

PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

# **Government Procurement: A sovereign security imperative**

House of Representatives Standing Committee on Infrastructure, Transport  
and Cities

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CANBERRA

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# Foreword

As with many inquiries the evidence put forward and the issues of the day challenged the initial thinking that spurred the inquiry in the first place.

This inquiry is a prime example of the power of parliamentary inquiries peopled by those with a genuine desire to discover the facts on which to base their recommendations.

This inquiry became much more significant and timelier than first thought and therefore vitally important to the governing of Australia now and well into the future.

Issues of gender equality in the workplace, sovereign security, the importance of long-term visionary planning of infrastructure and understanding the difference between lowest price and value became central themes.

The predominance of men, who occupy 88 per cent of the construction workforce, up from 83 per cent from a few years earlier, highlights the opportunity costs the industry is facing, which is a risk to its longer-term sustainability and its capacity to scale up and meet future labour demands. Despite the well-intentioned efforts to date to address this issue in some quarters, more needs to be done to address the cultural practices and norms within the construction industry that disincentivise women from entering or staying.

As in medicine, the first action is to identify the illness then prescribe the medication to effect wellbeing. There is scope for the construction industry to evolve, as other industries have done, to be one where all members of the community feel they can consider a career in it where the most qualified can be employed and work in an environment of respect and mutual support.

Sovereign security has in recent times become an important issue for our country, as tensions with great trading partner countries come into sharp focus, with real

concern for the impact this has on our exports and the flow-on effects to our economy.

These concerns have escalated suddenly and violently, with fears of trade wars now being supplanted by the hostile Russian invasion of Ukraine, and the dramatic impacts that this conflict has had, even as far away as Australia.

Over decades, sovereign security has been compromised because there has been no one on the 'watch tower' looking out for the clear and present risks that have emerged from our expedient choices in seeking the lowest price for our procurement.

At first glance these choices are hard to fault, however on a deeper and broader analyses of all of the elements that come into play, these choices contain real and possibly devastating consequences.

Decades of choosing the lowest price, as opposed to the 'best value', has diminished our capacity to deliver fit-for-purpose infrastructure, which now is presenting as a danger to our sovereign security.

Similar to the risks inherent in seeking the lowest price over real value, are the risks associated with a lack of long-term planning for major infrastructure projects. This has resulted in a piecemeal, ad hoc and reactive delivery process, which thwarts the development of efficiencies in the construction industry that could be attained if there was a steady pipeline of projects available. Industry needs the confidence to gear up in line with the opportunities available, which would build up industry capacity and productivity through an increased critical mass.

Essential to achieving sector growth is the critical need for the three tiers of government to align in support of long-term collaborative planning.

The COVID recovery program, which centres around vastly increased spending on infrastructure, provides the opportunity and the need to improve the working relationships between these three tiers of government.

Measures need to be put in place that promote long-term planning and greater breadth and depth in Australia's industry, including entities with a \$1 billion plus per project tier one delivery capability, which is lacking now.

Responsible spending of our taxpayer's money should be a prime concern and therefore a systemised mechanism must be put in place that ensures value for money at every stage of government procurement.

As mentioned previously, our committee didn't originally foresee the full gravity of the issues that emerged as the inquiry progressed. With the growing threat of coercive trade threats and bans, particularly from China, and now the Russian

invasion of Ukraine, we now have a sovereign vulnerability that in more stable times may have remained unseen.

The price of freedom is eternal vigilance.

This inquiry should stimulate a new era of vigilance.

I thank each member of our committee for their contributions. It has often been said—and it has certainly been my experience—that the best work done in this place is in our committees. I also extend my thanks to the committee secretariat, in particular Samantha Mannette, Nicolette Cilia and Lachlan Wilson, for their work on this report.

**John Alexander OAM MP**  
**Chair**



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# Abbreviations

ABAB	Australasian BIM Advisory Board
ABCC	Australian Building and Construction Commission
ACCI	Australian Chamber of Commerce and Industry
AIM	Asset Information Model
AIP	Australian Industry Participation
ANAO	Australian National Audit Office
ANZGPA	Australia and New Zealand Government Procurement Agreement
ANZIP	Australia and New Zealand Infrastructure Pipeline
AOC	Australian Owned Contractors
AS	Australian Standard
ASBFEO	Australia Small Business and Family Enterprise Ombudsman
AWU	Australian Workers' Union
BCA	Business Council of Australia
BIM	Building Information Modelling
CCF	Civil Contractors Federation
CFMMEU	Construction, Forestry, Maritime, Mining and Energy Union
CFFR	Council of Federal Financial Relations
CICT	Construction Industry Culture Taskforce
CPR	Commonwealth Procurement Rules
DEQMS	Defence Estate Quality Management System

DICP	Defence Industrial Capability Plan
FFA	Federation Funding Agreement
FIDIC	International Federation of Consulting Engineers
FIFO	fly-in-fly-out
FTA	free trade agreement
G10	Group of 10
GBE	government business enterprise
IGA FFR	Intergovernmental Agreement on Federal Financial Relations
IICF	Infrastructure Industry Consultative Forum
JSCFADT	Joint Standing Committee on Foreign Affairs, Defence and Trade
LCR	local content requirements
LICP	local industry capability plan
LIPP	local industry participation plan
MPSG	Major Projects Skills Guarantee
NAWIC	National Association of Women in Construction
NDEPP	National Digital Engineering Policy Principles
NDEWG	National Digital Engineering Working Group
NEC	New Engineering Contract
NPA	National Partnership Agreement
NRC	National Cabinet Reform Committee
NSC	National Skills Commission
OECD	Organisation for Economic Co-operation and Development
P4S	partnering for success
PI	professional indemnity
PIM	Project Information Model
PPP	public-private partnership
PTI	Project Team Integration
QPP	Queensland Procurement Policy
SAIPP	South Australian Industry Participation Policy

SME	small and medium enterprise
TIPP	Tasmanian Industry Participation Plan
UNSW	University of New South Wales
WHS	work, health and safety
WTO GPA	World Trade Organization Agreement on Government Procurement
VIPP	Victorian Industry Participation Policy
XPD	Expertise-Based Project Delivery



# Members

## *Chair*

Mr John Alexander OAM MP

Bennelong, NSW

## *Deputy Chair*

Mr Luke Gosling OAM MP

Solomon, NT

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Mr Andrew Giles MP

Scullin, VIC

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# Terms of Reference

The House of Representatives Standing Committee on Infrastructure, Transport and Cities will inquire into and report on procurement practices for government-funded infrastructure and the potential to enhance the sovereign capability of the Australian industry, with particular reference to:

- a. existing infrastructure pipelines and related supply requirements
- b. challenges and opportunities with existing procurement practices, including frameworks, standards, rules and norms, and intersections between tiers of government and the private sector
- c. challenges and opportunities to enhance Australia's sovereign industry capability, including for Australian owned businesses
- d. lessons from other Australian jurisdictions and other portfolio areas, including Defence's industry capability approaches
- e. how Australia can balance its international obligations with maximising local content opportunities, including by leveraging foreign direct investment
- f. alternative procurement models, including reference to international examples
- g. other relevant matters.



# List of Recommendations

## Recommendation 1

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2.45 The committee recommends, with a view to addressing Australia's historically piecemeal approach to infrastructure planning and project delivery, the Australian Government investigate, in consultation with state, territory and local governments, and relevant industry bodies and stakeholders, how to facilitate better planning and coordination of the infrastructure pipeline. As part of this work, consideration should be given to:

- the effectiveness of planning, and stakeholder and industry engagement prior to project commitments being made
- avenues for enhancing cooperation with existing bodies, and/or bolstering independent expertise, to support more integrated and holistic infrastructure planning
- extending governments' approach to long-term infrastructure planning from a decade to a strategic outlook of 20 to 50 years, as applicable
- periodic reporting on priorities and progress on the *2021 Australian Infrastructure Plan* items for which the Australian Government has been identified as the proposed lead agency.

## **Recommendation 2**

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4.118 Given the crucial role that procurement plays in planning, the tendering process and delivery of infrastructure projects, the committee recommends that the Australian Government review the practical application of the Commonwealth Procurement Rules, with a particular focus on the extent to which factors other than price are assessed in practice.

As part of this work, the Australian Government should explore ways to support the training of government procurement officials in procurement best practice approaches to support sophisticated assessments of value for money, and ways to maximise Australian local industry engagement.

## **Recommendation 3**

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4.121 The committee recommends that the Australian Government, in consultation with state, territory and local governments, establish a mechanism for monitoring and rating funding recipients' performance on government-funded infrastructure projects, capturing elements of whether the project was delivered to the required standards, on time and on budget.

## **Recommendation 4**

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4.123 The committee recommends that state, territory and local government infrastructure projects that receive Australian Government funding should be subject to verification of value for money by the Australian Government or a specified entity. To support this, the Australian Government should establish a mechanism for assessing state, territory and local governments' plans and performance for proposed and delivered infrastructure projects using Australian Government funds, capturing elements of project delivery to the required standards, on time and on budget.

## **Recommendation 5**

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4.127 To improve planning, procurement and delivery efficiencies for infrastructure projects, the committee recommends the Australian Government, in consultation with state, territory and local governments, explores opportunities for standardisation on like projects.

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## Recommendation 6

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6.136 The committee sees increasing the access of tier two and three companies, and related Australian small and medium enterprises, to projects in the Australian infrastructure pipeline as key to enhancing Australia's sovereign industry capacity. Accordingly, the committee recommends that the Australian Government examine ways to maximise developing Australia's sovereign capacity in infrastructure delivery. As part of this work, consideration should be given to:

- providing opportunities in procurement and contracting to engage local industry and utilise local content
- ways to break up projects into packages of less than \$500 million to increase competitiveness by tier two and three companies
- making as a condition of Australian Government funding for major infrastructure projects over \$500 million industry sustainability criteria within the early stages of procurement design that encourage tier one contractors to partner/joint venture with a non-tier one company in the head contract
- education and training for government officials to support these objectives
- reviewing market conditions for infrastructure insurances and the impact on small and medium enterprises.

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## Recommendation 7

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7.63 The committee recognises the potential benefits for increased efficiencies and productivity through the adoption of a digital by default approach in infrastructure projects, in which governments take the lead in providing accessible digital options that can be utilised by government officials and businesses, from planning to post-delivery assessment and, where applicable, for future application to like projects.

The committee recommends that the Australian Government in consultation with state, territory and local governments, support a digital by default approach in infrastructure projects, with consideration for:

- the digital by default recommendations in the *2021 Australian Infrastructure Plan*
- tender requirements that utilise Building Information Modelling (BIM) or similar technologies
- supporting openBIM or similarly interoperable methods for digital delivery that allow for exchanging project information
- fostering contractor upskilling for small and medium enterprises in digital approaches when undertaking government-funded infrastructure projects
- facilitating whole of life digital strategies in project plans.

## **Recommendation 8**

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8.45 To deliver on Australia’s significant infrastructure pipeline of projects over the next decade, the committee acknowledges the importance of improving productivity in the construction industry and recommends that the Australian Government investigate how in the tender and delivery processes for government-funded infrastructure projects, firms can demonstrate their:

- commitment to, and compliance with, modern workplace standards
- support for sector cultural reform in areas including wellbeing, working hours and diversity of their workforces, and having regard to the Culture Standard for the Construction Industry being developed by the Construction Industry Culture Taskforce.

# 1. Introduction

- 1.1 Infrastructure investment will play a crucial role in Australia's economic recovery this decade. As part of the Economic Recovery Plan supporting Australia's recovery from the economic impacts of the COVID-19 pandemic, the Australian Government will invest \$110 billion from 2021-22 over 10 years into land transport infrastructure across Australia.
- 1.2 Similarly, state and territory governments are making record investments in their infrastructure programs, covering transport networks and education and health facilities. In their 2021-22 budgets, for example, the New South Wales Government committed \$110.4 billion, the Western Australian Government \$30.7 billion, the Queensland Government \$52.2 billion, and the South Australian Government \$17.9 billion, to their respective infrastructure programs over four years. The Tasmanian Government, in its 2021-22 Budget, committed \$5.7 billion to infrastructure investment, with various projects to be delivered over the next two, three or four years. While the *Victorian Infrastructure Plan 2021* outlines a 2021-22 Budget commitment of \$144 billion in new and existing projects for the next five years and beyond.<sup>1</sup>
- 1.3 Given these significant infrastructure investments by governments, it is essential that infrastructure pipeline planning, coordination and project delivery is optimised to ensure taxpayer money is used effectively.

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<sup>1</sup> See: NSW Government, *The NSW Budget 2021-22: Half-yearly review*, p. 3; Government of Western Australia, *Media Statements*, 'Projects adjusted to deliver a strong economy for the long term', 9 September 2021; Queensland Government, *Queensland's Economic Recovery*, <https://budget.qld.gov.au/highlights/#queenslands-economic-recovery>; Government of South Australia, *State Budget 2021-22*, 'Record \$17.9 Billion infrastructure investment to drive stronger South Australia and create thousands of jobs', 22 June 2021; Tasmanian Government, *Tasmanian Budget 2021-22*, [https://www.premier.tas.gov.au/budget\\_2021/infrastructure](https://www.premier.tas.gov.au/budget_2021/infrastructure), and Victoria State Government, *Victorian Infrastructure Plan 2021*, p. 4.

- 1.4 In this inquiry into procurement practices for government-funded infrastructure, the House of Representatives Standing Committee on Infrastructure, Transport and Cities (the committee) examines the context of the infrastructure pipeline and industry's capacity to deliver, while focusing on the role for government procurement in the planning, coordination and delivery of infrastructure projects. Strategic and sophisticated planning and procurement will be key to not only the successful delivery of specific projects, but also to enhancing the longer-term sustainability of Australia's infrastructure and the industry capability needed to support it.

## **Conduct of the inquiry and report structure**

- 1.5 On 1 June 2021, the committee commenced its inquiry into procurement practices for government-funded infrastructure, as referred by the then Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development, the Hon Michael McCormack MP.
- 1.6 The details of this inquiry were published on the committee's webpage, and a media release was issued seeking submissions.<sup>2</sup> The committee received 63 submissions, eight supplementary submissions and two exhibits, which are listed in Appendix A.
- 1.7 The committee held six public hearings for the inquiry on 14 September, 5 and 10 October, and 10, 16 and 18 November 2021. Due to travel and safety considerations during the coronavirus pandemic all public hearings were conducted via videoconference and webcast through the Australian Parliament's website, allowing interested parties to view or listen to the proceedings as they occurred. Hearing witness details are provided in Appendix B. Submissions and transcripts of public hearings are available on the committee's webpage.<sup>3</sup>
- 1.8 In undertaking this inquiry, the committee recognises that it was important to first understand the context and scale of the amplified infrastructure pipeline resulting from recent injections of investment. Chapter 2 sets the scene accordingly, by examining the challenges and opportunities that the infrastructure pipeline presents for governments and the infrastructure sector.

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<sup>2</sup> See [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/ITC/Gov-fundedInfrastructure](https://www.aph.gov.au/Parliamentary_Business/Committees/House/ITC/Gov-fundedInfrastructure).

<sup>3</sup> See [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/ITC/Gov-fundedInfrastructure](https://www.aph.gov.au/Parliamentary_Business/Committees/House/ITC/Gov-fundedInfrastructure).



- 1.9 Chapter 3 covers funding and administering government infrastructure projects and the leadership role for government in driving more strategic and sophisticated approaches to infrastructure planning and coordination, and better alignment across federal, state and territory, and local governments. The committee recognises that for procurement to play its role, the pillars of strong government vision and leadership need to be in place.
- 1.10 The next chapters then focus on key aspects of the procurement process and how, if approached strategically and holistically, the Australian Government can help ensure its investment in infrastructure is optimised.
- 1.11 Chapter 4 covers current procurement practices and reforms. In particular, the committee closely examines project planning, how thoroughly real value is assessed in procurement, and approaches to risk allocation on projects.
- 1.12 Opportunities for greater collaboration and industry engagement, and best practice models for project contracts, are explored in Chapter 5. Issues related to Australia's industry capacity are the focus of Chapter 6, including the inherent tensions between meeting international free trade obligations and supporting the growth of Australian industry capability. Here, the committee examines approaches to using local content and increasing small and medium enterprises' participation in government-funded infrastructure projects. Chapter 7 then explores the benefits of better integrating digital technology throughout the infrastructure procurement, planning and delivery cycle, to maximise efficiency and productivity.
- 1.13 In addition to seeking specific procurement reforms, the committee recognises that without addressing underlying challenges in the construction sector the industry may not be best positioned to deliver the ambitious pipeline of current infrastructure projects. Accordingly, Chapter 8 discusses productivity challenges and the need for cultural reform in the construction industry.

## **Background**

### **Previous infrastructure reports and government responses**

- 1.14 In recent years, parliamentary committees and the Productivity Commission have examined and made recommendations aimed at enhancing Australia's infrastructure planning and procurement.

- 1.15 In the September 2018 *Building Up & Moving Out* report, the previous committee recognised infrastructure procurement as a key element in the development of Australia's cities and regions and highlighted the need to refine procurement methods and align them more closely with planning mechanisms.<sup>4</sup>
- 1.16 As well as recommendations to enhance the Australian Government's role in the development of Australia's cities and infrastructure, the *Building Up & Moving Out* report made five recommendations related to infrastructure procurement, which included the following themes:
- adopting infrastructure procurement practices that require a 'whole of life' approach to infrastructure procurement, which look at costs and benefits across the service life of any given piece of infrastructure, its place within long-term planning frameworks, and how well it meets objectives in terms of economic, social and environmental sustainability (Recommendation 33)
  - promoting technical innovation (Recommendation 34)
  - supporting and engaging with tier two and three contractors (Recommendation 34)
  - establishing a national training program for public sector infrastructure procurement (Recommendation 35)
  - project appraisals should include assessment of both the wider economic, social and environmental benefits, costs and returns over the life of the infrastructure, and of the cost of the project using a discount rate<sup>5</sup> of 4 per cent<sup>6</sup> (Recommendation 36)
  - developing a system of value capture as an organising principle of infrastructure planning and procurement and progressing the reform of the taxation system to match the requirements of value capture (Recommendation 37).

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<sup>4</sup> House of Representatives Standing Committee on Infrastructure, Transport and Cities, *Building Up & Moving Out*, September 2018, Chapter 13.

<sup>5</sup> A discount rate is used as part of the Assessment Framework for appraising infrastructure projects. It is the interest rate at which future dollar values are adjusted to represent their present value. This adjustment is made to account for the fact that money today is more valuable than money in the future. Infrastructure Australia, *Guide to program appraisal: Technical guide of the Assessment Framework*, July 2021, p. 55.

<sup>6</sup> Seven per cent is the discount (central rate) used by Infrastructure Australia, as well as Australia's state and territories' treasury and finance departments, for most public infrastructure projects. See <https://home.kpmg/au/en/home/insights/2021/09/infrastructure-project-investment-discount-rate.html>.

- 1.17 However, in its response to these recommendations in May 2020, the Australian Government simply noted—rather than actively supported or committed to implement—most of these recommendations and did not agree to Recommendation 35 to establish a national training program for public sector infrastructure procurement.<sup>7</sup>
- 1.18 In November 2017, the Joint Select Committee on Government Procurement tabled its report *Buying into our Future: Review of amendments to the Commonwealth Procurement Rules*. These amendments to the Commonwealth Procurement Rules (CPRs), which had come into effect on 1 March 2017, had aimed to ensure that the full benefit of Commonwealth procurement flows through to the Australian economy. The report noted that the amendments were also designed to ensure that Australian regulations and standards are upheld and ‘mitigate the disadvantages faced by Australian suppliers to access government procurement opportunities’.<sup>8</sup>
- 1.19 The Joint Select Committee expressed the view that ‘implemented effectively, the new clauses will enable a broader, more accurate consideration of value for money in procurement decision making...and provide important support to Australian industry and the economy’.<sup>9</sup> Notwithstanding this, evidence in that inquiry highlighted various issues relating to the implementation of the CPRs, with the Joint Select Committee expressing concern that ‘ineffective implementation may hinder their [the CPRs’] ability to enhance procurement outcomes’ as ‘many of the new clauses lack clarity or leave too much to the discretion of officials’.<sup>10</sup>

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<sup>7</sup> Australian Government, Australian Government response to the House of Representatives Standing Committee on Infrastructure, Transport and Cities report: *Building Up & Moving Out*, May 2020, [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/ITC/DevelopmentofCities/Government\\_Response](https://www.aph.gov.au/Parliamentary_Business/Committees/House/ITC/DevelopmentofCities/Government_Response).

<sup>8</sup> Joint Select Committee on Government Procurement, *Buying into our Future: Review of amendments to the Commonwealth Procurement Rules*, June 2017, p. 26.

<sup>9</sup> Joint Select Committee on Government Procurement, *Buying into our Future: Review of amendments to the Commonwealth Procurement Rules*, June 2017, p. 127.

<sup>10</sup> Joint Select Committee on Government Procurement, *Buying into our Future: Review of amendments to the Commonwealth Procurement Rules*, June 2017, p. 127.

- 1.20 In the government response to the report's 16 recommendations, only Recommendation 11 relating to creating certain records for procurements over \$4 million was supported, with the Australian Government noting that paragraph 7.2 (a-e) of the CPRs already requires procuring officials to maintain records underpinning the procurement process and decisions. Five recommendations were given support in principle or in part, two were noted, and eight were not supported.<sup>11</sup>
- 1.21 In 2014, the following three reports relating to infrastructure and procurement were released, with many of the findings and challenges identified yet to be fully addressed:
- *Planning, Procurement and Funding for Australia's Future Infrastructure: Report on the Inquiry into infrastructure planning and procurement*—a report of a predecessor committee, the then House of Representatives Standing Committee on Infrastructure and Communications.
  - *Commonwealth procurement procedures*—a report of the Senate Standing Committees on Finance and Public Administration, which examined the ratio of Australian goods and services versus imported goods and services utilised by the Commonwealth through procurement procedures.
  - *Public Infrastructure*—a Productivity Commission report which covered infrastructure provision and its funding and financing.
- 1.22 Key findings in the predecessor committee's *Planning, Procurement and Funding for Australia's Future Infrastructure* report included:
- Serious deficiencies in procurement processes, especially around tendering, cost-benefit analysis, procurement skills and expertise, and risk management.
  - Typical tendering processes for public infrastructure in Australia are slow, costly and do not always promote innovation.
  - Greater up-front investment by government in project design, or separate contracts for design and construct, could help bid costs.
  - Misalignment between project and tendering methodology was often the result of a lack of expertise or capability in procurement.

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<sup>11</sup> Australian Government, *Australian Government response to the Joint Select Committee on Government Procurement report – Buying into our Future: Review of amendments to the Commonwealth Procurement Rules*, November 2017, [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Joint/Former\\_Committees/Government\\_Procurement/CommProcurementFramework/Government\\_Response](https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Former_Committees/Government_Procurement/CommProcurementFramework/Government_Response).

- Evidence presented to the committee highlighted the need to create and retain specialist procurement skills in the public sector.
- A project must be judged not only on construction costs, but also on long-term maintenance and operating costs.
- The committee concluded that public sector procurement practices are not always serving the taxpayer well and need to be more efficient, cost-effective and flexible.
- Infrastructure project assessments should also include consideration of the value these projects create elsewhere and their capacity to transform the economy.<sup>12</sup>

1.23 In the *Commonwealth procurement procedures* report, the Senate committee's recommendations seeking to encourage procurement engagement with Australian businesses proposed that:

- The government review the application of the non-discrimination principle to ensure that it does not inadvertently discriminate against Australian manufacturers (Recommendation 3). However, this was not supported in the 2015 government response, which reiterated that paragraph 5.3 of the CPRs states that all potential suppliers must be treated equitably.
- The CPRs be redrafted to provide an explicit exemption for practices to benefit or preference small and medium businesses (Recommendation 5). This was not supported in the government response.<sup>13</sup>

1.24 The Productivity Commission, in its *Public Infrastructure* report, found in relation to infrastructure procurement that:

- There is significant scope to improve public sector procurement practices and lower bid costs for tenderers, with potentially large benefits for project costs and timing.
- Governments can use their procurement policies to drive reform in the construction industry.
- Despite significant concentration in the market for large public infrastructure projects, the market appears to be workably competitive,

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<sup>12</sup> House of Representatives Standing Committee on Infrastructure and Communications, *Planning, Procurement and Funding for Australia's Future Infrastructure: Report on the Inquiry into infrastructure planning and procurement*, December 2014, pp. 41–55.

<sup>13</sup> Senate Standing Committees on Finance and Public Administration, *Commonwealth procurement procedures*, July 2014.

though simple measures would make it more so and would reduce the cost pressures facing procurers.<sup>14</sup>

1.25 In relation to technology, the Productivity Commission recommended that:

Recommendation 12.5: For complex infrastructure projects, government clients should provide concept designs using Building Information Modelling (BIM) to help lower bid costs and require tender designs to be submitted using BIM to reduce overall costs. To facilitate the consistent use of BIM by public sector procurers, Australian, state and territory governments should:

- facilitate the development of a common set of standards and protocols in close consultation with industry, including private sector bodies that undertake similar types of procurement
- include in their procurement guidelines detailed advice to agencies on the efficient use of BIM.<sup>15</sup>

1.26 The Australian Government, in response to this recommendation, supported ‘the use of modelling technology, as it is likely to drive down costs and provide detailed information for whole of life infrastructure’, and noted that BIM was already being used by some Commonwealth and state agencies for a variety of projects.<sup>16</sup> However, it did not ‘endorse any specific technology in procurement activities and considers that individual government agencies are best placed to consider the benefits of using such technology’.<sup>17</sup>

## **Committee comment**

1.27 The committee acknowledges that some progress has been made on certain aspects of procurement reform, in reviews of the CPRs, and in enhancing coordination across different levels of government. However, the fact that the committee has received evidence during this inquiry on many of these same issues, highlights that more work needs to be done to improve procurement practices for government-funded infrastructure projects.

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<sup>14</sup> Productivity Commission, *Public Infrastructure*, July 2014, p. 2.

<sup>15</sup> Productivity Commission, *Public Infrastructure*, July 2014, p. 44.

<sup>16</sup> Department of Infrastructure and Regional Development, *Australian Government Response: Productivity Commission Inquiry Report into Public Infrastructure*, November 2014, p. 15.

<sup>17</sup> Department of Infrastructure and Regional Development, *Australian Government Response: Productivity Commission Inquiry Report into Public Infrastructure*, November 2014, p. 15.

# 2. Infrastructure pipeline

## Challenges and opportunities

- 2.1 The infrastructure sector is anticipated to play a prominent role in Australia's economic recovery, with infrastructure investment expected to continue to grow from already record levels. This is reflected in the total infrastructure investment across federal, state and territory governments with 2020-21 budgets allocating a record \$225 billion in general government expenditure on infrastructure over the four years to 2023-24.<sup>1</sup> The 2021-22 budgets saw further significant infrastructure investments by Australian governments, as outlined at the start of Chapter 1.
- 2.2 The Australia and New Zealand Infrastructure Pipeline (ANZIP), produced by industry think tank Infrastructure Partnerships Australia, provides a forward view of major infrastructure projects and contracts across Australia and New Zealand.<sup>2</sup> It tracks infrastructure opportunities from announcement to completion and provides updates and analysis. The portal provides access to pipeline information in categories including status and location, and expenditure and labour demand forecasts.
- 2.3 Infrastructure Partnerships Australia noted in its submission to the inquiry that ANZIP had listed 236 major projects, contracts and transactions, across Australia's infrastructure pipeline, with a total value of \$320 billion.<sup>3</sup> It also observed that not all spending in the pipeline was directly taxpayer funded or procured by governments. In particular, for the largest category, energy,

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<sup>1</sup> Infrastructure Partnerships Australia, *Submission 43*, pp. 1-2.

<sup>2</sup> See Australia and New Zealand Infrastructure Pipeline, <https://infrastructurepipeline.org/>.

<sup>3</sup> Infrastructure Partnerships Australia, *Submission 43*, p. 2.

the majority of generation and transmission projects will be privately financed and funded through user charges. However, Infrastructure Partnerships Australia found that for road, rail, social and other transport—the next four biggest categories by value—these projects ‘will need to be almost entirely funded by taxpayers and procured by state and territory governments’.<sup>4</sup>

- 2.4 The Australasian Railway Association encouraged all governments to use the ANZIP portal as a reference when considering new infrastructure investments, giving due consideration to the status and timelines of projects already in the pipeline.<sup>5</sup>
- 2.5 Evidence to the committee highlighted that the significant increase in the volume, scale and complexity of infrastructure projects will exacerbate existing challenges and constraints in the sector if not addressed. Supply issues, planning, coordination, timing and skills shortages will put pressure on the sector’s ability to not only deliver the pipeline successfully, but will also risk timeliness and providing value for money. As the Australian Constructors Association told the committee, ‘if we don’t address those issues there is a real possibility that the pipeline will not be delivered...nearly as quickly as everyone is hoping it will’.<sup>6</sup>

## Supply issues

- 2.6 The significant increase in the number and scale of projects—notably the rise of mega projects (costing \$1 billion or more)—in Australia’s infrastructure pipeline places increased pressure on the supply chain’s ability to deliver these projects. As observed by professional service business WSP, it is important to:

...embrace the entire supply chain in the construction of these large projects. As we reach capacity in our industry, one of the opportunities for efficiency is to ensure that all available sources of labour are involved in these projects. But we’ve got to be cognisant that there are different skill levels, so different levels of contracts, levels of supervision, levels of risk that are going to be appropriate for each one of those layers to participate. An important part of

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<sup>4</sup> Infrastructure Partnerships Australia, *Submission 43*, p. 2.

<sup>5</sup> Australasian Railway Association, *Submission 33*, p. 7.

<sup>6</sup> Mr Jon Davies, Chief Executive Officer, Australian Constructors Association, *Committee Hansard*, 5 October 2021, Canberra, p. 7.



thinking around the procurement is how the whole supply chain can be engaged.<sup>7</sup>

- 2.7 A key issue identified throughout the inquiry is that mega projects require larger tier one contractors who have enough capital to take on projects with higher risk. Where tier one contractors joint venture with mid-tier companies on projects to share risk, this further reduces the pool of available resources and skills.<sup>8</sup>
- 2.8 Another pressure point in the supply chain will be the concentration of investment in Australia's south-east corner, with more than half of the projected investment listed in ANZIP concentrated in New South Wales and Victoria.<sup>9</sup>

## Skills shortage

- 2.9 Ensuring that the infrastructure workforce is well positioned to deliver on the pipeline is essential. It is broadly recognised across the industry that there will continue to be a skills shortage, which will have consequences such as price pressures, increasing cost to governments, and potentially delaying projects.<sup>10</sup> Infrastructure Australia estimated that there will be about 105,000 jobs that will not be able to be filled by 2023—directly impacting costs, productivity, and risking the delivery of the infrastructure pipeline.<sup>11</sup>
- 2.10 Addressing the skills shortage goes beyond attracting people into the workforce. The Australian Constructors Association provided two options

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<sup>7</sup> Mr Tim Gosbell, Director of Transport Clients, WSP, *Committee Hansard*, 14 October 2021, Canberra, p. 35.

<sup>8</sup> Tier one companies are a small number of large contractors capable of delivering mega projects over \$1 billion without partnering. Tier two companies are a small number of medium-sized construction firms that undertake projects up to around \$500 million, before requiring the support of a joint venture partner. Tier three companies are a large number of smaller firms, generally with an appetite for projects under \$100 million. They are usually less willing to take aggressive price or risk positions. Infrastructure Australia, *An Assessment of Australia's Future Infrastructure Needs: The Australian Infrastructure Audit 2019*, June 2019, p. 233.

<sup>9</sup> Infrastructure Partnerships Australia, *Submission 43*, p. 2.

<sup>10</sup> Mr Andrew Curthoys, Chairperson, Australasian BIM Modelling Advisory Board, *Committee Hansard*, 14 October 2021, Canberra, p. 40.

<sup>11</sup> Ms Gabrielle Trainor AO, Chair, Construction Industry Culture Taskforce, *Committee Hansard*, 5 October 2021, Canberra, p. 43.

with procurement at the core: using procurement to improve industry culture; and using procurement to reduce waste and improve project productivity.<sup>12</sup>

- 2.11 According to Infrastructure Australia, the unprecedented size of the infrastructure investment pipeline will require the full engagement of the infrastructure industry. The construction sector is one of Australia's largest employing industries, predicted to grow by 6.8 per cent between November 2020 and November 2025. However, there is a growing shortfall of professions, skilled and semi-skilled people to meet the investment challenge.<sup>13</sup>
- 2.12 The Business Council of Australia (BCA) cautioned that one in three advertised positions in the sector will go unfilled by 2023, indicating the critical need to focus on addressing the skills shortage and develop an understanding of challenges facing the sector in terms of maintaining and growing a skilled workforce.<sup>14</sup> The Australasian Railway Association told the committee that some specialised skills in the industry can take up to 15 years to achieve.<sup>15</sup>
- 2.13 Skills that are currently in a national shortage with moderate or strong future demand are noted in the Skills Priority List, which is maintained by the National Skills Commission (NSC). The Skills Priority List informs a range of government policy initiatives, including the targeting of skilled migration, apprenticeship incentives and training funding. Recent data from the NSC shows surveyors, urban and regional planners, civil, geotechnical and transport engineers are in national shortage with strong future demand. Construction project managers, project builders, engineering managers and engineering draftspersons and technicians are in national shortage with moderate future demand.<sup>16</sup>

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<sup>12</sup> Australian Constructors Association, *Submission 11*, p. 3.

<sup>13</sup> Infrastructure Australia, *Submission 14*, p. 2.

<sup>14</sup> Business Council of Australia (BCA), *Submission 38*, p. 5.

<sup>15</sup> Ms Natalie Currey, General Manager, Supply Chain, Australasian Railway Association, *Committee Hansard*, 14 October 2021, Canberra, p. 25.

<sup>16</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 12.

- 2.14 Various jurisdictions have recognised that with increased infrastructure investment there must also be an increase in training, education, and funding for up-skilling the sector.<sup>17</sup> The main pathway into the industry is through the completion of an apprenticeship or traineeship, where 50 per cent of workers possess a Certificate III or higher VET qualification. However, the Australian Constructors Association commented that training would ‘not substantially help’ the capability and capacity of the workforce. Instead, it emphasised improving culture to attract back workers who have previously left the industry; and reducing waste and improving project productivity through procurement.<sup>18</sup>
- 2.15 In addition to these issues, the construction sector is not viewed as an employer of choice, with the culture of the industry acting as a barrier to entry and to retaining the current workforce. The lack of diversity in the industry, in particular low female representation, is expected to create additional stress.<sup>19</sup>
- 2.16 Since states and territories have responsibility for setting requirements for occupation registration and licencing, differences between jurisdictions can affect the portability of labour in working on projects throughout Australia, where licencing in one state may not be recognised in another. Infrastructure Australia recognised that states and territories experiencing workforce shortages would benefit from greater mobility, which could then lead to improved national productivity. Infrastructure Australia, in its *Infrastructure market capacity* report, noted a positive development in this area, with New South Wales, Victoria, the Northern Territory and the Australian Capital Territory recently establishing an automatic mutual recognition scheme for most electrician roles. Also, the *Mutual Recognition Amendment Act 2021* (Cth) will enable licensed workers to operate across two jurisdictions (their home jurisdiction and one other) using automatic notification.<sup>20</sup>

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<sup>17</sup> Civil Contractors Federation, *Submission 53*, p. 20.

<sup>18</sup> Australian Constructors Association, *Submission 11*, p. 8.

<sup>19</sup> See Chapter 8 for a detailed discussion of the cultural issues in the industry, including gender diversity.

<sup>20</sup> Infrastructure Australia, *Infrastructure Market Capacity*, October 2021, p. 114.

## Enhancing planning, coordination and timing

### Planning the pipeline

- 2.17 A rolling, continuously planned pipeline, in contrast to a ‘stop-start’ program, is a necessary foundation for improving coordination and the ability of the industry to deliver on the infrastructure pipeline in Australia. Infrastructure Australia viewed a longer-term pipeline—beyond 10 to 15 years to possibly 30 to 40 years—as ‘critical, both in terms of understanding future need, and, indeed, corridor reservation to support those needs and in terms of project delivery’.<sup>21</sup>
- 2.18 Australia’s current approach to infrastructure delivery was viewed as ‘incremental’ and disruptive to business. The BCA highlighted better pipeline identification and coordination as an area for improvement. While acknowledging the work of Infrastructure Australia and state and territory bodies on mapping out future projects, the BCA believes that they ‘could go further with better coordination across jurisdictions to ensure there’s a longer-term view of infrastructure requirements’.<sup>22</sup>
- 2.19 Taking a more holistic approach to planning will help avoid spending more time and money on works that may then have to be upgraded or duplicated within a few years. The Australian Institute of Quantity Surveyors commented that if planners are:
- ...not looking at what the economic growth or population growth or industrial growth, depending on the area, that’s going to happen over the next 10 years. So, then they either have to spend a lot more money on road winding or duplications within a few short years, rather than necessarily spending a little more up-front for a longer-term strategic approach to infrastructure.<sup>23</sup>

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<sup>21</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 6.

<sup>22</sup> Dr Jennifer Westacott, Chief Executive, BCA, *Committee Hansard*, 16 November 2021, Canberra, p. 1.

