

Chapter 4

Future of the industry

Barriers to growth and productivity

4.1 The following chapter reviews some of the barriers to the future growth and increased productivity of Australia's rail industry, which were identified by stakeholders. These issues include the current regulatory environment and the current progress of standardisation, and the need for further investment in technology and innovation. The chapter also examines the need for a national approach to infrastructure development, investment, procurement, research and development and workforce training.

Regulatory environment

4.2 As previously noted in this report, the fact that Australia's rail network operates across a large area – and frequently across multiple state access regimes – was identified by a number of stakeholders as a major barrier to growth and productivity.¹

4.3 Chapter 2 outlined some of the key challenges to productivity in the rail industry and for rail users. It considered evidence from CBH regarding its attempts to secure a long term 'below rail' access agreement, which had a negative impact this process had had on the company's productivity and competitiveness. As a result of its experience, CBH argued that if Australian industry and consumers are to benefit from rail's natural efficiencies, a consistent regulatory framework – which would ensure more efficient price setting and performance monitoring – is required.

4.4 CBH submitted that this would permit the movement of goods across Australia (and for export) to be as cost-efficient as possible. CBH also expressed the view that an opportunity exists for the rail industry to support national rail access reform along the lines of a national rail access regime, modelled on the key principles provided in the current ARTC access undertaking.² Further CBH argued that:

Not only would this provide fairer and more consistent regulation across Australia for users and operators, it would also lower regulatory imposts on above and below rail operators across Australia, improving Australia's competitiveness where rail is a link in export supply chains. By extension, this would increase opportunities for productivity and growth for Australia's rail manufacturing industry.³

1 See, for example Mr John Austen, *Submission 1*, Rail Industry Safety and Standards Board, *Submission 6*, CBH Group, *Submission 8*, Australian Manufacturing Workers' Union, *Submission 11* and Queensland Department of Transport and Main Roads, *Submission 15*.

2 Cooperative Bulk Handling Group, *Submission 8*, [p. 4].

3 Cooperative Bulk Handling Group, *Submission 8*, [p. 4].

Investment in rail versus road

4.5 As noted in previous chapters, over the past fifty years population growth has had a major influence on the way Australia approaches the planning of cities, land use and transport. As the demand for passenger and freight transport services – both within and between urban centres – has continued to grow steadily, the pressure on transport infrastructure will also continue to increase over the coming years.

4.6 It is in this environment that decisions will be made about how much (and where) to invest in transport infrastructure. A key part of ensuring that decision-makers take rail into consideration – and recognise rail as a viable investment option – is for the 'true value of rail' to be identified and understood.

4.7 As previously noted, historically, much of the increased demand for transport services has been met by road. The committee was informed that for Australia's freight systems to operate efficiently (and to prevent passenger networks becoming overburdened by congestion) this trend cannot be allowed to continue – particularly as populations continue to grow.⁴

4.8 Despite Australia's historic preference for road transport, however, it was argued that rail is already price competitive with road in some areas of the transport network – particularly freight – and with improved infrastructure and/or suitable pricing signals – it could become even more competitive.

4.9 As the name suggests, the ARA's 2011 *The True Value of Rail* report provided a detailed analysis of the value of rail in Australia. The report's authors – Deloitte Access Economics – considered the level and type of investments required for rail to achieve its potential, and identified the benefits that could flow from increased rail use. Specifically, the report identified the type of benefits (that are not typically captured in prices) and which accrue to the community at large. Some of these benefits include the following:⁵

Passenger transport

- Road travel produces more than 40 per cent more carbon pollution than rail travel per passenger kilometre.
- Road transport generates almost eight times the amount of accident costs that rail transport does.
- In the longer term, high speed rail provides the potential to alleviate the pressures that will emerge in moving people between major cities and along east coast corridors, particularly as Australia's population grows.

Urban passenger transport

- An additional commuter journey by rail, reduces congestion costs alone by between around \$2 and \$7.

4 Australasian Railway Association, *The true value of rail*, 31 August 2011, p. i.

5 The following section is based on information contained in Australasian Railway Association, *The true value of rail*, 31 August 2011, pp ii-iii.

- For every passenger journey made on rail rather than road in Australia's four largest cities, between \$3 and \$8.50 can be saved in congestion, safety and carbon emission costs.
- In Sydney, for example, if rail absorbed 30 per cent of the forecast increase in urban travel, then congestion, safety and carbon emission costs could be reduced by around \$1 billion a year by 2025.

Interstate freight transport

- Heavy vehicle road freight users do not face the full maintenance costs that they cause. Under-recovery of these costs has been estimated at between \$7,000 and \$10,500 per truck each year.⁶
- Freight moved between Melbourne and Brisbane by rail instead of road reduces carbon costs by around \$32 per container and reduces accident costs by around \$92 per container.
- If rail was to achieve a 40 per cent share of the north-south freight corridor market, then savings, in terms of carbon pollution and accidents, would be around \$250 million a year or \$530 million a year by 2030.

Freight transport within urban centres

- A greater use of rail for freight within urban centres, especially, Sydney and Melbourne, will be needed to alleviate the increasing congestion on road networks. Environmental and safety benefits would also accrue.
- The NSW and Victorian Governments have recognised the need to develop more effective rail freight services within their cities and have set targets accordingly. These goals aim to ease congestion on arterial roads and improve use of existing rail infrastructure and port land.

4.10 It was submitted that the costs associated with congestion, carbon emissions and safety (as outlined above) will increase over coming years. Further, it was argued that:

Increases in congestion costs are set to outpace the increase in either the size of the economy, the size of our cities or the size of our population. Policy makers are, therefore, faced with difficult decisions. Investment which recognises the value of rail could lead to significant benefits for Australia but these investments are large and can be administratively difficult.⁷

4.11 The ARTC acknowledged the historic and constant competition between rail and road transport. It noted that in addition to the barriers to entry into the freight rail industry being particularly high, new entrants face a number of additional challenges.

6 According to the Productivity Commission, *Road and Rail Freight Infrastructure Pricing*, 2006 and the National Transport Commission Review Steering Committee, *Review of the National Transport Commission*, 2009.

