to facilitate job creation. This should be based on local manufacturing and supply chain capabilities and capacity, supported by a Smart Rail Innovation Hub to ensure stimulus and investment remains in Australia.

This new initiative, like a CRC, would be successful as it would assist in sharing the risk involved in the development of technology while simultaneously building networks across the supply chain. The Smart Rail Innovation Hub would also have strong links with the National Rail Skills Academy to foster local talent and increase the Australian rail sector's competitive advantage and creating a depth of industry capability.

**Recommendation:** The Commonwealth Government funds the establishment of a Smart Rail Innovation Hub to the value of \$25 million over 4 years to:

- Improve the competitiveness, productivity, and sustainability of the Australian rail industry
- Foster high quality research to solve problems through industry-led research partnerships between industry and research organisations
- Establish strong links with the next generation of rail professionals through the National Rail Skills Academy
- Encourage and facilitate small and medium business enterprises' (SME) participation in collaborative research.

## 'COVID Safe' Public Transport Research and Development Fund

The impact of the COVID pandemic on the public transport sector has been dramatic. As noted earlier in the submission, passenger rail operations have seen declines of approximately 90 per cent in patronage, with similar impacts also being felt by other mass transit modes such as aviation, buses, and ferries.

While some jurisdictions have made more progress towards recovery than others, it has unfortunately become clear with recent events that there is still a significant way to go until our normal travel habits begin to return to anything close to pre-pandemic levels.

While many businesses and governments involved in public transport are working hard to implement solutions and processes that ensure the safety of the travelling public, the ARA believes that the sector could benefit greatly from dedicated research into innovative 'COVID Safe' solutions to restore confidence into the travelling public and help restart the economy.

The Commonwealth Government has an opportunity to take a leading role in ensuring that our public transport system, in particular our passenger rail network, is well equipped to recover from this pandemic and well-positioned to respond to any similar situation in the future.

The ARA is recommending that the Commonwealth Government, in partnership with the States and Territories, provide funding dedicated towards research and development into technology and innovation solutions that minimise the risk of COVID transmission on mass transit public transport modes, including rail, aviation, buses and ferries.

While the ARA's proposed establishment of a Smart Rail Innovation Hub would focus on workforce development and innovations to improve the efficiency of rail manufacturing and infrastructure, the COVID Safe Research and Development (R&D) Fund would focus exclusively on innovations to make public transport as safe as possible from a health perspective.

The ARA has already had rail sector manufacturers from its membership indicate an interest in developing new innovations that could, for example, explore the development of upgrades to train heating, ventilation and air conditioning (HVAC) systems to improve filtration of particulates and reduce the chance of COVID transmission.

Unfortunately, given the impacts COVID has had on the industry there is very little capital available to explore such initiatives. Many businesses within the transport sector are having to significantly reduce costs and eliminate all non-essential spending, which of course impacts research and development activities. The availability of Government funding to facilitate this type of research and fast-tracked development could lead to significant health and safety benefits for public transport networks and increased community confidence, all of which is essential to restoring the Australian economy.

Recognising the constrained fiscal position, the Government is currently facing, the ARA would also support a smaller dedicated COVID Safe R&D funding initiative focused exclusively at rail operations. If this were to be considered a more practical solution, the ARA would recommend utilising the existing Australasian Centre for Rail Innovation (ACRI) to co-ordinate rail specific research and development.

ACRI is a well-established entity that undertakes targeted, applied research and strategic analysis to solve issues raised by rail industry participants to support and ensure continued improvement in productivity and sustainability to underpin the competitive position of the Australasian rail industry.





ACRI is uniquely positioned to draw together industry and governments and other entities with an interest in the rail and transport sector to tackle challenges and issues of common concern, this makes it particularly well-suited for research and development into 'COVID Safe' technologies and innovations in the rail industry..

The ARA is providing two recommendations for the Government to consider, with one focusing on a broader public transport sector initiative and the other focusing on a rail specific initiative.

**Recommendation:** The Commonwealth Government, with support from the States and Territories, establishes a COVID Safe Research and Development Fund for the Public Transport Sector.

This fund could be administered by the Commonwealth Department of Industry, Science, Energy and Resources utilising the existing Business Grants Hub. Industry participants could submit applications for research and development funding for COVID Safe technology and innovation projects, in accordance with specific program guidelines and criteria.

The fund would be made available to eligible operators and suppliers within the mass transit sectors of rail, aviation, buses, and ferries. The outcomes of the research and development would be shared across the industry, including coordination across sectors on innovations that could be applied to multiple mass transit modes.

#### **OR**

**Recommendation:** The Commonwealth Government utilises the Australasian Centre for Rail Innovation (ACRI) and provides dedicated funding for research and development of technological and innovative 'COVID Safe' solutions for the passenger rail network.

This fund could be supported by co-contributions from State Governments, several of which own and/or operate rail services and infrastructure. This fund would be made available to eligible rail operators and manufacturers, with the outcomes of the research and development to be shared across the rail industry.

Coordination would occur between light rail and heavy rail operators and suppliers to ensure that wherever possible, any research and development focuses on solutions that could be applied to both modes.

#### **ARA Contact**

If you have any queries regarding this submission or would like further information on any of the proposals, please contact:

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