<sup>23</sup> Mr Grant Warner, Chief Executive Officer, Australian Institute of Quantity Surveyors, *Committee Hansard*, 14 October 2021, Canberra, p. 6.

- 2.20 Roads Australia also supported better planning, where parties could consider their resources and jointly plan projects, so that they ‘dig up the road once and do the works in a more orderly fashion rather than in the way it’s being done at the moment’.<sup>24</sup>
- 2.21 Corridor preservation is another area that can benefit from better long-term and more holistic planning. In response to committee questioning, Infrastructure Australia confirmed that reserving the corridor from Melbourne to Sydney to Brisbane for an east coast high speed rail had been on its Infrastructure Priority List since 2016. However, while some work on associated proposals may have been undertaken, this corridor reservation has not yet occurred. In considering the benefits of preserving this corridor, Infrastructure Australia outlined that:
- That reservation looked at the benefits of acquiring that corridor for delivery ahead of Australia’s population exceeding 30 million by 2075. We identified the benefit at \$2.8 billion, rather than having to acquire the corridor at a later stage. I would say the acquisition of the corridor should be a component of an integrated plan for the development of transport connections.<sup>25</sup>
- 2.22 Looking beyond rail, the BCA noted that the government’s failure to preserve corridors is a source of frustration for industry. The BCA suggested that preserving corridors would be an important signal to the private sector about the government’s commitment to a project—not necessarily rail related—that might encourage private investors to explore how they might engage with the project.<sup>26</sup>
- 2.23 While there was no consensus on whether a 20, 30 or even 50-year pipeline should be established, it was evident that a longer pipeline would provide greater certainty and strong benefits for businesses. The BCA explained that the stability of a long-term pipeline acts as a ‘critical enabler’ to the growth of local companies, local capability, and skills by providing an outlook of consistent expenditure. The BCA clarified that:

While there will always be a need for some short-term top-ups, how do we get the education system to put out those critical skills? How do we get businesses

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<sup>24</sup> Mr Scott Olsen, Vice President and Board Member, Roads Australia, *Committee Hansard*, 14 October 2021, Canberra, p. 16.

<sup>25</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 8.

<sup>26</sup> Dr Jennifer Westacott, Chief Executive, BCA, *Committee Hansard*, 16 November 2021, Canberra, p. 3.

to invest in them? How do we end up with the smaller contractors growing and developing? They will only do that if they believe the tap won't be turned off again, that there is an industry that is well-coordinated across multiple levels of government and that there is a level of stability.<sup>27</sup>

- 2.24 Another benefit of a longer-term pipeline is that it encourages sustainability and innovation in procurement practices by giving businesses the opportunity to know the intended development of regions over the long-term. The Australasian BIM Advisory Board used Brisbane, Sydney and Melbourne as an example of where better understanding of the infrastructure pipeline across the south-east coast would allow for better planning and preparation for the extensive services required to match their planned urban extensions.<sup>28</sup>
- 2.25 For an efficient supply chain, long lead times in the pipeline are important. Infrastructure Australia highlighted, for instance, that manufacturers require a 'significant number of years' to plan and implement changes to manufacturing operations and import-export activities. The Australian Industry Group (Ai Group), a peak national employer organisation representing traditional, innovative and emerging industry sectors, noted that inconsistency in the program of works create barriers to the investment of new skills, technologies and products.<sup>29</sup>
- 2.26 The committee heard that having a 'connected plan' between federal, state and territory governments, as well as factoring in private sector involvement, will be an important step in achieving real longer-term pipeline planning.<sup>30</sup>

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<sup>27</sup> Mr Guy Templeton, Co-Chair, Infrastructure, Construction and Housing Committee, BCA; Chief Executive Officer, Asia Pacific, WSP, *Committee Hansard*, 16 November 2021, Canberra, p. 2.

<sup>28</sup> Mr Andrew Curthoys, Chairperson, Australasian BIM Advisory Board, *Committee Hansard*, 14 October 2021, Canberra, p. 48.

<sup>29</sup> Mr Lindsay Le Compte, General Manager, Construction and Infrastructure, Australian Industry Group Limited, *Committee Hansard*, 14 September 2021, Canberra, p. 15.

<sup>30</sup> Mr Simon Squire, Board Member, Australian Institute of Quantity Surveyors, *Committee Hansard*, 14 October 2021, Canberra, p. 7.

- 2.27 While the Civil Contractors Federation conceded that looking past 15 years was important, it stressed that the 10 to 15-year period was ‘typically what investors and our construction companies require us to address in the here and now’.<sup>31</sup>
- 2.28 However, Infrastructure Australia noted that investment and funding certainty in the shorter-term were distinct from planning needs. Infrastructure Australia viewed the 10-year pipeline as focusing investment by providing a ‘clear signal to industry to invest in its own capacity and capability’, noting that many relevant qualifications required several years to complete. It further outlined that:
- We need to lengthen a view around funding beyond the forward estimates to 10 years in the future. We do see jurisdictions pointing towards that sort of outcome. We see 10-year budgeting within New South Wales, for instance, and the transport agency. We see a focus in other jurisdictions in that way as well.<sup>32</sup>
- 2.29 The Georgiou Group encouraged improving the transparency and reliability of published pipeline forward programs. The inclusion of project descriptions, scope outlines, expected contract value, and planning procurement models and timing, would enable contractors to prioritise, prepare and position to bid and engage the supply chain.<sup>33</sup>
- 2.30 A more detailed infrastructure pipeline could also allow for the earlier identification of opportunities for investors. IFM Investors identified that there were opportunities to improve procurement processes and fund the pipeline and ‘strongly encouraged’ earlier consideration of what projects in the expanded infrastructure pipeline might be suited for private financing, so that opportunities are not lost. IFM Investors shared that:
- We have seen multiple examples, in the past, where projects progress to the point of almost the button being pushed on procurement and then somebody puts their hand up and goes, ‘This would be really good from a private financing perspective’ but by that stage it’s too late; the wheels have turned so

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<sup>31</sup> Mr Christopher Melham, Chief Executive Officer, Civil Contractors Federation National, *Committee Hansard*, 5 October 2021, Canberra, p. 16.

<sup>32</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 6.

<sup>33</sup> Georgiou Group, *Submission 9*, p. 1.

far that shovels are almost in the ground and it's too late to start a different process of bringing private capital into those projects.<sup>34</sup>

- 2.31 The potential benefits of taking a 'go slow to go fast' approach to pipeline planning and delivery were also discussed. This approach proposes that time spent planning and understanding the risks of a project will ultimately lead to a faster and more economical outcome. Consult Australia outlined that:

If we are faced with complex infrastructure projects, it is perhaps unrealistic to expect the parties to accurately price a project that's going to last for some five or more years at the start of that project. We really do need to take a more sophisticated approach, at the start of the project, to work collaboratively across the parties to talk openly about price and risk. In sympathy with the contractors, if they price upfront, they don't know necessarily all of the risks they're walking into, and that's going to cause commercial pressure for them, which then ultimately results in some of the behaviours we are seeing.<sup>35</sup>

## Coordination and timing

- 2.32 Greater coordination and staged timing of projects were viewed as essential to 'smooth the pipeline' and provide a range of benefits to the industry — removing peaks and troughs in the availability of key skills and materials, allowing for more certain project delivery timeframes, and providing better value for money outcomes.<sup>36</sup> This need for greater coordination and timing extends to coordination with local government, state and territories, and industry — all key players in infrastructure procurement and delivery.
- 2.33 A lack of coordination in procurement and the timing of delivery activity is resulting in constraints in key resources and skills. Infrastructure Australia observed in the *Australian Infrastructure Audit 2019* that despite increased transparency of the infrastructure pipeline, coordination on the timing and release of projects into the market has not improved, leading to stretched resources.<sup>37</sup> In its submission, Infrastructure Australia commented that

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<sup>34</sup> Mr Michael Hanna, Head of Infrastructure, Australia, IFM Investors, *Committee Hansard*, 10 November 2021, Canberra, p. 3

<sup>35</sup> Mrs Nicola Grayson, Chief Executive Officer, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 3.

<sup>36</sup> BCA, *Submission 38*, p. 7.

<sup>37</sup> Infrastructure Australia, *An Assessment of Australia's Future Infrastructure Needs: The Australian Infrastructure Audit 2019*, June 2019, pp. 45-46.



better coordination and timing of projects entering delivery ‘will be essential to manage cost and time pressures’.<sup>38</sup>

- 2.34 The Grattan Institute commented that the strategic timing of partnerships with state or territory governments—particularly with large transport infrastructure projects—could ‘constrain the costs to the taxpayer’.<sup>39</sup>
- 2.35 Early market engagement was raised by various witnesses as a way to better coordinate the timing and delivery of infrastructure projects. The BCA viewed premature government announcements of project timings and estimated costs as a barrier to undertaking due diligence and early market engagement.<sup>40</sup> It recommended that by allowing time for due diligence and early market engagement in procurement processes, it would be possible to refine the timing, scope, and structure of the project—potentially providing better outcomes overall.
- 2.36 Better coordination between government and industry could also provide a range of benefits to infrastructure procurement and industry’s ability to deliver the pipeline. According to the Australian Chamber of Commerce and Industry, knowledge sharing between government and industry can enable better decisions on risks, procurement models and contracting models, as well as providing an understanding of capacity and capability in the market. Better coordination in this regard can reduce the overruns in budget and timing and allow for a better allocation of resources by considering capabilities and capacities.<sup>41</sup>

## Harmonisation

- 2.37 There is a distinct lack of harmonisation across the infrastructure sector in areas such as contracts, technical specifications, competency requirements, training needs, industry engagement and approaches to procurement. Promoting better harmonisation was brought to the attention of the committee, as improvements in this area would provide significant benefits across the supply chain, reduce costs, and improve efficiency and sustainability—all critical to the industry’s ability to deliver the pipeline of infrastructure.

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<sup>38</sup> Infrastructure Australia, *Submission 14*, p. 2.

<sup>39</sup> Grattan Institute, *Submission 8*, p. 7.

<sup>40</sup> BCA, *Submission 38*, p. 6.

<sup>41</sup> Australian Chamber of Commerce and Industry, *Submission 48*, p. 4.

- 2.38 The Australasian Railway Association, told the committee that there would be ‘significant benefits’ from a greater harmonisation of requirements, policies and processes relating to procurement:

This improved harmonisation would really enable local suppliers and contractors to have more consistent sustained operations. It would foster larger economies of scale, build local expertise and really expand opportunities for growth and further investment. For the government client, a strong focus on harmonisation would actually reduce project risks and costs and would enable new innovations to be adopted.<sup>42</sup>

## Committee comments

- 2.39 Key to delivering Australia’s ambitious pipeline of infrastructure projects is the industry’s ability to improve its productivity, reduce existing practices that are creating frictions, and encourage the development of essential skills to mitigate issues in the supply chain. The committee received evidence that emphasised the importance of better coordination, collaboration and harmonisation across the industry and jurisdictions. Australian governments need to improve the way they approach infrastructure procurement.
- 2.40 The committee strongly supports adopting a longer-term view of infrastructure planning in Australia that goes beyond the current 10 to 15 years—extending Australia’s strategic outlook beyond political cycles and taking into consideration the future of its cities and regions, and how people will live, travel and work.
- 2.41 The committee notes that the 2018 *Building Up & Moving Out* report highlighted the need to refine project appraisal, embrace technical innovation in procurement, improve procurement skills for officials, and enhance engagement with tier two and three contractors.<sup>43</sup> However, the indifferent government response to these recommendations reflected the piecemeal approach taken by government to infrastructure planning and procurement in Australia.<sup>44</sup>

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<sup>42</sup> Ms Natalia Currey, General Manager, Supply Chain, Australasian Railway Association, *Committee Hansard*, 14 October 2021, Canberra, p. 21.

<sup>43</sup> House of Representatives Standing Committee on Infrastructure, Transport and Cities, *Building Up & Moving Out*, September 2018, pp. xxxii–xxxiii.

<sup>44</sup> Australian Government, *Australian Government response to the House of Representatives Standing Committee on Infrastructure, Transport and Cities report: Building Up & Moving Out*, May 2020, [https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/ITC/DevelopmentofCities/Government\\_Response](https://www.aph.gov.au/Parliamentary_Business/Committees/House/ITC/DevelopmentofCities/Government_Response).

- 2.42 State, territory and local governments, industry and stakeholders all have an important role in pursuing best practice in the procurement of infrastructure. The committee acknowledges how crucial it is to facilitate better coordination of the pipeline with these groups to ensure the best outcomes and to mitigate stressors impacting the industry's ability to deliver the significant pipeline of projects.
- 2.43 The committee encourages the use of tools such as the Australia and New Zealand Infrastructure Pipeline (ANZIP) portal to help ensure infrastructure projects are efficiently prioritised and sequenced.
- 2.44 It is the committee's view that a 'go slow to go fast' mindset should be encouraged within infrastructure planning to facilitate collaboration and better procurement and project outcomes.

## **Recommendation 1**

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- 2.45 **The committee recommends, with a view to addressing Australia's historically piecemeal approach to infrastructure planning and project delivery, the Australian Government investigate, in consultation with state, territory and local governments, and relevant industry bodies and stakeholders, how to facilitate better planning and coordination of the infrastructure pipeline. As part of this work, consideration should be given to:**
- **the effectiveness of planning, and stakeholder and industry engagement prior to project commitments being made**
  - **avenues for enhancing cooperation with existing bodies, and/or bolstering independent expertise, to support more integrated and holistic infrastructure planning**
  - **extending governments' approach to long-term infrastructure planning from a decade to a strategic outlook of 20 to 50 years, as applicable**
  - **periodic reporting on priorities and progress on the *2021 Australian Infrastructure Plan* items for which the Australian Government has been identified as the proposed lead agency.**



## 3. Role of government

- 3.1 Most major infrastructure projects are jointly funded by the Australian Government and state and territory governments. Both of these levels of government have committed to significant investments in infrastructure projects over the next few years. However, given that many of these projects will be administered by state and territory governments, the Australian Government will need to work cooperatively with these jurisdictions to help ensure consistent procurement best practice and cost effective and efficient infrastructure delivery.
- 3.2 The Department of Infrastructure, Transport, Regional Development and Communications noted that the Australian Government had already progressed work to foster great efficiency and maximise the intended economic stimulus from the recent infrastructure investment. The department advised that it had been reviewing its processes and guidance to streamline administrative processes.
- 3.3 Further, the Department of Infrastructure, Transport, Regional Development and Communications noted that the threshold for business cases receiving government funding to be assessed had been raised from \$100 million to \$250 million, to enable Infrastructure Australia to focus on larger and more complex projects. Also, that in 2020, Infrastructure Australia had improved the average time taken to complete business case evaluations by 25 per cent.<sup>1</sup>

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<sup>1</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 21.

## Australian Government infrastructure funding

- 3.4 The Australian Government funds public infrastructure projects through mechanisms such as direct delivery via Australian Government entities, funding arrangements with states and territories, government business enterprises (GBEs) and grants. Each have their own set of procurement functions, policies and frameworks to guide project delivery.
- 3.5 The Department of Infrastructure, Transport, Regional Development and Communications leads the negotiation process for agreements with the states and territories. This is done in consultation with the Treasury and the Department of the Prime Minister and Cabinet.
- 3.6 While acknowledging the Australian Government's important contribution to infrastructure investment, Infrastructure Australia observed that this financial contribution is 'around one in every 10 infrastructure dollars' spent in Australia.<sup>2</sup> In particular, Infrastructure Australia noted that the Australian Government has a limited role in infrastructure delivery.<sup>3</sup> The Grattan Institute also commented that the Australian Government's levers of influence are mostly indirect.<sup>4</sup>
- 3.7 However, IFM Investors saw potential for the Australian Government to leverage significant project contributions to ask states and territories to plan and make provision for particular objectives.<sup>5</sup>

### Funding agreements

#### *Federation Funding Agreements Framework*

- 3.8 The Federation Funding Agreements (FFA) Framework, established in August 2020, covers the new governance arrangements for Australian Government and state and territory funding agreements. The FFA Framework comprises the:
- Intergovernmental Agreement on Federal Financial Relations (IGA FFR)
  - Council of Federal Financial Relations (CFFR), as a gatekeeper

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<sup>2</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 4.

<sup>3</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 4.

<sup>4</sup> Grattan Institute, *Submission 8*, p. 4.

<sup>5</sup> IFM Investors, *Submission 54*, p. 4.

- FFA architecture and Principles
  - administrative arrangements.<sup>6</sup>
- 3.9 The IGA FFR recognises that while states and territories have primary responsibilities for many areas of service delivery, coordinated action is necessary to address Australia’s economic and social challenges.
- 3.10 The new FFA architecture consolidated existing federal funding agreements into two forms of agreements: National Agreements and sectoral FFAs. National Agreements contain significant policy content, act as sources of ongoing funding and have relatively complex and bespoke terms and conditions. The sectoral FFAs consolidated all existing National Partnership Agreements, Streamlined Agreements and Project Agreements as schedules. New agreements under the relevant sectoral FFA are now termed FFA Schedules.
- 3.11 The FFA on Infrastructure consolidated all the pre-existing National Partnership Agreements—notably the National Partnership Agreement on Land Transport Infrastructure Projects (2019-2024)—and Project Agreements related to the infrastructure sector.<sup>7</sup> Other agreement objectives include contributing to the delivery of specified initiatives in the infrastructure sector and providing a framework for facilitating future initiatives that reduces complexity while maintaining accountability and transparency.
- 3.12 The National Partnership Agreement on Land Transport Projects (NPA) has continuing effect as the main way that the Australian Government provides infrastructure funding to states and territories. The NPA covers projects administered by the *National Land Transport Act 2014*, primarily through the Infrastructure Investment Program. States and territories each have separately agreed schedules in the NPA indicating the Australian Government’s intended level of funding for land infrastructure investments, which are updated each year following the Federal Budget, as required.
- 3.13 The current NPA covers 1 July 2019 to 30 June 2024. Towards the end of the term an independent review will assess the degree to which agreed

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<sup>6</sup> Federal Financial Relations, *The Federation Funding Agreements Framework*, <https://federalfinancialrelations.gov.au/federation-funding-agreements-framework>, viewed 11 February 2022.

<sup>7</sup> The consolidated project agreements are the: Adelaide City Deal; Barkly Regional Deal; Darwin City Deal – Education and Community Precinct; Geelong City Deal; Launceston City Deals Tamar – River Estuary Catchment Management and Urban Water; Townsville City Deal – Port of Townsville Channel Capacity Upgrade; and Western Sydney City Deal.

objectives and outcomes have been achieved.<sup>8</sup> One of the findings of the review of the 2014-2019 NPA was that ‘the five-year timeframe, combined with annual funding allocations, is not well suited to the nature of infrastructure planning and delivery’.<sup>9</sup>

3.14 The NPA outlines the roles and responsibilities of the parties. Which, the Department of Infrastructure, Transport, Regional Development and Communications noted, includes that state and territories ensure that procurement practices:

...deliver value for money for public funds and support the longer-term capacity and diversity of the construction market, in accordance with principles agreed through the Transport and Infrastructure Council.<sup>10</sup>

3.15 The Grattan Institute observed that NPAs set out the principles that should form the basis of Australian Government funding support as:

- the benefits of the investment extend nationwide, or spill beyond the particular state or territory receiving the funding
- there is a particularly strong impact on aggregate demand or sensitivity to the economic cycle, or
- the support helps harmonise policy between states and territories, to reduce barriers to the movement of capital and labour.<sup>11</sup>

### *Opportunities for influence and collaboration*

3.16 Infrastructure Australia cautioned that the Australian Government has limited influence where projects are funded through a National Partnership Agreement—suggesting instead that grant funding or direct investment through debt or equity offered more scope for influence.<sup>12</sup> Other groups, however, suggested ways in which funding agreements—and the NPA

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<sup>8</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>9</sup> EY, *Review of the National Partnership Agreement on Land Transport Infrastructure Projects*, July 2018, p. 4.

<sup>10</sup> *National Partnership Agreement on Land Transport Infrastructure Projects 2019-2024*, Part 3, paragraph 28(d); Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>11</sup> Grattan Institute, *Submission 8*, p. 4.

<sup>12</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 4.



specifically— can be used to influence desirable outcomes for the Australian economy.

3.17 Despite arguing that the current provisions present in NPAs ‘are opaque and rarely verifiably enforced,’ Infrastructure Partnerships Australia saw funding agreements as an opportunity for the Australian Government to ‘institute a powerful mechanism for ensuring leading practice is adopted in all jurisdictions’ by assigning ‘firm and enforceable conditions to its infrastructure allocations’.<sup>13</sup>

3.18 Australian Owned Contractors (AOC) suggested that as a significant funder of major infrastructure, the Australian Government does not ‘ask anything for its spend’, stating that:

...the steady and healthy flow of federal funds for state-based projects is probably the greatest influencer on states to work collaboratively to introduce these expectations, including industry sustainability.<sup>14</sup>

3.19 While noting that the FFA model usually includes a few jointly accepted expectations ‘to include indigenous employment outcomes, workplace safety and local content levels’, AOC highlighted the absence of any provisions or expectations ‘to provide fair access to head contract opportunities for Australian companies and mid-tier contractors’.<sup>15</sup> Specifically, AOC was critical of the fact that:

Commonwealth owned projects such as the \$14.5 billion Inland Rail and Sydney’s Second Airport do not include within their procurement approach deliberative industry sustainability clauses to attract Australian owned contractors to carry out head contractor opportunities.<sup>16</sup>

3.20 AOC agreed that FFAs could be ‘reasonably and easily amended to drive other agreed, positive outcomes for the wider industry’.<sup>17</sup> It highlighted that, as an inter-government agreement, no substantive legislative or regulatory changes would be required to add funding conditions. AOC called on the Australian Government to take a leadership role in the reform of procurement practices to ensure that Australian owned mid-tier contractors

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<sup>13</sup> Infrastructure Partnerships Australia, *Submission 43*, p. [6].

<sup>14</sup> Mr Brent Crockford, Chief Executive Officer, Australian Owned Contractors (AOC), *Committee Hansard*, 5 October 2021, Canberra, p. 32.

<sup>15</sup> AOC, *Submission 30*, p. 8.

<sup>16</sup> AOC, *Submission 30*, p. 8.

<sup>17</sup> AOC, *Submission 30*, p. 14.

can participate in head contracts. The group proposed that this could be achieved by including funding requirements that:

- major government transport infrastructure projects be broken up into packages of less than \$500 million so that Australian companies can competitively and successfully bid for them
- where projects cannot be broken down below \$500 million, the Australian Government mandate the inclusion and assessment of industry sustainability criteria as a part of the early-stage procurement process.<sup>18</sup>

3.21 The Civil Contractors Federation (CCF) National expressed the view that the current infrastructure partnership agreement is the ‘perfect mechanism by which the Commonwealth, state and territory governments can agree on a criterion, including a more collaborative approach in rolling out procurement, to lift productivity’.<sup>19</sup> To help enhance sovereign industry capability, the CCF recommended including the following conditions in NPAs for all infrastructure projects receiving Australian Government funding:

- To disaggregate (or debundle) large projects where possible to foster broader competition and a more sustainable contracting industry at both head contractor and subcontractor levels.
- To include local content participation levels as a tender requirement at employment and product source level.
- To adopt contracting models that encourage greater participation from tier two and three head contractors enabling them to secure more work and providing the opportunity to mature commercially.
- Further, that the federal government conduct annual audits of procurement agencies on all federally funded infrastructure projects to measure the level of debundling and local participation rates.<sup>20</sup>

3.22 Offering a state perspective, Infrastructure New South Wales (NSW) recognised joint funding agreements as a key area of collaboration between the Australian Government and state and territory governments. It outlined that these agreements should:

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<sup>18</sup> Mr Brent Crockford, Chief Executive Officer, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 27.

<sup>19</sup> Mr Christopher Melham, Chief Executive Officer, Civil Contractors Federation (CCF) National, *Committee Hansard*, 5 October 2021, Canberra, p. 18.

<sup>20</sup> CCF, *Submission 53*, p. 4.

...support efficient infrastructure delivery models that reflect early risk identification, preconstruction de-risking, removing requirements to undertake competitive processes in the delivery phase regardless of the size of the procurement and incentivised risk sharing for elements that cannot be quantified prior to construction.<sup>21</sup>

3.23 The Australian Constructors Association proposed that NPAs could be used to mandate desirable objectives such as using standard forms of contracts and improving risk allocation and compliance with a cultural standard.<sup>22</sup> Along similar lines, the Queensland Major Contractors Association saw scope for:

...enshrining principles of collaborative contracting in the various project-level investments that are extended to the state based procuring agencies, in much the same way as the Commonwealth mandates, for example, Building Code compliance or registration with the Office of the Federal Safety Commissioner, effectively having some conditions or caveats attached to the Commonwealth's investment.<sup>23</sup>

3.24 For all infrastructure projects receiving Australian Government payments of over \$20 million, the NPA already requires that jurisdictions develop and implement a Local Industry Participation Plan or an Australian Industry Participation (AIP) Plan. To avoid duplication, most jurisdictions ensure their local plans meet NPA requirements.<sup>24</sup>

3.25 The Department of Industry, Science, Energy and Resources observed that since procurement for many of these projects are not directly undertaken by Australian Government officials, having the AIP plan requirement in place means that those types of responsibilities are flowing through from the federal to the state level.<sup>25</sup>

3.26 Another suggested inclusion for NPAs is to apply the Australasian Railway Association's *Best practice principles for rail construction procurement* to all rail

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<sup>21</sup> Infrastructure NSW, *Submission 16*, p. [3].

<sup>22</sup> Mr Jon Davies, Chief Executive Officer, Australian Constructors Association, *Committee Hansard*, 5 October 2021, Canberra, pp. 2 and 5.

<sup>23</sup> Mr Adam Edwards, Board Member, Queensland Major Contractors Association, *Committee Hansard*, 5 October 2021, Canberra, p. 25.

<sup>24</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>25</sup> Ms Donna Looney, Acting Head, Industry Growth Division, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 14.

infrastructure procurement. The Australasian Railway Association proposed that the application of these principles accordingly be made a requirement as part of the NPA's next revision in 2024.<sup>26</sup>

## Government business enterprises

3.27 Considerable infrastructure activity is also undertaken through government business enterprises (GBEs). These operate at arms-length from government, which is a shareholder and, in some cases, funds projects. Current GBE infrastructure projects include:

- Australian Rail Track Corporation's Inland Rail—the 1,700-kilometre Inland Rail alignment has been divided into 13 sections, with procurement strategies developed for each subsection.
- Moorebank Intermodal Company—partnered with Qube Holdings (through their wholly owned subsidiary, Sydney Intermodal Terminal Alliance) to construct and deliver the Moorebank Logistics Park.
- Snowy Hydro—Snowy 2.0, hydro generation technology.
- Western Sydney Airport—WSA Co was established in 2017 as a GBE to build and operate the Western Sydney International (Nancy-Bird Walton) Airport.

3.28 The Department of Finance noted that while not subject to the Commonwealth Procurement Rules, GBEs are strongly encouraged to deliver value for money outcomes and apply basic principles from the CPRs and Procurement Connected Policies to their procurement activity.<sup>27</sup>

3.29 The Department of Finance commented on the work being done by certain GBEs in providing access to local businesses, noting that the WSA Co had broken the \$5.3 billion of works, originally envisaged as a single procurement, into smaller packages to 'support greater competition and value for money'.<sup>28</sup> Also, that the Moorebank Intermodal Company partner Qube Holdings had established a range of mechanisms to support local businesses and contractors to provide goods and services to the Moorebank Logistics Park, including local companies being able to pre-register via the Industry Capacity Network to work with the project.<sup>29</sup>

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<sup>26</sup> Australasian Railway Association, *Submission 33*, p. 10.

<sup>27</sup> Department of Finance, *Submission 13*, p. 7.

<sup>28</sup> Department of Finance, *Submission 13*, p. 10.

<sup>29</sup> Department of Finance, *Submission 13*, pp. 9-10.

3.30 The Australian National Audit Office (ANAO) reviewed WSA Co's procurement framework and activities related to the Western Sydney Airport. In its *Auditor-General Report No.16 of 2019–20*, the ANAO noted that the Australian Government had committed \$5.3 billion to the project over 10 years from 2017-18. WSA Co had procured \$599 million in goods and services under 189 contracts in the first two years, and 67 per cent of contracts by value were done by open tender or by a panel established by open tender. The ANAO made two recommendations in relation to GBEs. The Department of Finance noted Recommendation 2 that GBEs be required to use the AusTender website to publicise procurement activities and report on procurement results, and agreed to Recommendation 1 that:

To assist government business enterprises to obtain value for money from their procurement activities, the Department of Finance take steps to better enable those Enterprises to take advantage of coordinated and cooperative procurements, such as panel arrangements.<sup>30</sup>

3.31 Sydney Water, a statutory corporation wholly owned by the NSW Government, has adopted collaborative contracting and the Project 13 enterprise model. Both of these approaches have been highlighted as best practice exemplars and are explored in Chapter 5. In considering the potential for applying these approaches more widely, the committee questioned Sydney Water on whether there are any governance differences between NSW statutory authorities and federal GBEs that would impact the procurement and related practices of these bodies. Sydney Water did not see any governance differences as restricting wider use of such models and explained that:

...in our operating context, we still have the same probity requirements as any other government department in terms of the way we conduct our procurement processes. We still go through certain government approval processes and we're still open and transparent in terms of providing information, just like any other government department, in terms of the GIPA Act [*Government Information (Public Access) Act 2009*] and things like that. So, we hold our probity processes to the highest account, as to which I don't think ours would be different from any other requirements of federal or state government agencies.<sup>31</sup>

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<sup>30</sup> Australian National Audit Office, *Submission 5*, p. 6.

<sup>31</sup> Mr Paul Plowman, General Manager, Asset Lifecycle, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 35.

3.32 Sydney Water suggested that federal and state GBEs both ‘present the same opportunities’ for working with the private sector through a program like its partnering for success (P4S) commercial framework.<sup>32</sup> This new infrastructure and delivery model, which commenced on 1 July 2020, covers planning, design, construction and maintenance and facilities maintenance, using the New Engineering Contract (NEC4) suite of contracts. Sydney Water outlined that:

...we are the first major Australian infrastructure company to implement this contracting framework. Under P4S, we signed a 10-year partnership with three regional consortia as well as a planning partner...

Also, as part of partnering for success, we have a pool of specialist suppliers that can be leveraged by Sydney Water and our regional consortia under something that we call shared purchasing. This is a pool of goods and services that we put together that can respond quickly, consistently and in a transparent way to enable us to receive the goods and services that we need for our delivery.<sup>33</sup>

## Grants

3.33 Australian Government grants for infrastructure-related activities are made to a range of recipients including profit and not for profit entities such as universities, local councils, charities and public corporations. The Department of Finance noted that generally there will be multiple grants for similar infrastructure projects, the grants do not usually cover the full cost of the infrastructure, and the relevant infrastructure is not owned or operated by the Australian Government.<sup>34</sup> The GrantConnect website publishes information about Australian Government grants.<sup>35</sup>

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<sup>32</sup> Ms Maryanne Graham, General Manager, Customer, Strategy and Engagement, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 35.

<sup>33</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 28.

<sup>34</sup> Department of Finance, *Submission 13*, p. 6.

<sup>35</sup> See GrantConnect, [www.grants.gov.au](http://www.grants.gov.au).

- 3.34 The Grattan Institute noted that the Australian Government, in both the 2020 and 2021 budgets, allocated around 0.6 per cent of GDP to transport infrastructure grants to states and territories.<sup>36</sup> The NSW Farmers' Association observed that at the local government level, councils are heavily reliant on Australian Government assistance grants for various services and infrastructure projects.<sup>37</sup>
- 3.35 The Commonwealth grants policy framework is set out in the Commonwealth Grants Rules and Guidelines 2017.<sup>38</sup> These guidelines cover the Australian Government's expectations in relation to grants administered by non-corporate Commonwealth entities. Non-corporate Commonwealth entities must use coordinated procurements, which are arrangements established for commonly used goods or services by the Commonwealth. A non-corporate Commonwealth entity can only be granted an exemption, jointly by the relevant portfolio minister and Finance Minister, if it can demonstrate a special need for an alternative arrangement. Prescribed corporate Commonwealth entities—those listed in section 10 of the *Public Governance, Performance and Accountability Act 2013*—may opt-in to coordinated procurement.
- 3.36 Infrastructure Australia suggested that grants, or funding by debt or equity—in contrast to arrangements such as National Partnership Agreements—increase the Australian Government's opportunity to effect change and drive a project outcome.<sup>39</sup> It provided the Australian Rail Track Corporation's work on the Inland Rail as an example of a procurement approach that has 'sought to engage smaller, more local contractors on some elements of project delivery, engaging a domestic and indeed regional workforce on those projects'.<sup>40</sup>
- 3.37 Under the Australian Industry Participation (AIP) framework, AIP plans are required for projects funded by Australian Government grants of \$20 million

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<sup>36</sup> Grattan Institute, *Submission 8*, p. 4.

<sup>37</sup> NSW Farmers' Association, *Submission 41*, p. 3.

<sup>38</sup> The Commonwealth Grants Rules and Guidelines 2012 are issued by the Minister for Finance under section 105C of the *Public Governance, Performance and Accountability Act 2013*. Department of Finance, *Submission 13*, p. 6.

<sup>39</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 4.

<sup>40</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 4.

or more.<sup>41</sup> Details of the AIP framework are covered in Chapter 6 in the context of supporting Australian business access to infrastructure projects and building industry capability.

- 3.38 Targeted grants are another way in which the Australian Government can support building Australian sovereign industry capability. The Modern Manufacturing Initiative, for example—under the Modern Manufacturing Strategy—provides co-funded grants to help Australian manufacturers scale-up, compete internationally and create jobs. The Entrepreneurs’ Programme delivered by AusIndustry also includes grants and services to support Australian SMEs to build their capability, grow, innovate and commercialise nationally and globally.<sup>42</sup>
- 3.39 The Australian Constructors Association suggested that Canada, the United States and France are doing more than Australia in placing significant pre-conditions when granting money to states or provinces for use on infrastructure projects. It also noted that European Union grants for construction projects require member countries to follow extensive guidelines.<sup>43</sup>

## Role of National Cabinet

- 3.40 In May 2020, Australia’s National Cabinet agreed to form the National Federation Reform Council (NFRC), which would replace the Council of Australian Governments. The NFRC is a forum for leaders and treasurers across the Commonwealth and states and territories to focus on priority national federation issues.
- 3.41 The National Cabinet Reform Committee on Infrastructure and Transport is one of five committees formed by National Cabinet to focus on priority reform areas. The others cover rural and regional Australia, skills, energy and health. The Infrastructure and Transport Reform Committee was tasked with expediting major infrastructure projects through approval processes and optimising job opportunities from the national infrastructure pipeline.<sup>44</sup>

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<sup>41</sup> Department of Industry, Science, Energy and Resources, *Submission 50*, p. 4.

<sup>42</sup> Department of Industry, Science, Energy and Resources, *Submission 50*, pp. 4-5.

<sup>43</sup> Australian Constructors Association, *Submission 11*, p. 13.

<sup>44</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 4.



It has been developing proposals to streamline planning and approval processes at all levels of government.<sup>45</sup>

- 3.42 The Australian Chamber of Commerce and Industry saw the Infrastructure and Transport Reform Committee as an important forum for cooperation between the Australian Government and state and territory governments on jointly funded infrastructure projects.<sup>46</sup>
- 3.43 The Business Council of Australia (BCA) also saw a role for the National Cabinet in fostering greater collaboration between these tiers of government and across jurisdictions. Specifically, it recommended the Australian Government work with state and territory governments ‘to sequence delivery of mega projects where it will demonstrably smooth the pipeline and lead to greater certainty for delivery timeframes and better value for money outcomes’.<sup>47</sup>
- 3.44 In particular, the BCA saw a stronger coordination role for National Cabinet in mega projects, supporting a known pipeline and rolling program of projects, rather than an uncoordinated stop-start approach where one part of a program comes to an end and then is not sequenced across jurisdictions.<sup>48</sup>
- 3.45 However, the Australian Constructors Association was more cautious when discussing the role for the National Cabinet in addressing infrastructure pipeline challenges. In response to committee questioning about the group’s experience with the national cabinet structure, the Australian Constructors Association indicated that its limited interaction through the infrastructure and transport committee had been a ‘very frustrating exercise where [there was] an hour of talk about buses, trains and heavy haulage, and about one per cent was actually infrastructure’.<sup>49</sup> It stressed the need for concentrated focus on infrastructure, especially given the industry’s role in leading the economy forward.

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<sup>45</sup> Department of Finance, *Submission 13*, p. 8.

<sup>46</sup> Australian Chamber of Commerce and Industry, *Submission 48*, p. 2.

<sup>47</sup> Business Council of Australia (BCA), *Submission 38*, p. 7.

<sup>48</sup> Dr Jennifer Westacott, Chief Executive, BCA, *Committee Hansard*, 16 November 2021, Canberra, p. 2.

<sup>49</sup> Mr Jon Davies, Chief Executive Officer, Australian Constructors Association, *Committee Hansard*, 5 October 2021, Canberra, p. 7.