7 Australasian Railway Association, *The true value of rail*, 31 August 2011, p. iii.

These challenges include the operation of a high fixed-cost business, the need for considerable capital outlay, the difficulty of attracting a skilled workforce, and a lack of capacity (terminal) as well as the task of becoming an accredited rail operator, which has:

...traditionally been compounded by complex regulatory requirements that differ across jurisdictions and legislative compliance and access conditions, including route accreditation and audits. If new competitors establish they must maximise services to remain sustainable and given the fragmented end market in non-bulk sectors this can be a lengthy and costly process to achieve.⁸

4.12 Further, the ARTC indicated that both individually – and as a member of the FORG – it has lobbied for governments to prioritise measures to encourage efficiencies in the rail sector and create a level playing field between rail and road. The ARTC also argued that consideration should be given to opportunities for infrastructure investment with a view to improving rail productivity – particularly for short-haul rail transport – in addition to a review of environmental legislation, which differs across jurisdictions.⁹

4.13 The ARTC also expressed its strong support for the FORG's position that there is an urgent need for heavy vehicle road pricing reform as well as land preservation and terminal development.¹⁰

Research and development, technology and innovation

4.14 A number of stakeholders told the committee that it is vital the Australian rail manufacturing sector finds ways to increase its export offerings, and argued that the key to increasing Australia's competitiveness and expanding export opportunities is innovation.¹¹

4.15 Governments, it was argued, also have a role to play in supporting innovation. As the industry transitions to a new, more modern manufacturing model, governments can ensure that:

...tenders for rolling stock mandate a level of innovation in the procurements sought, in exchange for supportive government procurement policies and local content requirements, as well as significant investments through grant programs.¹²

8 Australian Rail Track Corporation , *Submission 18*, p. 4.

9 Australian Rail Track Corporation , *Submission 18*, p. 5.

10 Australian Rail Track Corporation , *Submission 18*, p. 5.

11 See for example, Rail Manufacturing CRC, *Submission 9*, p. 5, Australasian Railway Association, *Submission 7*, The Australia Institute, Centre for Future Work, *Submission 10* and Australian Workers' Union, *Submission 12*.

12 Rail Manufacturing CRC, *Submission 9*, p. 3.

4.16 Australian rolling stock manufacture continues to move toward building products that comply with global standards.¹³

4.17 RMCRC argued that this approach – which seeks an 'innovation dividend' from government procurements – will:

...help drive industry to greater collaboration on the development of new technology in rail manufacture, thereby increasing those businesses' capacity to compete on the global stage.¹⁴

4.18 It was noted that governments have made a "strong suite of programs available to support collaboration between industry and research organisations", which has been bolstered by the Commonwealth's \$1.1 billion *Innovation and Science Agenda* and other Commonwealth and state programs (including Cooperative Research Centres). Despite these programs however, RMCRC observed that "there remains a reluctance in rail manufacturing businesses to seize the opportunity to invest in innovation".¹⁵

4.19 Stakeholders acknowledged that the rail industry will need to face a number of critical challenges if it is to modernise and innovate.¹⁶ The committee heard that in the rail manufacturing industry, there is a connection between the lack of investment in rolling stock and a lack of commitment to innovation. The uncoordinated nature of rolling stock orders and the 'stop-start' cycle of production present a disincentive to investment and R&D.

4.20 A lack of in-house R&D expertise in manufacturing businesses has, in itself, created barriers to innovation. Over the coming years, this will present a significant challenge to government attempts to encourage and support innovation.

4.21 It was noted that the 'innovation challenge' within public policy – particularly for traditional manufacturing sectors such as rail – has not been given sufficient attention. Further, it was argued that while traditional businesses do not necessarily have the cache of a start-up, they often have a proven track record, and strong prospects for the future. What may be required, however, to achieve optimum innovation outcomes are different 'drivers'.¹⁷

4.22 The RMCRC told the committee that it would be a "tragedy for the Australian rail manufacturing industry" if, by the time the High Speed Rail and Inland Rail projects are realised, the required rolling stock could not largely be produced by Australian rail manufacturers.¹⁸

13 Rail Manufacturing CRC, *Submission 9*, p. 3.

14 Rail Manufacturing CRC, *Submission 9*, p. 3.

15 Rail Manufacturing CRC, *Submission 9*, p. 3.

16 Rail Manufacturing CRC, *Submission 9*, p. 1.

17 Rail Manufacturing CRC, *Submission 9*, p. 6.

18 Rail Manufacturing CRC, *Submission 9*, p. 6.

4.23 The role of the RMCRC is to "foster innovation in the rail manufacturing industry by facilitating collaborative research projects" between industry and research participants.¹⁹ The committee was informed that, as part of the RMCRC's brief, a number of co-funded projects are being undertaken in the areas of passenger information systems, energy efficiency and automation. These projects are consistent with the RMCRC's three research themes:

- Power and Propulsion;
- Materials and Manufacturing; and
- Design, Modelling and Simulation.

4.24 The RMCRC reported that these projects involve collaboration between rail manufacturing companies and a number of Australia's public research institutions, including the CSIRO, University of Technology Sydney, Central Queensland University, University of Wollongong, Queensland University of Technology, Monash University, Deakin University and RMIT. The RMCRC indicated that it had also approached manufacturers who were not necessarily part of the rail supply chain to engage with its 'Rail Innovation Gateway Program' and offered to facilitate co-funded projects with a broader range of manufacturing businesses.²⁰

4.25 The committee was told that these co-funded projects, which have been set up to benefit the rail sector and increase innovation in Australian rail products, are a positive beginning. The RMCRC argued however, that despite these positive beginnings, it:

...believes that the imperative of bringing more innovation to rail manufacturing extends beyond the mandate and capacity of the Centre's and state government policy initiatives, requiring a nationally coordinated approach from the Australian Government.²¹

4.26 Further, it was argued that it is critical that the rail manufacturing sector be supported now by way of minimum requirements for local content of manufacture – including materials, skills and innovation. With this type of support across all states and territories, Australian rail manufacturing could transform to become a strong and sustainable domestic industry. By taking advantage of the growing markets in the Asia-Pacific region, the Australian industry could also become an export success story.²²

Technology

4.27 The committee received evidence regarding the positive impact that technology will continue to have on Australia's rail industry.