## Government cooperation

- 3.46 Given that infrastructure investment is not solely an Australian Government responsibility, inquiry contributors were clear on the need for cooperation across all levels of government. This has also been recognised by governments, as reflected through the establishment of fora such as the National Cabinet Reform Committee on Infrastructure and Transport.
- 3.47 Improving cooperation between all levels of government will be key to the effective and efficient delivery of Australia's pipeline of infrastructure projects. Infrastructure Australia's 2021 *Australian Infrastructure Plan* described it as one of the four key reforms areas, as follows:
- Increasing the coordination and active management of the national infrastructure project pipeline through active portfolio management across agencies and jurisdictions. Critical to improved performance is great collaboration between governments.<sup>50</sup>
- 3.48 The BCA saw a role for cooperation across the Australian Government and state and territory governments in improving the efficiency of pipeline sequencing, which would 'help to remove peaks and troughs in the availability of key skills and materials'.<sup>51</sup>
- 3.49 The Department of Infrastructure, Transport, Regional Development and Communications told the committee there were several fora in which the Australian Government engaged with its state and territory counterparts, including via regular engagement with its transport counterparts to gather and actively share information.<sup>52</sup>
- 3.50 In cases where the Australian Government jointly funds projects administered by states, the Department of Infrastructure, Transport, Regional Development and Communications noted that there are governance and financial mechanisms to help project the Australian Government's values and policy interests. In terms of governance, the department outlined that for major projects there is generally a steering committee, comprising a state and federal representative. This process provides the Australian Government with a certain level of oversight, as the

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<sup>50</sup> Infrastructure Australia, *Submission 14*, p. 3.

<sup>51</sup> BCA, *Submission 38*, p. 3.

<sup>52</sup> Mr Philip Smith, First Assistant Secretary, Infrastructure Investment Division, Department of Infrastructure, Transport, Regional Development and Communications, *Committee Hansard*, 18 November 2021, Canberra, p. 15.

steering committee will ‘go through various elements, including monitoring and tracking the progress of the project, the budget, the risks, environmental approvals, [and] the procurement methodology’.<sup>53</sup> However, the department acknowledged that:

...the person who generally signs the contract and runs the procurement process, consistent with whatever the steering committee or governance structure is, would be the delivery partner – the state.<sup>54</sup>

3.51 For projects that do not have a steering committee, such as smaller projects, the Department of Infrastructure, Transport, Regional Development and Communications noted that:

...there's a requirement under the governance arrangements and the notes of administration in the National Partnership Agreement to actually provide monthly reports on the progress of those projects. The teams that are responsible for [overseeing] the states have regular conversations – weekly, fortnightly, monthly conversations – with states and councils about progress on those projects. Payments are restricted to successful achievement of milestones.<sup>55</sup>

## Committee comments

3.52 Where infrastructure projects are being delivered directly by Australian Government entities – in accordance with the Commonwealth Procurement Framework which determines procurement practices – the Australian Government will have the greatest scope to apply best practice procurement and drive priority reforms.

3.53 However, the committee acknowledges that given that many jointly government-funded infrastructure projects are administered at the state or territory level in line with their own procurement frameworks, the

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<sup>53</sup> Mr Philip Smith, First Assistant Secretary, Infrastructure Investment Division, Department of Infrastructure, Transport, Regional Development and Communications, *Committee Hansard*, 18 November 2021, Canberra, p. 18.

<sup>54</sup> Mr Philip Smith, First Assistant Secretary, Infrastructure Investment Division, Department of Infrastructure, Transport, Regional Development and Communications, *Committee Hansard*, 18 November 2021, Canberra, p. 18.

<sup>55</sup> Mr Philip Smith, First Assistant Secretary, Infrastructure Investment Division, Department of Infrastructure, Transport, Regional Development and Communications, *Committee Hansard*, 18 November 2021, Canberra, p. 18.

Australian Government must collaborate with those governments to influence and drive national infrastructure objectives and consistency.

- 3.54 As the infrastructure pipeline affects all levels of government, it is logical that all jurisdictions have an appropriate level of input in shaping the planning and delivery of Australia's infrastructure led recovery. Accordingly, this is reflected in many of the committee's recommendations, which call for consultation with state, territory and local governments when addressing certain priority issues.
- 3.55 The committee agrees that the Australian Government should demonstrate stronger leadership and be more strategic in using existing arrangements, in particular funding agreements, to embed requirements for jointly funded infrastructure projects that support priority and desirable objectives.
- 3.56 Challenges and opportunities related to improving procurement, assessing value, risk allocation, project scoping, industry engagement, collaboration and contracting, and Australia's sovereign industry capability, will be explored in the following chapters. The committee makes several recommendations where it finds that the Australian Government should take urgent action to ensure the delivery of the significant infrastructure pipeline and the future sustainability of the infrastructure sector.

## 4. Procurement, risk and value

- 4.1 Concerns about how risk is managed and how value is assessed for government-funded infrastructure projects were recurring themes in evidence to the inquiry. These were identified as priority areas for reform.

### Overview of government procurement

#### Commonwealth procurement

- 4.2 The Australian Government's Commonwealth Procurement Framework outlines the principles and rules guiding officials' use of public funds to procure the goods and services required to support its policies and programs. It is a subset of the broader Commonwealth resource management framework.
- 4.3 The Commonwealth Procurement Rules (CPRs), issued under the *Public Governance, Performance and Accountability Act 2013*, are the key component of the Commonwealth Procurement Framework. They outline the policy requirements for relevant Commonwealth entities and articulate Australia's international trade obligations.
- 4.4 Achieving value for money is the core rule of the CPRs. Significantly, it is recognised in the CPRs that price is not the only factor when assessing value for money. Officials are required to consider all relevant financial and non-financial costs and benefits associated with a procurement. These can include quality, fitness for purpose, a potential supplier's experience and performance history, proposal flexibility (including innovation and adaptability), environmental sustainability (including energy efficiency,

environmental impact and the use of recycled products) and whole of life costs.<sup>1</sup>

- 4.5 Under the CPRs, in considering value for money, Commonwealth officials should take account of stakeholder input; the scale and scope of the business requirement; the relevant entity's resourcing and budget; obligations and opportunities under existing arrangements; relevant Commonwealth policies; and the market's capacity to competitively respond to a procurement.<sup>2</sup>
- 4.6 The CPRs on achieving value for money provide that Commonwealth officials 'must be satisfied, after reasonable enquiries, that the procurement achieves a value for money outcome'.<sup>3</sup> Procurements should: encourage competition and be non-discriminatory; use public resources in an efficient, effective, economical and ethical manner; facilitate accountable and transparent decision making; encourage appropriate engagement with risk; and be commensurate with the scale and scope of the business requirement.<sup>4</sup>

## **State, territory and local government procurement**

- 4.7 States and territories each have their own procurement frameworks. Given that many jointly government-funded infrastructure projects are administered at the state or territory level, the Australian Government will need to collaborate with those governments to influence and drive procurement best practice.
- 4.8 How state and territory procurement policies to facilitate and support Australian industry engagement interact with applicable international obligations is explored in Chapter 6.
- 4.9 Local government procurement is governed by various local legislation and supporting policies. Since the Australian Capital Territory (ACT) does not have a separate system of local government, functions are usually handled directly by the ACT Government.

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<sup>1</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 4 Value for Money, paragraph 4.5.

<sup>2</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 4 Value for Money, paragraph 4.2.

<sup>3</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 4 Value for Money, paragraph 4.4.

<sup>4</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 4 Value for Money, paragraph 4.4.

4.10 The Department of Infrastructure, Transport, Regional Development and Communications noted that with additional funding in the 2019-20 and 2020-21 Federal Budgets, \$2.5 billion in total has been allocated to the Local Roads and Community Infrastructure Program. It will be delivered in three phases, and the third phase will allow local government to pursue larger, more complex projects.<sup>5</sup>

### *Recent developments*

4.11 The Department of Infrastructure, Transport, Regional Development and Communications observed the recent trend of states and territories using ‘methods involving earlier engagement with industry and greater investment of preparatory work in the scoping and planning phases of projects’.<sup>6</sup> The department outlined that work underway has included:

...consideration of packaging of works – either bundled to enable faster procurement processes or unbundled into smaller packages or projects to allow smaller contractors to participate and take on more manageable risks. There have also been efforts to encourage collaborative contracting to increase participation of tier two and three contractors, reduce inefficient pricing, improve risk allocation and reduce adversarial outcomes and engage earlier with the sector on projects to ensure contractors can collaborate with government to solve problems.<sup>7</sup>

4.12 There have also been developments in relation to tender practices, with the establishment of digital tender and procurement processes panels and prequalification registers.<sup>8</sup> The Northern Territory Government, for instance, is now using an online tendering system and a prequalification process. It has also developed processes to improve Aboriginal business enterprise, employment and training.<sup>9</sup>

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<sup>5</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 5.

<sup>6</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>7</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>8</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>9</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

- 4.13 Alliance contracting, which better supports collaboration between parties, has also been adopted. The Department of Infrastructure, Transport, Regional Development and Communications provided Victoria's Level Crossing Removal Project as a successful example in which the Victorian Government adapted a form of alliance contracting to 'break mega projects into smaller, more manageable packages on a fully allocated and staged basis across five alliances'.<sup>10</sup>
- 4.14 The New South Wales (NSW) Government has similarly moved to a more partner-based approach to risk allocation, has streamlined bid processes, and has established a ten-point commitment to the construction sector in the NSW Government Action Plan, which outlines improved procurement processes and requirements.<sup>11</sup>
- 4.15 The Department of Infrastructure, Transport, Regional Development and Communications noted that for the Sydney Metro Northwest project—the first fully automated metro rail system in Australia—the state used a two-stage procurement process consisting of an expression of interest, then an interactive request for tender. Three packages of work were awarded, one as a joint venture. The department submitted that this approach has 'allowed for improved economies of scale, risk allocation and increased participation'.<sup>12</sup>
- 4.16 Infrastructure NSW submitted that state government procurement policies and competition limits have 'demonstrated value for money through direct dealings with industry'.<sup>13</sup>

*Addressing bid costs as a barrier to participation*

- 4.17 For some businesses, the cost of bidding for a project can act as a barrier for larger projects. To help address this issue some states are 'reimbursing bid costs to improve tendering certainty and reduce the impost of tendering on contractors'.<sup>14</sup>

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<sup>10</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

<sup>11</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

<sup>12</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

<sup>13</sup> Infrastructure NSW, *Submission 16*, p. [3].

<sup>14</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.



- 4.18 The Victorian Government's Bid Cost Reimbursement for Major Construction Projects policy provides that a partial bid cost reimbursement may be considered if certain criteria are met. It applies to public-private partnerships, alliance arrangements and high value high risk projects, as identified under the Victorian Government's framework. Potential bid reimbursements are considered on a case-by-case basis, with consideration given to the project criteria, broader market criteria and conditions, and if there were changes in the tender circumstances.<sup>15</sup>
- 4.19 However, global engineering company the Jacobs Group questioned the extent of government reimbursements. It commented that while some reimbursements are made, 'it is not comprehensive, nor does it cover the opportunity cost of investing talent and time in lost projects'.<sup>16</sup>
- 4.20 The Georgiou Group, an Australian construction company, emphasised that 'reimbursement of a substantial proportion of bid costs is essential' to enable mid-tier contractors to participate and compete, particularly for Design and Construct or Early Contractor Involvement phases with substantial tender design costs.<sup>17</sup> The Australian Institute of Quantity Surveyors went further in suggesting that even some tier one contracts 'favour tendering where there is tender cost reimbursement'.<sup>18</sup>
- 4.21 While acknowledging that governments have acted to 'ensure internally consistent approaches to bid cost reimbursement', Infrastructure Partnerships Australia stressed that governments should continually focus on minimising bidding costs overall, through efficiencies such as minimising tender requirements.<sup>19</sup>

### *Security of payments*

- 4.22 Infrastructure Australia, in its 2021 *Australian Infrastructure Plan*, identified payment certainty as an industry 'pinch point' — along with access to insurance, contract complexity and market deliverability — that governments should seek to address. It noted that delayed and disputed payments

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<sup>15</sup> Victoria State Government, *Bid cost reimbursement for major construction projects*, <https://www.dtf.vic.gov.au/infrastructure-investment/bid-cost-reimbursement-major-construction-projects>, viewed 8 March 2022.

<sup>16</sup> Jacobs Group, *Submission 35*, p. 2.

<sup>17</sup> Georgiou Group, *Submission 9*, p. [4].

<sup>18</sup> Australian Institute of Quantity Surveyors, *Submission 12*, p. 3.

<sup>19</sup> Infrastructure Partnerships Australia, *Submission 43*, p. [5].

throughout the infrastructure supply chain are an issue for industry, particularly for businesses further down the chain that are not paid by government through a direct contractual relationship.<sup>20</sup>

- 4.23 Security of payments refers to a contractor's right to receive the payments due under the contract, and on time. The Australian Building and Construction Commission monitors the security of payment requirements in the Code for the Tendering and Performance of Building Work 2016 (the Code).
- 4.24 The Australian Small Business and Family Enterprise Ombudsman (ASBFEO) highlighted work on the security of payments legislation in Western Australia and South Australia, noting that it is an important issue to address.<sup>21</sup> For some small and medium enterprises (SMEs) these payment issues can seriously impact their ability to continue in business.
- 4.25 The Civil Contractors Federation (CCF) is another group advocating for a 'robust security of payments regime to ensure fair and equitable terms of payments for subcontractors'.<sup>22</sup> The NSW Government's ten-point commitment to the construction sector also includes a commitment to improve the security and timeliness of contract payments.

## Leveraging procurement to drive reform

- 4.26 Infrastructure Australia noted that the increasing complexity of procurement processes for public infrastructure is having a direct effect in potentially driving businesses 'away from public infrastructure construction to industries that have less arduous procurement processes'.<sup>23</sup> The *Infrastructure Market Capacity* report outlined industry consultation that:

...identified multiple incidences of individuals leaving the sector because of the long hours required to respond to requirements in designated timeframes. Industry consultation also identified excessive information and documentation requirements (Australian bid costs are 25 to 45 per cent higher than Canadian equivalents, largely driven by increased design focus and

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<sup>20</sup> Infrastructure Australia, *Reforms to meet Australia's future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, pp. 267 and 277.

<sup>21</sup> Hon Bruce Billson, Ombudsman, Australian Small Business and Family Enterprise Ombudsman (ASBFEO), *Committee Hansard*, 10 November 2021, Canberra, p. 26.

<sup>22</sup> Civil Contractors Federation (CCF), *Submission 53*, p. 15.

<sup>23</sup> Infrastructure Australia, *Infrastructure Market Capacity*, October 2021, p. 114.

purchaser requests), and an emphasis on architectural design and design innovation increasing the required workforce for large projects.<sup>24</sup>

4.27 Evidence to the inquiry supported the view that the Australian Government is well positioned to ‘drive beneficial change and use its purchasing power to leverage procurement expectations’.<sup>25</sup>

4.28 The Business Council of Australia (BCA) described the industry as ‘unified’ in recognising that improving the performance of government procurement practices is the way to enable delivery of Australia’s infrastructure pipeline.<sup>26</sup> Roads Australia encouraged the Australian Government to use:

...its procurement of the Inland Rail, Snowy Hydro 2.0 and Western Sydney Airport projects to leverage best practice in infrastructure procurement and that the lessons learnt are taken into future projects delivered by all Australian jurisdictions.<sup>27</sup>

## Standardisation

4.29 In the construction industry, standardisation is the extensive use of processes or procedures, products or components, in which there is regularity, repetition and a record of successful practice. In the context of this inquiry, the committee is regarding standardisation broadly as opportunities to achieve efficiencies through proven products and processes that can be applied to similar projects.

4.30 Engineers Australia saw the potential for standardised infrastructure across states and territories to make ‘longer-term integration and connectivity easier and saves money through high-volume procurement activities’.<sup>28</sup>

4.31 Industrialised or manufactured construction aims to improve productivity through mechanisation and automation, and commonly involves prefabricated or modular approaches. Standardised designs can be ‘repeatedly applied and executed in a controlled environment’. This shifts certain activities away from the construction site to a factory, where prefabricated building components are made and then shipped to sites.

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<sup>24</sup> Infrastructure Australia, *Infrastructure Market Capacity*, October 2021, p. 114.

<sup>25</sup> Australian Owned Contractors, *Submission 30*, p. 12.

<sup>26</sup> Business Council of Australia (BCA), *Submission 38*, p. 5.

<sup>27</sup> Roads Australia, *Submission 28*, p. 14.

<sup>28</sup> Engineers Australia, *Submission 4*, p. 1.

While this is not a new concept, recently there has been increased global interest in industrialised construction, which EY attributes to ‘a heightened focus on efficiency due to skilled labour shortages and tighter margins’.<sup>29</sup>

4.32 The committee explored this approach and its potential for application in Australia with Engineers Australia, who explained that:

...industrialised construction seeks to collect building information modelling to mine processes and data in search of efficiencies, and prefabrication reduces the on-site construction time. Project designs will necessarily differ according to the geographical location and other requirements. Materials applicable to a dry interior climate may not work in a wet coastal environment. You'd need to look at where efficiency can be improved and where you can process and manufacture structural components and make them automated in particular areas and perhaps create a hub. We recommend nominating specific processes or products to be purchased across the project pipeline, while providing mechanisms for implementation of customised solutions. That would require development of a clear set of specifications, including guidelines on the development of specifications, quality control and purchasing.<sup>30</sup>

4.33 However, Engineers Australia also cautioned that a small number of companies could dominate prefabrication in Australia, as a comparatively small market, potentially leading to uncompetitive pricing. Further, it outlined that industrialised construction:

...would be relatively easy to achieve through a pipeline framework by nominating specific processes or products or delivery time frames that require offsite manufacturing. But, even if...[it] is achieved to a beneficial level, it's only one cost component of a project—and the increase in transport costs might offset the savings...<sup>31</sup>

4.34 In relation to harmonising and standardising technical specifications, Roads Australia maintained that national consistency ‘would reduce the risk for

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<sup>29</sup> EY, *The four dimensions of industrialized construction*, 29 May 2020, p. 2, [https://www.ey.com/en\\_us/real-estate-hospitality-construction/corporate-advisory-services/four-dimensions-of-industrialized-construction](https://www.ey.com/en_us/real-estate-hospitality-construction/corporate-advisory-services/four-dimensions-of-industrialized-construction), viewed 10 March 2022. See also A Waha and S Oberoi, *Industrialised construction: The way to rebound from Covid-19*, Industry White Paper, 2020, [https://www.amca.com.au/Public/News/News\\_Items/202005/Industrialised-Construction-the-way-to-rebound-from-COVID-19.aspx](https://www.amca.com.au/Public/News/News_Items/202005/Industrialised-Construction-the-way-to-rebound-from-COVID-19.aspx), viewed 10 March 2022.

<sup>30</sup> Ms Sybilla Grady, Senior Policy Adviser, Engineers Australia, *Committee Hansard*, 14 October 2021, Canberra, p. 13.

<sup>31</sup> Ms Sybilla Grady, Senior Policy Adviser, Engineers Australia, *Committee Hansard*, 14 October 2021, Canberra, p. 13.

clients and industry in compliance', however, noted that work on this has been 'very slow with no real timeline'.<sup>32</sup>

- 4.35 The Australasian Railway Association raised standardisation in the context of technology standards and regulatory requirements that differ between jurisdictions, noting that:

...the challenge of differing standards, requirements and type approvals between jurisdictions leads to technologies being implemented inconsistently across Australia. Streamlining regulatory testing processes for new technologies, so that type approval by one network operator provides 'trust markers' for others, would greatly enhance the prospects for inter-jurisdictional standardisation.<sup>33</sup>

- 4.36 The Victorian Government's Level Cross Removal Crossing project has been raised by a number of groups as a good example of successfully breaking a mega project into more accessible smaller packages and in alliance contracting to take more of a risk sharing and collaborative approach with contractors on the delivery of various parts of the project. The Department of Infrastructure, Transport, Regional Development and Communications also noted that this project approach 'incentivised shared information and standardisation improving efficiency in design and delivery and even implemented a set menu of materials and products'.<sup>34</sup>
- 4.37 Opportunities for standardisation of contracts for infrastructure projects are explored in Chapter 5.

## Risk management

### Allocating risk

- 4.38 Concerns about how risk is allocated on government-funded infrastructure projects was a recurring theme in evidence to the inquiry. The Department of Infrastructure, Transport, Regional Development and Communications acknowledged the need 'to ensure risks are allocated to the appropriate party to optimise procurement outcomes'.<sup>35</sup> The Department of Finance also

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<sup>32</sup> Roads Australia, *Submission 28*, p. 13.

<sup>33</sup> Australasian Railway Association, *Submission 33*, p. 13.

<sup>34</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

<sup>35</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 18.

recognised that the approach to risk sharing must be considered as part of getting best value in infrastructure projects.<sup>36</sup>

- 4.39 Evidence indicated a tendency of risk shifting from clients and procurers to head contractors and, in turn, subcontractors, resulting in an adversarial culture, marked by disputes. The BCA submitted that:

Contractors have increasingly been expected to take an unreasonable level of risk on projects, creating adversarial relationships during delivery and missed opportunities for communities. This has been seen through high-profile projects such as Sydney's CBD and South-East Light Rail, the New Royal Adelaide Hospital and the Westgate Tunnel.

A reasonable and collaborative approach looks closely at where unknown risks are allocated. Failure to do so makes the market less attractive to tier one contractors and to new entrants, increases the number of disputes and puts at risk delivery timeframes, resulting in poor value for money outcomes.<sup>37</sup>

- 4.40 Consult Australia noted claims that data suggested – at least in the Design and Construct procurement method<sup>38</sup> – that the 'level of risk transfer is breeding a culture of disputation rather than collaboration'.<sup>39</sup>

- 4.41 The BCA recommended that government agencies should allocate risks to the party best able to manage them or share the risk, an approach which can be supported by early engagement with the market to foster more collaborative relationships. In its submission, the BCA provided the North-East Link<sup>40</sup> primary package in Victoria as a positive example of the government adopting a risk sharing approach. It commented that in response to market feedback, the Victorian Government showed a

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<sup>36</sup> Ms Stacie Hall, Acting Deputy Secretary, Commercial and Government Services, Department of Finance, *Committee Hansard*, 18 November 2021, p. 32.

<sup>37</sup> BCA, *Submission 38*, p. 5.

<sup>38</sup> The Design and Construct procurement method involves the client entering into a single contract with a construction company that provides both the design and construction. The design services are often subcontracted to a team of designers, depending on the requirements of the tender.

<sup>39</sup> Consult Australia, *Submission 27*, p. 11.

<sup>40</sup> The North-East Link is one of Victoria's biggest road projects. The North-East Link tunnels are aimed at taking 15,000 trucks off local roads each day and reducing travel times by up to 35 minutes. The program also includes completing the ring road in Greensborough, overhauling the Eastern Freeway, building Melbourne's first dedicated busway and the North-East Trail, with more than 34 km of walking and cycling paths.

willingness to 'engage with the private sector early and work through the particular risks inherent in the project'.<sup>41</sup>

- 4.42 The Jacobs Group stressed the importance of defining and quantifying risks to attract competition in procurement processes. It explained that:

Inappropriate risk allocation causes low supply chain appetite to design and construct large complex projects and can result in significant risk premiums being priced into tender costs.<sup>42</sup>

- 4.43 Infrastructure Australia told the committee that:

What we need to really see is government as a more mature procurer of infrastructure choose appropriately the risks to transfer with a view of the party best placed to manage them, and selection of a procurement model which allows risks to be effectively transferred or shared.<sup>43</sup>

## Scoping and understanding risk

- 4.44 For risks to be appropriately allocated on infrastructure projects, procurers and industry must have done sufficient early work to garner a sound understanding of the broader prevailing, and project specific, risks.

- 4.45 The Jacobs Group outlined that early works could go a long way to de-risking a project, such as covering utility relocations, land acquisition, contamination or ground conditions, which could be performed either by government or the contractor. Beyond that, a collaborative approach can be used to address remaining uncertainties and determine the best risk treatment where risk is jointly shared.<sup>44</sup>

- 4.46 Similarly, the Department of Infrastructure, Transport, Regional Development and Communications acknowledged that irrespective of the procurement model, early engagement with contractors is important and outlined that:

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<sup>41</sup> BCA, *Submission 38*, p. 5.

<sup>42</sup> Jacobs Group, *Submission 35*, p. 2.

<sup>43</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 13.

<sup>44</sup> Jacobs Group, *Submission 35*, p. 3.

...sufficient upfront planning and preparatory work will assist with improving relationships between proponent and contractor, balance risk allocation, manage and appropriately price risk.<sup>45</sup>

- 4.47 The more complex a project, the greater the likelihood of interconnected risks that, due to optimism bias<sup>46</sup> in costing, 'are often ignored and missed'.<sup>47</sup> This can then lead to time and cost extensions that have ripple effects and consequent large impacts on the project. This is a particular challenge for mega projects, in contrast to smaller projects, where, with reasonable scoping, risks can be more readily understood.

### Improving risk management

- 4.48 In the *2021 Australian Infrastructure Plan*, Infrastructure Australia recognised that poor risk management and the assumption of adversarial relationships between government and industry 'foreshadow project failure and undermine collaboration'.<sup>48</sup>
- 4.49 As part of improving industry productivity and value for money by having a coordinated project pipeline, the *2021 Australian Infrastructure Plan* identified the need for a mature approach to procurement and risk management. Recommendation 3.2a.1 to support enhanced project outcomes was to:

Ensure a strategic view of risk is appropriately translated to project procurement by developing and applying mature risk allocation processes that comprehensively assess and validate risk and uncertainty and fairly apportion them to the parties best placed to manage them.<sup>49</sup>

- 4.50 There is already recognition in the Commonwealth Procurement Rules (CPRs) of the need to engage appropriately on risk. Paragraph 4.4(d) encourages 'appropriate engagement with risk' by procurers, as part of

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<sup>45</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 18.

<sup>46</sup> Optimism bias is the tendency for individuals to expect better than average outcomes from their actions. On infrastructure projects, optimism bias can lead to underestimation of project duration, overestimation of its benefits and underestimation of its total cost.

<sup>47</sup> Infrastructure Australia, *Infrastructure Market Capacity*, October 2021, p. 148.

<sup>48</sup> Infrastructure Australia, *Reforms to meet Australia's future infrastructure needs: 2021 Australian Infrastructure Plan*, p. 274.

<sup>49</sup> Infrastructure Australia, *Reforms to meet Australia's future infrastructure needs: 2021 Australian Infrastructure Plan*, pp. 60 and 62.



officials' responsibilities for ensuring that a procurement achieves a value for money outcome.<sup>50</sup>

- 4.51 However, the committee notes that as has been the case in the many areas identified for procurement reform, early scoping and appropriate engagement with risk is not necessarily happening in practice with government procurements.
- 4.52 Roads Australia observed that equating value for money 'to lowest price may be suitable for smaller, lower value, straightforward projects where risk is well known and understood'. However, it is inadequate when faced with larger, more complex projects and programs of works.<sup>51</sup>
- 4.53 In its submission, the Department of Infrastructure, Transport, Regional Development and Communications noted the work being undertaken by states in considering how works are packaged. This has included some cases of unbundling into smaller packages or projects 'to allow smaller contractors to participate and take on more manageable risks'.<sup>52</sup> The department also noted the recent examples of changes to procurement practices, where in:
- Western Australia: This year the state replaced its procurement act, with accompanying new procurement rules that encourage collaboration, efficient risk allocation, earlier industry engagement and reduced documentation requirements. Work is also underway to harmonise and improve practices and capability within government.
  - New South Wales: The state has adapted a partner-based approach to risk allocation which has helped to remove some of the disproportionate level of risk felt by contractors.<sup>53</sup>
- 4.54 The Jacobs Group emphasised that risk sharing 'needs to be far more balanced than it has been on recent mega projects'.<sup>54</sup> The Australian Constructors Association stressed the need to focus on 'high value activities

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<sup>50</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 4 Value for Money.

<sup>51</sup> Roads Australia, *Submission 28*, pp. 9-10.

<sup>52</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>53</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

<sup>54</sup> Mr Nick Monaghan, Regional Director of Projects, Jacobs Group, *Committee Hansard*, 14 October 2021, Canberra, p. 32.

like optimising designs and de-risking projects rather than undertaking repetitive tasks associated with procurement processes'.<sup>55</sup>

- 4.55 The committee heard that the Department of Defence has prioritised de-risking activities in the pre-approval stage, following the 2015 First Principles Review in the design of the Capability Life Cycle and the One Defence capability model. Now, risk is fully scoped by the time Defence projects go to market, and the department enters into contracts and the projects start.<sup>56</sup>
- 4.56 One of the features of the United Kingdom's renowned Project 13 model<sup>57</sup> is that part of this shift to an enterprise model for infrastructure delivery is that risk is allocated to align with capability, and not transferred through the tiers of the supply chain.
- 4.57 Opportunities for harnessing international best practice collaboration and contract models are covered in Chapter 5 while supporting technology and innovation is explored in Chapter 7.

## Risk and insurance

- 4.58 While insurance issues are impacting businesses of all sizes, evidence to the committee suggested that SMEs are disproportionately affected. The current insurance requirements and the nature of the insurance market can act as a barrier to SME participation in large infrastructure projects. This undermines the aim that the benefits of the investment injection into Australia's pipeline of infrastructure projects will make their way through tier one companies down to tier two and tier three companies through joint venture or subcontracting arrangements.
- 4.59 Consult Australia submitted that 'some of the most onerous contract terms' relate to consulting businesses' professional indemnity (PI) insurance, with the insertion of such clauses bearing 'little or no relation to genuine risk identification and assessment'.<sup>58</sup> To help address this challenge, Consult

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<sup>55</sup> Infrastructure Australia, *Infrastructure workforce and skills supply*, October 2021, p. 42.

<sup>56</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 44.

<sup>57</sup> Project 13 involves a shift to an enterprise model for infrastructure delivery, bringing together owners, partners, advisers and suppliers, working in more integrated and collaborative arrangements. The model's objective is to boost certainty and productivity in delivery, improve whole of life outcomes in operation, and support a more sustainable, innovative, highly skilled industry.

<sup>58</sup> Consult Australia, *Submission 27*, p. 15.

Australia proposed an education campaign for government officials on the impacts of risk averse approaches on project outcomes and relationships with the industry.<sup>59</sup>

- 4.60 The implications of insurance challenges for SMEs are explored in more detail in Chapter 6.

### **Civil liability reform**

- 4.61 Consult Australia also recommended amending civil liability laws across Australia to ‘explicitly prohibit the contracting out of proportionate liability in professional services contracts (in-line with the civil liability law in [Queensland] which already has such a provision)’.<sup>60</sup>

- 4.62 In general terms, the objective of proportionate liability is to ensure that liability rests with a party only to the proportion that the suffered loss is attributable to that party. However, Consult Australia submitted that the proportionate liability scheme is ‘often excluded in government contracts, in addition to arbitration being mandated as the dispute resolution forum’.<sup>61</sup> Further, it described government clients as ‘amongst the worst in insisting that consultant businesses contract out of this statutory right if they want to win the job and enter into the contract’.<sup>62</sup>

- 4.63 Consult Australia argued that placing the entire liability on one party encourages less desirable risk management practices, and observed that:

Amending the legislation to expressly prohibit contracting out of this provision in the law would realise the original policy intention of the civil liability reforms, which were introduced to de-risk the market the last time the PI insurance severely contracted in Australia.<sup>63</sup>

- 4.64 In Queensland’s *Civil Liability Act 2003*, section 7(3) contains an express prohibition against contracting out of the proportionate liability regime, with the effect that a defendant cannot rely on a contractual indemnity to reduce the extent to which they are proportionately liable for a suffered loss. Consult Australia noted that Queensland is the only state with the express prohibition, with NSW, Tasmania and Western Australia allowing parties to

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<sup>59</sup> Consult Australia, *Submission 27*, p. 15.

<sup>60</sup> Consult Australia, *Submission 27*, p. 16.

<sup>61</sup> Consult Australia, *Submission 27*, p. 16.

<sup>62</sup> Consult Australia, *Submission 27*, p. 16.

<sup>63</sup> Consult Australia, *Submission 27*, p. 17.

contract out, and the remaining state and territory laws not specifying their positions either way.

- 4.65 In response to committee questioning on whether there have been any differences in outcomes observed in Queensland resulting from this provision being in place, Consult Australia commented that:

Certainly, when we look across the country, we do experience a very good relationship with the Queensland Government. They are very good at industry consultation. They listen and they are actively working towards creating a more collaborative culture. I think that stems partly from the fact that when the tort and liability reforms happened, they were prepared to say, 'No, we shouldn't allow parties to contract out if we're serious about ensuring that each party bears responsibility for their own cause of loss rather than seeking for another party to bear the loss that they weren't actually responsible for.' It almost feels like there's a cultural difference there.<sup>64</sup>

- 4.66 Consult Australia observed that in contrast, in NSW, which allows contracting out of proportionate liability, this tends to happen in every contract rather than by exception. Consult Australia noted a difference in terms of culture in NSW when looking at contract development and 'where the risks should lie in contract terms'.<sup>65</sup>
- 4.67 Consult Australia also stressed that Australian governments need to send a powerful message to the insurance industry that they are 'prepared to make sure risk is genuinely being allocated to the party best able to manage it'.<sup>66</sup> Instead, by allowing (or indeed requiring) parties to contract out proportionate liability, governments are sending the wrong—or at least, a mixed—message about their commitment to de-risking the insurance market.

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<sup>64</sup> Mrs Nicola Grayson, Chief Executive Officer, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 4.

<sup>65</sup> Mrs Nicola Grayson, Chief Executive Officer, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 4.

<sup>66</sup> Mrs Nicola Grayson, Chief Executive Officer, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 4.

## Best value over lowest cost

- 4.68 Achieving value for money is core to the Commonwealth Procurement Rules, which clearly provide for the consideration of financial and non-financial costs and benefits associated with procurement. However, evidence to the committee indicated that in practice lowest possible cost can still win over best value in government procurement.
- 4.69 JNT Consulting, an Australian owned and operated independent management consulting firm, stated emphatically that the ‘traditional low-bid award procurement process is broken’. It observed that in practice:
- ...many buying organisations think they are not doing a price-based award for their contracts, since they are checking various things besides cost. But in reality, they do not realise that the cost is unintentionally affecting their decision, way more than...intended.<sup>67</sup>
- 4.70 From an international perspective, the Organisation for Economic Co-operation and Development (OECD) in its report *Government at a Glance 2021* noted that the vast majority (28 out of 30) of OECD countries surveyed used a combination of financial and qualitative criteria to assess project proposals. However, it also recognised that there was room for improvement in the use of life cycle costs. The OECD stated that:
- Procurement processes that exclusively focus on costs or fail to consider the whole of the project’s lifetime, may not support the delivery of an optimal combination of quality, technical features (e.g. resilience, environmental sustainability) and price.<sup>68</sup>
- 4.71 Evidence provided for this inquiry strongly reflected the need to prioritise overall best value over lowest cost in government procurement.<sup>69</sup> The Australian Constructors Association highlighted that:
- ...the current focus on lowest price inhibits innovation, reduces local content, slows adoption of productivity-enhancing digital technologies and fails to maximise project community benefits.<sup>70</sup>

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<sup>67</sup> JNT Consulting, *Submission 62*, p. 3.

<sup>68</sup> Organisation for Economic Co-operation and Development, *Government at a Glance 2021*, p. 194.

<sup>69</sup> See Australian Constructors Association, *Submission 11*, p. 16; Master Builders, *Submission 44*, p. 4; Australian Institute of Building, *Submission 55*, p. 3; Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 18; JNT Consulting, *Submission 62.1*, p. 1.

- 4.72 In discussion at a public hearing of the inquiry, consulting firm Simplar Sourcing Solutions likened a low bid to a Trojan horse that is ‘rarely what it promises to be’.<sup>71</sup>
- 4.73 Similarly, the Australian Industry Group (Ai Group) cautioned that selecting a low price bid may only be the starting price, not the finishing price. The project may end up costing a lot more by the time it is built, and for its future maintenance. The Ai Group contended that:
- Making decisions on price alone is really a recipe for disaster because, if bidders bid low and they win a project—effectively buying that project—the first thing that they would look at...is how they can claw back from somebody sufficient funds to meet their internal rate of return that they would expect out of that specific project. So that puts pressure on all the people involved, from the designers through to the subcontractors through to the providers of materials and goods...It might be the best cost from the client's perspective but downstream it is going to run into difficulties, and that process also creates disputes because everybody is looking to protect their commercial interest. Once you're in dispute, that's the end of the project, in the sense of cost, and we see that regularly.<sup>72</sup>
- 4.74 Roads Australia suggested that the current model and definition of value for money ‘is not serving governments or industry well’, as it equates value for money with lowest price. It contended that while this may be acceptable for smaller, lower value projects where risk is well understood, it does not meet the needs of the larger, more complex infrastructure projects being delivered in Australia.<sup>73</sup>
- 4.75 Roads Australia stressed that the current model is ‘unsustainable and results in an adversarial contract environment and poor financial outcomes for both supplier and client’.<sup>74</sup> Roads Australia called for the Australian Government to work with states and territories to develop a more contemporary definition of value for money in infrastructure procurement.

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<sup>70</sup> Mr Jon Davies, Chief Executive Officer, Australian Constructors Association, *Committee Hansard*, 5 October 2021, Canberra, p. 2.

<sup>71</sup> Dr Kenn Sullivan, Managing Member, Simplar Sourcing Solutions, *Committee Hansard*, 16 November 2021, Canberra, p. 13.

<sup>72</sup> Mr Lindsay Le Compte, General Manager, Construction and Infrastructure, Australian Industry Group (Ai Group), *Committee Hansard*, 14 September 2021, Canberra, p. 16.

<sup>73</sup> Roads Australia, *Submission 28*, pp. 9-10.

<sup>74</sup> Roads Australia, *Submission 28*, p. 10.

4.76 State and territory government policies and frameworks clearly reflect that lowest cost does not necessarily equate with value for money:

- New South Wales: The *NSW Government Procurement Policy Framework* states that ‘value for money is not necessarily the lowest price, nor the highest quality good or service. It requires a balanced assessment of a range of financial and non-financial factors, such as: quality, cost, fitness for purpose, capability, capacity, risk, total cost of ownership or other relevant factors’.<sup>75</sup>
- Victoria: The *Achieving value for money – goods and services procurement guide* describes value for money as ‘the achievement of a desired procurement outcome at the best possible price—not necessarily the lowest price—based on a balanced judgement of financial and non-financial factors relevant to the procurement’. It also considers the total cost of procurement from planning to disposal and everything in between.<sup>76</sup>
- Queensland: The *Queensland Procurement Policy* states that ‘value for money is more than price paid’ and requires that in measuring value for money, the bid ‘must also advance the government’s economic, environmental and social objectives for the long-term wellbeing’ of the Queensland community. Further, best practice principles must be applied to all major projects valued at \$100 million and above, and for declared projects.<sup>77</sup>
- Western Australia: The *Western Australian Procurement Rules* require that state agencies ‘must consider value for money outcomes at all stages of the procurement life cycle, especially during planning and decision making’.<sup>78</sup> The *Western Australian Social Procurement Framework* goes further in seeking to elevate considering relevant social, economic and environmental outcomes to the ‘forefront of procurement related decision-making’.<sup>79</sup>

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<sup>75</sup> NSW Government, *NSW Government Procurement Policy Framework*, August 2021, p. 9.

<sup>76</sup> Victoria State Government, *Buying for Victoria, Achieving value for money – goods and services procurement guide*, <https://www.buyingfor.vic.gov.au/achieving-value-money-goods-and-services-procurement-guide>, viewed 8 March 2022.

<sup>77</sup> Queensland Government, *Queensland Procurement Policy 2021*, reissued April 2021, pp. 1-2.

<sup>78</sup> Western Australian Government, *Western Australian Procurement Rules*, Procurement Direction 2021-02, Effective 1 June 2021, p. 8.

<sup>79</sup> Western Australian Government, *The Western Australian Social Procurement Framework*, April 2021, p. 2.

- South Australia: The *Procurement Governance Policy* describes achieving value for money in procurement by ‘finding the optimum balance between whole of life cost and quality’. In addition, public authorities must consider the economic benefit of the procurement to the South Australian economy, in line with the *South Australian Industry Participation Policy*.<sup>80</sup>
- Tasmania: The *Procurement Better Practice Guidelines (Principles and Policies)* describes value for money as ‘achieving the desired outcome at the best possible price by weighing up the benefits of the purchase against the cost of the purchase’, and notes that it ‘does not necessarily mean purchasing the cheapest product or at the lowest price’.<sup>81</sup>
- Australian Capital Territory: The ACT’s *Government Procurement Act 2001* describes value for money as the ‘best available procurement outcome’ – delivering the ‘optimum combination’ of: probity and ethical behaviour, risk management, open and competitive competition, optimising whole of life costs, and other applicable regulatory requirements.<sup>82</sup>
- Northern Territory: The NT Government has ‘value for Territory’ as one of its five procurement principles that guides the way it undertakes and assesses tenders. The value for Territory principle aims to deliver procurement outcomes while meeting the government’s economic, social, environmental and cultural objectives. It recognises that best value for Territory is ‘not necessarily the cheapest price,’<sup>83</sup> and that the government ‘wants more for its contract delivery than just the best price’.<sup>84</sup>

4.77 Notwithstanding government procurers’ best intentions for achieving value in procurement, the Jacobs Group submitted that a combination of factors can lead government procurers to selecting a lowest cost bid:

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<sup>80</sup> Government of South Australia, *Procurement Governance Policy*, Effective 6 August 2021, p. 3.

<sup>81</sup> Tasmanian Government, *Procurement Better Practice Guidelines (Principles and Policies)*, December 2021, p. 6. The *Financial Management Act 2016* (Tasmania) provides for the management of the state’s public finances.

<sup>82</sup> Australian Capital Territory Government, *The Procurement Values Guide*, Version 1.0, September 2020, p. 24.

<sup>83</sup> Northern Territory Government, *Tendering guide: A guide for tendering with the NT Government*, Version 4.2, September 2021, p. 12.

<sup>84</sup> Northern Territory Government, *Value for Territory Assessment: A guide for tendering with the Northern Territory Government*, Version 1.1, July 2021, p. 4.



Inadequate project development and scoping results in unrealistic cost estimates and insufficient budgets. Inaccurate cost estimates are often discovered during procurement when tenderers' costs exceed the funding envelope leaving the government entity selecting the lowest cost submission due to having the smallest gap between cost and budget.<sup>85</sup>

4.78 Inadequate project development and scoping results in unrealistic cost estimates and insufficient budgets. Inaccurate cost estimates are often discovered during procurement when tenderers' costs exceed the funding envelope leaving the government entity selecting the lowest cost submission due to having the smallest gap between cost and budget.<sup>86</sup> It is also clear that the lowest cost approach to project bidding is not sustainable for individual businesses or the construction sector. The Australasian BIM Advisory Board encapsulated the sentiment well in its comments to the committee that:

The last thing we want to see is companies cutting their throats in order to win work. As a number of presenters have said today, that leads to stress for individuals; it leads to a whole lot of poor social outcomes; and it reduces the desire to cover work in the construction sector, which is so important for the future of Australia.<sup>87</sup>

4.79 The committee notes that slowing the adoption of productivity enhancing digital technologies—such as digital engineering and Building Information Modelling (BIM)—is another way in which the focus on the lowest price is hindering these projects. The benefits and challenges associated with utilising digital approaches in infrastructure projects is explored in Chapter 7.

4.80 In simple terms, digital engineering and BIM costs money as it requires investment in software and skills. The Australian Constructors Association commented that companies are not pricing this kind of investment into their bids, and consequently:

We're missing out on significant opportunities there further down the track, because there's a pure focus on the lowest possible price at the tender box.<sup>88</sup>

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<sup>85</sup> Jacobs Group, *Submission 35*, p. 10.

<sup>86</sup> Jacobs Group, *Submission 35*, p. 10.

<sup>87</sup> Mr Andrew Curthoys, Chairperson, Australasian BIM Advisory Board, *Committee Hansard*, 14 October 2021, Canberra, p. 46.

<sup>88</sup> Mr Jon Davies, Chief Executive Officer, Australian Constructors Association, *Committee Hansard*, 5 October 2021, Canberra, p. 4.

4.81 Laing O'Rourke, an international engineering and construction company, agreed that where 'price is regarded as a proxy for value' it is limiting innovation and productivity'. The group commented that:

Rethinking the value equation and trying to unlock innovation and longer-term economic value are what's driving better and more contemporary procurement models.<sup>89</sup>

4.82 The Australian Constructors Association called on the Australian Government to support the development and adoption of a framework to 'ensure that projects are procured based on best value not lowest cost'.<sup>90</sup> Further, it also specified that tender evaluation frameworks should be prioritising 'overall project value over lowest construction price'.<sup>91</sup>

4.83 The Department of Finance noted that, conceptually, assessing value for money should involve considering a broad range of factors, including financial and non-financial factors. At a practical level, officials should also consider the tenderer's proposed delivery and risk sharing approaches, the capabilities and expertise of the bid team, and the price and financial structure and arrangements in the contract.<sup>92</sup>

4.84 The Ai Group maintained that in thinking beyond price, procurers must also consider whether they are appointing the best team to deliver the project and getting the best outcomes, now and from a whole of life perspective. The Ai Group stressed the need to go beyond up-front costs and consider the downstream implications, stating that:

If you haven't got a project that has been put together well and if there are issues of maintenance and ongoing change which are required in the life of that project—let's say over a 30-year horizon for a large infrastructure project—it is going to cost the community a lot more in real terms.<sup>93</sup>

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<sup>89</sup> Mr Mark Dimmock, Director, Clients and Markets, Laing O'Rourke, *Committee Hansard*, 5 October 2021, Canberra, p. 38.

<sup>90</sup> Australian Constructors Association, *Submission 11*, p. 16.

<sup>91</sup> Australian Constructors Association, *Submission 11*, p. 4.

<sup>92</sup> Ms Stacie Hall, Department of Finance, Acting Deputy Secretary, Commercial and Government Services, *Committee Hansard*, 18 November 2021, Canberra, p. 32.

<sup>93</sup> Mr Lindsay Le Compte, General Manager, Construction and Infrastructure, Ai Group, *Committee Hansard*, 14 September 2021, Canberra, p. 16.

4.85 JNT Consulting and Simplar Solutions stressed the need for value-based selection and for procurers to fully understand the breadth of how, and by whom, the project is being delivered. Simplar explained that:

Where a lot of people make mistakes is, they don't go low bid on the GC [general contractor] or the prime, but that prime may only consume, on average, 10 to 20 per cent of the dollars. So, 80 per cent to 90 per cent of the other moneys out there are actually pushed out to the subtrades, the specialty contractors. They are almost exclusively lump sum fixed price and usually contractually mandated to be so by the clients. So, you are still pushing the vast majority of your money to a low bid environment through the prime and now they are forced to do a lump sum agreement with typically incomplete contract documents. This causes great havoc in the supply chain.<sup>94</sup>

### **Expertise-Based Project Delivery best value approach**

4.86 JNT Consulting's critique of traditional procurement approaches included that they do not reward contractor innovation, and instead incentivises contractors to cut costs, but not to pre-plan for project activities or risk stages.<sup>95</sup>

4.87 While stressing the importance of alternative processes to evaluating factors besides price, JNT Consulting expressed concern that this could also create issues if not approached correctly. It contended that common problems that organisations encounter when moving to alternative procurement processes are they do not know what criteria to evaluate, how to properly weigh the criteria, and how to best engage with contractors to get the required information.<sup>96</sup>

4.88 JNT Consulting has partnered with US company Simplar Sourcing Solutions to deliver the Expertise-Based Project Delivery (XPD) best-value approach in Australia. It outlined that this best-value approach has a strong track record—used in over 3,000 projects globally in a wide range of industries—and can be applied to any construction or infrastructure project in Australia, working within the existing policies and frameworks. JNT Consulting advised that the best-value approach has been used in Australia to deliver

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<sup>94</sup> Dr Kenn Sullivan, Managing Member, Simplar Sourcing Solutions, *Committee Hansard*, 16 November 2021, Canberra, p. 12.

<sup>95</sup> JNT Consulting, *Submission 62*, p. 4.

<sup>96</sup> JNT Consulting, *Submission 62.1*, p. 1.

high-profile projects for the Victorian Government, including on a major asset management contract and large-scale waste clean-up projects.<sup>97</sup>

- 4.89 JNT Consulting claims that its XPD best-value approach—described as a complete procurement and delivery approach—overcomes many of the potential problems with immature request for tender approaches. It is focused on helping the client select the ‘best overall team’ and does not demand excessive amounts of information from tenderers, which can act as a barrier to participation for some businesses. JNT Consulting outlined that the best-value approach allows ‘expert contractors to differentiate themselves by focusing on risk and mitigation plans...as well as value-add options that can maximise the success of the project’.<sup>98</sup>
- 4.90 Further, JNT Consulting noted that its XPD best-value approach has checks and balances, implemented primarily through an ‘anonymous’ proposal system. This involves a portion of the selection process where evaluators do not know whose proposal they are scoring. It is suggested that this helps to address potential bias and put focus on the merits of the proposal. Simplar Sourcing Solutions explained that:

For most infrastructure projects, it is a very boilerplate response...So you are getting generic responses. Even if it is not low bid, selection price becomes the dominant differentiator because all the marketing material looks the same. That traditional marketing is not a good way to differentiate. People will revert to their biases of what they...[know about the] companies...That is where the anonymous portion helps drive a more fair and more accurate selection process.<sup>99</sup>

- 4.91 During a public hearing, these companies told the committee that the best way to find alternative approaches that work is to test them on projects and then judge how the benefits and outcomes compare.

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<sup>97</sup> JNT Consulting, *Submission 62*, pp. 2 and 6.

<sup>98</sup> JNT Consulting, *Submission 62.1*, p. [3].

<sup>99</sup> Dr Kenn Sullivan, Managing Member, Simplar Sourcing Solutions, *Committee Hansard*, 16 November 2021, Canberra, p. 9.

## South Australian Industry Advocate model

- 4.92 ASBFEO encouraged the Australian Government to consider emulating the South Australian Industry Advocate model at the Commonwealth level. ASBFEO saw this as a potential solution to addressing many of the problems in government procurement.<sup>100</sup>
- 4.93 The Industry Advocate role is an independent statutory authority established by the *Industry Advocate Act 2017*. The role includes facilitating economic contribution and development from public expenditure and to ensure capable businesses based in South Australia are given full, fair and reasonable opportunity to tender and participate in government projects. South Australian agencies and private parties contracting to the Government of South Australia are required to comply with the *South Australian Industry Participation Policy (SAIPP)* and its supporting guidelines. The Industry Advocate's role includes acting to further the objectives in the SAIPP.
- 4.94 ASBFEO outlined that the model takes a much broader and 'wiser' approach to assessing value for money, can deal with unnecessary bundling and aggregation, ensures that processes are designed to enable rather than impede SME participation, and can verify that contracted suppliers are the businesses that the SAIPP is seeking to nurture and support—not a wholly owned shopfront operating from a larger firm or some offshore entity simply using an Australian Business Number.<sup>101</sup>
- 4.95 ASBFEO suggested that the Industry Advocate could identify 'if there are excessive conditions to participate attached to a procurement' and work to achieve a better risk treatment. Also, when weighing key factors, the Industry Advocate model even talks about:
- ...the role that procurement can play in uplifting, scaling and developing expertise and capacity for that business as an influencing factor on the awarding of the contract. So, it's not purely a race for the cheapest dollar...<sup>102</sup>
- 4.96 The committee notes that the Joint Select Committee on government procurement, in its 2017 report *Buying into our Future: Review of amendments*

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<sup>100</sup> Hon Bruce Billson, Ombudsman, ASBFEO, *Committee Hansard*, 10 November 2021, Canberra, p. 24.

<sup>101</sup> Hon Bruce Billson, Ombudsman, ASBFEO, *Committee Hansard*, 10 November 2021, Canberra, pp. 20 and 24.

<sup>102</sup> Hon Bruce Billson, Ombudsman, ASBFEO, *Committee Hansard*, 10 November 2021, Canberra, p. 20.

to the *Commonwealth Procurement Rules*, recommended that the Australian Government establish an Australian Industry Advocate. The advocate was intended to aid Commonwealth agencies to design procurement processes to maximise benefits to the Australian economy and increase opportunities for SME participation, and to support Australian businesses to access government procurement opportunities. However, the Australian Government, in its response, did not support establishing an Australian Industry Advocate.<sup>103</sup>

## Government procurers

- 4.97 Alliance contracting and breaking larger projects into smaller contracts do place greater time and management demands on government officials responsible for overseeing these projects. ASBFEO commented that unbundled contracts 'would benefit from being managed by appropriately skilled procurement and contract management officials'.<sup>104</sup>
- 4.98 Being able to clearly articulate how to define value for money and capture specific technical requirements in contracts was identified as an important part of a procurement official's skillset. This is particularly important in specialised projects such as developing the terms for a radioactive waste management facility where safety is paramount over lowest possible cost.<sup>105</sup>
- 4.99 Consult Australia called for procurement reform that is supported by developing guidance and training for procurement officials on risk assessment and management, insurance and contract management.<sup>106</sup>
- 4.100 The CCF stressed the importance of government procurers overcoming mindsets such as leaning towards risk shifting rather than the risk sharing opportunities available in more collaborative approaches. The CCF

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<sup>103</sup> Australian Government, *Australian Government response to the Joint Select Committee on Government Procurement report – Buying into our Future: Review of amendments to the Commonwealth Procurement Rules*, November 2017, [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Joint/Former\\_Committees/Government\\_Procurement/CommProcurementFramework/Government\\_Response](https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Former_Committees/Government_Procurement/CommProcurementFramework/Government_Response).

<sup>104</sup> ASBFEO, *Submission 42*, p. [2].

<sup>105</sup> Mr David Osborn, General Manager, Safety and Technical, Australian Radioactive Waste Agency, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 26.

<sup>106</sup> Consult Australia, *Submission 27*, p. 5.

acknowledged that some procurers may be reluctant to adopt collaborative arrangements due to:

- the need to relinquish some bargaining power to industry rather than the contractor being the price taker
- prioritisation of short run outcomes like cost to deliver rather than broader benefits, and
- uncertain costs of delivery and perceived track records of previous alliances.<sup>107</sup>

4.101 Consistent with evidence the committee received about the need to improve the handling of risk and innovation when procuring for government-funded infrastructure projects, Infrastructure Australia commented in relation to upskilling government officials that:

We need to ensure that the public service and, indeed, client project managers are appropriately supported in their perceptions around risk and their support for innovation. We can do that...both through exposure to industry and ensuring that there is a regular and, indeed, supported movement of skills and professions between the public and private sectors. We need to make sure that there are opportunities for on-the-job training and exposure to new projects, and that includes...from grad programs through to more senior roles. I would emphasise it's the senior roles, the senior project leadership roles, where there is a gap both in the public and private sectors.<sup>108</sup>

4.102 Infrastructure Partnerships Australia emphasised that procurement models are 'ultimately just incentive frameworks' and that there is an onus on government procurers to 'look past the marketing name of a particular model and ensure the incentives and behaviours it generates will serve the long-term interests of taxpayers on each project on which it is deployed'.<sup>109</sup> Infrastructure Australia agreed that:

We really need to see a mature, capable public service, well informed by industry, able to select procurement models that are most appropriate for the project.<sup>110</sup>

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<sup>107</sup> CCF, *Submission 53*, p. 13.

<sup>108</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 5.

<sup>109</sup> Infrastructure Partnerships Australia, *Submission 43*, p. [5].

<sup>110</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 13.

4.103 Further, Infrastructure Australia highlighted that while states or territories may be the procurers for many infrastructure projects, there is still the opportunity for the Australian Government to facilitate sharing best practice through fora with industry and other jurisdictions. Infrastructure Australia commented that this:

...enables visibility over what is being done and what is working in different jurisdictions. I think it's also important that there is scope to be able to adapt the setting to what works in that particular environment. It's not a one-size-fits-all approach across jurisdictions.<sup>111</sup>

4.104 In response to committee questioning, North Projects agreed that procurers' focus on low price needs to be replaced by value, and as part of that the governments should ensure that its procurement officials have the required capacity and expertise to engage effectively and collaboratively with industry.<sup>112</sup>

4.105 The Australasian Railway Association noted that in recent years it has found departmental officials open to discussions about procurement practices that are impacting industry performance, with officials recognising where they need to review internal processes and to collaborate and engage more with industry.<sup>113</sup>

4.106 Infrastructure Australia highlighted that for increasingly complex projects, highly skilled professionals are needed in both the public and private sectors. It outlined that:

Increasing the maturity of public clients to support the delivery of next generation infrastructure, including the incorporation of a long-term project delivery capability within the Commonwealth Government. This will facilitate high value engagement between the Australian Government and its partners.<sup>114</sup>

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<sup>111</sup> Ms Lisa La Rance, Assistant Secretary, Investment Advisory and Business Improvement, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 15.

<sup>112</sup> Mr Michael James, Associate Director, North Projects, *Committee Hansard*, 16 November 2021, Canberra, p. 33.

<sup>113</sup> Ms Natalie Currey, Australasian Railway Association, *Committee Hansard*, 14 October 2021, Canberra, p. 25.

<sup>114</sup> Infrastructure Australia, *Submission 14*, p. 3.



- 4.107 Infrastructure Australia noted formal education avenues in Victoria through the Project Leadership Academy, and in NSW through the John Grill Centre, to improve government and industry project leadership in the sector.<sup>115</sup>
- 4.108 In discussion with the committee on recent developments in relation to supporting government procurement officials, the Department of Finance noted that in August 2020 it had issued guidance to Commonwealth procurement officials about considering broader economic benefits, particularly when assessing value for money.<sup>116</sup>
- 4.109 Further, the Department of Finance advised that as custodian of the Commonwealth Procurement Framework it is running outreach programs to agencies and has a senior procurement officials reference group comprising 120 agencies.<sup>117</sup>
- 4.110 The Centre of Procurement Excellence, hosted by the Department of Finance, is another resource designed to upskill government procurers. Its board comprises the Finance department secretary, Rosemary Huxtable PSM, other Australian Public Sector secretaries, and business leaders.
- 4.111 In addition to outreach activities, the Department of Finance is focusing internally on improving procurement team capabilities, including rolling out a Diploma of Procurement and Contracting Management—partnering with a private sector party to provide this specialised training.<sup>118</sup>
- 4.112 ASBFEO told the committee that it was pleased to see the ‘professionalisation of procurement’ that is occurring through the Department of Finance, in which people are appreciating the role they can play in public policy execution. However, the Ombudsman observed that it will still be a ‘character-building journey’ for procurers who, even when seeking to apply best practice, can run into ‘obstacles around scale, bundling, white tape and threshold requirements’.<sup>119</sup>

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<sup>115</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 5.

<sup>116</sup> Ms Stacie Hall, Acting Deputy Secretary, Commercial and Government Services, Department of Finance, *Committee Hansard*, 18 November 2021, p. 31.

<sup>117</sup> Mr Andrew Danks, First Assistant Secretary, Department of Finance, *Committee Hansard*, 18 November 2021, p. 31.

<sup>118</sup> Mr Andrew Danks, First Assistant Secretary, Department of Finance, *Committee Hansard*, 18 November 2021, Canberra, p. 31.

<sup>119</sup> Hon Bruce Billson, Ombudsman, ASBFEO, *Committee Hansard*, 10 November 2021, Canberra, p. 27.

4.113 The Department of Industry, Science, Energy and Resources noted a commonly held industry view that there is an opportunity for procurement officials to be a recognised profession. In discussion with the committee, the department acknowledged the increased focus on procurement officials and their potential to contribute to the Australian economy beyond a specific procurement.<sup>120</sup>

## Committee comments

- 4.114 Many of the issues examined during this inquiry reflect continuing challenges facing the infrastructure sector and procurement for government-funded infrastructure projects. As noted in the background in Chapter 1, in recent years parliamentary committees and the Productivity Commission have examined infrastructure procurement and highlighted areas for reform.
- 4.115 While there has been procurement reform progressing across all levels of government, more work is needed to ensure these efforts are strategic, coordinated and that principles are applied in practice. One key example of this is for procurers to optimise their consideration of non-financial factors when assessing infrastructure projects, rather than defaulting to the lowest possible price option, as has too often been the case in the past.
- 4.116 The committee was pleased to hear about the focus by Australian Government departments on improving government officials' procurement capabilities. It notes the guidance documents provided by the Department of Finance, and increased engagement, to improve officials' understanding of the requirements and scope already in the Commonwealth Procurement Rules that a range of factors must be considered beyond price.
- 4.117 The committee agrees with the evidence presented about the need to replace the current tendency towards low price with a proper assessment of which project bid is offering overall best value. To support this, governments at all levels should ensure that their procurement officials have the required capacity and expertise to engage effectively and collaboratively with industry.

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<sup>120</sup> Ms Donna Looney, Acting Head, Industry Growth Division, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 26.

## Recommendation 2

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**4.118 Given the crucial role that procurement plays in planning, the tendering process and delivery of infrastructure projects, the committee recommends that the Australian Government review the practical application of the Commonwealth Procurement Rules, with a particular focus on the extent to which factors other than price are assessed in practice.**

**As part of this work, the Australian Government should explore ways to support the training of government procurement officials in procurement best practice approaches to support sophisticated assessments of value for money, and ways to maximise Australian local industry engagement.**

4.119 Given the significant amount of taxpayer money being invested in infrastructure by Australian governments it is more pressing than ever to ensure that procurement practices for government-funded projects follow best practice to ensure good project outcomes and that taxpayer money is well spent.

4.120 The committee sees merit in a mechanism to help ensure consistency in monitoring and rating performance on these projects. Additionally, this can serve as an important tool to help inform participants for new projects or for the next phases of larger projects.

## Recommendation 3

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**4.121 The committee recommends that the Australian Government, in consultation with state, territory and local governments, establish a mechanism for monitoring and rating funding recipients' performance on government-funded infrastructure projects, capturing elements of whether the project was delivered to the required standards, on time and on budget.**

4.122 The committee acknowledges that many infrastructure projects that receive funding from the Australian Government will actually be administered at the state or territory level. However, there is still a role for the Australian Government to help ensure, irrespective of the level of government undertaking the procurement, that best practice approaches are used. This should include a mature assessment process focused on project objectives and outcomes and verifying best value over lowest possible cost.

## **Recommendation 4**

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- 4.123 The committee recommends that state, territory and local government infrastructure projects that receive Australian Government funding should be subject to verification of value for money by the Australian Government or a specified entity. To support this, the Australian Government should establish a mechanism for assessing state, territory and local governments' plans and performance for proposed and delivered infrastructure projects using Australian Government funds, capturing elements of project delivery to the required standards, on time and on budget.**
- 4.124 The committee appreciates that there cannot be a one size fits all approach to project procurement and delivery. Projects in the infrastructure pipeline will vary significantly and government officials must ensure that the procurement and delivery approaches selected are fit for purpose for a given project. However, the committee sees considerable scope, through greater collaboration—across jurisdictions and with industry—for government planners and procurers to draw on important lessons from past and current exemplar projects.
- 4.125 The development of various light rail networks around Australia is an example of an opportunity for government cooperation on consistency, interoperability and standardised requirements. The committee believes that with greater collaboration there would be less likelihood of encountering a problem such as that with the Sydney CBD's light rail being decommissioned for up to 18 months as it does not have ready replacements for damaged trams.
- 4.126 Given the scale of Australia's infrastructure pipeline there is likely to be sufficient similarities between projects where some elements of standardisation could provide greater efficiencies. The committee believes that opportunities for standardisation on similar government-funded infrastructure projects is an area that merits further exploration.

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## **Recommendation 5**

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**4.127 To improve planning, procurement and delivery efficiencies for infrastructure projects, the committee recommends the Australian Government, in consultation with state, territory and local governments, explores opportunities for standardisation on like projects.**



# 5. Collaboration and contracts

## Enhancing collaboration with industry

5.1 There is a global move towards more collaborative procurement and delivery models for major infrastructure projects. The message is clear that for governments to achieve better project outcomes through procurement, they must recognise that long-term collaboration is ‘an inseparable component of a sustainable industry’.<sup>1</sup> According to global engineering company the Jacobs Group:

...innovation and collaboration are key to ensuring that Australian taxpayers receive value for money, while sharing the risks and benefits of infrastructure delivery equitably between participants.<sup>2</sup>

5.2 The Australasian BIM Advisory Board (ABAB)<sup>3</sup> outlined that many of the procurement models commonly used in engineering and construction reduce the productivity of projects due to the lack of shared responsibility across the project life cycle. It highlighted the use of collaborative contracts as an important tool to reduce the estimated 30 per cent of effort wasted on construction activity due to non-collaborative processes.

5.3 ABAB suggested that based on estimated construction activity in Australia of \$205 billion in 2020, a ‘conservative’ 5 per cent productivity

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<sup>1</sup> Infrastructure Australia, *Reforms to meet Australia’s future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 274.

<sup>2</sup> Jacobs Group, *Submission 35*, p. 12.

<sup>3</sup> The Australasian BIM Advisory Board (ABAB) partners leaders from government, industry and academia to provide a leadership and coordinating role in the consistent adoption of Building Information Modelling and associated integration and collaborative processes, with a view to improving productivity and project outcomes.

improvement—representing \$3.1 billion savings each year—could be realised through the use of more collaborative approaches such as digital delivery driven by Building Information Modelling (BIM).<sup>4</sup> These technical aspects are explored in Chapter 7.

- 5.4 The infrastructure industry, according to the Australian Industry Group (Ai Group), has been characterised by a boom-and-bust cycle with stakeholders, including government clients, often operating on an adversarial basis to shift or avoid risk. This results in poor relationships in projects and is a ‘key factor behind those projects that are completed over time and over budget’.<sup>5</sup>
- 5.5 BuildingSMART suggested that a particular cultural and behavioural barrier to greater collaboration is ‘complacency and partly a culture of litigation and dispute, which creates a low-trust environment’. BuildingSMART outlined that:

This inhibits collaboration and the sharing of knowledge and data, and compromises those least capable of managing risk. One of the greatest impacts technology has had on improving productivity is the ability to share and better collaborate. However, in the current contracting environment, parties are held accountable for everything they share. This fear of accountability directly fuels a reluctance to adopt technologies and workflows that facilitate collaboration, information reuse and transparency.<sup>6</sup>

- 5.6 Laing O’Rourke maintained that using price competition to demonstrate value for money has been unproductive, and called for a refocus on collaboration, stating that:

I think now is the time to reset and move to more collaborative forms of engagement that address the risk allocation in reasonable terms and provide incentives for excelling. Through the work of the Australian Constructors Association we have started to make progress, and I do acknowledge that a lot of jurisdictions have started to move to more collaborative forms of contracts.<sup>7</sup>

- 5.7 While emphasising the importance of government procurers selecting the appropriate procurement models for given projects, Infrastructure Australia

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<sup>4</sup> ABAB, *Submission 37*, p. 7.

<sup>5</sup> Australian Industry Group (Ai Group), *Submission 51*, p. 3.

<sup>6</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 42.

<sup>7</sup> Mr Mark Dimmock, Director, Clients and Markets, Laing O’Rourke, *Committee Hansard*, 5 October 2021, Canberra, p. 37.



also encouraged collaboration, stating that these models should have ‘collaboration between industry and government over the long-term at the heart of the arrangements’.<sup>8</sup>

- 5.8 The Civil Contractors Federation (CCF) is the peak national body representing Australia’s civil construction industry, with its members responsible for construction and maintenance. The CCF advised that currently there is no formal consultative mechanism allowing industry members direct input to government on key issues affecting the infrastructure industry. To address this gap the CCF proposed that a formal consultative mechanism be established—the Infrastructure Industry Consultative Forum (IICF), which would ‘act as an avenue through which senior government officials and industry leaders can collaborate and progress reform and innovation on key infrastructure matters’.<sup>9</sup>
- 5.9 The proposed IICF would be chaired by the Secretary of the Department of Infrastructure, Transport, Regional Development and Communications, and the department could channel the IICF’s outputs to the ministerial level and National Cabinet, as required. The CCF sees the forum as an advisory rather than a decision-making body, although it could make recommendations for government consideration, and is intended to supplement and support other forms of government engagement on these issues.<sup>10</sup>

## Early market engagement

- 5.10 Market engagement is a process prior to, during and after procurement, in which the client can get a sense of market interest and capacity in relation to a specific project. It can range from simple (such as an advertisement or communication about an intended project) to extensive and complex (where there is detailed dialogue and exchanges with suppliers to develop a solution to certain issues). More in-depth market engagement helps all parties get a better practical understanding of the scope, risk and possible solutions, and viable delivery options for a project.
- 5.11 The Department of Infrastructure, Transport, Regional Development and Communications recognises the importance of undertaking appropriate market engagement. It explained that:

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<sup>8</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 13.

<sup>9</sup> Civil Contractors Federation (CCF), *Submission 53.1*, p. 1.

<sup>10</sup> CCF, *Submission 53.1*, p. 3.

Early engagement with contractors can assist with better design and procurement models, driving a more efficient and cost-effective process. Regardless of the method selected, sufficient upfront planning and preparatory work will assist with improving relationships between proponent and contractor, balance risk allocation, manage and appropriately price risk.<sup>11</sup>

5.12 In particular, Consult Australia stressed the importance of ‘starting the conversation early’ as key to better engagement with industry and one that can be continued into the contract.<sup>12</sup>

5.13 One of Infrastructure Australia’s key messages related to improving industry productivity and innovation is that project outcomes will be enhanced by allowing sufficient time and resources at the front-end of projects, together with improving market engagement processes.<sup>13</sup> Early market engagement can help government clients to determine the most appropriate delivery method, based on project type and industry capacity.

5.14 Infrastructure Australia’s Recommendation 3.2b in its *2021 Australian Infrastructure Plan* is to reduce uncertainty for industry and improve value for money by improving engagement with industry and the supply chain. Infrastructure Australia proposed that this be led by state and territory governments. Specifically in relation to market engagement, Infrastructure Australia proposed that the Australasian Procurement and Construction Council take a lead role to:

Increase competition in the industry by developing guidelines and training programs on market engagement best practices that are accessible to all project practitioners. Cover topics such as multi-stage bidding, fair risk appropriation processes, bidding requirements at each gate, receiving industry feedback, using nationally consistent contract forms and the supporting procurement decision-making tool.<sup>14</sup>

5.15 The Business Council of Australia (BCA) sees early market engagement as a significant factor in being able to identify, avoid and mitigate risk as early as

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<sup>11</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 18.

<sup>12</sup> Ms Kristy Eulenstein, Head of Policy and Government Relations, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 4.

<sup>13</sup> Infrastructure Australia, *Reforms to meet Australia’s future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 252.

<sup>14</sup> Infrastructure Australia, *Reforms to meet Australia’s future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 269.

possible in the procurement process for projects. It raised the Victorian North East Link primary package as a positive example of government adopting a risk sharing approach, noting that in response to market feedback and the nature of the project, the Victorian Government showed a willingness to ‘engage with the private sector early and work through the particular risks inherent in the project’.<sup>15</sup>

- 5.16 However, the BCA cautioned that when governments announce project timings and estimated costs ‘too early’—prior to due diligence taking place—this acts as a barrier to allowing time to undertake due diligence and early market engagement.<sup>16</sup>
- 5.17 Hughes et al, an advisory firm on local content best practice, raised the importance of early engagement to help address potential supply chain issues, such as in the case of the demand for steel for projects. The group indicated that as part of a recent project with a major transmission line requiring 32,000 tonnes of steel, it had worked with the Australian Steel Institute to arrange Australian consortia to get in early to ensure the right design standards were in place. Notwithstanding the outcome that Australia was not found to be competitive on the price of steel, Hughes et al stressed the importance of this kind of early engagement, explaining that:

Without getting too locked into steel as the product, the point is incredibly important about that early engagement around designs and around the standards that are going to be required. In the example that I just gave you, we'd undertaken the testing of the Australian steel market a year before the project had even got the approval to start building. We got in incredibly early—we didn't wait for the main contractor to be approved and then find out later that there's no opportunity for competition. We were early, early, early in with the design companies, working closely in collaboration. You might not always get the result you want in terms of the spend in Australia, but you'll learn an awful lot about what innovation is required to be competitive.<sup>17</sup>

- 5.18 However, the Georgiou Group, an Australian construction company, shared that in its experience government consultations can sometimes be more ‘lip service’ than true engagement. The Georgiou Group claimed that when consulting the construction industry, the key external advisers may be third

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<sup>15</sup> Business Council of Australia (BCA), *Submission 38*, p. 5.

<sup>16</sup> BCA, *Submission 38*, p. 6.

<sup>17</sup> Mr Ben Hughes, Managing Director, Hughes et al, *Committee Hansard*, 10 November 2021, Canberra, p. 16.

party project managers and law firms that ‘consult with industry as a process but are not prepared to listen’ or address contractors’ concerns.<sup>18</sup>

## Being a model client

- 5.19 Infrastructure Australia emphasised that as ‘model clients’, governments can build stronger relationships with the infrastructure industry.<sup>19</sup> Consult Australia noted that in the *2021 Australian Infrastructure Plan*, Infrastructure Australia called on governments to champion model client behaviour by embracing collaboration opportunities.<sup>20</sup>
- 5.20 Being a model client is described as working collaboratively with industry on projects and achieving mutually beneficial outcomes. In its paper *Model Client Policy: Proposal for all government jurisdictions*, Consult Australia called on all political parties to ensure that governments behave ethically, fairly and honestly in their dealings with the industry. Consult Australia submitted that its proposed Model Client Policy is ‘akin to the long-established model litigant policy, to address the inherent and substantial power imbalance in favour of government clients when it contracts with the private sector’.<sup>21</sup>
- 5.21 Consult Australia suggested that as part of adopting a model client approach, education campaigns are needed:
- ...across in-house government legal and procurement resources around the country, to address the knowledge-deficit regarding the impact that risk averse, master-servant contracts have on project outcomes and the damage they do to relationships across the industry and our very sustainability.<sup>22</sup>
- 5.22 Chapter 4 explores separately the challenges of risk-averse clients who attempt to outsource as many project risks as possible, irrespective of which parties are best placed to take responsibility for a particular risk.
- 5.23 The Australian Sustainable Built Environment Council also supported adopting a model client policy and recommended that the Australian

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<sup>18</sup> Georgiou Group, *Submission 9*, p. [2].

<sup>19</sup> Infrastructure Australia, *Reforms to meet Australia’s future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 274.

<sup>20</sup> Consult Australia, *2021 Australian Infrastructure Plan: Consult Australia’s Advocacy Highlights*, p. 1, <https://www.consultaustralia.com.au/home/advocacy/pipeline>, viewed 6 September 2021.

<sup>21</sup> Consult Australia, *Submission 27*, p. 14.

<sup>22</sup> Consult Australia, *Submission 27*, p. 15.