19 Rail Manufacturing CRC, *Submission 9*, p. 7.

20 Rail Manufacturing CRC, *Submission 9*, p. 8.

21 Rail Manufacturing CRC, *Submission 9*, p. 8

22 Rail Manufacturing CRC, *Submission 9*, p. 6.

4.28 The ARTC argued that governments should be focussing on ways to lower the unit cost of rail freight transport and improve efficiency and productivity across the sector. It made the point that "technology will continue to play a key role in improving freight rail efficiencies". Further, it was argued that:

In recognising the reliance and future dependence on technology in the industry, particularly in a globalised market, the Australian Government should consider ways to better understand the challenges this era will bring and opportunities that can be exploited now to bring forth meaningful change in the future.²³

4.29 Stakeholders told the committee that technology can also play a role in terms of improving workforce productivity.

4.30 The ARTC for example, argued that "strategies to improve and lift workplace productivity are a priority for the industry and should be supported by government incentives". Further, it was suggested that improvements in this area could be made through schemes that encourage the development and use of innovative processes and systems, and in the take-up of new technology, including the trial of emerging technologies.²⁴

4.31 The ARTC also argued that the technology around driverless vehicles is improving rapidly and it is conceivable that rail will be competing with driverless trucks in the foreseeable future. The ARTC recognised a need for additional focus and resources to be placed on supporting investments in automated rail technology.

4.32 With this in mind, the ARTC indicated that, to remain competitive, it has been developing a new communications based safe-working system – the Advanced Train Management System (ATMS) – which should be ready for roll out within the next few years. The ARTC pointed to the ATMS as an example where government has provided seed funding for a project that has the potential to revolutionise the freight rail industry across the interstate network. The project has also been listed as a priority initiative by Infrastructure Australia on its National Infrastructure Priority List.²⁵

4.33 DIRD also stressed the importance of technological developments, knowledge and expertise to the sustainability of Australia's rail manufacturing sector. The department submitted that:

Small to medium businesses have remained viable by targeting the production of technically sophisticated and high quality products. Component manufacture, installation and fit-out and maintenance are the main activities in the market. This work is likely to stay in Australia whereas the import of lower value-added products such as rolling stock shells is likely to increase. Several export opportunities will exist over the next five years with rail manufacturing consulting having the highest potential for significant growth due to valuable intellectual property

23 Australian Rail Track Corporation, *Submission 18*, p. 5.

24 Australian Rail Track Corporation, *Submission 18*, p. 5.

25 Australian Rail Track Corporation, *Submission 18*, p. 5.

developed by Australian firms. These firms should be able to generate revenue by providing specialist advice on foreign projects and, in some cases, take part in component manufacturing.²⁶

Rail Innovation Hub

4.34 A number of stakeholders addressed the issue of government procurement, and the ways it can be used to overcome some of the barriers to growth and productivity.²⁷ It was argued that increased integration of advanced manufacturing principles and the application of new technology would provide part of the solution.

4.35 The RMCRC emphasised that national coordination and leadership are also key, and made a number of recommendations in this regard, including the creation of a national Rail Innovation Hub. It was argued that a Rail Innovation Hub could be tasked with coordinating the adoption of new technology and innovation, assisting the industry with strategic growth opportunities and facilitating enhanced supply chain operation to benefit niche manufacturing businesses.²⁸

National coordination

4.36 In undertaking this inquiry, the committee examined the ways in which greater national coordination across the industry could provide benefits to both the rail industry and the Australian economy.

4.37 Stakeholders, such as the RMCRC, emphasised the need for national coordination and leadership, to assist rail businesses to take advantage of the increased demand for rolling stock "by re-capitalising, moving towards global manufacturing standards and investing in R&D through the suite of government co-funding programs on offer".²⁹

4.38 The economic benefits of a nationally coordinated approach to rail manufacturing standards and rail procurement projects were identified by the Taig Review. In addition to the impact a lack of harmonisation has on Australia's rail network, however, there are also consequences for the railway supply industry – particularly in relation to issues of scale. The Taig Review argued that:

A major driver for the establishment of European Technical Standards for Interoperability has been to increase the scale of the markets available into which European manufacturers can supply. In many ways, Australia almost seems to "out-Europe Europe" in terms of how different the railways are from those in adjoining territories. While there may be short-term pain in

26 Department of Infrastructure and Regional Development, *Submission 14*, p. 9.

27 See, for example, Mr Shaun Goss, *Submission 3*, [p. 1], Mr Darren Mitchell, *Submission 4*, [p. 1], Mr Phillip Walters, *Submission 5*, Rail Industry Safety and Standards Board, *Submission 6*, Australasian Railway Association, *Submission 7*, Rail Manufacturing CRC, *Submission 9*, and Australian Workers' Union, *Submission 12*.

28 Rail Manufacturing CRC, *Submission 9*, p. 7.

29 Rail Manufacturing CRC, *Submission 9*, p. 1.

adapting to more harmonised standards, the long-term benefit for the supply industry would be considerable.³⁰

4.39 The Taig Review also found that, at the time, governments were not as committed to achieving the level of harmonisation the RISSB (and others) were seeking to attain. Taig submitted that there were substantial barriers to harmonisation; including the high levels of autonomy within individual states and railway organisations, and the significant amount of investment already made in the existing systems.³¹

4.40 The review concluded that governments have a critical part to play in breaking down these barriers:

The introduction of a national rail safety regulator (due to commence operation from January 2013) should provide a good focus for addressing some of these issues, particularly in relation to providing a clearer picture of national safety performance. It should provide a clear, strong focal point for providing safety regulatory input into the standards development process, and into prioritising the safety outcomes and standards that RISSB should be helping to achieve.³²

4.41 As the rail industry looks for ways to increase employment opportunities, improve efficiencies, increase productivity and innovation and identify market opportunities, Australia continues to take a more integrated approach to transportation.