Government further resource the work of the Australasian Procurement and Construction Council and the Centre for Procurement Excellence.<sup>23</sup>

5.24 In response to committee questioning, Consult Australia noted that it was not aware of a similar model client approach being introduced in overseas jurisdictions. However, it observed that ‘no other jurisdiction, save the US has the legal disputation issues Australia has in terms of the construction and building industry’.<sup>24</sup> Consult Australia outlined that:

Australia with its bespoke contract terms has a reputation for onerous unbalanced terms that are a deterrent to overseas organisations that are used to a different contracting environment and culture.<sup>25</sup>

5.25 Consult Australia observed that in place of this problematic contract approach, suites of contracts such as the International Federation of Consulting Engineers (FIDIC) contracts and the United Kingdom’s (UK) New Engineering Contract (NEC4) suite have been used effectively internationally.<sup>26</sup> These will be explored later in this chapter.

## The Project 13 model

5.26 The UK’s Project 13 model involves a shift from traditional transactional arrangements to an enterprise model for infrastructure delivery. It is described as an industry-led response to ‘broken’ infrastructure delivery models that have failed clients, suppliers, operators and users of infrastructure systems and networks.<sup>27</sup>

5.27 Consult Australia observed that Project 13 principles align with the reform principles identified to address similar issues in the United States, and noted that:

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<sup>23</sup> Australian Sustainable Built Environment Council, *Submission 34*, p. 3. The Australasian Procurement and Construction Council is a peak council comprising Australian and New Zealand government agencies with responsibility for the disciplines of procurement, construction, asset management and property management policy and practice. The Department of Finance’s Centre for Procurement Excellence is designed to build public sector capability in procurement, strengthen partnerships with the business community and encourage innovation to deliver better value for money.

<sup>24</sup> Consult Australia, *Submission 27.1*, p. 12.

<sup>25</sup> Consult Australia, *Submission 27.1*, p. 12.

<sup>26</sup> Consult Australia, *Submission 27.1*, p. 12.

<sup>27</sup> Project 13, <https://www.project13.info/>, viewed 24 August 2021.

Sadly, our approach in Australia carries the same inefficient and detrimental hallmarks of the problems that have been identified in the USA and the UK...

The UK and the USA may be further down the path of reform than we are, however, all of industry operating in Australia is aligned on what the problems are, and the key solutions needed. The way forward is for government in both its role as policymaker and client to play its role in the reform agenda because no one party in the ecosystem, that is the building and construction industry, can realise the change alone.<sup>28</sup>

- 5.28 The five pillars of the Project 13 model are: Capable Owner, Governance, Integration, Organisation, and Digital Transformation. The model brings together owners, partners, advisers and suppliers, working in more integrated and collaborative arrangements, underpinned by long-term relationships.
- 5.29 The Mace Group, an international consultancy and construction company, noted that the World Economic Forum has adopted Project 13 as a partnership initiative, to help underpin collaboration, particularly given the important part infrastructure investment will play in the world's economic recovery from COVID-19.<sup>29</sup>
- 5.30 The Ai Group observed that a motivation for developing Project 13 is that infrastructure projects are 'notorious' internationally for coming in late and over budget. It submitted that:

Infrastructure developers have historically believed that true value is best derived from an open tender process that transfers as much risk as possible to the contractor whilst locking in a fixed price for delivery.

...

All parties to these numerous commercial relationships are only incentivised to maximise value to their shareholders rather than to the infrastructure developer. Consequently, when project issues arise, focus turns first to protecting commercial positions rather than to finding best for project solutions.<sup>30</sup>

- 5.31 In contrast, under Project 13 the enterprise is 'rewarded based on increase in value provided rather than on services provided', and there is a 'greater

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<sup>28</sup> Consult Australia, *Submission 27*, p. 8.

<sup>29</sup> Mr Dale Evans, Principal, Mace Group, *Committee Hansard*, 16 November 2021, Canberra, p. 16.

<sup>30</sup> Ai Group, *Submission 51*, p. 8.

understanding of cost drivers and risk across all organisations in the enterprise with commercial incentives for collaboration to jointly mitigate risk, not transfer it'.<sup>31</sup>

5.32 The Ai Group recommended that the Australian Government support the implementation of the Project 13 model for all Commonwealth funded infrastructure projects. The Ai Group saw it as an opportunity for the Australian Government to 'implement the step change that the industry requires'.<sup>32</sup> In response to committee questioning on the potential for wider application in Australia, the Ai Group expressed surprise that Project 13:

...has not been embraced more widely across our whole system by way of the opportunity to test its operation...we believe it is a concept worth pursuing because it changes the dynamics of how a project operates in practical terms.<sup>33</sup>

5.33 Engineers Australia also supported exploring the use of Project 13 for Australian projects and emphasised the need to recognise infrastructure as an information-based industry.<sup>34</sup>

5.34 The Jacobs Group noted that 'greater value is gained' with Project 13, as it integrates the capabilities of the ecosystem of partners in a way that better aligns with risk allocation and commercial incentives.<sup>35</sup> Similarly, the Mace Group highlighted that in the move from a transactional to an enterprise approach, an important feature of Project 13 is how it rewards partners, and explained that:

In our sector traditionally, we've rewarded partners for volume. We reward consulting engineers for time and hours, and we reward contractors for turnover and spend. So, again, it's not what we're trying to achieve. We reward quite perverse behaviours. Project 13 has moved to a place where we reward value and...performance. So, our partners actually generate a return by getting a share of the value that we create as we deliver.<sup>36</sup>

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<sup>31</sup> Ai Group, *Submission 51*, p. 8.

<sup>32</sup> Ai Group, *Submission 51*, pp. 9-10.

<sup>33</sup> Mr Lindsay Le Compte, General Manager, Construction and Infrastructure, Ai Group, *Committee Hansard*, 14 September 2021, pp. 18-19.

<sup>34</sup> Engineers Australia, *Submission 4*, pp. 2-3

<sup>35</sup> Jacobs Group, *Submission 35*, p. 12.

<sup>36</sup> Mr Dale Evans, Principal, Mace Group, *Committee Hansard*, 16 November 2021, Canberra, pp. 16-17.

5.35 Sydney Water, a statutory corporation wholly owned by the New South Wales Government, was the first government entity to partner with Project 13 and introduce partnering for success. Sydney Water stressed the importance of understanding international best practice and advised that it is:

...the only international team that's a member of the integrated Project 13 community, where government organisations, as well as the private sector, are able to share ideas, innovations and challenges that they face in the infrastructure sector.<sup>37</sup>

### *Sydney Water and partnering for success*

5.36 On 1 July 2020, Sydney Water started the partnering for success (P4S) commercial framework—a new infrastructure and delivery model designed to deliver best possible value. Under P4S, Sydney Water now uses a simplified supply chain, procuring services through a 10-year collaboration with three regional delivery consortia to deliver end-to-end design, construction, maintenance and facilities management services. It uses shared purchasing, drawing on a pool of specialist suppliers through the consortia arrangements. As part of its approach, Sydney Water recognises that small and medium enterprises (SMEs) form a vital link in the supply chain.

5.37 The Jacobs Group supported ‘an enterprise delivery model that provides longer contracts with integrated partners to enable improved collaboration between the procuring authority and contractors, while rewarding innovation’.<sup>38</sup> It noted that Sydney Water used a delivery partner model for its Lower South Creek Treatment Program—a \$500 million program for three plant renewable projects to upgrade wastewater assets in Sydney. The ADAPT joint venture between Sydney Water, PB and UGL provided:

...project management services and allowed a OneTeam approach with Sydney Water to drive improvements in design and construction, with Sydney Water retaining full control of design development and fully integrated into the design, construction and commissioning processes. The program wide approach allowed lessons learned early on to be implemented in the proceeding parts of the program.<sup>39</sup>

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<sup>37</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 29.

<sup>38</sup> Jacobs Group, *Submission 35*, p. 9.

<sup>39</sup> Jacobs Group, *Submission 35*, p. 9.



5.38 Sydney Water described its approach as ‘building a digital spine’ into its entire delivery framework. Further, it told the committee that it is actively seeking to address future workforce demands, outlining that:

...in terms of legacies, we found it really important, looking at the growth of infrastructure and the need for critical resources, that the blue- and white-collar workforce for the future is something that has been built into the P4S framework. We're working with universities, schools and other educational facilities to be able to provide that workforce for the future. There has been some drop in the amount of new resources that have been getting skilled up and trained, so a large number of new employees have been brought in under traineeships and apprenticeships to be able to work with us in building our needs for the future.<sup>40</sup>

5.39 In addition to being a leader in Australia in its successful use of Project 13 and partnering for success, Sydney Water is also an exemplar in its use of the NEC4 contracting suite.

## Contracts

5.40 The main approaches to projects are broadly: traditional contracting, alliance contracting and public-private partnerships. Each will be explored in the below discussion.

5.41 International and Australian experience has increasingly reflected that traditional contract approaches seem to be prone to breeding adversarial cultures, in large part due to a prevalence of risk shifting rather than risk sharing behaviours. More collaborative approaches tend to be found in alliance contract approaches.

5.42 Collaborative contracting essentially involves parties working together, in good faith, to achieve common goals. The Department of Defence Capability Acquisition and Sustainment Group’s definition includes many of the common themes associated with this approach:

Collaborative contracting is where parties work together to achieve common outcomes. Collaborative contracts are underpinned by parties working together in good faith, focussing on fixing problems and not blame, managing

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<sup>40</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 30.

risk equitably and jointly where appropriate, promoting transparency, and avoiding disputes.<sup>41</sup>

## Adversarial culture and disputes

- 5.43 How risk is allocated between clients and contractors for government-funded projects is a clear point of contention. A market sounding referenced in Infrastructure Australia's *National Study of Infrastructure Risk* report reflected the significant divergence that persists about who should bear integration risk, with 88 per cent of private respondents believing it should be shared, in contrast to only 61 per cent of government respondents.<sup>42</sup>
- 5.44 The Queensland Major Contractors Association saw potential for collaborative contracting to significantly reduce adversarial positions on projects, with potential benefits of less disputes and a more sustainable and productive workforce.<sup>43</sup>
- 5.45 Consult Australia expressed the view that if government clients adopt a model client policy and deliver fair and collaborative contracting, this would 'significantly de-risk the Australian building and construction industry as litigious avenues would no longer be available or needed'.<sup>44</sup>
- 5.46 Consult Australia contended that discussions early in the process with industry should look at problems and solutions, and can then be continued in a contract:

A contract should not be set up to spark disputation. There should be provisions in a contract that allow early engagement, regular meetings et cetera to work through problems together. Then, of course, it is making sure that there is a culture of collaboration where you are not scared to talk to another party about potential concerns, you do not need to call the lawyers to help manage that conversation, you have meetings established et cetera to explore issues as they arise.<sup>45</sup>

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<sup>41</sup> Department of Defence, *Collaborative Contracting Better Practice Guide*, Version 1.0, September 2017, p. 5.

<sup>42</sup> Infrastructure Australia, *National Study of Infrastructure Risk: A report from Infrastructure Australia's Market Capacity Program*, October 2021, p. 46.

<sup>43</sup> Queensland Major Contractors Association (QMCA), *Submission 7*, pp. [3-4].

<sup>44</sup> Consult Australia, *Submission 27*, p. 14.

<sup>45</sup> Ms Kristy Eulenstein, Head of Policy and Government Relations, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 4.

### *Unfair contract terms*

- 5.47 The tendency for government clients to attempt to contract out risk can manifest in onerous—and potentially unfair—contract terms for government-funded infrastructure projects.
- 5.48 Section 23 of the Australian Consumer Law provides certain protections from unfair contract terms for consumers and small businesses.<sup>46</sup> A contract term could be considered unfair if:
- a. it would cause a significant imbalance in the parties' rights and obligations arising under the contract; and
  - b. it is not reasonably necessary in order to protect the legitimate interests of the party who would be advantaged by the term; and
  - c. it would cause detriment (whether financial or otherwise) to a party if it were to be applied or relied on.<sup>47</sup>
- 5.49 However, Consult Australia expressed concern that the Australian Consumer Law protections for consumers and small businesses from unfair contracts do not apply to all government contracts. Further, it claimed that there had been examples of terms in some government contracts with consultants that 'have been considered unfair in other contexts', for example enabling the government client (but not the consultant) to avoid or limit their obligations under the contract, to vary the contract, and to require the consultant to contract out their statutory rights.<sup>48</sup>
- 5.50 To help address these issues in relation to consulting businesses, Consult Australia recommended changing the Australian Consumer Law to enhance protections from unfair contract terms, and to limit the application of misleading or deceptive conduct claims.<sup>49</sup> In advocating to extend the current unfair contract terms protections, Consult Australia explained that:

By applying to all government contracts (including by commonwealth, state and territory, and local government clients), small consultancy businesses would have greater protection from unfair contract terms in government procurement than they do now. The key benefit of the ACL protections is the

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<sup>46</sup> The Australian Consumer Law is set out in Schedule 2 of the *Competition and Consumer Act 2010*.

<sup>47</sup> *Competition and Consumer Act 2010*, Schedule 2: The Australian Consumer Law, Chapter 2: General protections, Parts 2-3: Unfair contract terms, Section 24.

<sup>48</sup> Consult Australia, *Submission 27*, pp. 18-19.

<sup>49</sup> Consult Australia, *Submission 27*, p. 18.

independent adjudicator of what an unfair contract is, which is missing from the current arrangements between small businesses and government clients.<sup>50</sup>

5.51 The CCF supported collaborative arrangements as a solution to unfair risk allocation, noting that under collaborative arrangements:

...all parties share in the successes and failures of delivery. This set up does not create incentive for any participant to shift risk to another. Rather, it promotes effective risk identification and cooperative approaches to overcoming hurdles.<sup>51</sup>

#### *Unfair contract terms and the model client policy*

5.52 Consult Australia viewed unfair contract term protections and applying model client behaviours as complementary, and claimed that having both would provide greater protections, particularly for SMEs, from unfair contracting practices by government.<sup>52</sup> Consult Australia told the committee that it hopes the combination of the two would:

...minimise the 'take it or leave it' approach many government clients currently display when consultants seek amendments to the contracts presented to them by government clients (typically because they contain...onerous contract terms...). It is also hoped that it will lead to more government clients positively engaging with industry associations such as Consult Australia to find solutions and increase productivity for both industry and government.<sup>53</sup>

## **Traditional contracting**

5.53 Traditional contracting (or lump sum contracting) in infrastructure project delivery typically refer to contracts that, to varying degrees, allocate construction and design risk to suppliers. Historically this has been the most prevalent type of contract used in the delivery of infrastructure projects. The *National Framework for Traditional Contracting* sets out best practice in

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<sup>50</sup> Consult Australia, *Submission 27.1*, p. 12.

<sup>51</sup> CCF, *Submission 53*, p. 12.

<sup>52</sup> Consult Australia, *Submission 27.1*, p. 11.

<sup>53</sup> Consult Australia, *Submission 27.1*, p. 12.

traditional contracting for infrastructure projects to promote productivity improvement in planning and contracting.<sup>54</sup>

5.54 The Australian Constructors Association believes that while traditional contracts may be ‘perfectly suited for projects with a clearly defined scope and well understood risks’, they are less suited to more challenging and complex projects. For projects with greater uncertainties, it suggests that an alliance approach is ‘likely to deliver the best outcome’.<sup>55</sup>

5.55 Where there is a prevailing culture of risk shifting in procurement, in which ‘everyone wants an out on who to blame’, in practice the price for a low-cost option may only be seen as a starting point. The Australian Small Business and Family Enterprise Ombudsman commented that:

...savvy well-lawyered, well-resourced businesses will put a price in to win the work and then set their people to get the variations and game the process to get a margin.<sup>56</sup>

5.56 The Jacobs Group argued that traditional contract approaches are creating adversarial behaviours and leading to poor commercial outcomes. Instead, it advocated for collaborative style procurement and delivery models and outlined that:

With fewer adversarial contract settings, we could unlock market and supply chain potential by using programmatic and delivery partner models, allowing Australia to become an exemplar in the region and around the world for government-funded infrastructure, procurement and delivery.<sup>57</sup>

5.57 The Sydney CBD light rail dispute was highlighted as an example of where inadequate project scoping and risk mitigation in relation to utilities relocation had caused significant cost and time impacts:

The project ended up with a cost overrun of \$1 billion and a significantly delayed start to services, for which the contractor brought various claims against the NSW Government. Some headway is being made to mitigate risks

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<sup>54</sup> Department of Infrastructure, Transport, Regional Development and Communications, *National Guidelines for Infrastructure Project Delivery*, <https://www.infrastructure.gov.au/infrastructure/ngpd/index.aspx>, viewed 4 August 2021.

<sup>55</sup> Australian Constructors Association, *Submission 11*, p. 15.

<sup>56</sup> Hon Bruce Billson, Ombudsman, Australian Small Business and Family Enterprise Ombudsman, *Committee Hansard*, 10 November 2021, Canberra, p. 23.

<sup>57</sup> Mr Keith Lawson, Senior Vice President and General Manager, Asia Pacific and Middle East, Jacobs Group, *Committee Hansard*, 14 October 2021, Canberra, p. 27.

associated with utilities relocations. For example, early works packages have proven effective in mitigating this risk. In particular, early works packages procured under collaborative contracting models have been a useful mechanism for minimising the risks associated with utilities relocation.<sup>58</sup>

## Alliance contracting

- 5.58 Alliance contracting is an integrated procurement method for infrastructure projects.<sup>59</sup> Under an alliance contract a government client contractually works collaboratively with private suppliers—working as an integrated, collaborative team to deal with key project delivery issues. Risks of project delivery are often jointly managed by the parties, although financial exposure lies mostly with the relevant state or territory government. The *National Alliance Contracting Policy and Guidelines* set out a consistent national standard and promotes best practice in alliance contracts.<sup>60</sup>
- 5.59 However, the Georgiou Group, asserted there seems to be some reluctance by several state government departments to adopt ‘truly collaborative contracts’, instead opting for more conservative collaborative hybrids.<sup>61</sup>
- 5.60 The committee notes that alliance contracting is being used for the Victorian Level Crossing Removal Project, which involves removing 75 level crossings across Melbourne’s metropolitan road and rail network. The Department of Infrastructure, Transport, Regional Development and Communications noted that given the scale of the project, traditional contracting was not appropriate. Consequently, the Level Crossing Removal Authority in Victoria refined its model for the projects, and allowed the project to be broken into smaller, more manageable packages that were allocated and staged across five alliances.<sup>62</sup>
- 5.61 The Department of Infrastructure, Transport, Regional Development and Communications found that this approach incentivised sharing information and standardisation to improve design and the reliability and timeliness of

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<sup>58</sup> Infrastructure Australia, *Infrastructure market capacity*, October 2021, p. 147.

<sup>59</sup> Alliance contracting is known as integrated project delivery in the United States.

<sup>60</sup> Department of Infrastructure, Transport, Regional Development and Communications, *National Guidelines for Infrastructure Project Delivery*, <https://www.infrastructure.gov.au/infrastructure/ngpd/index.aspx>, viewed 4 August 2021.

<sup>61</sup> Georgiou Group, *Submission 9*, p. 2.

<sup>62</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 13.

delivery. This collaboration approach was able to establish a 'set menu' of materials and products in support of the project delivery.<sup>63</sup>

5.62 Other groups also recognised the work done in Victoria on the level crossing program. The BCA described the Level Crossing Removal Project as using a 'programme alliance' to drive longer-term decision-making to development and delivery.<sup>64</sup> Consult Australia outlined that the collaborative approach taken:

...saw multiple project teams collaborate on solutions, so a solution that was found in one area could be used for other areas of that same big program of works. They had regular meetings to share innovation, ideas, concerns and risks to really address issues early so that they could be resolved, and resolved across the whole spectrum of the removal project, rather than just in one area...<sup>65</sup>

5.63 However, Infrastructure Australia stressed that procurers must select an approach that is fit for purpose for a given project. While recognising the merits of Level Crossing Removal Authority's approach for those projects, Infrastructure Australia stated that it is 'also not appropriate to lift and shift that model to the range of other infrastructure assets being delivered'.<sup>66</sup>

5.64 Due to the focus on risk sharing in collaborative contracting frameworks, Australian Owned Contractors maintained that a collaborative environment provides much better opportunities to introduce mid-tier contractors into a head contract.<sup>67</sup>

## Public-private partnerships

5.65 Public-private partnerships (PPPs) are contracts between the public and private sectors, under which the government pays the private sector to deliver infrastructure and related services over the long-term. The *National PPP Policy and Guidelines* set out an agreed framework for the delivery of

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<sup>63</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 20.

<sup>64</sup> BCA, *Submission 38*, p. 6.

<sup>65</sup> Ms Kristy Eulenstein, Head of Policy and Government Relations, Consult Australia, *Committee Hansard*, 14 September 2021, Canberra, p. 3.

<sup>66</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 13.

<sup>67</sup> Mr Scott Power, Director, Australian Owned Contractors, *Committee Hansard*, 5 October 2021, Canberra, p. 29.

PPP projects. The guidelines are endorsed by Infrastructure Australia and all levels of government.<sup>68</sup>

- 5.66 Australian technology company Ansarada commented that Australia remains one of the most developed PPP markets—and generally attractive for foreign investors—due to the country’s healthy economy, political stability and reliable legal frameworks.<sup>69</sup>
- 5.67 Plenary Group Holdings—an independent investor, developer and manager of public infrastructure—believes that the Australian Government should be doing more to encourage the use of PPPs, particularly on projects funded jointly by the Australian Government and a state or territory.<sup>70</sup> It sees PPPs as providing distinct benefits for projects, as the private sector partners are ‘incentivised to provide better value for money for taxpayers’, bring innovation and provide a framework that can accommodate different approaches to risk allocation. The Plenary Group outlined that:
- PPPs are contracts for outcomes that incorporate both carrots and sticks to deliver on actual service quality over the long-term performance of the asset, whether that be customer satisfaction or hitting service delivery benchmarks over the term. Importantly, Plenary looks to invest long-term, and we retain some part of the equity in all of our projects. In that way, our interests are truly aligned with government, making sure the project works effectively over its entire life.<sup>71</sup>
- 5.68 The Plenary Group also emphasised that from a maintenance perspective, PPPs take a whole of life focus, so consequently this arrangement would avoid things like ‘having rolling stock off the track for 18 months’—as is the case with the Sydney CBD light rail project. The Plenary Group suggested that if this were to occur under a PPP, it would likely be a termination event. Further, it observed that local content typically plays a prominent part in

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<sup>68</sup> Department of Infrastructure, Transport, Regional Development and Communications, *National Guidelines for Infrastructure Project Delivery*, <https://www.infrastructure.gov.au/infrastructure/ngpd/index.aspx>, viewed 4 August 2021.

<sup>69</sup> Ansarada, *Submission 23*, pp. 5-6.

<sup>70</sup> Plenary Group, *Submission 20*, p. 2.

<sup>71</sup> Mr David Lamming, Chief Executive Officer, Plenary Group, *Committee Hansard*, 10 November 2021, Canberra, p. 8.



PPPs, with local content mandated in delivery, construction and now even for the maintenance and operations phase.<sup>72</sup>

5.69 North Projects did, however, suggest that the PPP model would benefit from ‘an overhaul of role archetypes’, and that government agencies should ‘employ and rely on their own resources to verify the proposed solution meets their identified requirements’.<sup>73</sup> This could be supported by the training and upskilling of government officials, particularly those involved in large scale projects. North Projects advised that it is involved in the following PPP projects:

- North East Link Project (Victoria)<sup>74</sup>
- West Gate Tunnel (Victoria)
- New Footscray Hospital (Victoria)—via the Exemplar Health consortium
- New Royal Adelaide Hospital
- Western Australian Schools project—delivering eight schools over five years.<sup>75</sup>

5.70 The BCA highlighted the New Footscray Hospital as an example of successfully selecting and implementing a contracting model that best suits the project, noting that a traditional PPP was used, with the risk allocation adjusted to ‘reflect a more balanced allocation of risks between the public and private sectors’.<sup>76</sup>

## Standard contracts and leading models

5.71 Standard form contracts are often used for construction and infrastructure projects in Australia. The underlying idea is to use contracts with which the client and industry are familiar. However, the committee heard that these contracts are also highly subject to amendments, which tend to benefit

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<sup>72</sup> Mr Damien Augustinus, Managing Director, Plenary Group, *Committee Hansard*, 10 November 2021, Canberra, p. 9.

<sup>73</sup> North Projects, *Submission 25*, p. 12.

<sup>74</sup> The North East Link project in Melbourne was intended to be produced as a traditional PPP. However, due to increased understanding of industry issues and recognition of the project risks, the Victorian Major Transport Infrastructure Authority amended the procurement process to include an Incentivised Target Cost model as part of the PPP. Australian Constructors Association, *Submission 11*, p. 12.

<sup>75</sup> North Projects, *Submission 25*, pp. 26-28.

<sup>76</sup> BCA, *Submission 38*, p. 6.

government clients and place potentially onerous demands on contractors and consultants.

- 5.72 The Australian Competition and Consumer Commission describes short form contracts as prepared by one party to the contract where the other party has limited opportunity to negotiate the terms—referring to them as ‘take it or leave it’ contracts. Factors that can be considered in determining what constitutes a standard form contract include whether:
- one of the parties has all or most of the bargaining power related to the transaction
  - the contract was prepared by one party before any discussion in relation to the transaction occurred between the parties
  - another party was:
    - in effect, required either to accept or reject the terms of the contract in the form in which they were presented, or
    - given an effective opportunity to negotiate the terms of the contract.<sup>77</sup>
- 5.73 The Australian Chamber of Commerce and Industry (ACCI) submitted that while government agencies generally rely on the Australian Standard General Conditions of Contract (AS4122), the practice of amending these standards—notably to include clauses that transfer risk to the private sector—can lead to poor project outcomes. Broadly, the ACCI supports the consistent use of standard form contracts, explaining that:
- The benefit of using standard form contracts is that it eliminates time spent negotiating novel clauses and drafting. The use of standard form contracts also ensure that clients have full transparency of contracting arrangements down the supply chain. The use of standard form contracts can increase market participation as small businesses are more likely to sign an AS4122 rather than a novel contract. This also drives better behaviours as the focus is on moving to project delivery rather than lengthy and costly disputation of novel clauses and liability frameworks. Greater cooperation of all tiers of government across jurisdictions could help to improve the use of contract clauses in procurement.<sup>78</sup>
- 5.74 The Australian Constructors Association recommended mandating standard forms of contracts be used for all Australian Government funded infrastructure projects. To support this, it also recommended establishing a

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<sup>77</sup> *Competition and Consumer Act 2010*, Schedule 2: The Australian Consumer Law, Chapter 2: General protections, Parts 2-3: Unfair contract terms, Section 27.

<sup>78</sup> Australian Chamber of Commerce and Industry (ACCI), *Submission 48*, p. 4.

national whole of government agency to develop and mandate the use of a standard suite of contracts covering different procurement models, 'instead of leaving contract development to individual agencies under a decentralised procurement system'.<sup>79</sup> The Australian Constructors Association suggested that mechanisms like the National Partnership Agreement on Land Transport Infrastructure Projects could be used to mandate standard forms of contract for these projects.<sup>80</sup>

5.75 Consult Australia also supported adopting standard contracts, stating that:

The adoption of standard contracts and the Model Client Policy together with guidance and training for procurement officers on risk, contracting, and insurance would result in greater productivity and reduced costs for governments because it would reduce requests for standard contract amendments and renegotiation of the terms on almost every project.<sup>81</sup>

5.76 Consult Australia submitted that certain government owned corporations are ahead of other government agencies in exploring standardised contracts as a mechanism to underpin collaboration on delivering projects, with Sydney Water adopting the NEC4 suite of contracts, and Snowy Hydro 2.0 basing its approach on the Federation of Consulting Engineers suite of contracts.<sup>82</sup>

5.77 The FIDIC and NEC suites of contracts are two of the most common standard form contracts used internationally for construction. Both are set up ideally for use without amendment, however, it is recognised that it is possible that on occasion, amendments may be needed to address specific project conditions. FIDIC and NEC contracts both emphasise collaboration between parties on a project.

### *NEC4 suite of contracts*

5.78 The UK's New Engineering Contract (NEC4) suite combines responsibility for usually disparate functions (design, construction, operation or maintenance) to support operational requirements procured from a single supplier. Notably, the suite can be used for the entire project life cycle and is

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<sup>79</sup> Australian Constructors Association, *Submission 11*, p. 15.

<sup>80</sup> Mr Jon Davies, Chief Executive Officer, Australian Constructors Association, *Committee Hansard*, 5 October 2021, Canberra, p. 2.

<sup>81</sup> Consult Australia, *Submission 27*, p. 16.

<sup>82</sup> Consult Australia, *Submission 27*, p. 15.

designed for global application. NEC4 contracts are used in the UK for most projects procured by national and local government bodies and agencies.

- 5.79 Since the original NEC contracts were published in 1993, there have been revisions to ensure that the contract suite remained not only relevant but leading in best practice contracting for engineering and construction. In 2017, an updated and streamlined version was published, with revisions that drew on unprecedented levels of user feedback together with consultation responses, industry development and emerging best practice.
- 5.80 According to the Australian Constructors Association, the NEC4 suite of contracts is widely recognised as the most collaborative standard form of contracts available.<sup>83</sup> The intended outcomes from using these contracts include improving performance and increasing standards by encouraging collaborative work to achieve shared project objectives.<sup>84</sup>
- 5.81 The NEC4 Engineering and Construction Contract is the most commonly used contract in the NEC suite. However, to address the complexity inherent in alliancing, the NEC4 Alliance Contract is a multiparty contract with an integrated risk and reward model, features not typical in other NEC4 contracts. The alliance contract allows for deeper collaboration between project parties and, with the focus on shared goals, seeks to reduce the potential for disputes.
- 5.82 Sydney Water has been recognised as an exemplar in being the first major infrastructure company in Australia to use the NEC contract approach to deliver new works.<sup>85</sup> The group extolled the merits of NEC contracts, particularly as ‘set-and-forget’ contracts that are very proactive and engaging from a program management perspective, and that ‘really encourage everybody to work in that spirit of mutual trust and cooperation upfront’.<sup>86</sup>

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<sup>83</sup> Australian Constructors Association, *Collaborative Australian construction contracting with NEC4*, Blog, 24 March 2021, <https://www.constructors.com.au/collaborative-australian-construction-contracting-with-nec4/>, viewed 1 March 2022.

<sup>84</sup> NEC, *NEC4 Dictionary*, <https://www.neccontract.com/About-NEC/NEC-Dictionary>, viewed 5 August 2021.

<sup>85</sup> University of Technology Sydney, *Groundwork: Insights from infrastructure leaders on how to make mega projects work for the Covid recovery*, January 2021, (Research Insights: WPS/UTC 2021), p. 13.

<sup>86</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 28.

- 5.83 As covered earlier in this chapter, Sydney Water is also notable for its use of the Project 13 enterprise model and partnering for success (P4S). The NEC's comprehensive range of agreements and payment options for procuring works, services and supplies across major regional infrastructure systems, means that the contracting suite is highly compatible with the Project 13 and P4S approaches.
- 5.84 Sydney Water has a collaborative framework contract in place for each of the regional consortia. When sharing its experience of the arrangement with the committee, Sydney Water explained that:
- When you work under the NEC suite of contracts it's a very simple form of contract to understand, in plain English and present tense, so you don't have to be a legal expert to be able to understand how to use these contracts. It is something that is built into your project delivery systems and processes. As opposed to some other contracts that could be standalone, and then you work and deliver, we've integrated the contracts into our entire way of operating and working as a business.<sup>87</sup>
- 5.85 Further, Sydney Water outlined that, in practical terms, the collaborative framework contracts are the head contracts and that 'every piece of work...[awarded] underneath those frameworks is basically a work order'.<sup>88</sup>
- 5.86 Sydney Water also commented that it had built an integrated suite of performance indicators and maturity measures into the framework, so that as well as looking at business as usual key performance indicators (on productivity, health, safety and environmental quality and customer advocacy), it is 'looking into the future' and fostering an environment for continued collaboration with its suppliers.<sup>89</sup>
- 5.87 To help support the wider adoption of NEC contracts in Australia, Sydney Water's Head of Program Delivery advised that he is a member of the NEC4 steering committee for Australia, which has been engaging widely:

...across the country to try and support others that are interested in understanding how [Sydney Water has]...put P4S together, how the NEC4

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<sup>87</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 30.

<sup>88</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 28.

<sup>89</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 30.

contract suite has applied and how that can be potentially utilised by those other groups and agencies.<sup>90</sup>

5.88 Similarly, the Georgiou Group saw scope for the wider application of NEC contracts in Australia, observing that these contracts have already demonstrated their value internationally. The Georgiou Group commented that beneficial features of the NEC form contracts include that they are written in clear, plain English, and encourage early engagement and best practice management.<sup>91</sup>

5.89 NEC contracts have also been trialled by other groups for projects in Australia. The Georgiou Group noted its use by Main Roads Western Australia for the Mitchell Widening project in Perth, and by Santos for upstream gas infrastructure.<sup>92</sup>

### *FIDIC contracts*

5.90 The International Federation of Consulting Engineers (FIDIC) suite of contracts are a comprehensive set of standard form contracts designed to be used between employers and contractors in international construction and engineering projects. The 2017 revised version of the FIDIC suite increased its emphasis on dispute avoidance.

5.91 The Snowy Hydro 2.0 project is using the FIDIC contract approach. This is a renewable energy project to deliver on the next chapter of the Snowy scheme to provide on-demand energy and large-scale storage.<sup>93</sup>

5.92 Consult Australia noted positively that, consistent with its advocacy, the FIDIC Consultant Model Services Agreement:

- does not include fitness for purpose, warranties or indemnities provisions
- clause 3.9.4 includes a standard of care that matches the common law standard, rather than an elevated standard that may be included in other

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<sup>90</sup> Mr Mark Simister, Head of Program Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 32.

<sup>91</sup> Mr Philip Larson, Business Development Manager, Georgiou Group, *Committee Hansard*, 5 October 2021, Canberra, p. 36.

<sup>92</sup> Georgiou Group, *Submission 9*, p. [4].

<sup>93</sup> FIDIC's Conditions of Contract for Underground Works (2019 Emerald book) includes extensive guidance for the preparation of tender documents and example forms for the Schedule of Baselines, the Completion Schedule and the Schedule of Contractor's Key Equipment.

contracts and is 'likely to trigger an exclusion in a consultant's professional indemnity insurance'

- clauses 8.1-8.4 retain proportional liability for consultants, rather than requiring consultants to contract it out<sup>94</sup>
- clause 8.3 reflects a more prudent approach to liability commensurate with the consultant's role, rather than uncapped liability and significant carve-outs, which 'does not encourage collaboration because neither party to the contract can be certain of what liabilities might arise during the project'
- clause 8.3 also reflects Consult Australia's preference for liability frameworks focused on liability for loss rather than insurance coverage.<sup>95</sup>

5.93 The point of interest for Consult Australia in relation to fit for purpose provisions is that as part of its advocacy it seeks to ensure that contract terms are not unduly onerous for consultants, particularly in areas where roles and responsibilities differ from the construction business. Fit for purpose obligations in contracts essentially promise an outcome and that failure to achieve the desired result will result in breach of the term, regardless of whether due skill and care was exercised by the supplier. On this point, Consult Australia argued that while fit for purpose terms are appropriate for contractors or constructors who build the final product, these terms are not appropriate for consultants who provide professional design or advisory services but do not build the final project. Instead, Consult Australia proposes that an appropriate standard of care is included in the relevant contract that better reflects the nature of services provided by consultants.<sup>96</sup>

5.94 Consult Australia also advised that some of its preferred positions on these issues are also provided for in the Australian Standard General Conditions of Contract for Consultants (AS4122-2010). Specifically, on the issues of standard of care, capping liability amounts, retaining proportionate liability,

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<sup>94</sup> Proportionate liability allows liability to be attributed to each party based on their degree of responsibility and so allows for appropriate risk allocation and encourages fairer dealings under the contract. Consult Australia's concerns about how proportionate liability is treated in contracts with consultants are discussed in Chapter 4.

<sup>95</sup> Consult Australia, *Submission 27.1*, pp. 5-10.

<sup>96</sup> Consult Australia, *Submission 27.1*, pp. 5-6.

restricting carve-outs, liability frameworks focused on loss not insurance, and not including warranties in consultant contracts.<sup>97</sup>

### *Defence contracts*

- 5.95 The Department of Defence has standard contracts that make its expectations of the supply chain clear, even for suppliers at arms-length from the department. This suite of contracts, published through the Defence Estate Quality Management System (DEQMS), includes the following contract types: Head Contract, Managing Contractor Contract, Design Services Contract, and Project Management or Contract Administration contract. Defence's targeted work on improving its sovereign industry capability is covered in Chapter 6.
- 5.96 In evidence to the committee there was some support for the wider application of Defence's contract approach.<sup>98</sup> It was noted that the defence contracts can be used by other agencies, and North Projects suggested that in cases where this has occurred it has 'produced a better outcome than if the project was performed under other standard contract'.<sup>99</sup>
- 5.97 The ACCI also acknowledged Defence's efforts in collaborating with industry and taking on industry concerns about constraints and barriers. The ACCI noted that the Defence Infrastructure Division participates in quarterly collaborative forums with consultants and contractors, which has led to 'changes that seek to balance the needs of industry but still protect the interests of the Commonwealth'.<sup>100</sup>

## **Committee comments**

- 5.98 It is recognised globally that collaboration between governments, and with industry, is key to effective infrastructure planning and project delivery. Embracing more collaborative approaches will help address adversarial behaviours that too often can lead to delays, cost blowouts and poor project outcomes. The committee believes that better collaboration on infrastructure projects is an important step towards ensuring that taxpayer dollars are well

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<sup>97</sup> Consult Australia, *Submission 27.1*, pp. 5-10.