4.42 Recently, the ARA argued that Australia's rail industry currently "stands at the nexus between the opportunities presented by the significant and ongoing investment in systems and infrastructure". It was noted that the challenges posed include ageing infrastructure, an ageing workforce and the historical separation of rail into discrete state-oriented networks.³³ At the same time the ARA issued a warning that:

The way in which these challenges are addressed will determine the value derived from the current and future investment.³⁴

Standardisation and harmonisation

4.43 As noted throughout the inquiry, the lack of standardisation (or harmonisation) is an historic legacy which is problematic in and of itself. What has made this situation even more problematic, however, is the fact that Australia does not

30 The Taig Review: TTAC Limited, *Review of the Rail Industry Safety and Standards Board and its MOU with the Governments*, June 2012, p. 15.

31 The Taig Review: TTAC Limited, *Review of the Rail Industry Safety and Standards Board and its MOU with the Governments*, June 2012, p. 16.

32 The Taig Review: TTAC Limited, *Review of the Rail Industry Safety and Standards Board and its MOU with the Governments*, June 2012, p. 16.

33 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 8.

34 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 8.

have a single market for rolling stock, but rather one which consists of six states and two territories.

4.44 Stakeholders, including the RMCRC, told the committee that resolving this issue for industry would be a vital step toward greater international competitiveness. It was noted that progress has been incremental, limiting the capacity (and capability) of Australia's rail manufacturing industry, to move from a low volume, high labour, niche production model to a more modern, global production model.

4.45 The RMCRC submitted that a Rail Industry Advisor position should be established to drive innovation and global competitiveness in the Australian rail industry. It further recommended that the Rail Industry Advisor (or equivalent function) be tasked with progressing national rail standards for rolling stock in the Australian market.³⁵

4.46 The AMWU made the point that the current approach to harmonisation has failed to deliver, and argued that reform of the rail manufacturing sector is vital – particularly if the industry is to have any chance of achieving the 19 per cent market gains which were predicted by the Taig Review.

4.47 Further, the AMWU argued that if the primary structural "deficiencies are tackled 'head-on' the gains appear large",³⁶ and suggested that a more ambitious (and likely productive) approach could:

...come from a move to fully standardise PT [public transport] rail procurement, manufacturing and maintenance through a national model of cooperative management and ownership, probably with multiple State and Commonwealth shareholders, as per national freight reform in Australia in the early 1990's; this would also align the sector with the national standards that govern civil aviation, or maritime safety. This would also better align with the UK and French national models, for example.³⁷

Procurement guidelines

4.48 Stakeholders argued that there were various ways government procurement can be used to break down some of the barriers to growth and productivity in the rail industry. These included the increased integration of advanced manufacturing principles and the application of new technology. A significant number of stakeholders also cited the development of a nationally consistent set of procurement guidelines as one of the ways in which the Commonwealth could improve efficiencies across the Australian rail network – particularly in relation to Australia's procurement and manufacture of rolling stock.³⁸

35 Rail Manufacturing CRC, *Submission 9*, p. 7.

36 Australian Manufacturing Workers' Union, *Submission 11*, p. 20.

37 Australian Manufacturing Workers' Union, *Submission 11*, p. 20.

38 See, for example, Mr Shaun Goss, *Submission 3*, [p. 1], Mr Darren Mitchell, *Submission 4*, [p. 1], Mr Phillip Walters, *Submission 5*, Rail Industry Safety and Standards Board, *Submission 6*, Australasian Railway Association, *Submission 7*, Rail Manufacturing CRC, *Submission 9*, and Australian Workers' Union, *Submission 12*.

4.49 The RMCRC argued that unlike many other industries, procurement of rail products and the bulk of freight transport is, on the whole, dominated by "public procurement principles". The market for rail products is dominated by passenger rail, tram and freight operators – mainly governments – with "their accompanying public policy objectives".³⁹ In addition to reiterating that the rail sector would benefit from an increased focus on R&D and innovation, the RMCRC told the committee that:

Governments can offer incentives to adopt innovation, such as the co-funding of projects through CRC's but for public policy levers to all be focused in the same direction, the Rail Manufacturing CRC believes that public procurement policy is necessary to reinforce this objective by including criteria that give weighting for the adoption of innovation to assess tenders for future rail-related procurement.

As the Australian economy transitions towards knowledge-based industries, the low level of innovation in rail is a key challenge for the rail manufacturing sector that needs to be addressed by both rail businesses and in government procurement policies.⁴⁰

4.50 The CFW reflected on the broader economic and financial consequences of public procurement and the impact these decisions have on the rail sector. Specifically, the CFW argued that awarding railway equipment contracts to Australian-based suppliers "generates significant direct and indirect economic benefits, including a significant fiscal return to government itself". It was stressed that the indirect, second-order impacts should be taken into consideration when awarding procurement contracts, in order "to best maximise the comprehensive net benefits to Australians of those decisions".⁴¹

4.51 The CFW argued that a process of joint decision making by the two levels of government would help to ensure that procurement decisions take into consideration the full net benefits of infrastructure investments. Alternatively, it was suggested that the Commonwealth could impose domestic content provisions on procurement purchases made with Commonwealth support. It was argued that this would further influence state decision-making to ensure that the positive outcomes of domestic sourcing (some of which are received by jurisdictions other than the state making the actual decision) are maximised.⁴²

4.52 The CFW articulated the strong view that domestic sourcing of railway equipment procurement generates significant direct and indirect benefits to multiple Australian stakeholders – including the government sector itself. Further, it argued that with active coordination and leadership – as opposed to the passive issuing of multi-billion dollar contracts solely on the basis of lowest price – Australia has the capacity to convert future important investments in passenger rail transportation into

39 Rail Manufacturing CRC, *Submission 9*, p. 8.

40 Rail Manufacturing CRC, *Submission 9*, p. 8.

41 The Australia Institute, Centre for Future Work, *Submission 10*, p. 3.

42 The Australia Institute, Centre for Future Work, *Submission 10*, p. 14.

substantial economic benefits.⁴³ With this in mind, the CFW made the following three recommendations regarding procurement:

- the Commonwealth and state governments in Australia should develop a broader framework for future rolling stock procurement, in order to realise maximum efficiencies from economies of scale and coordinate future public transport procurement;
- the Commonwealth Government should assist state governments to make appropriately inclusive procurement decisions by establishing reasonable domestic content guidelines for public transit purchases; and
- direct procurement decisions for railway equipment should be made on the basis of a cost-benefit analysis of the full economic and fiscal implications of alternative sourcing options, including: direct and indirect spill-overs of sourcing decisions on Australian employment; output; incomes; and tax revenues in the railway manufacturing sector, its supply chain; and downstream consumer goods and services industries.⁴⁴

4.53 The RISSB's Chief Executive Officer, Mr Paul Daly, agreed that all governments – not just the Commonwealth – have a role to play in this area and argued that procurement is probably the largest 'lever' that governments have at their disposal. Mr Daly suggested that the Commonwealth could certainly look at both its procurement strategies and the standards under which rolling stock is purchased and manufactured, and added that:

...the vast majority of the suite of products that we are piloting right now but could produce—as I said, there are 40 to 50 different parts within that—are provided by smaller manufacturing companies here in Australia. In the past, the large shells have generally been built in India or China and then brought across to Australia for fit-out. A lot of that can be done through having a procurement program that is going to run for more than a five-year roll. Having a 30-year roll also allows manufacturers to set themselves up to say: 'Okay, we know there's going to be a run of 30 years. We can establish economies of scale in our manufacturing. We don't have to set up a run that's only going to last for three years and then break it all down and start again in five years' time for another one.' So having that strategy in place that says industry needs 100, 200 or 300 vehicles over the next 20 years will be one of them.⁴⁵

4.54 The RISSB CEO acknowledged that the purchase of rolling stock is generally a state responsibility, but at the same time suggested that the Commonwealth and the states may be able to find some common ground through forums such as the Transport

43 The Australia Institute, Centre for Future Work, *Submission 10*, p. 16.

44 The Australia Institute, Centre for Future Work, *Submission 10*, p. 16.

45 Mr Paul Daly, Rail Industry Safety and Standards Board, *Committee Hansard*, 30 August 2017, p. 4.

and Infrastructure Council (TIC) meetings. Mr Daly submitted that agreeing on the standards by which rolling stock would be built would also assist industry (at the supplier level) and to some degree the rail operators.⁴⁶

4.55 The matter of government-imposed conditions on funding was also explored. When asked whether it would be reasonable for governments to place conditions for funding around procurement, and a requirement for specific standards, Mr Daly indicated that:

Many governments have always used the funding lever to do that. Commonwealth governments and state governments have done it with construction for 20 or 30 years; there must be a certain amount of Australian input and the like. I see no barrier to governments having requirements to their specifications, as a precursor to tendering and then winning the project. Others who speak after me may have other views in that space, but from the harmonisation of the industry area, working within RISSB's remit, we see no obvious barrier to industry working with governments going down a path that says these rolling stocks or this infrastructure will be at a certain level and using certain standards, in the same way as they do their operations today.⁴⁷

4.56 The question of whether industry – particularly the manufacturing sector – would be prepared to support this type of approach was more difficult for Mr Daly to respond to. Mr Daly did, however, indicate that the RISSB had generally received a positive response from those manufacturers with whom this issue had been discussed. Further, Mr Daly told the committee that:

Some of them are on our development groups for the pilots of the harmonisation guidelines. In that respect, industry in the supply section is welcoming the guidelines we are putting forward. But I haven't spoken to all of industry across all of the suppliers, so I'm not able to sit here with hand on heart and give you an absolute yes, no, or maybe. But the support we've had for the development of the pilots has been encouraging so far.⁴⁸

The Asia-Pacific market

4.57 A number of stakeholders reflected positively on Australia's ability to supply export markets, and argued that despite the current low level of exports in the rail manufacturing sector, Australia is, in fact, in a sound position to become part of the global supply chain.⁴⁹

46 Mr Paul Daly, Rail Industry Safety and Standards Board, *Committee Hansard*, 30 August 2017, p. 4.

47 Mr Paul Daly, Rail Industry Safety and Standards Board, *Committee Hansard*, 30 August 2017, p. 4.

48 Mr Paul Daly, Rail Industry Safety and Standards Board, *Committee Hansard*, 30 August 2017, p. 4.

49 See, for example Rail Manufacturing CRC, *Submission 9*, p. 5, and Department of Industry, Innovation and Science, *On Track to 2040: Preparing the Australian rail supply sector for challenges and growth*, 2012.

4.58 The RMCRC was particularly positive about Australia's capacity to export expertise and equipment, and argued that given its close proximity to expanding Asia-Pacific markets, Australia is well placed to tap into the global supply chain that will service these markets. The RMCRC submitted that:

The location of global rail manufacturing companies including Bombardier Transportation, UGL, Downer, and Faiveley Transport in Australia creates a strong foundation for developing greater export opportunities into the Asia-Pacific region as these companies leverage Australian manufacturing expertise into growing markets.⁵⁰

Smoothing out the peaks and troughs – continuity of work

4.59 As noted previously, stakeholders identified the 'peaks and troughs' of demand experienced across the rail manufacturing sector, as a significant problem across all states. A number of stakeholders made it clear that if Australia is to have a thriving, efficient and sustainable rail manufacturing sector into the future, solutions will need to be found to the 'lumpy', 'peak and trough' nature of demand.⁵¹

4.60 It was argued that the benefits of consistent work cannot be overstated, and that in addition to supporting Australian jobs, regional development and higher productivity, it would "result in a more functional and well-coordinated supply chain and increased innovation for the industry".⁵²

4.61 Rail manufacturing worker, Mr Phillip Walters, described the NSW State Government's procurement policy as 'ad hoc' and 'feast or famine'. Mr Walters pointed to the negative impact the policy currently has on manufacturers, workers and their families, local parts suppliers and the regional community. He explained that:

Newcastle currently has two rolling stock manufacturers which have both retrenched hundreds of highly skilled workers in the past couple of years. These manufacturers are now tendering to supply passenger rail cars fully built overseas due to a state government procurement policy that demands a large amount of rail cars be built and delivered in a relatively short period of time.⁵³

4.62 Mr Walters argued that this type of procurement policy leads local manufacturers to source rail cars from overseas. In turn, this means that local manufacturers become nothing more than middle men and service and warranty agents, resulting in the direct loss of hundreds of jobs.⁵⁴

50 Rail Manufacturing CRC, *Submission 9*, p. 5.

51 See for example, Australian Manufacturing Workers' Union, *Submission 11*, Victorian Department of Economic Development, Jobs, Transport and Resources, *Submission 19*, The Australia Institute, Centre for Future Work, *Submission 10* and Queensland Department of Transport and Main Roads, *Submission 15*.

52 Australasian Railway Association, *Opportunities for Greater Passenger Rolling Stock Procurement Efficiency*, September 2013, p. 3.

53 Mr Phillip Walters, *Submission 5*, [p. 1].

54 Mr Phillip Walters, *Submission 5*, [p. 1].

4.63 The uneven distribution of manufacturing work concentrates risks, expertise and innovation rather than allowing for even dispersal across the supply chain. The RMCRC stressed, therefore, that creating a more even distribution of work, through and integrated supply chain, would:

...be of great benefit to the efficiency of rail manufacturing by spreading risk and building expertise in niche industry suppliers. The key to delivering this more balanced distribution throughout the rail industry supply chain is through an increased pipeline of rolling stock orders combined with a more integrated supply chain that results in a more even demand curve.⁵⁵

4.64 This issue was considered by a 2013 report commissioned by ARA. The report argued that failing to address inefficiencies in the rail manufacturing sector will, ultimately, have a negative impact on the Australian rolling stock manufacturing base. Further, it was submitted that there is increasing pressure on domestic rolling stock manufacturing, and a risk that all production could be sourced internationally. The authors suggested, however that based on their consultation with industry:

...smoother demand could assist in relieving some of this pressure and in turn, assist in retaining some production domestically. If domestic production could be maintained at 30% of the value of future rolling stock orders, this would equate to approximately \$15.5 billion in economic activity that could be retained over the next 30 years.⁵⁶

4.65 It was noted that this economic activity would be concentrated in specific areas, including regional towns such as Newcastle and Maryborough and in metropolitan areas such as Auburn and Dandenong.⁵⁷

The need for a national plan

4.66 Historically, the rail industry has been a vital part of Australia's manufacturing sector. Evidence to the inquiry, however, clearly indicates that the rail manufacturing sector is "facing a crossroad".⁵⁸ Estimates suggest that over the next three decades, state governments could spend approximately \$30 billion on procuring rolling stock.⁵⁹ This represents a significant opportunity, and one which the rail industry needs to be prepared to take advantage of.

55 Rail Manufacturing CRC, *Submission 9*, p. 6.

56 Australasian Railway Association, *Opportunities for Greater Passenger Rolling Stock Procurement Efficiency*, September 2013, p. 4.

57 Australasian Railway Association, *Opportunities for Greater Passenger Rolling Stock Procurement Efficiency*, September 2013, p. 4.

58 Australasian Railway Association, *Opportunities for Greater Passenger Rolling Stock Procurement Efficiency*, September 2013, p. 3. See also, Rail Manufacturing CRC, *Submission 9*, p. 2.

59 Australasian Railway Association, *Opportunities for Greater Passenger Rolling Stock Procurement Efficiency*, September 2013, p. 4.

4.67 The RMCRC is just one of many stakeholders to argue that the Australian rail manufacturing sector is at a critical juncture. Many stakeholders also agreed with the RMCRC that:

...given the right policy settings, backed by government investment and business willingness to take advantage of these, Australia could have a strong and sustainable rail industry that will serve its population well regarding job creation and economic development. This scenario hinges on rail businesses seizing the opportunity afforded by a strong pipeline of investment to modernise and increase their competitiveness during this period of likely rail transport expansion.⁶⁰

4.68 It is clear that there is a need for improved coordination and planning across governments. Providing the rail industry with the opportunity to identify efficiencies would also allow governments to realise direct procurement savings over the next 30 years. It is also clear that by avoiding small orders, increasing the commonality across rolling stock platforms and componentry, and by providing rail businesses with more consistent work, significant savings can be accrued.

4.69 The ARA submitted that rail's contribution to Australia is no less than that of shipbuilding, particularly as Commonwealth, state and territory governments all have a stake in developing an efficient rail system. It argued, therefore, that an appropriate plan to coordinate the efforts of governments is essential.⁶¹

4.70 With these issues in mind, the ARA made the case for the development of a National Rail Industry Plan. The ARA pointed to a proposed investment in rail (by Australian governments) of \$100 billion through to 2030.⁶² It was noted that, by comparison, the Commonwealth is proposing to invest \$89 billion in naval shipbuilding through to 2055 and this investment will be supported by a Naval Shipbuilding Plan.⁶³

4.71 It was acknowledged that specific requirements may differ depending on the type of activity being undertaken. For example, passenger and freight operators will each have their own agendas and suppliers and contractors will have their own distinct requirements and diverse measures of success. Stakeholders made it clear, however, that the focus of any national plan for the rail industry should strive to achieve best practice, and be relevant to all sectors of the Australian rail industry.⁶⁴

60 Rail Manufacturing CRC, *Submission 9*, p. 2.

61 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017.

62 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017.

63 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017.

64 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017. See also, Australasian Railway Association, *Submission 7*, Australian Manufacturing Workers' Union, *Submission 11* and Australian Workers' Union, *Submission 12*.

4.72 It was also argued that, regardless of any differences, rail should remain at the centre of planning and rail should be a priority in the areas of town planning; including precincts for education, health, administration and community. As a central part of the national transport system, rail has an impact on both urban and regional development. As such, rail needs to match population movements – in cities, growth corridors and regional centres.