<sup>98</sup> See ACCI, *Submission 48*, p. 8; HWL Ebsworth Lawyers, *Submission 52*, p. 4.

<sup>99</sup> North Projects, *Submission 25*, p. 15.

<sup>100</sup> ACCI, *Submission 48*, p. 8.



spent, and that Australians are getting quality and sustainable infrastructure.

- 5.99 The committee notes that many contributors to the inquiry saw potential for the greater use of standard contracts for government-funded projects. It agrees with Infrastructure Australia's assessment that the consistent use of standard form contracts, that support more collaborative behaviours and balanced risk allocation and management, is an opportunity for immediate reform.
- 5.100 The committee encourages governments at all levels to explore opportunities to apply best practice standard contracting approaches to projects in the Australian infrastructure pipeline. There are leading examples that governments can draw on, such as the work of the Department of Defence on collaboration and contracts, and Sydney Water—as an adopter of Project 13, the New Engineering Contract (NEC4) suite and partnering for success.



# 6. Australian industry capability

## *Sovereign capability and local content*

### **Australian sovereign industry capability**

- 6.1 Australian sovereign infrastructure industry capability can be viewed as Australia's independent capability to access, or control, the resources necessary to meet agreed infrastructure needs, such as the delivery of the current Australian infrastructure pipeline and other crucial requirements into the future. These requirements include Australia being able to access, or control, design expertise, rights to technical data, and production capability, with the ability to increase capacity at critical times.<sup>1</sup>
- 6.2 The committee notes the distinction between sovereign infrastructure industry capability and Australian Industry Content (or local content). In practical terms this means that the work to meet strategic infrastructure objectives does not necessarily have to be conducted in Australia. However, using Australian Industry Content for infrastructure projects is considered as desirable and important to help grow sustainable Australian businesses and serve the broader national interest.

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<sup>1</sup> Adapted, in part, from a definition of sovereign industrial capability priority – 'Sovereign Industrial Capability Priorities are industrial capabilities considered critical to Defence and for which Australia must have access to, or control over, the skills, technology, intellectual property, financial resources and infrastructure that underpin those capabilities.' See Bulletpoint, *Sovereign Industrial Capability Priority Grants*, <https://www.bulletpoint.com.au/sovereign-industrial-capability-priority-grants>, viewed 18 March 2022.

- 6.3 Economic modelling by Australian Owned Contractors (AOC) showed that ‘for every billion dollars in infrastructure projects a greater focus on Australian contractors leading the work led to a \$280 million to \$310 million benefit to the Australian economy’.<sup>2</sup>
- 6.4 In considering capability matters the committee noted the Department of Defence’s focus on building sovereign supply capability. Defence’s definition of defence industry capability is outlined in the *Defence Industrial Capability Plan* in the following terms:
- Defence sovereignty is the ability to independently employ Defence capability or force when and where required to produce the desired military effect. It does not automatically mean a defence capability has to be designed, developed or maintained in Australia, but it does mean Defence has to have access to a functioning defence capability (whether radars or tanks) as and when required.
- Australian defence industrial capability is the capability provided by Australian industry that contributes directly to the delivery of a defence capability. It becomes a sovereign industrial capability when Australia assesses it is strategically critical and must therefore have access to, or control over, the essential skills, technology, intellectual property, financial resources and infrastructure as and when required.<sup>3</sup>
- 6.5 In 2020, the Joint Standing Committee on Foreign Affairs, Defence and Trade (JSCFADT) inquired into the implications of the COVID-19 pandemic for Australia’s foreign affairs, defence and trade. In the report, JSCFADT examined the potential to use procurement practices to maximise Australian industry capacity and contribute to ‘the generation or sustainment of an Australian sovereign capability to supply a critical national system’.<sup>4</sup>
- 6.6 While the JSCFADT’s consideration relates to Australian industries broadly, and not specifically the infrastructure industry, the committee noted with interest the following JSCFADT report recommendations seeking to improve industry sustainability through procurement by:

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<sup>2</sup> Hon Bruce Billson, Ombudsman, Australian Small Business and Family Enterprise Ombudsman (ASBFEO), *Committee Hansard*, 10 November 2021, Canberra, p. 20.

<sup>3</sup> Department of Defence, *2018 Defence Industrial Capability Plan*, p. 17.

<sup>4</sup> Joint Standing Committee on Foreign Affairs, Defence and Trade (JSCFADT), *Inquiry into the implications of the COVID-19 pandemic for Australia’s foreign affairs, defence and trade*, December 2020, p. 118.

- Moving Australian Government support for Australian industry sectors supporting identified critical national systems away from purely grant-based assistance to the intentional use of procurement to build and sustain sovereign capability. (Recommendation 14)
- Modifying Commonwealth Procurement Rules and Accountable Authority Instructions to reflect Recommendation 14 by explicitly requiring procurement authorities to consider how the generation and sustainment of sovereign industry sectors that supply to critical national systems could be facilitated by:
  - Aggregation of demand across Commonwealth departments and where agreed, state government requirements, and
  - Phasing of procurement where the timeframe for delivery can be optimised to meet operational requirements and Australian industry capacity. (Recommendation 15)
- Adding a new subparagraph to paragraph 4.5 of the Commonwealth Procurement Rules dealing with assessing value for money, to the effect that officials must give a priority weighting to the extent to which a proposed project or individual procurement contributes to the generation or sustainment of a sovereign Australian industry capability which is providing nominated supplies to a critical national system. (Recommendation 16)<sup>5</sup>

6.7 The Department of Industry, Science, Energy and Resources observed that there is an opportunity for both government and industry to examine the impacts of procurement on how sectors are built. It explained that if Australia is committed to building strong sectors for the future, this will require:

...not only building capability within industry to bid into government contracts but also building capability in procurement officers in government agencies to understand the types of challenges that can be faced by industry in putting in applications for tenders.<sup>6</sup>

6.8 The Australian Workers' Union (AWU) contended that with Australia's sovereign capability 'currently under critical risk', governments should consider 'fully' using exemptions in trade obligations to support the nation's sovereign capabilities. The AWU outlined that:

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<sup>5</sup> JSCFADT, *Inquiry into the implications of the COVID-19 pandemic for Australia's foreign affairs, defence and trade*, December 2020, p. 119.

<sup>6</sup> Ms Donna Looney, Acting Head, Industry Growth Division, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 24.

These exemptions have been introduced to trade instruments like the Government Procurement Agreement for a reason – yet the Australian Government remains fearful to even suggest relying upon them, let alone test their boundaries. Although exemptions in relation to...SMEs are drawn upon by many states, there are several key exemptions with direct relevance to infrastructure that are rarely explicitly identified in procurement criteria, particularly in protecting Australia's national security and environment. These will become critical as geopolitical risk continues to increase from our trading partners and Australia takes the emerging opportunity to invest in the future of our manufacturing technologies.<sup>7</sup>

- 6.9 Energy was identified by some groups as an area of opportunity for developing Australian industry capacity. Australian solar panel company, Tindo Solar noted that Australia is currently transitioning to an energy system controlled by other countries, and that Australia would benefit if it could retain sovereign control over energy. To support this objective, Tindo Solar proposed that 'government procurement for energy infrastructure should contain at least a weighting for sovereign capability, if not a full criterion'.<sup>8</sup>

## International obligations

- 6.10 Australia is party to a range of free trade agreements, which are then implemented domestically through legislation and Commonwealth policy. Relevant international obligations have been incorporated into the Commonwealth Procurement Rules (CPRs). Paragraph 4.8 of the CPRs provides that policy operates within the context of relevant national and international agreements and procurement policies to which Australia is a signatory, including free trade agreements and the Australia and New Zealand Government Procurement Agreement.

## Free trade agreements

- 6.11 There are a range of free trade agreements (FTAs) in force in Australia and others are being negotiated.<sup>9</sup> FTAs are international treaties between two or more countries that aim to reduce or eliminate certain barriers to trade in goods and services, as well as investment.

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<sup>7</sup> Australian Workers' Union, *Submission 46*, p. [10].

<sup>8</sup> Tindo Solar, *Submission 60*, p. 6.

<sup>9</sup> Department of Foreign Affairs and Trade, *Australia's free trade agreements (FTAs)*, <https://www.dfat.gov.au/trade/agreements/trade-agreements>, viewed 16 March 2022.

- 6.12 FTAs place obligations on procurement by the Australian Government and states and territories. FTAs and other relevant international obligations are incorporated in the CPRs to cover Australian Government procurement, and each state and territory produces guidance for their procuring officials on meeting the relevant requirements.
- 6.13 A key condition of FTAs is that Australian Government entities do not discriminate against suppliers based on locality, size, degree of foreign ownership, or origin of goods and services. The CPRs relating to incorporating FTA obligations into government procurement set out that the procurement framework is non-discriminatory, with all potential suppliers to be treated equitably.<sup>10</sup>
- 6.14 The Department of Finance noted that FTAs allow Australian businesses ‘valuable access to overseas markets that are considerably larger than our own’.<sup>11</sup> The Australian Industry Group (Ai Group) also recognised the benefits of this access and suggested that the Australian Government explore increasing the number of FTAs that Australia is a party to as an opportunity to improve Australia’s sovereign capability.<sup>12</sup>
- 6.15 The Department of Defence told the committee that in the defence supply chain it had been successful in designing an integrated approach to market that works with the CPRs, recent reforms and the Australian Government’s policy priorities to support local businesses and Australian industry. Defence outlined that:

I think what's really important when you work through all of those free trade agreements is what the Australian government needs to achieve and then how you can manage through our international obligations. A really important part of what we do in Defence...is how we enable Australian industry to compete in those international markets. So, getting that balance right is important. One of the things we have done that's really helped us in this particular area in infrastructure is, as we develop project plans, developing and supporting local industry capability plans.<sup>13</sup>

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<sup>10</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 5 – Encouraging competition, paragraph 5.4

<sup>11</sup> Department of Finance, *Submission 13*, p. 3.

<sup>12</sup> Australian Industry Group (Ai Group), *Submission 51*, p. 10.

<sup>13</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

- 6.16 The Grattan Institute suggested that it was ‘open to question’ whether local content rules are consistent with obligations under FTAs.<sup>14</sup> While suggesting a review and reform of the ‘method and ease with which government procures from local industry’, commercial law firm HWL Ebsworth acknowledged that these opportunities would be subject to FTAs and international obligations, which ‘can prohibit such preference measures’.<sup>15</sup>
- 6.17 However, other groups saw more scope for supporting local content and growing Australian industry capacity while still meeting Australia’s international obligations. This is explored in the sections on local content and industry sustainability criteria in this chapter.
- 6.18 The Department of Finance advised that Indigenous procurement policy is consistent with Australia’s FTAs due to specific exemptions in the agreements for measures that support the economic and social advancement of Indigenous peoples.<sup>16</sup>

## **World Trade Organization Agreement on Government Procurement**

- 6.19 Australian Government procurement must comply with the World Trade Organization Agreement on Government Procurement (WTO GPA), which obliges parties to treat bids by suppliers from GPA parties and local providers on an equal footing and requires an independent, transparent dispute review process.
- 6.20 As well as placing obligations on Australia, the Australian Chamber of Commerce and Industry (ACCI) highlighted that the WTO GPA also provides Australian businesses with reciprocal access to the government procurement markets of ‘the 47 current GPA members worth approximately A\$2.5 trillion each year’.<sup>17</sup> The ACCI asserted that under the agreement Australian exporters:

...benefit from a level playing field in global government procurement markets, with businesses enjoying significantly expanded access to be able to bid for government procurement opportunities internationally...Opening up

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<sup>14</sup> Grattan Institute, *Submission 8*, p. 13.

<sup>15</sup> HWL Ebsworth Lawyers *Submission 52*, p. 2.

<sup>16</sup> Mr Andrew Danks, First Assistant Secretary, Procurement and Insurance Division, Commercial and Government Services, Department of Finance, *Committee Hansard*, 18 November 2021, Canberra, p. 33.

<sup>17</sup> Australian Chamber of Commerce and Industry (ACCI), *Submission 48*, pp. 7-8.



SMEs to the global community has much greater economic benefits to local firms and industries than discriminatory protectionist policies.<sup>18</sup>

## Foreign owned companies and investment

### Foreign owned companies

- 6.21 Ernst and Young market analysis of a sampling of Australian infrastructure projects in 2019 and 2021 showed that foreign owned companies had been awarded 61 per cent of total contracts and 74 per cent of the total contract value across all tiers and forms of contract.<sup>19</sup>
- 6.22 The committee notes that there are no longer any Australian owned tier one contractors. To put the above project allocation in the context of company tiers, tier one companies were awarded 50 contracts in 2019 (representing 32 percent of the value of the contracts) and 53 contracts in 2021 (representing 32 percent of the value). Tier two companies received 75 contracts in 2019 (representing 19 per cent value share) and 60 in 2021 (representing 24 per cent value share). For tier three companies it was 45 contracts in 2019 (representing 4 per cent value share) and 39 in 2021 (representing 9 per cent value share). The remainder of the projects sampled went to joint ventures, 43 contracts in 2019 (representing 45 per cent of overall contracts value) and 75 in 2021 (representing 35 per cent of overall value).<sup>20</sup>
- 6.23 AOC highlighted that currently all Australian major infrastructure projects above \$500 million are awarded to foreign tier one companies. AOC argued that in this regard Australia compares unfavourably to G10 (Group of Ten) countries, where 'they award 75 per cent or more of major infrastructure projects to companies owned within that country'.<sup>21</sup> AOC observed that despite having similar foreign investment rules, these governments'

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<sup>18</sup> ACCI, *Submission 48*, p. 8.

<sup>19</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 10.

<sup>20</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 10.

<sup>21</sup> Mr Brent Crockford, Chief Executive Officer, Australian Owned Contractors (AOC), *Committee Hansard*, 5 October 2021, Canberra, p. 27.

procurement practices and culture have ‘allowed local companies to grow and become a tier one’.<sup>22</sup>

- 6.24 AOC claimed that Australia’s current procurement practices for major transport infrastructure ‘overwhelmingly favour’ tier one contractors. Lamenting the loss of Australian tier one contractors, AOC commented:

What happened within Australia to change all this, and why is Australia so different? Australia has a proud history of creating great Australian construction companies: Leighton, Thiess, John Holland, Baulderstone, Abi Group, Lendlease, Transfield and Multiplex – to name a few. All of these companies grew from very small family businesses with the procurement practices that allowed them to participate in major projects. Why have Australian governments, state and federal, and their agencies allowed the delivery of major projects to evolve into an oligopoly? In many cases government agencies have allowed foreign tier one contractors to enter joint ventures with other foreign tier one contractors, with no mid-tier or Australian company in the head project.<sup>23</sup>

- 6.25 The Georgiou Group also noted that the top tier of civil construction companies operating in Australia are foreign owned, and:

...come with a considerable bank balance behind them guaranteed by international parent companies, they deliver the bulk of major infrastructure projects around Australia and therefore most of the profits migrate offshore.<sup>24</sup>

- 6.26 The Department of Finance clarified that where procurers must also consider economic benefits to the Australian economy as part of assessing value for money on a project, this does not necessarily mean using an Australian supplier.<sup>25</sup> The Department of Finance noted that projects delivered by foreign owned companies also benefit the Australian economy.<sup>26</sup>

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<sup>22</sup> Mr Brent Crockford, Chief Executive Officer, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 27.

<sup>23</sup> Mr Brent Crockford, Chief Executive Officer, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 27.

<sup>24</sup> Georgiou Group, *Submission 9*, p. [3].

<sup>25</sup> For procurements over \$4 million, or over \$7.5 million for construction services. See CPRs, Division 1: Rules for all procurements, Section 4 – Value for money, paragraph 4.7.

<sup>26</sup> Mr Andrew Danks, First Assistant Secretary, Procurement and Insurance Division, Commercial and Government Services, Department of Finance, *Committee Hansard*, 18 November 2021, Canberra, p. 30.

## Attracting foreign investment

- 6.27 Australian technology company Ansarada noted that Australia is ‘one of the world’s most desirable recipients for foreign infrastructure investment’, due to its healthy economy, political stability and reliable legal frameworks. Ansarada suggested that:
- Australia could utilise foreign investment and utilise best-practice procurement design and technology to ensure that critical information stays on-shore, key decisions are made in the best interest of the Australian people and that all procurement activities are recorded and auditable.<sup>27</sup>
- 6.28 Infrastructure Australia, in its *2021 Australian Infrastructure Plan*, supported focusing on maintaining global competitiveness to ensure the sector remains attractive to foreign organisations and investment. It outlined that reforming procurement practices would help ‘create a more attractive infrastructure market’ and drive cultural changes.<sup>28</sup>
- 6.29 Australia’s foreign investment framework involves reviewing major foreign investment proposals on a case-by-case basis through the Foreign Investment Review Board (FIRB), a non-statutory advisory body, to ensure that these proposals are consistent with Australia’s national interest. The framework is set by the *Foreign Acquisitions and Takeovers Act 1975* and the *Foreign Acquisitions and Takeovers Fees Impositions Act 2015*, along with associated regulations.
- 6.30 Significant reforms<sup>29</sup> to Australia’s foreign investment framework were announced in June 2020, came into effect on 1 July 2021, and were subsequently evaluated.<sup>30</sup> In its evaluation, Treasury found that the reforms have achieved the government’s intentions, particularly by enabling scrutiny of investments that may pose national security risks that previously were

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<sup>27</sup> Ansarada, *Submission 23*, pp. 5-6.

<sup>28</sup> Infrastructure Australia, *Reforms to meet Australia’s future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 274.

<sup>29</sup> The *Foreign Investment Reform (Protecting Australia’s National Security) Act 2020* and the *Foreign Acquisitions and Takeovers Fees Imposition Amendment Act 2020* included a package of reforms to improve and update the operation of the framework across national security, compliance monitoring and enforcement, and integrity as well as streamlining requirements and making technical changes to improve the operation of the law. It also simplified existing fee arrangements.

<sup>30</sup> Section 4 of the *Foreign Investment Reform (Protecting Australia’s National Security) Act 2020* required that the Treasury Secretary evaluate the reforms over their first year.

not subject to scrutiny. Additionally, that it was 'too early to determine whether the reforms have affected foreign investment flows into Australia or the broader economy'.<sup>31</sup>

- 6.31 In its submission, the Civil Contractors Federation (CCF), the peak body representing Australia's civil construction industry, noted that it had provided input into the draft Foreign Investment Reform (Protecting Australia's National Security) Bill 2020. CCF's contribution focused on the legislative framework applied to foreign owned contractors undertaking major civil infrastructure projects in Australia, and included a recommendation encouraging the Australian Government to use the foreign investment framework reforms process to 'achieve greater industry sustainability by adopting a more balanced project allocation policy'.<sup>32</sup> The CCF proposed that ways to achieve this could include disaggregation of contract size, procurement reform and focusing on contracting models to ensure tier two and three contractors secure more work and can mature.<sup>33</sup>
- 6.32 While acknowledging the ongoing interest and involvement of foreign owned companies tendering for Australian civil construction projects, CCF expressed support for:

...a more balanced approach to the tender process to support industry sustainability and the broader national interest by maximising the return to the Australian economy of taxpayer funded civil construction projects.<sup>34</sup>

## Improving access for small and medium enterprises

- 6.33 Competition is one of the key elements of the CPRs that underpin Australian Government procurement, with procurement processes required to be non-discriminatory.<sup>35</sup>
- 6.34 However, recognising the challenges facing SMEs in accessing government project opportunities particularly for larger and complex projects, provision is also made to help ensure that SMEs can compete in Australian government procurement practices.

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<sup>31</sup> The Treasury, *Evaluation of the 2021 foreign investment reforms: Final report*, December 2021, p. 3.

<sup>32</sup> Civil Contractors Federation (CCF), *Submission 53*, p. 22.

<sup>33</sup> CCF, *Submission 53*, p. 22.

<sup>34</sup> CCF, *Submission 53*, p. 21.

<sup>35</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 5 – Encouraging competition, paragraph 5.4.

- 6.35 Accordingly, when assessing value for money, officials should consider: the benefits of doing business with competitive SMEs; barriers to entry preventing SMEs competing such as the bidding costs; SMEs' capabilities and their commitment to local or regional markets; and the potential benefits of having a larger, more competitive supplier base.<sup>36</sup>
- 6.36 The section also commits non-corporate Commonwealth entities to sourcing at least 10 per cent of procurement by value from SMEs and recognises the importance of paying suppliers on time.
- 6.37 Hughes et al highlighted receiving constructive feedback following the tender process as an important learning opportunity for companies.<sup>37</sup> The committee notes that the Department of Finance's Selling to Government webpage advises that tenderers can view an unsuccessful tender process as a chance to learn and improve their offering for the next opportunity. Unsuccessful tenderers are entitled to request a debriefing from the procurement officer after the completion of every approach to market, and that some agencies regularly offer these debriefing sessions.<sup>38</sup>
- 6.38 AOC contended that having an Australian contractor deliver a project provided distinct flow on benefits that are not necessarily the case with foreign owned companies. AOC indicated that in its members' experience, Australian owned companies often provide the benefit of being in and part of their local communities, and outlined that:

As the research that we've developed and provided shows, contracting with Australian contractors means the amount of money that's spent in the Australian economy is increased significantly, as opposed to making that same investment with foreign companies. So, in terms of the benefit that flows from investing in and supporting Australian versus foreign companies, there's a material difference in the outcome. In terms of jobs, the reality is that civil construction is a local business. We need locals on the ground delivering those projects, and they will be Australians.<sup>39</sup>

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<sup>36</sup> Department of Finance, *Commonwealth Procurement Rules*, Division 1: Rules for all procurements, Section 5 – Encouraging competition, paragraph 5.5.

<sup>37</sup> Hughes et al, *Submission 18*, p. 2.

<sup>38</sup> Department of Finance, Selling to Government, Frequently asked questions, *The outcome*, <https://sellingtogov.finance.gov.au/faqs/outcome>, viewed 10 March 2022.

<sup>39</sup> Mr Scott Power, Director, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 31.

- 6.39 To foster a more sustainable and competitive sovereign industry, the Georgiou Group called on Australian governments to provide a framework to ‘genuinely require mid-tier contractor engagement’, which it suggested could be done by making it a condition of project funding.<sup>40</sup>

## Unbundling projects

- 6.40 It is well recognised that breaking large projects down into smaller packages (unbundling) significantly improves the ability of mid-tier firms to access government-funded infrastructure project opportunities.
- 6.41 Evidence to the committee indicated that breaking up mega projects (worth over \$1 billion) into smaller packages is a common approach taken overseas, which helps SMEs to bid for contracts and then ‘gradually grow’ in major players internationally.<sup>41</sup>
- 6.42 AOC contended that the lack of competition and market concentration of tier one contractors is exacerbated by the trend towards mega projects.<sup>42</sup> It suggested that breaking projects into smaller packages—ideally below \$500 million—will allow smaller domestic and international companies to participate and as a result create capability.<sup>43</sup>
- 6.43 The Australian Small Business and Family Enterprise Ombudsman (ASBFEO) agreed that governments ‘should do more to unbundle procurement contracts into more manageable components for small businesses’.<sup>44</sup>
- 6.44 The Business Council of Australia (BCA) called for urgent action ‘to unlock delivery of today’s mega projects and to better utilise available market capacity’.<sup>45</sup> The BCA supported a joint effort by governments and industry to improve tier two and three capability and capacity, enabling these companies to take on increasingly complex projects. It outlined that this could involve governments:

...[putting] programmes of projects to market that build the capacity and capability of tier two and three contractors over time. These programmes

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<sup>40</sup> Georgiou Group, *Submission 9*, p. [4].

<sup>41</sup> AOC, *Submission 30*, p. 23.

<sup>42</sup> AOC, *Submission 30*, p. 6.

<sup>43</sup> Mr John Georgiou, Director, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 30.

<sup>44</sup> ASBFEO, *Submission 42*, p. [2].

<sup>45</sup> Business Council of Australia (BCA), *Submission 38*, p. 5.

should increase in complexity...to the point that some tier two contractors are bidding for mega projects in the medium term.<sup>46</sup>

- 6.45 The CCF submitted that a sustainable level of project allocation to mid-tier contractors that recognises local content will deliver community benefits that include:
- higher local employment opportunities
  - increased and upskilled local workforce, and
  - higher economic growth in the local community, and local economic multiplier.<sup>47</sup>
- 6.46 While breaking up projects does not automatically result in local participation, Master Builders Australia observed that seems to have been the case for Defence. It provided an example of Defence facilities upgrade works around Australia which were unbundled into 14 contracts, where historically it would have come under one contract. This permitted using greater local capability for works in a specific area, for instance, in the Newcastle contract local workers were used rather than bringing in Sydney workers to undertake the project.<sup>48</sup>
- 6.47 While supporting the principle of unbundling projects, both government and industry recognised that not all projects are suitable to be broken into smaller works. AOC emphasised this point well with the light-hearted example that one ‘cannot build half a bridge or half a tunnel’. It also raised the significant opportunity costs of breaking down projects, where packaging could have delivered other project efficiencies or benefits.<sup>49</sup>
- 6.48 In cases where unbundling is not feasible, requiring tier one companies to partner with tier two or three companies was proffered as an alternative to supporting mid-tier engagement in infrastructure projects, perhaps through industry sustainability criteria in the tender process.
- 6.49 The Georgiou Group encouraged governments to consider both unbundling and mandating mid-tier participation for large mega projects in Australia. The group argued that it was not questioning the need for, nor value of,

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<sup>46</sup> BCA, *Submission 38*, p. 7.

<sup>47</sup> CCF, *Submission 53*, p. 15.

<sup>48</sup> Mrs Denita Wawn, Chief Executive Officer, Master Builders Australia, *Committee Hansard*, 5 October 2021, Canberra, p. 9.

<sup>49</sup> Mr Scott Power, Director, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 28.

tier one companies in delivering Australia's infrastructure. Rather, it saw these approaches as a way to support more infrastructure being delivered by Australian owned companies, 'therefore developing local capability, which will increase the sustainability of the Australian infrastructure market'.<sup>50</sup>

## Industry sustainability criteria

- 6.50 Where it is not possible to break larger projects up, AOC proposed that government should use an industry sustainability requirement. Main Roads Western Australia (WA), for example, has incorporated industry sustainability plans into major projects to manage impacts and leverage opportunities for sustainability or social responsibility within project supply chains.<sup>51</sup>
- 6.51 An example of Main Roads WA applying such an approach in practice was the Bunbury Outer Ring Road project.<sup>52</sup> Driven by the WA Government's identified need for healthy competition in the delivery pipeline of the state's infrastructure, Main Roads WA specified tier two or three participation within the project's tender documentation. The objective was to encourage tier one companies to joint venture with mid-tier companies.<sup>53</sup>
- 6.52 The \$852 million Bunbury Outer Ring Road project is 80 per cent Australian Government funded and 20 per cent state funded. Under the alliance structure and composition section, tender applicants for the project were asked to provide details of the proposed structure and relationship between non-owner participants in the Alliance, including any proposed tier two or tier three prequalified road and bridge contractors.<sup>54</sup> The section provided that preference would be given to applicants that have committed to building capacity and capability of local industry, in particular the construction industry. The industry sustainability criteria had a weighting of 10 per cent, in line with other key selection criteria such as project management, and design and construction capability.

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<sup>50</sup> Mr Robert Monaci, Chief Executive Officer, Georgiou Group, *Committee Hansard*, 5 October 2021, Canberra, p. 34.

<sup>51</sup> Main Roads Western Australia, Sustainability Supplement: Additional Disclosures, *Main Roads Annual Report 2021*, p. 31, <https://annualreports.mainroads.wa.gov.au/AR-2021/assets/Uploads/Sustainability%20Supplement%202021.pdf>, viewed 15 March 2022.

<sup>52</sup> Mr John Georgiou, Director, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 30.

<sup>53</sup> Georgiou Group, *Submission 9*, p. [3].

<sup>54</sup> AOC, *Submission 30*, p. 19.



- 6.53 AOC submitted that it was intended, but not mandated, that companies responding to the expression of interest for the Bunbury Outer Ring Road would include a tier two or three contractor in its delivery consortium—providing an opportunity for mid-tier companies that, AOC maintained, would not otherwise have occurred.<sup>55</sup> Ultimately, the outcome was a positive one for local industry participation—the project was awarded to the Southwest Connex Alliance, comprising the international tier one Acciona, AECOM, Aurecon and two Australian owned contracting firms MACA and NRW Holdings.<sup>56</sup>
- 6.54 Other examples of where industry sustainability criteria have been used in tender criteria, or where packages have been made smaller, and Australian owned mid-tier contractors have been successful include the jointly-funded Bruce Highway Cooroy to Curra (Section D) road upgrade, M1 Pacific Motorway—Varsity Lakes to Tugun project, M1 Pacific Motorway—Eight Mile Plains to Daisy Hill project.<sup>57</sup>
- 6.55 In contrast, AOC claimed that large projects that do not include industry sustainability criteria or are not unbundled, are ‘almost wholly awarded’ to tier one contractors.<sup>58</sup> AOC recommended that the Australian Government:
- ...mandate the inclusion and assessment of industry sustainability criteria as a part of the early-stage procurement process. This has the effect of encouraging mid-tier participation within head contract roles and should be included in the federation funding agreements [FFAs] for each project. Meeting these two requirements should be a condition of Commonwealth funding for all major projects.<sup>59</sup>
- 6.56 AOC saw including industry sustainability and unbundling requirements in FFAs as a way to establish these as accepted expectations for government-funded infrastructure projects.<sup>60</sup>

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<sup>55</sup> AOC, *Submission 30*, p. 19.

<sup>56</sup> AOC, *Submission 30*, p. 19.

<sup>57</sup> AOC, *Submission 30*, p. 10.

<sup>58</sup> AOC, *Submission 30*, p. 10.

<sup>59</sup> Mr Brent Crockford, Chief Executive Officer, AOC, *Committee Hansard*, 5 October 2021, Canberra, p. 27.

<sup>60</sup> AOC, *Submission 30*, p. 14.

- 6.57 AOC asserted that international obligations should not influence Australian Government policy development in this area, ‘particularly where industry sustainability seeks to develop an underdeveloped section of the economy, in this case mid-tier companies within the civil construction industry’.<sup>61</sup>

## **Insurance, retention and surety requirements**

### *Insurance market challenges*

- 6.58 Evidence to the committee suggested that the current insurance requirements and the nature of the insurance market can act as a barrier to SME participation in large infrastructure projects. The Jacobs Group submitted that:
- Smaller contractors, including majority Australian owned ones, are unable to bid directly (or in joint venture) for mega projects, especially when unlimited liability and project specific insurance requirements make the risk profile or cost of bidding unacceptable.<sup>62</sup>
- 6.59 Infrastructure Australia acknowledged that the tendency for government procurers and head contractors to shift risk to subsidiaries can result in, for instance, an advisor or designer on a project having to ‘rely on their insurance as penalties soar and then in time the pressures that we see now with the hardening professional indemnity [PI] insurance market’.<sup>63</sup>
- 6.60 The insurance implications for risk shifting from clients to contractors is raised in the Chapter 4 discussion on risk. North Projects observed that the insurance industry has been the ‘only winner’ of the circumstances of duplicated liabilities insurance and unnecessary risk pricing.<sup>64</sup> As outlined in Chapter 4, North Projects and other submitters see the alliance form of contracting as a good model for sharing risk.
- 6.61 Market soundings with leading contractors and insurers in the October 2021 *Infrastructure Market Capacity* report highlighted that insurance market changes are significantly impacting the delivery component of the infrastructure value chain. The report outlined that:

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<sup>61</sup> AOC, *Submission 30*, p. 22.

<sup>62</sup> Jacobs Group, *Submission 35*, p. 2.

<sup>63</sup> Mr Peter Colacino, Chief, Policy and Research, Infrastructure Australia, *Committee Hansard*, 18 November 2021, Canberra, p. 13.

<sup>64</sup> Mr Michael James, Associate Director, North Projects, *Committee Hansard*, 16 November 2021, Canberra, p. 29.

These changes are being driven by the size and complexity of the infrastructure program and the desire to transfer 100 per cent of the risk and insure against delay risk. Market proponents have estimated a 50 per cent reduction in the capacity of insurance for the construction market as the costs continue to rise.

The impact is most pronounced within professional indemnity where there is a challenge in understanding the contractor requirements, with market proponents having seen the amount of PI insurance [coverage] decrease from \$150–200 million to around \$50–60 million. There is a shift to more defined policies with less coverage, while contractors are being influenced by their insurance coverage in their decisions to bid.<sup>65</sup>

- 6.62 ASBFEO has called on the Australian Government to take urgent action to ensure that SMEs can access essential insurance products like public liability and noted reports of SMEs being denied insurance or having their premiums tripled, effectively pricing them out of the market.<sup>66</sup>
- 6.63 Consult Australia expressed concern about the implications of insurance challenges for consulting businesses and claimed that the infrastructure sector is experiencing ‘significantly diminished access’ to professional indemnity insurance ‘because Australia’s building and construction sector is now considered one of the highest risk industries in the world for PI insurance’.<sup>67</sup>
- 6.64 While Consult Australia acknowledged that insurance issues are affecting businesses of all sizes, it submitted that its small business members have advised that ‘PI insurance premiums are their largest business expense and year on year premiums are increasing while coverage amounts decrease’.<sup>68</sup> Further, similar to ASBFEO findings, Consult Australia is also seeing forced closures of SMEs and sole traders, and early retirements, ‘based solely on the fact they can no longer get insurance at any price (let alone at an affordable premium)’.<sup>69</sup>
- 6.65 Consult Australia noted that Infrastructure Australia’s *2021 Australian Infrastructure Plan* highlights the current crisis in the profession indemnity insurance market and has confirmed Consult Australia’s call to action for

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<sup>65</sup> Infrastructure Australia, *Infrastructure Market Capacity*, October 2021, p. 148.

<sup>66</sup> ASBFEO, *Media release*, ‘Small businesses closing doors amid public liability insurance crisis’, 22 January 2021.

<sup>67</sup> Consult Australia, *Submission 27*, p. 9.

<sup>68</sup> Consult Australia, *Submission 27*, p. 11.

<sup>69</sup> Consult Australia, *Submission 27*, p. 12.

governments to work with industry to 'de-risk the market through appropriate risk allocation'.<sup>70</sup>

- 6.66 The *National Study of Infrastructure Risk: A report from Infrastructure Australia's Market Capacity* released in October 2021, found in relation to market capacity that the 'single most critical factor' in delivering projects in the infrastructure pipeline was to ensure the sustainability of the Australian contractor market. Noting that the hardened PI market was acting as a major constraint on consultants, one of the identified actions was to undertake a review of the market conditions for infrastructure insurance.<sup>71</sup>

### *Retention and surety issues*

- 6.67 Apricity Finance Group contended that the issues around retention clauses and surety bonds is 'a serious overlooked issue' that has prevented many Australian SMEs from participating in the large infrastructure stimulus projects program.<sup>72</sup>
- 6.68 Retention clauses are a traditional part of construction contracts, whereby a fixed percentage of the total payment for a contract is withheld for a determined period after the work is completed, as security to ensure that a contractor or subcontractor properly completes the contracted work to the client or head contractor's satisfaction. It is typically around 5 per cent to 10 per cent of the contract value held by the head contractor.
- 6.69 When applied, for example, to contracts valued at \$20 million plus that run over a two-year period, in practical terms, this means that an SME would have \$2 million or more 'put away' for an extended period, with the problem further compounded if they are working on several concurrent projects.<sup>73</sup>
- 6.70 Apricity Finance expressed concern about these requirements impeding one of the intended purposes of the infrastructure stimulus spending; to support Australian businesses. It submitted that:

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<sup>70</sup> Consult Australia, *2021 Australian Infrastructure Plan: Consult Australia's Advocacy Highlights*, 3 September 2021, p. 1.

<sup>71</sup> Infrastructure Australia, *National Study of Infrastructure Risk: A report from Infrastructure Australia's Market Capacity*, October 2021, p. 15.

<sup>72</sup> Mr Linden Toll, Chief Executive Officer, Apricity Finance Group, *Committee Hansard*, 10 November 2021, Canberra, p. 19.

<sup>73</sup> Mr Linden Toll, Chief Executive Officer, Apricity Finance Group, *Committee Hansard*, 10 November 2021, Canberra, p. 19.

We see this as an enormous bottleneck to the great work of the Government to stimulate the economy with infrastructure projects. The injection of \$10 billion plus out to tier one construction groups (with the view that this will flow to tier two and three groups) means that potentially small businesses will need to collectively find \$1 billion in guarantees to be able to work on the projects—a request that simply can't be fulfilled.<sup>74</sup>

- 6.71 Further, Apricity Finance argued that beyond traditional retention clauses in construction contracts, in recent years there has also been 'an emerging requirement' for SME subcontractors on large infrastructure and mining projects to also provide 'bank guarantees, performance or surety bonds' on these projects.<sup>75</sup> It observed that the intended opportunities for SMEs in the bolstered pipeline of infrastructure projects 'may unfortunately be in vain if the performance bonds and bank guarantees status quo continues'.<sup>76</sup>
- 6.72 Apricity Finance asserted that the surety bond market is 'becoming tougher', with its research showing that only around five providers of performance bonds remain in the Australian market, and that there are 'extremely high hurdles' that businesses must meet. Apricity Finance's Chief Executive Officer told the committee that:

These products are underwritten by an insurance company, and the insurers are now requiring evidence of annual revenues in excess of \$20 million but more commonly \$50 million, a minimum of three years' trading accounts with each one being profitable, a clear line of sight to company assets, and a growing emergence of directors' backgrounds being reviewed for such items as moral risk...One adverse element means that underwriting will be declined.<sup>77</sup>

- 6.73 Similarly, the ASBFEO stressed the importance of 'right-sizing requirements throughout the supply chain', noting that many SMEs seek loans to meet contractual requirements thus further reducing their capacity to engage in projects.<sup>78</sup>

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<sup>74</sup> Apricity Finance Group, *Submission 49*, p. 1.

<sup>75</sup> Mr Linden Toll, Chief Executive Officer, Apricity Finance Group, *Committee Hansard*, 10 November 2021, Canberra, p. 19.

<sup>76</sup> Apricity Finance Group, *Submission 49*, p. 2.

<sup>77</sup> Mr Linden Toll, Chief Executive Officer, Apricity Finance Group, *Committee Hansard*, 10 November 2021, Canberra, p. 19.

<sup>78</sup> ASBFEO, *Submission 42*, p. 1.

## Local content

- 6.74 The committee notes that what constitutes ‘local’ content can vary significantly. Hughes et al, an advisory firm on local content best practice, suggested that the source of the confusion could be the Australian Government’s definition, noting that for major projects of over \$500 million ‘local’ includes all of Australia and New Zealand. Hughes et al observed that while this may make sense in the context of participating in the global economy and to align with FTAs, ‘at a day-to-day level, this definition of local is more likely to confuse and dilute meaningful support’.<sup>79</sup>
- 6.75 The Department of Defence does not have a set definition for local and tailors it for each project, based on the geography of where the work is being delivered.<sup>80</sup>
- 6.76 Hughes et al found that state government definitions were not necessarily any better. As a practitioner of local content best practice, Hughes et al recommended ‘clarifying what local means’ and clarifying ‘industry, supply and employment’, as necessary for improving outcomes for local industry.<sup>81</sup> The Hughes et al *Project Directors Local Content Guidance Note* provides detailed guidance on local content best practice.<sup>82</sup>
- 6.77 There has been a substantial increase in the use of measures favouring domestic industries over foreign competitors in recent years to support governments in pursuing certain policy objectives. The Organisation for Economic Co-operation and Development (OECD) notes that local content requirements (LCRs) are the fastest growing of these domestically focused measures. It describes LCRs as policies imposed by governments that require firms to use domestically manufactured goods or domestically supplied services in order to operate in an economy.<sup>83</sup>
- 6.78 Despite the popularity of these measures, the OECD questioned the effectiveness of LCRs at the macroeconomic level and noted that sector-

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<sup>79</sup> Hughes et al, *Project Directors Local Content Guidance Note*, Revision 1.0, September 2020, p. 15.

<sup>80</sup> Mr Daniel Fankhauser, First Assistant Secretary, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 44.

<sup>81</sup> Hughes et al, *Submission 18*, p. 4.

<sup>82</sup> Mr Ben Hughes, Managing Director, Hughes et al, *Committee Hansard*, 10 November 2021, Canberra, p. 16.

<sup>83</sup> Organisation for Economic Co-operation and Development (OECD), *Local content requirements*, <https://www.oecd.org/trade/topics/local-content-requirements/>, viewed 16 March 2022.

specific studies have 'generally concluded that while LCR policies may achieve certain short-term objectives, they undermine industrial competitiveness and overall employment over the long-run'.<sup>84</sup>

- 6.79 In contrast, in Laing O'Rourke's experience, the company has found that the collaborative forms of contracting supporting the connections between project participants to local content and other non-financial outcomes are 'effective at delivering value to the client [and] better facilitating increased local content'.<sup>85</sup> Laing O'Rourke also identified increased training and upskilling on projects, and maximising engagement with social and indigenous enterprises, as important legacy benefits from these arrangements.
- 6.80 While in terms of sourcing local content, Hughes et al identified early market engagement as key to being able to assess the market for capability, and ultimately to better local content and economic outcomes.<sup>86</sup>

## **Australia and New Zealand Government Procurement Agreement**

- 6.81 The Australia and New Zealand Government Procurement Agreement (ANZGPA) is an agreement between the Australian Government, the New Zealand Government and Australia's states and territories to create and maintain a single ANZ government procurement market to maximise opportunities for competitive ANZ suppliers and reduce costs of doing business for both government and industry.
- 6.82 ANZGPA applies to government procurement that is controlled by the parties to the agreement. It does not include procurement by local authorities, government owned corporations, body corporates or other legal entities, except where a party exercises its discretion to determine that the ANZGPA will apply to the procurement.

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<sup>84</sup> OECD, *Local content requirements*, <https://www.oecd.org/trade/topics/local-content-requirements/>, viewed 16 March 2022.

<sup>85</sup> Laing O'Rourke, *Submission 36*, p. 8.

<sup>86</sup> Mr Ben Hughes, Managing Director, Hughes et al, *Committee Hansard*, 10 November 2021, Canberra, p. 13.

## Supporting industry participation

### *Australian Industry Participation*

- 6.83 The Australian Industry Participation (AIP) Framework consists of a national agreed set of objectives, principles and strategies that aim to strengthen industry participation and build on existing arrangements.
- 6.84 AIP plans are required by the *Australian Jobs Act 2013* for major projects with estimated capital expenditure of \$500 million or more and are a productive facility, and for projects that receive Australian funding of \$20 million or more.
- 6.85 Under the National Partnership Agreement (NPA) on Land Transport Infrastructure Projects (2019-2024), which has now been consolidated into the Federation Funding Agreement on Infrastructure,<sup>87</sup> jurisdictions must develop and implement a Local Industry Participation Plan (LIPP) or an AIP plan for all infrastructure projects receiving over \$20 million from the Australian Government.<sup>88</sup>
- 6.86 The Australian Industry Participation Authority is a full-time statutory position, established by the *Australian Jobs Act 2013*. It is responsible for evaluating, approving and publishing summaries of AIP plans for major Australian projects, as well as monitoring compliance and reporting on the implementation of plans.
- 6.87 Work by the Department of Finance and the Department of Industry, Science, Energy and Resources to improve Australian business participation in government procurement has included undertaking an 'industry scan' to better understand the challenges facing businesses. It was found that risk shifting featured prominently in industry concerns as a barrier to participation.<sup>89</sup>

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<sup>87</sup> See Chapter 3 discussion on the Federation Funding Agreements Framework established in August 2020 covering the new governance arrangements for Australian Government and state and territory funding agreements.

<sup>88</sup> This includes Australian Government funding via direct Australian Government procurement and by grants, payments to state and territories for large infrastructure projects, and investments from the Clean Energy Finance Corporation and Northern Australia Infrastructure facility.

<sup>89</sup> Mrs Sabrena King, Acting General Manager, Industry Capability and Participation Branch, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 23.



- 6.88 The Department of Defence was pleased to note that its focus on growing Australian industry capacity was challenging the natural tendencies of prime contractors to simply draw on their current supply chain, by requiring foreign tier one companies to engage with Australian suppliers.<sup>90</sup>
- 6.89 The Department of Industry, Science, Energy and Resources expanded on what is meant by providing Australian industry with ‘full, fair and reasonable opportunity’ when competing for work in major public and private projects, outlining that:
- ‘Full’ means that Australian industry has the same opportunity as other global supply-chain partners to participate in all aspects of an investment project, right from design through engineering and project management.
  - ‘Fair’ means Australian industry is provided with the same opportunity as global suppliers to compete on an equal and transparent basis, including equal tender time.
  - ‘Reasonable’ means tenderers are free from non-market burdens, such as standards that might rule out Australian suppliers.<sup>91</sup>
- 6.90 The committee notes that AIP plans are consistent with Australia’s international obligations, and accordingly do not mandate the use of Australian industry on projects. Instead, the AIP framework provides an opportunity for Australian businesses to demonstrate what they can offer.
- 6.91 The Department of Industry, Science, Energy and Resources stressed that it does not mandate any commercial outcomes through AIP plans, and outlined that:
- ...it is about giving Australian industry the opportunity to communicate about their capability and what they can provide to bid into tendering processes or expressions of interest for providing products and services. There are instances in some of the trade agreements where we can go to certain things in terms of supporting Indigenous businesses and small and medium enterprises; and there are some thresholds at which there is some allowance for some things. But, as a general rule, we would like to approach it from a perspective of building Australian capability to be competitive in bidding into

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<sup>90</sup> Mr Tony Fraser AO, CSC, Deputy Secretary, Capability Acquisition and Sustainment Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 39.

<sup>91</sup> Ms Donna Looney, Acting Head, Industry Growth Division, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 23.

these types of supply opportunities. As we have said, that can take into consideration not just the cost but also the value that brings.<sup>92</sup>

- 6.92 The Australasian Railway Association recommended that the Australian Government investigate the benefits of reducing the threshold of the size of projects requiring an AIP plan, and work with industry to improve transparency and guidance on how AIP plans are assessed during the tender evaluation process.<sup>93</sup>
- 6.93 However, advisory firm Hughes et al contended that the AIP national framework ‘needs some practical revisions’. Further, that the AIP Authority—which is responsible for evaluating AIPs and monitoring compliance—‘could do with more teeth and more hustle’ to transform what is currently a compliance or risk avoidance culture into a ‘performance culture’ seeking value from local industry.<sup>94</sup>
- 6.94 AIP plan and state local content policies play an important role in initiating contact with the local market that may otherwise not have occurred. The Australasian Railway Association acknowledged that both governments and industry may ‘need to be incentivised to engage with local suppliers and contractors to in turn realise and appreciate the local capabilities that exist in the sector’.<sup>95</sup> Further, it called for research and analysis on the benefits and effectiveness of these policies to help measure the practical impact of having these requirements in tenders.

### ***Local industry participation***

- 6.95 The Department of Infrastructure, Transport, Regional Development and Communications noted that most jurisdictions seek to avoid duplication by ensuring that their Local Industry Participation Plan meets the NPA requirements. New South Wales (NSW), however, is the main jurisdiction to develop and implement AIP plans.<sup>96</sup> While the South Australian approach,

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<sup>92</sup> Ms Donna Looney, Acting Head, Industry Growth Division, Department of Industry, Science, Energy and Resources, *Committee Hansard*, 18 November 2021, Canberra, p. 28.

<sup>93</sup> Australasian Railway Association, *Submission 33*, p. 11.

<sup>94</sup> Mr Ben Hughes, Managing Director, Hughes et al, *Committee Hansard*, 10 November 2021, Canberra, p. 13.

<sup>95</sup> Australasian Railway Association, *Submission 33*, p. 16.

<sup>96</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

in particular its Industry Advocate model, elicited the most commentary from inquiry participants as having broader application at the national level.

- 6.96 Under the NSW Government's Procurement Policy Framework, for contracts valued at \$3 million and over, suppliers are required to submit an SME and local participation referencing SME and NSW specific content and make quarterly reports on these commitments. The contract manager is responsible for monitoring progress on the commitments. For the purposes of the SME and LIPP:
- SMEs may include, but are not limited to, local businesses, Aboriginal owned businesses, social enterprise and disability employment organisations.
  - Local content is defined as goods produced, services provided, and labour supplied in NSW.
- 6.97 By 2023, the NSW Government's Small and Medium Enterprise and Regional Procurement Policy is expected to deliver on: more contracts awarded to SMEs, increased SME participation on large contracts; increased government spend with SMEs; and improved SME and regional building capabilities. The policy does not cover the Parliament of NSW, local councils and state owned corporations. However, the latter are encouraged to adopt aspects of the policy consistent with their corporate intent.<sup>97</sup>
- 6.98 The South Australian Industry Participation Policy (SAIPP) is the high-level framework for delivery of the requirements of section 4 of the *Industry Advocate Act 2017*. South Australian agencies and private parties contracting to the SA Government are required to comply with the SAIPP and its supporting guidelines.<sup>98</sup>
- 6.99 Industry participation plans apply to all procurements in South Australia valued over \$550,000 (with the minimum or increased weighting) and may be optionally applied to procurements valued above \$220,000 and up to and including \$555,000.
- 6.100 The *Industry Advocate Act 2017* (SA) also establishes the role of the Industry Advocate, an independent statutory authority, whose responsibilities includes facilitating economic contribution and development from public

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<sup>97</sup> New South Wales (NSW) Government, buy.nsw, *Small and Medium Enterprise and Regional Procurement Policy*, <https://buy.nsw.gov.au/policy-library/policies/sme-and-regional-procurement-policy>, viewed 16 March 2022.

<sup>98</sup> Government of South Australia, *Policy and Resources*, <https://www.industryadvocate.sa.gov.au/policy-and-resources>, viewed 16 March 2022.

expenditure and to ensure capable businesses based in South Australia are given full, fair and reasonable opportunity to tender and participate in government projects. This Industry Advocate model is discussed in Chapter 4 of this report.

6.101 In evidence to the committee, ASBFEO proposed that the Australian Government consider emulating South Australia's Industry Advocate model at the national level, and explained that:

This model allows for timely, targeted advice on how procurements can be used to ensure the best possible value-add for South Australian businesses, and we think many of its practices and principles can be carried over to the Commonwealth jurisdiction.<sup>99</sup>

6.102 The *Local Jobs First Act 2003* (Vic) enables the Victorian Government to provide opportunities for local businesses and workers to supply to government projects. The Local Jobs First Policy comprises the Victorian Industry Participation Policy (VIPP) and the Major Projects Skills Guarantee (MPSG).<sup>100</sup>

6.103 The VIPP provides that local SMEs be given full and fair opportunity to supply to projects, while still achieving value for money. The Victorian Government funds the Industry Capability Network Victoria, a not-for-profit organisation responsible for facilitating the VIPP and increasing local participation in all major procurement activities.

6.104 The VIPP applies to projects valued at \$3 million or more for metropolitan Melbourne and state-wide activities and \$1 million or more for regional Victoria. Under the VIPP:

- A 10 per cent weighting for local content is to be applied by procuring agencies.
- Local covers all suppliers producing Victorian, Australian or New Zealand goods of services or when they have added value to imported items.

6.105 For projects valued at or over \$20 million, the MPSG requires using Victorian apprentices, trainees and cadets for at least 10 per cent of the total estimated labour hours.

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<sup>99</sup> Hon Bruce Billson, Ombudsman, ASBFEO, *Committee Hansard*, 10 November 2021, Canberra, p. 18.

<sup>100</sup> Victoria State Government, Local Jobs First, <https://localjobsfirst.vic.gov.au/>, viewed 16 March 2022.

6.106 The Queensland Procurement Policy (QPP) is the state government's overarching policy for the procurement of goods and services. The Queensland Government also maintains other procurement-related policies. The enhanced QPP 2021, which commenced on 1 February 2021, provides that as part of value for money assessments:

- Local supplier means a supplier of goods or services that maintains a workforce whose usual place of residency (i.e., where they normally live, sleep and eat) is located within a 125-kilometre radius of where the good or service is to be supplied. If a capable local supplier does not exist within the 125-kilometre radius, the radius should be extended progressively to the local region, then Queensland, then outside of Queensland, until a suitable supplier is identified.
- Targets include sourcing at least 25 per cent of procurement by value from Queensland SMEs, increasing to 30 per cent by 30 June 2022. The target aims to increase government spending with SMEs, building confidence in the sector and creating more local jobs, business growth, innovation, competition and capability to access new markets.
- For significant Queensland Government infrastructure projects (valued at \$100 billion or above), contractors and suppliers, including manufacturers, that employ local workforces must be used, wherever possible.
- As part of value for money assessments:
  - Agencies must address factors including conducting a local benefits test for all significant procurement where a weighting of up to 30 per cent may be applied.
  - For major projects of \$100 million or more and declared projects, must include application of all best practice principles relating to: work health and safety systems and standards; commitment to apprentices and trainees, and industrial relations.<sup>101</sup>

6.107 The Queensland Government Procurement Strategy 2017: Backing Queensland Jobs outlines how the Queensland Government will use procurement spend to support government objectives: to help the Queensland community prosper; to make it easier for local business; and to create and sustain real value in order to achieve positive economic, social

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<sup>101</sup> Queensland Government, *Queensland Procurement Policy 2021*, <https://www.forgov.qld.gov.au/finance-and-procurement/procurement/procurement-resources/search-for-procurement-policies-resources-tools-and-templates/queensland-procurement-policy-2021>, viewed 16 March 2022.

and environmental outcomes.<sup>102</sup> The Buy Queensland approach prioritises Queensland jobs.

- 6.108 The Queensland Charter of Local Content, under the *Queensland Industry Participation Policy Act 2011*, provides a framework for encouraging government agencies to apply best practice in local content procurement while minimising the compliance burden on government agencies and contractors, and ensuring full, fair and reasonable opportunity for local suppliers. However, it does not mandate that government agencies use local suppliers.
- 6.109 Government agencies are encouraged to apply the charter to all procurements with a total Queensland Government contribution of \$5 million and above (exclusive of GST), or \$2.5 million and above (exclusive of GST) in regional Queensland, excluding information and communications technology products and services. The Queensland Charter of Local Content:
- Captures procurement for large infrastructure projects where over \$20 million in funding is provided by the Australian Government through the Queensland Government.
  - Local content comprises components, materials and services that are procured from a local source for a given project and local industries are defined as Australian and New Zealand SMEs. It also sets out Regional Queensland and South East Queensland areas
  - Excludes local government procurement, but the requirements for developing competitive local business and industry in the contracting and procurement activities, in accordance with the *Local Government Act 2009* (Qld).<sup>103</sup>
- 6.110 In Western Australia, one of the stated aims of the state's *Procurement Act 2020* is to reduce barriers to SME participation in government procurement by streamlining procurement procedures. The WA Buy Local Policy 2020 contains initiatives and price preferences providing local businesses with an enhanced opportunity when bidding to supply to the WA Government. The

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<sup>102</sup> Queensland Government, *Queensland Government Procurement Strategy 2017: Backing Queensland Jobs*, <https://www.forgov.qld.gov.au/finance-and-procurement/procurement/procurement-resources/search-for-procurement-policies-resources-tools-and-templates/queensland-government-procurement-strategy-2017-backing-queensland-jobs>, viewed 16 March 2022.

<sup>103</sup> Queensland Government, *Queensland Charter for Local Content*, <https://www.statedevelopment.qld.gov.au/industry/industry-support/qld-charter-for-local-content>, viewed 16 March 2022.

policy is administered by the WA Department of Jobs, Tourism, Science and Innovation.<sup>104</sup>

- 6.111 The Tasmanian Government's Buy Local Policy requires that an Economic and Social Benefits test be applied to all competitive procurements valued at \$100,000 or more, with agencies requiring suppliers to complete the test and set out the benefit they can bring to the Tasmanian community if the contract is won.<sup>105</sup>
- 6.112 The Tasmanian Government has introduced a requirement for a Tasmanian Industry Participation Plan (TIPP) for large value procurements and is mandatory for procurements over \$5 million. For procurements greater than \$2 million up to (and including) \$5 million, a TIPP may be required but is at the discretion of the procuring agency. In addition, proponents of private sector projects valued at over \$5 million that receive support (including in-kind support) from the Government are required to work with agencies to develop a TIPP.
- 6.113 The Australian Capital Territory (ACT) Government's approach to engaging with local content is guided by the Canberra Region Local Industry Participation Policy (Canberra LIPP) which applies to all approaches to market by territory entities.<sup>106</sup> Territory entities must consider local capability and economic benefits for the Canberra region when determining the best available procurement outcome. Key elements of the Canberra LIPP include:
- Canberra LIPP requirements at the initial invitation stage of a procurement process for projects \$200,000 or above.
  - For procurements \$5 million and above, respondents will be required to submit a LIPP and report on their plan as part of the contract terms, if successful.
  - An outline of the respondent's level of commitment to using local content and/or local businesses and how the respondent's proposal and

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<sup>104</sup> Western Australian Government, *Western Australian Buy Local Policy 2020*, <https://www.wa.gov.au/government/document-collections/western-australian-buy-local-policy-2020>, viewed 16 March 2020.

<sup>105</sup> Government of Tasmania, *Buy Local Policy*, <https://www.purchasing.tas.gov.au/Documents/Buy-Local-Policy.pdf>, viewed 17 March 2022.

<sup>106</sup> Australian Capital Territory (ACT) Government, *Canberra Region Local Industry Participation Policy*, <https://www.procurement.act.gov.au/policy-and-resources/factsheets-and-policies>, viewed 17 March 2022.

business contributes positively to the economic benefits of the Canberra region.

- 6.114 In addition, the ACT Government has introduced the Aboriginal and Torres Strait Islander Procurement Policy that includes, where possible, sourcing from local and Aboriginal and Torres Strait Islander Enterprises. Head contractors for large projects are provided with a list of subcontractors as a resource.<sup>107</sup>
- 6.115 The Northern Territory (NT) Government's approach to local content is set out in its procurement rules. These rules include a focus on local content and Aboriginal participation, where the agency must consider opportunities to maximise local content and Aboriginal participation and employment throughout the procurement lifecycle through an Agency Procurement Management Plan. Further, an assessment criteria weighting must include a minimum 30 per cent weighting for local content, and up to a maximum 30 per cent weighting for price.<sup>108</sup>
- 6.116 In addition, the NT Government's Buy Local Plan gives local businesses greater opportunity to tender for and win government work and aims to improve the way local benefits are identified, evaluated and realised across the procurement and contracting lifecycle. The Buy Local Plan's key actions include:
- A local content test in all government quotes and tenders, worth a minimum of 30 per cent in tender evaluations.
  - Inviting at least one quote from a Territory enterprise for tier one and tier two procurements.
  - A Buy Local Industry advocate to provide an independent advocate function to government on behalf of local industry.
  - Contractual terms and conditions to incorporate the successful tenderer's local benefit commitments.<sup>109</sup>

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<sup>107</sup> ACT Government, *Aboriginal and Torres Strait Islander Procurement Policy*, <https://www.procurement.act.gov.au/policy-and-resources/procurement-from-aboriginal-and-torres-strait-islander-organisations>, viewed 17 March 2022.

<sup>108</sup> Northern Territory Government, *Procurement rules*, Version 1.5.1, July 2020, [https://nt.gov.au/\\_\\_data/assets/pdf\\_file/0010/899146/procurement-rules-v1.5.1-200701.pdf](https://nt.gov.au/__data/assets/pdf_file/0010/899146/procurement-rules-v1.5.1-200701.pdf), viewed 17 March 2022.

<sup>109</sup> Northern Territory Government, *Buy Local Plan*, April 2018, p. 4.



6.117 Under the Buy Local Plan's local content assessment criteria, a tenderer's score is determined by both the potential benefits available, and the NT Government's degree of confidence in the tenderer's ability to deliver those benefits.<sup>110</sup>

### *Defence engaging local industry*

6.118 As outlined in the Defence Industrial Capability Plan (DICP) released in 2018, the Australian Government's goal by 2028 is 'to achieve an Australian defence industry that has the capability, posture, and resilience to help meet Australia's defence needs', requiring the strengthening of sovereign capability and maximising of opportunities for local businesses.<sup>111</sup> The DICP incorporates a range of industry initiatives that support local industry engagement including:

- The Australian Industry Capability Program to maximise Australian industry involvement in procurements of \$20 million or more and requires companies to submit a plan as part of the tender response.<sup>112</sup>
- The Centre for Defence Industry Capability that brings together private sector, Defence and industry to strengthen relationships, build supply chains, and provide support for businesses working in or looking to enter the defence sector.<sup>113</sup>
- The Defence Industry Participation Policy to provide a more consistent approach to the engagement of Australian industry at the national and/or local level in Defence procurements valued at \$4 million and above.<sup>114</sup>
- Sovereign Industrial Capability Priority Grants for SMEs.<sup>115</sup>

6.119 While Defence aims for a majority of its infrastructure to be delivered primarily through Australian companies, it conceded that there will be cases where components not manufactured in Australia will come from international supply chains.<sup>116</sup> However, Defence indicated that it has

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<sup>110</sup> Northern Territory Government, *Buy Local Plan*, April 2018, p. 7.

<sup>111</sup> Department of Defence, *2018 Defence Industrial Capability Plan*, p. 14.

<sup>112</sup> Department of Defence, *2018 Defence Industrial Capability Plan*, p. 87.

<sup>113</sup> Department of Defence, *2018 Defence Industrial Capability Plan*, p. 89.

<sup>114</sup> Department of Defence, *2018 Defence Industrial Capability Plan*, p. 104.

<sup>115</sup> Department of Defence, *2018 Defence Industrial Capability Plan*, p. 153.

<sup>116</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

worked with its prime contractors, through local industry capability plans (LICPs), to 'divert as much of that business to local players' in relation to work done on Defence estates.<sup>117</sup>

6.120 LICPs require tenderers to develop and submit a plan as part of their tender response. Defence explained to the committee that it does not have a set definition of 'local content', instead it is tailored for each project's geographical location to account for the variety of subcontractors required for more regional or remote projects.<sup>118</sup> Since it started using LICPs, Defence has:

...been able to lift local content in our large-scale infrastructure projects from around 60 to 65 per cent up to around 85 per cent. What's different, perhaps, in the way we're doing this is that we have a 10-year plan, and we have the planning process to think deeply about how we maximise our work with Australian prime contractors and about how we work with them to package work to lift the capacity of local industry and keep that vibrant industry going.

They're quite targeted interventions at a policy and practice level that work hand in glove with the Commonwealth procurement guidelines and with a government focus on Australian and local industry content, and we're seeing over time that that's working really effectively.<sup>119</sup>

6.121 There was widespread industry support for Defence's approach to local capability throughout the inquiry, with various witnesses commenting on the success of the program and a desire for it to be more widely adopted across the construction industry. AOC described the Defence Industrial Capability Plan as 'perhaps the best example of a successful Commonwealth policy approach to a real and deliberative strategic intent in developing Australian owned companies to evolve and grow'.<sup>120</sup> Similarly, Master Builders Australia commented that Defence's approaches to ensuring local contractors can realistically and fairly tender is 'an effective model that should apply to future government investments'.<sup>121</sup>

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<sup>117</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

<sup>118</sup> Mr Daniel Fankhauser, First Assistant Secretary, Infrastructure, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 45.

<sup>119</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

<sup>120</sup> AOC, *Submission 30*, p. 17.

<sup>121</sup> Master Builders Australia, *Submission 44*, p. 3.

- 6.122 The Department of Defence advised that through its 2020 Force Structure Plan, roughly \$37 billion of the overall \$270 billion capital investment in the portfolio will be for infrastructure.<sup>122</sup> The majority of which will be delivered primarily through Australian companies. Defence conceded that there will be cases where components not manufactured in Australia will come from international supply chains.<sup>123</sup> However, Defence indicated that it has worked with its prime contractors, through local industry capability plans, to ‘divert as much of that business to local players’.<sup>124</sup>
- 6.123 Master Builders Australia observed that the Local Capacity and Industry Participation Model has provided Defence with ‘some certainty around what their partners propose to do with engaging local firms and their employees’.<sup>125</sup>
- 6.124 The Department of Defence told the committee it takes an integrated approach to balancing Australian Government policy objectives to support Australian industry and meeting international objectives.<sup>126</sup>

## Committee comments

- 6.125 The need to improve tier two and three companies’ access to, and participation in, government-funded infrastructure projects was a key theme throughout this inquiry, and indeed in other reviews in recent years.
- 6.126 The increasing prevalence of mega projects—large-scale complex projects costing over \$1 billion—combined with the fact that there are currently no Australian tier one contractors means that, without strategic action, Australian businesses will continue to miss out on important opportunities, especially in the context of Australia’s significant infrastructure pipeline. Small and medium enterprises (SMEs) need to be able to access these projects to support their growth as individual companies and as an industry.

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<sup>122</sup> Department of Defence, *2020 Force Structure Plan*, <https://www.defence.gov.au/about/publications/2020-force-structure-plan>, viewed 16 March 2022.

<sup>123</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

<sup>124</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

<sup>125</sup> Master Builders Australia, *Submission 44*, p. 5.

<sup>126</sup> Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group, Department of Defence, *Committee Hansard*, 14 September 2021, Canberra, p. 41.

- 6.127 Australia's traditionally piecemeal approach to infrastructure has not served the nation well. The committee considers that much of Australia's infrastructure procurement has been short-sighted, focusing on single projects and not on how it fits into the larger pipeline and building Australia's industry capacity and sovereign capability in infrastructure.
- 6.128 The current unprecedented spend on infrastructure provides a unique opportunity to grow businesses in the sector and build Australia's sovereign capability to support future infrastructure sustainability. If Australian governments are committed to building strong sectors for the future, they will need to build capacity in industry and government procurement officials.
- 6.129 During the inquiry, the committee heard that there are opportunities for developing Australia's industry capabilities in areas such as rail manufacturing, the energy sector and solar panels.
- 6.130 The committee notes the use of industry sustainability requirements in tenders for recent infrastructure projects, which specified participation of a tier two or three company and sought information from potential head contractors (usually tier one companies) on how they would be engaging with potential tier two or three partners. The aim is to encourage engagement or joint ventures with mid-tiers where otherwise the tier one would not have been incentivised or inclined to engage with local markets.
- 6.131 In particular, the committee notes that the criteria used in the Bunbury Outer Ring Road example only identified tier two and three contractors and did not preference Australian owned contractors, thus providing equal opportunity for foreign owned and domestic contractors to join with a tier one company in delivering this project.
- 6.132 The committee does not see how seeking to develop the capacity of non-tier one companies involved in delivering infrastructure projects in Australia could be construed as at odds with Australia's international obligations. There is significant potential for the use of industry sustainability criteria in contracts to complement unbundling, or indeed, in cases where breaking up mega projects is not possible.
- 6.133 The committee agrees with Infrastructure Australia's assessment in the *National Study of Infrastructure Risk: A report from Infrastructure Australia's Market Capacity* about the need for a review of the market conditions for infrastructure insurance. In addition to a more sophisticated rebalancing of how risk is assessed and shared for infrastructure projects, a targeted

examination of the barriers due to costly and limited professional indemnity insurance and related requirements is warranted.

- 6.134 The committee notes the Australian Small Business and Family Enterprise Ombudsman and other groups' evidence on the insurance crisis that SMEs are facing. This is another area in which governments should explore how it can help ameliorate this challenge to better support SMEs to access the opportunities in the current infrastructure pipeline.
- 6.135 The committee believes that to build strong sectors for the future the Australian Government will need to play an important leadership role in developing and clearly articulating its vision for the infrastructure industry and driving the necessary changes to get there.

## **Recommendation 6**

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- 6.136 **The committee sees increasing the access of tier two and three companies, and related Australian small and medium enterprises, to projects in the Australian infrastructure pipeline as key to enhancing Australia's sovereign industry capacity. Accordingly, the committee recommends that the Australian Government examine ways to maximise developing Australia's sovereign capacity in infrastructure delivery. As part of this work, consideration should be given to:**
- **providing opportunities in procurement and contracting to engage local industry and utilise local content**
  - **ways to break up projects into packages of less than \$500 million to increase competitiveness by tier two and three companies**
  - **making as a condition of Australian Government funding for major infrastructure projects over \$500 million industry sustainability criteria within the early stages of procurement design that encourage tier one contractors to partner/joint venture with a non-tier one company in the head contract**
  - **education and training for government officials to support these objectives**
  - **reviewing market conditions for infrastructure insurances and the impact on small and medium enterprises.**



# 7. Technology

- 7.1 There was strong support from inquiry participants for encouraging technology uptake by industry and government, and enhancing digitisation in infrastructure procurement, planning and delivery processes.
- 7.2 Improving the use of technology by both industry and governments is an important means of addressing infrastructure challenges, including lagging productivity in the construction sector. This was a recurring theme in evidence to the inquiry.
- 7.3 Infrastructure Australia's *Infrastructure Market Capacity* research identified the rate of growth in expenditure as 'set to outstrip the capacity of the sector to support growth over coming years'.<sup>1</sup> Further, it noted that productivity in the construction industry is also falling relative to other sectors. Infrastructure Australia saw this combination of increasing demand from the bolstered infrastructure pipeline and lagging productivity as presenting a key risk for market capacity.
- 7.4 The Department of Infrastructure, Transport, Regional Development and Communications noted that multifactor productivity—reflecting the overall efficiency with which labour and capital inputs are used together in the production process—has remained relatively flat within the construction industry since 1999-2000, excluding a rise from 2010-11 to 2013-14.<sup>2</sup>
- 7.5 The construction sector can be characterised by 'low uptake of new technologies and digitisation with a high share of onsite manual labour'.<sup>3</sup>

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<sup>1</sup> Infrastructure Australia, *Submission 14*, p. 2.

<sup>2</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 36.

<sup>3</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 14.

The Department of Infrastructure, Transport, Regional Development and Communications explained that:

Recent years have provided further disruption with stringent sustainability requirements, rising costs, labour scarcity, new material and production approaches, providing an environment for innovation. COVID-19 has increased disruptions and is likely to continue to disrupt productivity, accelerating the requirement for digitisation and innovation.<sup>4</sup>

- 7.6 In addressing the impact of the pandemic on construction projects, the Department of Infrastructure, Transport, Regional Development and Communications, at the time of its submission to this inquiry in July 2021, acknowledged that supply chain disruptions have delayed the progress of some construction projects. The department was not seeing, however, a major slowdown of the \$110 billion transport infrastructure pipeline.<sup>5</sup>
- 7.7 Research undertaken by the Felix Group suggested that the construction sector's slow uptake of technology, which is hampering productivity improvements, can in part be attributed to a 'risk-averse culture that roadblocks innovation' and 'low levels of digital awareness in leadership'.<sup>6</sup>
- 7.8 However, North Projects was more optimistic, suggesting that Australia has the opportunity to make 'an evolutionary future-focused leap in its project delivery framework...with an integrated approach with procurement, contracting and the regulatory framework—to unlock the full set of triple bottom line benefits'.<sup>7</sup>
- 7.9 Roads Australia encouraged government leadership and collaboration with industry in supporting innovation in infrastructure delivery. It stressed that improvements needed to technology and innovation are broader than just procurement, and 'have the potential to massively increase productivity in the design and construction of new infrastructure, as well as ongoing operations and maintenance'.<sup>8</sup>

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<sup>4</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 14.

<sup>5</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 5.

<sup>6</sup> Felix Group Holdings and Entwine (Felix and Entwine), *Submission 31*, p. 4.

<sup>7</sup> North Projects, *Submission 25*, p. 23.

<sup>8</sup> Roads Australia, *Submission 28*, p. 10.



- 7.10 The following sections of this chapter explore digital opportunities for government-funded infrastructure projects.

## Digital by default

- 7.11 ‘Digital by default’ refers to providing digital services that are straightforward, convenient, and can be used reasonably easily by stakeholders. As well as improving the user experience, a digital by default approach typically provides administrative cost savings (after initial set-up costs).
- 7.12 Infrastructure Australia highlighted the importance of the digital by default approach in planning, procuring and delivering public infrastructure, and maintained that Australian governments should no longer accept digital by exception and instead require ‘digital by default including valuing data, a federated approach to digital processes and systems alongside upfront incorporation of the enabling capacity for smart deployment’.<sup>9</sup>
- 7.13 In its *2021 Australian Infrastructure Plan*, Infrastructure Australia identified that adopting a digital by default mindset is one significant way that governments can lead a step change in productivity in the infrastructure industry. Naturally, this should parallel complementary reforms including industrialising the sector, adopting portfolio management, providing resources for front-end engagement, and rewarding innovation.<sup>10</sup>
- 7.14 The Jacobs Group, a global engineering firm, observed that most infrastructure programs do not have a digital strategy or plan that covers all stages of a project, and recommended that all major infrastructure projects should ‘have a coherent digital plan for infrastructure design and delivery aligned with recognised industry standards’.<sup>11</sup>

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<sup>9</sup> Infrastructure Australia, *Submission 14*, p. 3.

<sup>10</sup> Infrastructure Australia, *Reforms to meet Australia’s future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 24.

<sup>11</sup> Jacobs Group, *Submission 35*, p. 10.

7.15 Ansarada, a private Australian company involved in data and technology platforms, claimed that improving procurement processes can deliver significant savings to taxpayers. It contended that in meeting minimum non-negotiable requirements for procurement best practice, project teams and government may be using a blend of analogue methods and technology, and that in some cases there is even paper still in play. Ansarada explained that:

You may have email being used to communicate sensitive information, shared drives, generic e-procurement systems, USBs—there are a lot of different tools being used to achieve a complex set of events. While this meets the minimum requirements, there's a huge amount of risk and inefficiency between each of the steps that you navigate...

...A lot of organisations are still operating within Australia using these blended different systems, but, after talking with a lot of different partner agencies and departments, we know that by centralising, managing and automating a lot of the systems using technology you're able to reduce the cost of procurement by two-thirds and the inefficiencies by 60 to 80 per cent.<sup>12</sup>

7.16 Similarly, BuildingSMART, which describes itself as the global industry body driving the digital transformation of the built asset industry, outlined that many information management processes for projects are still heavily reliant on 'analogue processes, replicating the paper-based processes that have been in use for hundreds of years'.<sup>13</sup> It argued that running new and traditional processes in parallel are adding to the workload and diminishing the returns of adopting digital approaches.<sup>14</sup>

## Digital engineering

7.17 Digital engineering involves bringing together project information into a single digital location, thus enabling the seamless transfer of information and data over the project and asset life cycle.