Australian best practice – Victoria

4.73 The committee received a large number of submissions which provided positive commentary on the Victorian Government's approach to its rail industry.⁶⁵

4.74 The Victorian Government's submission acknowledged that historically, the market for new rolling stock procurement has been characterised by small, short term, one-off orders, with no national coordination. Further, it was argued that this approach has been incurring a 30 per cent premium across all rolling stock procurement.⁶⁶

Victorian policy

4.75 Over the past ten years, Victoria has seen a significant rise in the use of public transport – particularly on its metropolitan rail network. In 2015, the Victorian Government released its *Trains, Trams and Jobs: Victorian Rolling Stock Strategy: 2015-2025*. The strategy outlined the Victorian Government's "intention to grow jobs, provide certainty, develop capacity and increase investment" by using its capabilities in the building of rail rolling stock. In 2016, the Victorian Government followed up with its *Victoria's Future Industries: Transport Technologies Sector Strategy*, the aim of which is to "accelerate industry growth through government procurement".⁶⁷

4.76 The Victorian Government's 2016 policy aims to ensure:

- a minimum 50 per cent local manufacturing content requirement will be applied to the procurement of transport-related products and services; and
- an examination of ways to design government contracts to accelerate the uptake of new technologies and adopt leading environmental and safety standards.⁶⁸

4.77 As noted in the previous chapter, all Victorian Government procurement activities are also underpinned by the VIPP under which:

- local content requirements are now set for projects valued over \$50 million;

65 See, for example, Mr Andrew Peach, *Submission 1* [p. 1] and Mr Shaun Goss, *Submission 3* [p. 1].

66 2011 Deloitte Access report, cited in Victorian Government, *Submission 19*, p. 3.

67 Victorian Government, *Submission 19*, pp 3-4.

68 Victorian Government, *Submission 19*, p. 4.

- commitments to local industry development and supply chain engagement are considered in the tender process; and
- projects valued over \$20 million are required to use local apprentices, trainees or engineering cadets for at least ten per cent of the total estimated labour hours (under the Major Projects Skills Guarantee).⁶⁹

4.78 The Victorian Government argued that since 2015, the state has added hundreds of jobs, billions in procurement and millions more in investment. It was also noted that in early 2017, Victoria passed legislation which established Transport for Victoria as the agency which would be responsible for the integration and coordination of the planning, management and delivery of all transportation services across the state. Since March 2017, the rolling stock industry in Victoria received an additional \$500 million through the budget process, which represents:

- 39 new VLocity carriages for the regional network;
- diesel multiple units made by Bombardier in Dandenong;
- 10 new E-class trams and associated infrastructure (made by Bombardier in Dandenong); and
- safety, amenity and structural upgrades to the V/Line classic fleet.⁷⁰

4.79 Ms Wendy McMillan, Chief Executive Officer, Transport for Victoria, submitted that whilst new procurements are an important element of what the Victorian Government has budgeted for – 'maintenance uplift' or what you are actually doing to your existing fleets – represents a very important component of the Government's strategy. Ms McMillan told the committee that:

The budget also provided over \$300 million for high priority major periodic maintenance works on the regional rail network. This is critical [to] below rail conditions that we need to run our rolling stock on. Furthermore, the government has developed the Regional Rail Revival package comprising projects to address frequency and reliability on the regional network.⁷¹

4.80 The Victorian Government argued that investment in the rail industry requires procurement certainty, which comes from the delivery of a long term pipeline of projects. Further, it was noted that the Victorian Government is now working to attract global investment into its rail sector by targeting investment opportunities that "introduce new technologies and capabilities into the local market" and capitalise on the skills held by the local manufacturing industry.⁷²

69 Victorian Government, *Submission 19*, p. 4.

70 Ms Wendy McMillan, Transport for Victoria, Department of Economic Development, Jobs, Transport and Resources, *Committee Hansard*, 16 June 2017, p. 20.

71 Ms Wendy McMillan, Transport for Victoria, Department of Economic Development, Jobs, Transport and Resources, *Committee Hansard*, 16 June 2017, p. 20.

72 Victorian Government, *Submission 19*, p. 7.

4.81 It was submitted that a recent example of a successful investment opportunity is the China Railway (CRRC) Australian headquarters, being established in Melbourne in 2017. It was argued that this is a direct consequence of the successful High Capacity Metro Trains tender process, where the Evolution Rail consortium was appointed. The membership of Evolution rail includes the world's largest rail manufacturer, CRRC and Australian rail contractor Downer Rail.⁷³

4.82 In addition to developing rail rolling stock procurement strategies, the Victorian Government continues to advocate for the creation of a national market for transport-related products and services. The Victorian Government has also been working with COAG's Ministerial Transport and Infrastructure Council to deliver a 'smoothed', long-term order pipeline across Australian jurisdictions.⁷⁴

Training for the Future – skills initiative

4.83 Training for the Future is a Victorian Government skills initiative which aims to address skills shortages in the rail sector and ensure that there are sufficient trained workers to meet the needs of the industry into the future. Training for the Future is a joint initiative of the Level Crossing Removal Authority and the Melbourne Metro Rail Authority; with support from Metro Trains Melbourne, Public Transport Victoria and other industry partners.⁷⁵

4.84 It was noted that the Level Crossing Removal Authority and the Melbourne Metro Rail Projects provide significant training opportunities for workers from disadvantaged backgrounds and are reskilling workers from industries that are currently in decline. The Training for the Future initiative is currently being undertaken at the Rail Academy Newport (located in Newport, Victoria) which was established in 2007. The training provided at the facility includes:

- graduate programs in design, electrical engineering, signalling and other industry-specific disciplines;
- signal technician apprenticeships, railways signalling engineer cadet program;
- track safe working programs;
- train driver training;
- overhead train and tram training;
- rail tuck vehicle training; and
- linesman training.⁷⁶

73 Victorian Government, *Submission 19*, p. 7.

74 Victorian Government, *Submission 19*, p. 7.

75 Website: <https://www.railskillscentre.com.au/index.php?page=Abt-Ut>, accessed 9 October 2017.

76 Website: <https://www.railskillscentre.com.au/index.php?page=Abt-Ut>, accessed 9 October 2017.

4.85 The RMCRC indicated that it has made a number of submissions to the Victorian Government on issues relating to innovation and industry policy in rail manufacturing. The RMCRC noted that the discussion papers it has provided to the Victorian Government have been particularly relevant, given the Victorian Government's commitment to the domestic rail industry – particularly through its Industry Participation Policy – which mandates a policy of 50 per cent local content in rolling stock purchases as well as a pipeline of investment in rolling stock.⁷⁷

4.86 New South Wales rail industry worker, and AMWU Delegate – Mr Darren Mitchell – submitted that:

The Victorian Government has done the right thing for the people of their state by having a 50% minimum local content on all of their rolling stock projects. With the more local content the more likely the bidding companies are to win this work. Well done to the Victorians.⁷⁸

4.87 Another New South Wales rail industry worker, and AMWU delegate – Mr Shaun Goss – echoed those comments and noted that in addition to the 50 per cent minimum local content rule, the Victorian Government had developed a 10 year build plan, which he argued was a "great result for rail workers and their families".⁷⁹

The ARA's proposed National Rail Industry Plan⁸⁰

4.88 In outlining its National Rail Industry Plan, the ARA explained that its primary objective would be to "obtain maximum economic growth, efficiency, productivity and social benefits from the substantial investments currently being made".⁸¹ Other issues taken into consideration by the plan would be:

- the areas of growth and employment;
- individual and company capabilities;
- productivity and innovation;
- integration of transport modes;
- local and export market opportunities;
- housing options; and
- ways to provide the rail industry with greater certainty into the future.⁸²

77 Rail Manufacturing CRC, *Submission 9*, p. 3.

78 Mr Darren Mitchell, *Submission 4*, [p. 1].

79 Mr Shaun Goss, *Submission 3*, [p. 1].

80 The following section is based on information contained in Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, pp 10-16.

81 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 7.

82 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 7.

4.89 The ARA pointed to a recently-commissioned report by Deloitte Access Economics and argued that the *Value of Rail Report* not only details the contribution rail makes to Australia, but is "most compelling in laying plans for the future". Further, it was argued that a collaborative approach – which engages Commonwealth, state and territory governments – "can build on these attributes and serve to overcome the inefficiencies inherent in our current state-based systems". It was noted that there would also be opportunities for key government agencies – including Infrastructure Australia – to feed into this type of collaborative process.⁸³

4.90 On a practical level, the ARA acknowledged that coordinating Commonwealth, state and territory governments – all with differing priorities and political aspirations – into one national endeavour will be a challenge. Further, the ARA argued that the Council of Australian Governments (COAG) should not be the body to oversee this undertaking. Rather, the ARA suggested that the TIC – which brings Commonwealth, state and territory transport minister's together – would be the most appropriate body to endorse the National Rail Industry Plan concept and undertake the oversight role.⁸⁴

4.91 The ARA submitted that not only is there a degree of urgency around developing a national plan, but that an agenda for developing the plan would need to be wide-ranging and would require specialist input from a range of stakeholders. The ARA argued that while there may be various options to achieve traction for a national plan, a declared commitment and goodwill among stakeholders will be fundamental to achieving this goal, the options for which include:

- establishing a specific rail industry 'coordinating' or 'implementing' body to work cooperatively for the purposes of the plan; or
- establishing an 'authority' with appropriate legislative support.⁸⁵

A national approach – UK example

4.92 The ARA suggested that in developing a national rail plan, stakeholders should consider the approach that is being pursued successfully in the United Kingdom (UK).

4.93 Currently in the UK, the rail industry and the Government have jointly pledged to make the UK a global railway leader. To assist in achieving this goal, a Rail Supply Group – co-chaired by an industry leader, the Secretary of State for Transport and the Secretary of State of Business Innovation and Skills – has been formed. The UK Government and the rail industry worked together to produce *Fast Track to the Future – a strategy for productivity and growth in the UK rail supply*

83 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 7.

84 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 8.

85 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 9.

industry. The strategy, which has become the UK's Rail Industry Plan, documents the UK Government and industries' pledge, contains productivity building blocks, sector strategy initiatives, and an across-the-board list of action plans, which are refreshed annually and tracked out to 2020. The ARA noted that not only is the UK's plan comprehensive, it also has a number of parallels with the Australian rail environment (and what can be done to enhance rail's contribution to the Australian economy).⁸⁶

4.94 In addition to the focus of a national plan being relevant to the rail industry as a whole, the ARA asserted that for tangible progress to be made, the agenda must also be manageable. Accordingly, the focus proposed for the plan includes the following five key requirements:

- recognising the importance of rail for Australia's infrastructure development, urban planning and freight movements;
- harmonising standards, minimising regulations and maximising economies of scale;
- growing capabilities of individuals and companies;
- maximising opportunities for rail companies; and
- fostering innovation, research and development.⁸⁷

4.95 The ARA pointed out that these are complex issues which all stakeholders should have the opportunity to examine and discuss, with a view to determining the best way forward for the whole industry. With that in mind, the ARA's paper *A National Rail Industry Plan for the Benefit of Australia* clearly sets out the types of issues all stakeholders should take into consideration before reaching agreement on the actions required and who will take responsibility for them – whether it is industry, government departments, government agencies, or research bodies. These issues – described by the ARA as 'enablers' – are included at Appendix 3.

4.96 It is intended that the National Rail Industry Plan will be presented to stakeholders for review and ultimately their endorsement. Prior to the endorsement of rail industry stakeholders, however, the ARA indicated that the proposed steps are:

- a Commonwealth Ministerial Roundtable to develop/adopt the plan;
- discussion with state and territory governments;
- discussion with key bureaucrats from the departments of transport, industry, infrastructure, education and training at the federal level to refine an action plan, timelines and budget parameters;
- provide an outline of the plan to the Senate inquiry into the State of Australia's Rail Industry;

86 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 9.

87 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, pp 11-15.

- engage with opposition parliamentarians;
- gain consensus with state and territory governments for their support for the plan;
- finalise the coordinating and implementation process;
- launch the National Rail Industry Plan for the Benefit of Australia;
- wide distribution of the plan; and
- plan and resource the implementation of the plan.⁸⁸

4.97 The ARA advised that the objective of a National Rail Industry Plan is to obtain maximum economic growth, efficiencies, productivity and social benefits from the substantial investments currently being made. It is intended that this will include benefits in the areas of growth and employment; individual and company capabilities; productivity and innovation; integration of transport modes; local and export market opportunities and housing options. It is also anticipated that the plan will provide the rail industry with greater certainty into the future.⁸⁹

88 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 16.

89 Australasian Railway Association, *A National Rail Industry Plan for the Benefit of Australia*, September 2017, p. 7.