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<sup>12</sup> Mr Simon Giles, Business Development Director, Ansarada, *Committee Hansard*, 14 October 2021, Canberra, p. 42.

<sup>13</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 42.

<sup>14</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 43.

7.18 The Australian Chamber of Commerce and Industry supported investing in technology and outlined that:

As projects become larger and more complex, digital engineering instruments and central digital information portals have become increasingly necessary. Restricting data access to a limited scope can stifle innovation and inhibit efficiency. Enhancing data access can lead to improved transparency and drive innovation for current and future projects. The collection of relevant data can also be used to inform future project planning. By documenting learnings from the project, industry can better anticipate the risks and issues for future projects.<sup>15</sup>

7.19 Roads Australia also highlighted the value of digital engineering as a ‘new innovative tool that is transforming the way infrastructure is designed, constructed and managed’, and encouraged the Australian Government to take a strong leadership role in developing a nationally consistent approach.<sup>16</sup>

## **Building Information Modelling and digital delivery**

### **Definitions**

#### *Building Information Modelling*

7.20 Building Information Modelling (BIM) is a form of digital engineering, which combines software and processes to model the build of an asset. It is increasingly used in the construction industry to deliver complex projects through their whole of life cycles. Digital information is key to BIM, which encompasses ‘3D to 7D, digital delivery, digital twin, Internet of Things, smart cities and the digitally connected world’.<sup>17</sup>

7.21 The Australasian BIM Advisory Board (ABAB—see more on ABAB’s establishment and purpose in paragraph 7.30) suggested that the European Union BIM Task Group’s definition of BIM is the most comprehensive:

BIM is a digital form of construction and asset operation. It brings together the technology, process improvements and digital information, and this can radically change and improve the client and project outcomes.

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<sup>15</sup> Australian Chamber of Commerce and Industry, *Submission 48*, p. 5.

<sup>16</sup> Roads Australia, *Submission 28*, p. 10.

<sup>17</sup> Mr Richard Choy, Executive Committee Member, Australasian BIM Advisory Board (ABAB), *Committee Hansard*, 14 October 2021, Canberra, p. 39.

BIM itself is a strategic enabler for improving decision-making, both in buildings and in public infrastructure.<sup>18</sup>

7.22 The concept of openBIM extends the benefits of BIM. BuildingSMART described openBIM as a vendor-neutral (non-proprietary) collaborative process to share project information in support of seamless collaboration for all project participants, and to facilitate interoperability for projects and assets through their life cycles.<sup>19</sup> ABAB agreed that:

What is important about BIM globally is, for it to be successful, it should follow the principles of openBIM. This allows interoperability, reliable data, flexibility, open and mutual standards, and collaboration while still achieving sustainability. Simply, that means that all the participants in the industry can use their software of choice, and it allows for future innovations.<sup>20</sup>

7.23 BuildingSMART stressed that a significant advantage of governments specifying open digital formats for infrastructure projects is that in the future when a piece of information needs to be accessed for a given project, governments will not have to rely on a vendor specific piece of software, in cases where such proprietary software was used.<sup>21</sup>

7.24 BuildingSMART also noted the collaborative work of its members to ensure that information can be moved between different software applications, and explained that:

It should make life easier for clients, customers, contractors and designers that we don't have to go and specify that they must use this or that piece of software. We can just say, 'This is how we want our information handed over, and we know we can use it for various purposes'.<sup>22</sup>

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<sup>18</sup> Mr Richard Choy, Executive Committee Member, ABAB, *Committee Hansard*, 14 October 2021, Canberra, p. 40.

<sup>19</sup> BuildingSMART International, *What is OpenBIM?* <https://www.buildingsmart.org/about/openbim/openbim-definition/#:~:text=At%20its%20core%2C%20openBIM%20is,and%20assets%20throughout%20their%20lifecycle>, viewed 15 February 2022.

<sup>20</sup> Mr Richard Choy, Executive Committee Member, ABAB, *Committee Hansard*, 14 October 2021, Canberra, p. 40.

<sup>21</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 48.

<sup>22</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 48.

## *Digital delivery*

- 7.25 Broadly, the Australian Government, as part of its digital transformation agenda, has committed to the digital delivery of key government services by 2030. In the context of infrastructure projects, digital delivery essentially focuses on the effective use of digital data to design, construct, inspect and record as-built conditions during project delivery. In technical terms, ABAB describes digital delivery as:

...the outputs of the BIM process, which is the Project Information Model (PIM) at the end of the construction phase, and the Asset Information Model (AIM) that the asset operator combines the PIM with the operational readiness or soft landings data to operate and maintain the asset. If the operator wishes to connect this AIM to the devices and asset management systems and run that asset virtually, this is referred to as a Digital Twin.

The digital delivery of a PIM or an AIM is a digital representation of the physical and functional characteristics of a building, physical infrastructure, or environment. It serves as a shared knowledge resource for information about an asset throughout its life cycle supporting decision-making at each phase— from strategic appraisal and planning; through the design, construction and operation; and into maintenance, renewal and decommissioning.<sup>23</sup>

## *Digital twins*

- 7.26 A digital twin is a virtual model designed to accurately reflect a physical object. This interactive platform captures and displays real-time 3D and 4D spatial data to model the urban environment creating a digital real-world model of cities and communities to facilitate better planning, design and modelling. A digital twin can be an output of a BIM, which can then evolve and transform using real-time data once the asset is operational.
- 7.27 The Department of Infrastructure, Transport, Regional Development and Communications described NSW's development of a digital twin model to facilitate better planning, design and modelling for the state's future needs. It outlined that:

Phase one – Digital Twin included digital visualisations of the local government areas that comprise the Western Sydney City Deal and Greater Parramatta to the Olympic Peninsula. This project has demonstrated the

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<sup>23</sup> ABAB, *Submission 37*, p. 5.

ability to upgrade NSW's Spatial Data to 3D/4D and included the integration of live transport feeds as well as infrastructure building models.<sup>24</sup>

- 7.28 ABAB also observed that the wider use of digital twins would drive opportunities for small and medium enterprises (SMEs), as the model enables reviewing of the impacts of large infrastructure projects and an understanding of how to break projects down into smaller contracts to encourage SME participation.<sup>25</sup>

## **BIM and digital delivery: benefits and challenges**

- 7.29 Infrastructure Australia, in its *2021 Australian Infrastructure Plan*, acknowledged BIM and digital engineering as well-established digital tools and approaches that have 'shown to deliver better project outcomes, increase productivity and improve infrastructure performance'.<sup>26</sup>
- 7.30 ABAB, established in May 2017, comprises a team of experts from government construction policy agencies, peak construction associations, and standards bodies, to provide leadership on the adoption of BIM and Project Team Integration (PTI). The principle underlying PTI is that 'wasted effort' could be significantly reduced if clients, designers, head contractors, specialised trade contractors, cost planners and others, shared responsibility for the successful delivery of a project.<sup>27</sup>
- 7.31 ABAB contended that new technologies and processes in BIM can lead to increased productivity and improved asset management.<sup>28</sup> It submitted that:

When combining those robust requirements with the efficiencies digital delivery brings, the country can produce significant savings. The estimated construction activity in Australia is \$205 billion in 2020 and a typical waste of effort, due to non-collaborative processes, is reported at 30 per cent. ABAB's focus on promoting digital delivery as a conservative 5 per cent productivity

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<sup>24</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 14.

<sup>25</sup> ABAB, *Submission 37*, p. 9.

<sup>26</sup> Infrastructure Australia, *Reforms to meet Australia's future infrastructure needs: 2021 Australian Infrastructure Plan*, August 2021, p. 283.

<sup>27</sup> Australian Construction Industry Forum and Australasian Procurement and Construction Council, *The Case for Project Team Integration*, March 2014, p. 3.

<sup>28</sup> ABAB, *Submission 37*, p. 16.

improvement (in the 30 per cent waste) driven by BIM would result in a \$3.1 billion savings each year.<sup>29</sup>

7.32 ABAB described BIM as acting as a ‘single point of truth’ for a project, and that, in addition to time and efficiency savings, improved safety and asset management, and reduced project risk, there is also evidence of BIM producing cost savings. While conceding that information on exact savings is often commercial in confidence, ABAB cited examples from the United Kingdom (UK) where:

...government agencies have achieved construction cost savings of 12–20 per cent from the use of BIM and other complementary strategies to improve productivity.<sup>30</sup>

7.33 Further, ABAB told the committee that the United States Transport Research Board had found that for every dollar spent on BIM there is an average \$6.83 return on investment, with the minimum return being \$3.26.<sup>31</sup>

7.34 The committee heard that even where certain designers or contractors were using digital processes, such as digital engineering or BIM, this is not being applied throughout the whole process, with the data rich information instead ‘typically dumbed down to meet non-intelligent deliverables such as PDF drawings, specifications or reports’.<sup>32</sup>

7.35 BuildingSMART explained that this has been its experience working with tier one contractors on large infrastructure projects, with often impressive technology being used in early stages such as design but not transferred to later stages of the project. It emphasised that:

...the largest productivity gains for the construction sector from digital transformation will be through the seamless transfer of information and ensuring reliable information can be shared and reused, not only through the life cycle of a project but across jurisdictions, departments and stakeholders.<sup>33</sup>

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<sup>29</sup> ABAB, *Submission 37*, p. 7.

<sup>30</sup> ABAB, *Submission 37*, p. 16.

<sup>31</sup> Mr Richard Choy, Executive Committee Member, ABAB, *Committee Hansard*, 14 October 2021, Canberra, p. 40.

<sup>32</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 42.

<sup>33</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 42.

- 7.36 Certain groups saw government procurement as an opportunity to leverage industry to adopt key technologies for government projects. ABAB stressed that BIM is a procurement decision that must be set as defined information requirements at the planning and procurement stage if beneficial outcomes are to be achieved.<sup>34</sup>
- 7.37 Felix and Entwine called for mandating the use of key technologies for government projects. This is the approach taken by the UK Government, which requires the use of BIM on all publicly funded infrastructure projects.<sup>35</sup> ABAB submitted that this approach has helped guide the UK construction industry in achieving better outcomes, which in turn drive productivity and economic growth.<sup>36</sup>
- 7.38 ABAB added that BIM is increasingly used internationally and has also been mandated in Finland, Norway, the Netherlands, Singapore and South Korea.<sup>37</sup> It also stressed the need to endorse and standardise digital delivery for infrastructure procurement, noting that Australia is lagging ‘many countries who have already developed the collaborative procurement models and uplifted their...competencies in digital delivery’.<sup>38</sup>
- 7.39 Further, ABAB claimed that international experience has shown that ‘improving the weighting of relevant BIM and digital delivery experience on infrastructure procurement will drive equal treatment of suppliers’, and so assist with uplifting local competition and furthering Australian business capacity.<sup>39</sup>
- 7.40 In addition to improving productivity, Felix and Entwine saw an opportunity for technology-based approaches to drive ethical behaviour in the construction industry, by assisting with ‘reducing discretionary decision making in this area by providing standardised evaluation methods and weightings that cannot be manipulated to allow price to be the ultimate decider’.<sup>40</sup>

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<sup>34</sup> Mr Richard Choy, Executive Committee Member, ABAB, *Committee Hansard*, 14 October 2021, Canberra, p. 40.

<sup>35</sup> Felix and Entwine, *Submission 31*, p. 4.

<sup>36</sup> ABAB, *Submission 37*, p. 11.

<sup>37</sup> ABAB, *Submission 37*, p. 17.

<sup>38</sup> ABAB, *Submission 37*, p. 9.

<sup>39</sup> ABAB, *Submission 37*, p. 9.

<sup>40</sup> Felix and Entwine, *Submission 31*, p. 3.



- 7.41 The then Council of Australian Governments Infrastructure Working Group formed the National Digital Engineering Working Group (NDEWG) in 2016, as a subgroup to address concerns from industry about divergent BIM approaches developing across jurisdictions, particularly relating to transport infrastructure.<sup>41</sup>
- 7.42 The NDEWG was tasked with contributing to the development of a national approach to BIM, and later in 2016 released the National Digital Engineering Policy Principles (NDEPP). In the NDEPP, Australian governments recognised the importance of digital engineering and BIM to delivering and managing buildings and infrastructure assets and networks, and to consistency in digital approaches and data requirements.<sup>42</sup>
- 7.43 ABAB stressed that while major companies have recognised the importance of, and are investing in, BIM capability, government leadership is needed to develop a consistent approach between sectors and jurisdictions.<sup>43</sup> It stated that:
- Most states and territories have begun adoption of BIM on a project-by-project basis, resulting in bespoke approaches which favour the provider rather than a consistent whole of government approach. New South Wales (NSW), Queensland (QLD), South Australia (SA), Victoria (VIC), and Western Australia (WA) have used BIM on significant infrastructure projects, particularly hospitals, but typically only in the design and construction phases. The use of BIM is now progressing to the asset management phases of some projects (such as the Perth Children’s Hospital and New Royal Adelaide Hospital) and also to linear transport infrastructure projects (such as roads and railways).<sup>44</sup>
- 7.44 The Department of Infrastructure, Transport, Regional Development and Communications noted that work is underway in Australia on future opportunities around digitisation with some states, for instance, establishing

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<sup>41</sup> In May 2020, National Cabinet agreed to form the National Federation Reform Council to replace the Council of Australian Governments.

<sup>42</sup> Department of Infrastructure, Transport, Regional Development and Communications, *National Guidelines for Infrastructure Project Delivery*, <https://www.infrastructure.gov.au/infrastructure-transport-vehicles/infrastructure-investment-project-delivery/national-guidelines-infrastructure-project-delivery>, viewed 4 February 2022.

<sup>43</sup> ABAB, *Submission 37*, p. 18.

<sup>44</sup> ABAB, *Submission 37*, p. 17.

digital tender and procurement processes.<sup>45</sup> Digital procurement includes automating repeatable tasks to boost efficiency and reduce costs, providing stakeholders with real-time information and user friendly online tools, and smarter ways to infuse data models and enrich project operations.

7.45 As part of the Department of Defence's approach to collaborative procurement models, it has created six BIM or digital delivery models based on integration requirements and risk profiles for each delivery or project type.<sup>46</sup>

7.46 Sydney Water, as an adopter of collaborative contracting and Project 13, described the use of BIM systems as critical. BIM allows for simplicity and rapid data transfer, not just on technical aspects, but also for financial information and to enable timely project delivery.<sup>47</sup> Sydney Water explained that:

...the digital systems and the asset knowledge we have, and the hyper-connectedness of that into the customers, the growth and forecast in that area, the environmental requirements—all those things go into those models and allow us to collaborate right from the start and help us measure that system to serve customers well into the future.<sup>48</sup>

7.47 Notwithstanding the need and scope for improvement in digital approaches to infrastructure projects in Australia, ABAB highlighted that there are positive cases in Australia, where Australian projects have been finalists for BuildingSMART international awards.<sup>49</sup>

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<sup>45</sup> Department of Infrastructure, Transport, Regional Development and Communications, *Submission 26*, p. 19.

<sup>46</sup> ABAB, *Submission 37*, p. 9.

<sup>47</sup> Project 13 involves a shift to an enterprise model for infrastructure delivery, bringing together owners, partners, advisers and suppliers, working in more integrated and collaborative arrangements. The model's objective is to boost certainty and productivity in delivery, improve whole of life outcomes in operation, and support a more sustainable, innovative, highly skilled industry.

<sup>48</sup> Mr Bernie Sheridan, General Manager, Customer Delivery, Sydney Water, *Committee Hansard*, 14 September 2021, Canberra, p. 33.

<sup>49</sup> Mr Andrew Curthoys, Chairperson, ABAB, *Committee Hansard*, 14 October 2021, Canberra, p. 55.

## Digital upskilling

- 7.48 Evidence to the committee showed that better use of digital approaches can improve infrastructure sector efficiency and SME capacity.
- 7.49 BuildingSMART noted that attempts internationally to mandate the use of digital engineering or BIM for government infrastructure projects have been hindered by:
- ...a lack of leadership and a lack of resources to upskill both the supply chain and their [countries'] own government departments to ensure that they can not only enforce the requirements but also take advantage of new ways of communicating and collaborating.<sup>50</sup>
- 7.50 Entwine highlighted the importance of having the right culture in place to support digital adoption, in particular the need for governments to show leadership, given that:
- ...the whole tone of the project is set by the instigator or the project sponsor or, like in this case, government agencies who are commissioning the works. There really is a huge onus to set a positive culture for learning.<sup>51</sup>
- 7.51 When discussing leveraging procurement to support digital upskilling, particularly for SMEs, Entwine outlined that:
- You leverage to a set of rules, where you say, even if the base at the start of the project is low, we want the base at the end of the project to be high. If it costs us more to deliver that project than it would have to deliver the project without doing that, then so be it, because that's how you get the broader benefits, such as social and environmental outcomes including an upskilled workforce.<sup>52</sup>
- 7.52 ABAB also explicitly highlighted digitisation as an 'enabler for small and medium enterprises to get into the game', with the smaller project packages

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<sup>50</sup> Mr Eric Bugeja, Chairperson, BuildingSMART, *Committee Hansard*, 14 October 2021, Canberra, p. 43.

<sup>51</sup> Ms Leah Singer, Owner and Director, Entwine, *Committee Hansard*, 14 October 2021, Canberra, p. 47.

<sup>52</sup> Ms Leah Singer, Owner and Director, Entwine, *Committee Hansard*, 14 October 2021, Canberra, p. 47.

providing the opportunities for SME staff to ‘learn these skills on the job’ and then take this experience to the next projects.<sup>53</sup>

- 7.53 In addition to using government procurement and a digital by default method, a direct approach to upskilling SMEs may also be an option. Felix and Entwine noted New Zealand’s ‘Digital Boost’ program, for example, and indicated they would support similar direct investment in Australian businesses.<sup>54</sup> The New Zealand Government allocated \$10 million to this program, which provides free training for local small businesses to improve their digital skills in areas such as ecommerce, digital marketing, business analytics and cloud-based accounting. The content is delivered through videos, case studies, question and answer sessions, podcasts, learning summaries and other resources.

## Committee comments

- 7.54 Improving the use of technology by both industry and governments is an important means of addressing infrastructure challenges. Evidence to this inquiry highlighted the importance of integrating digital technology throughout the infrastructure procurement, planning and project delivery cycle to optimise efficiency and productivity.
- 7.55 The committee agrees that embracing digital technology in procurement and the delivery of infrastructure projects will help the construction sector make serious inroads towards boosting productivity. Clearly, this will need to work in consort with improving risk sharing arrangements and enhancing collaborative practices, as covered in previous chapters, and in addressing other sector challenges explored in Chapter 8.
- 7.56 The committee shares Infrastructure Australia’s view, outlined in its *2021 Australian Infrastructure Plan*, about the importance of moving to expecting a digital by default approach in the planning, procurement and delivery of public infrastructure, rather than accepting digital by exception.
- 7.57 While some government agencies and companies have made significant progress in technology uptake and digitisation, this is by no means consistent across parties, different infrastructure projects, or even the whole of life cycle of a given project. The committee heard that in some cases

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<sup>53</sup> Mr Richard Choy, Executive Committee Member, ABAB, *Committee Hansard*, 14 October 2021, Canberra, p. 48.

<sup>54</sup> Felix and Entwine, *Submission 31*, p. 4.

project teams and government clients are using a blend of analogue methods and technology, which may meet minimum requirements for best practice procurement and project delivery, but in practice are not delivering the efficiencies and wider benefits that embracing this technology can provide.

- 7.58 The committee, however, is cognisant that there is inherent risk in governments being too prescriptive on the use of specific software or platforms when setting procurement requirements. It recognises that investing in technology and the associated upskilling of staff can be costly in terms of time and money, and so should not be set up in such a way as to act as a further barrier, in particular for small and medium enterprises which, by nature, have less resources to draw on for this kind of investment.
- 7.59 There are clear benefits in being able to utilise the data in digital delivery for an asset's life cycle, and, where appropriate, to apply to future government procurement and project management. As discussed in Chapter 5, a collaborative approach to procurement and projects will likely facilitate the transferability of certain information for future application, where it is not restricted by commercial considerations.
- 7.60 The committee recognises that digital delivery and alliance contracting are complementary approaches and notes the Australian Constructors Association's observation that alliance contracts facilitate the open and transparent sharing of information that is required for the adoption of digital engineering tools and processes such as Building Information Modelling (BIM).
- 7.61 In considering the benefits that can be derived from BIM, it is also important to keep the ability to share this information between key parties at the forefront of strategic planning and recognise the need for vendor-neutral (non-proprietary) methods of information exchange. Niche or boutique products will not effectively support the wider objective of information sharing to facilitate better project outcomes and long-term asset management.
- 7.62 The Australian Government must show leadership in highlighting the importance of digitisation to government-funded infrastructure projects; driving the adoption of suitable technologies; and facilitating collaboration to help ensure consistency and information sharing between government clients and the various parties in the project delivery chain.

## Recommendation 7

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**7.63** The committee recognises the potential benefits for increased efficiencies and productivity through the adoption of a digital by default approach in infrastructure projects, in which governments take the lead in providing accessible digital options that can be utilised by government officials and businesses, from planning to post-delivery assessment and, where applicable, for future application to like projects.

The committee recommends that the Australian Government in consultation with state, territory and local governments, support a digital by default approach in infrastructure projects, with consideration for:

- the digital by default recommendations in the *2021 Australian Infrastructure Plan*
- tender requirements that utilise Building Information Modelling (BIM) or similar technologies
- supporting openBIM or similarly interoperable methods for digital delivery that allow for exchanging project information
- fostering contractor upskilling for small and medium enterprises in digital approaches when undertaking government-funded infrastructure projects
- facilitating whole of life digital strategies in project plans.

## 8. Addressing cultural reform in the construction industry

- 8.1 A productive and sustainable workforce will be key to delivering Australia’s significant pipeline of infrastructure projects. Evidence presented to the committee highlighted the critical need for cultural reform to address challenges in the construction industry, particularly in productivity, mental health and wellbeing, and gender diversity. The culture is impeding the sector’s ability to attract and retain workers—especially women—and limiting productivity growth at a crucial time.

### Current workplace standards

- 8.2 Broadly, the *Fair Work Act 2009* provides the minimum terms and conditions for the majority of employees in Australia that are covered by the national workplace relations system, and is supplemented by other Commonwealth, state and territory laws.<sup>1</sup> The Fair Work Act provides a safety net of minimum entitlements, such as the minimum wage, and sets out 11 National Employment Standards. Employees covered by the Fair Work Act have certain rights and entitlements depending on the industry they work in and their role.
- 8.3 Independent contractors—usually referred to as contractors or subcontractors—have different rights and obligations, as they are providing

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<sup>1</sup> Workers likely to be covered by the national system are those who work for a constitutional corporation; in Victoria (excluding law enforcement officers and public sector executives), in the Australian Capital Territory or Northern Territory (excluding members of the Police Force), in the private sector in New South Wales, Queensland or South Australia, and in the private or local governments sectors in Tasmania.

agreed services under a contract to a business, as distinct to being an employee of that business. For example, a subcontractor providing specified services to a client or head contractor on an infrastructure project. The Fair Work Act protects independent contractors from adverse action, coercion and abuses of freedom of association, and the *Independent Contractors Act 2006* establishes a national unfair contracts remedy for contractors.<sup>2</sup>

- 8.4 The workplace standards of conduct for Australian Government funded construction projects are set out in the *Code for the Tendering and Performance of Building Work* (the Code) and the Fair Work Act, which are enforced by the Australian Building and Construction Commission (ABCC).<sup>3</sup>
- 8.5 The Code imposes a comprehensive range of requirements, including compliance with work, health and safety (WHS) legislation. The ABCC outlined that a failure to comply with the Fair Work Act, the *Building and Construction Industry (Improving Productivity) Act 2016*, the *Independent Contractors Act 2006*, state and territory WHS laws or Commonwealth industrial instruments constitutes a breach of the Code.<sup>4</sup>
- 8.6 The Code also requires a Workplace Relations Management Plan for projects over a certain value. In these plans, head contractors must explain how their proposed systems, processes and procedures will promote a fair, lawful, efficient and productive workplace.<sup>5</sup>

## Productivity in the construction industry

- 8.7 Some groups questioned the construction industry's ability to deliver the significant scale of infrastructure in the upcoming 10-year pipeline, suggesting that the industry 'will struggle to meet the demand' if there is no reform addressing culture and productivity and incentivising people to work in the industry.<sup>6</sup> For many years the construction sector has exhibited lagging productivity, with growth of just 0.2 per cent per annum, compared

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<sup>2</sup> Fair Work Ombudsman, *Independent contractors*, Fact sheet, February 2021, <https://www.fairwork.gov.au/find-help-for/independent-contractors>, viewed 25 February 2022.

<sup>3</sup> Australian Building and Construction Commission (ABCC), 'What is the Code?', [www.abcc.gov.au/building-code/what-code](http://www.abcc.gov.au/building-code/what-code), viewed 25 February 2022.

<sup>4</sup> ABCC, *Submission 63*, p. 4.

<sup>5</sup> ABCC, *Submission 63*, p. 2.

<sup>6</sup> HWL Ebsworth Lawyers, *Submission 52*, p. 2.



to 0.5 per cent for manufacturing and 1 per cent for other industries, and productivity today standing at 'levels seen in the late 1990's'.<sup>7</sup>

- 8.8 Addressing issues in the workplace that impede greater participation and retention is now more important than ever for an industry already under pressure and significant skills gaps projected to increase. Low productivity does not only impact financial performance, but intersects with work-life balance, mental health, training and upskilling, and innovation—all of which are required for productivity growth.<sup>8</sup>

## Construction Industry Culture Taskforce

- 8.9 The Construction Industry Culture Taskforce (CICT) is a collaboration between the New South Wales (NSW) and Victorian public sectors, the Australian Constructors Association (representing the nation's largest construction firms) and Australia's leading workplace researchers. Established in August 2018, the CICT has been developing a Culture Standard through a consultative and evidence-based approach to leverage the procurement process, lift productivity and performance, and address major issues impacting the workforce.<sup>9</sup>
- 8.10 The draft Culture Standard, as released in October 2021 for consultation, proposed placing culture standard requirements for clients and contractors in key areas of wellbeing, 'time for life' (work-life balance) and diversity.<sup>10</sup> Consultations on the draft Standard closed on 30 November 2021.<sup>11</sup>
- 8.11 The Culture Standard will include a Culture Maturity Scorecard, involving the reporting on culture within organisations. The Scorecard comprises 20 elements grouped into eight categories (leadership, organisational goals, environment and support, communication, accountability, reporting systems and processes, innovation and learning, and engagement). The Scorecard

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<sup>7</sup> Civil Contractors Federation (CCF), *Submission 53*, p. 16.

<sup>8</sup> CCF, *Submission 53*, p. 16.

<sup>9</sup> Construction Industry Culture Taskforce (CICT), *Submission 21*, p. 2.

<sup>10</sup> Culture in Construction, *A Culture Standard for the Construction Industry*, Consultation Paper, October 2021.

<sup>11</sup> The Culture Standard will be updated in response to stakeholder feedback in early 2022. The CICT will then commence piloting the new Standard across a range of projects of different sizes, types and contract models in NSW and Victoria later in 2022. Results of the programs will then be shared with all states and territories, with further engagement and programs expected to follow.

enables organisations to understand their current performance against these elements, identify opportunities for improvement, and allow contractors to rate their organisation's performance on the elements.<sup>12</sup>

- 8.12 The CICT signalled that the cost of inaction on cultural reform, according to its recently commissioned research, is approximately \$8 billion per year.<sup>13</sup> Further, that while some work had been done over the years in the industry change has been minimal. The CICT explained that:

...these deficiencies in the culture of the industry are deeply embedded and inter-related in their cause and effect. Physical safety has rightly been an intense focus of the industry over many years, and that effort must continue and strengthen, but the same effort must go into addressing the risks posed by these other aspects of damaging workplace health and culture, which by comparison have been neglected.<sup>14</sup>

- 8.13 The CICT stressed that the work on the Culture Standard is critical as 'the industry alone has not been able to reform its culture'.<sup>15</sup> The CICT believes that governments must require change as part of its procurement practices for major infrastructure projects if they want to see improvements in productivity and reduce the harm to many in the construction industry.<sup>16</sup>

## Mental health and wellbeing

- 8.14 During the inquiry, contributors highlighted concerns about mental health and wellbeing issues affecting the construction industry workforce. In particular, the relationship between the working conditions in the industry, workers' quality of life and wellbeing, and incidents of mental health and suicide were discussed.

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<sup>12</sup> Culture in Construction, Culture Standard, [https://cultureinconstruction.com.au/wp-content/uploads/2021/10/Culture-Maturity-Scorecard\\_Consultation-Paper\\_October-2021.pdf](https://cultureinconstruction.com.au/wp-content/uploads/2021/10/Culture-Maturity-Scorecard_Consultation-Paper_October-2021.pdf), viewed 25 February 2022.

<sup>13</sup> The components of these costs to the economy are estimated to be \$6.1 billion (cost of lost wellbeing from work-related fatalities injuries and illness), \$708 million (productivity costs of consistently working overtime), \$643 million (cost of mental ill-health resulting in presenteeism – workers being present but with reduced output), and \$533 million (cost of higher incidence of construction worker suicides compared with other industries). Culture in Construction, *A Culture Standard for the Construction Industry*, Consultation Paper, October 2021, p. 12.

<sup>14</sup> Ms Gabrielle Trainor AO, Chair, CICT, *Committee Hansard*, 5 October 2021, Canberra, p. 42.

<sup>15</sup> Ms Gabrielle Trainor AO, Chair, CICT, *Committee Hansard*, 5 October 2021, Canberra, p. 43.

<sup>16</sup> Ms Gabrielle Trainor AO, Chair, CICT, *Committee Hansard*, 5 October 2021, Canberra, p. 43.

- 8.15 The CICT's submission highlighted that the workforce disproportionately experiences wellbeing issues compared to broader society, impacting the industry's ability to deliver the pipeline of work and attract and retain a healthy and productive workforce.<sup>17</sup>
- 8.16 The CICT emphasised that 'culture is one of the key reasons people choose to work in industries other than construction'.<sup>18</sup> Various groups suggested that construction industry culture has long been marred by characteristics such as being adversarial, outdated, rigid, physically demanding, with harsh work schedules and long hours, and lacking inclusivity.
- 8.17 Statistics relating to the mental health and overall wellbeing of the construction workforce indicate substantial challenges that necessitate reform. The committee heard that the construction industry has the second highest suicide rate in any sector, with workers six times more likely to die from suicide than a workplace incident—costing the Australian economy an estimated \$1.57 billion.<sup>19</sup> Research also indicates that 25.1 per cent of workers in the construction industry have been shown to have a mental health condition and elevated rates of depression and anxiety.<sup>20</sup>
- 8.18 Master Builders Australia pointed to the time-based nature of construction contracting as having an impact on mental health, citing studies that concluded that the unreasonable and tight deadlines often result in extreme stress and a pressure to complete projects to avoid delay costs being imposed. It was suggested that governments consider options to address programming pressures within procurement practices.<sup>21</sup>
- 8.19 'Fly-in-fly-out' (FIFO) working arrangements and the impact it has on mental health and wellbeing was also brought to the attention of the committee. The Construction, Forestry, Maritime, Mining and Energy Union (CFMMEU) told the committee that while FIFO is a 'fact of life' in some places due to the remoteness of some projects, the conditions of such an environment has a significant negative impact on mental health and wellbeing, especially in contributing to family stress:

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<sup>17</sup> CICT, *Submission 21*, pp. 2-3.

<sup>18</sup> CICT, *Submission 21*, p. 2.

<sup>19</sup> University of New South Wales (UNSW) Australian Human Rights Institute, *Submission 19*, p. 2.

<sup>20</sup> Laing O'Rourke, *Submission 36*, p. 10.

<sup>21</sup> Master Builders Australia, *Submission 44*, p. 5.

We still see resource companies and construction companies demanding four-week-on, one-week-off rosters on remote projects for FIFO for construction. Out of the seven days off people have on that four-and-one roster...they are expected to travel home and come back, often to the East Coast, often to regional places where there is an extra flight. You could not design a system that would be more targeted to breaking up families and damaging communities than a four-and-one roster for FIFO workers...The resource companies don't want to address the question of the four-and-one rosters, which have demonstrated to cause family breakdown, community dysfunction and some pretty ordinary outcomes, including suicide, and worse.<sup>22</sup>

- 8.20 There was also recognition of the range of mental health-focused organisations and initiatives currently active in the construction industry such as MATES in Construction, Beyond Blue, Black Dog, Incolink and the Building Trades Group. The CICT told the committee that the Culture Standard will include a more proactive and defined role for providers of these services that covers suicide prevention, support, and drug and alcohol rehabilitation. It was further emphasised that:

...the reason we feel that a cultural standard implemented via the procurement process...[and] having expertise at that procurement level to be able to implement this—that will enable a program of mental health support and wellbeing focus that will benefit the worker more so than an incident response could.

So having an approach which is programmed within the project schedule to support mental health and wellness, we feel at the CICT, would actually generate better outcomes than having one-off courses or training potentially rolled out on an ad hoc basis.<sup>23</sup>

- 8.21 The draft Culture Standard includes the following proposed requirements to improve construction industry support for the mental health of its workforce:

- 1.1: Organisations should have programs in place to identify and prevent mental health illnesses and support good mental health in a stigma-free space, schedule these programs to enable effective workforce

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<sup>22</sup> Mr David Noonan, National Secretary, Construction and General Division, Construction, Forestry, Maritime, Mining and Energy Union (CFMMEU), *Committee Hansard*, 5 October 2021, Canberra, pp. 50-51.

<sup>23</sup> Ms Diana Burgess, Project Manager, CICT, *Committee Hansard*, 5 October 2021, Canberra, p. 50.

participation, and ensure mental health first aiders are available on project sites.

- 1.2: When assessing health risks on the project, organisations will include risk controls that reflect current leading practice.
- 1.3: When developing project schedules, organisations should consider health risk mitigations, managing workload pressures and ensuring sufficient recovery opportunities. Organisations will demonstrate the above for consideration by the client as part of tender documentation.<sup>24</sup>

8.22 To better support worker wellbeing, the Culture Standard aims to foster a culture in the construction industry where workers have access to flexible work options and caps on working hours—noting the estimated \$708 million productivity cost attributed to consistently working overtime in the industry. To improve ‘time for life’ for construction industry workers, the draft Culture Standard proposes that:

- 2.1: Organisations program projects to provide for working hours of 50 hours or less per week, ensure that workers do not work in excess of 55 hours per week, and only operate sites from Monday to Friday—unless for specific reasons they must operate on other days, in which case work should be structured so individual workers have a five day per week program.
- 2.2: Organisations will develop and provide a flexibility plan outlining how they will support and promote flexibility for the project (including office and site-based roles). This plan will be drafted at tender stage and finalised 30 days after contract execution. Organisations will report performance against this plan as a standard item in client meetings and organisational leadership meetings.<sup>25</sup>

## Gender diversity

8.23 The construction industry is Australia’s most male-dominated industry. Women represent 12 per cent of the workforce and occupy approximately 2 per cent of on-site roles.<sup>26</sup> Research by the University of New South Wales (UNSW) Australian Human Rights Institute showed that women are leaving

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<sup>24</sup> Culture in Construction, *A Culture Standard for the Construction Industry*, Consultation Paper, October 2021, pp. 17-20.

<sup>25</sup> Culture in Construction, *A Culture Standard for the Construction Industry*, Consultation Paper, October 2021, pp. 22-24.

<sup>26</sup> CICT, *Submission 21*, p. 4.

engineering and construction 38 per cent faster than their male colleagues. While the construction industry is the third-largest employer in Australia, women's participation has declined in the last decade from 17 per cent to 11 per cent despite the introduction of gender equality measures by large construction companies and governments.<sup>27</sup> These poor figures reflect a significant challenge for the ongoing pipeline of workers.

8.24 The barriers to women's participation in the construction industry are multi-faceted. The committee heard about a range of issues that impact women's participation including access to amenities, safety on site, and access to proper fitting personal protection equipment, in addition to structural and cultural aspects of the working environment.

8.25 There is strong support for increasing female participation in construction, which is presented as one of the solutions for a more sustainable and productive construction industry. However, a substantial barrier imposed on attracting and retaining women is the rigidity of the industry's working conditions and practices which are contributing factors.

8.26 In an industry characterised by adversarial relationships across the board—with sometimes contentious relations between contractors and clients, subcontractors and head contractors, tradespeople and subcontractors, or designers and contractors—the Australian Constructors Association's Chief Executive Officer sees potential for greater female participation to help reduce the number of disputes in the industry, commenting that:

I think that if we had more women in our industry, we would get a far more balanced approach and far fewer disputes.<sup>28</sup>

8.27 The National Association of Women in Construction (NAWIC) told the committee that if the industry does not start attracting more women in construction:

...the likelihood of delivering those 105,000 jobs on the current timeline will be tenuous. However, that talent will not be attracted and retained if the

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<sup>27</sup> UNSW Australian Human Rights Institute, *Submission 19*, p. 1.

<sup>28</sup> Australian Constructors Association, '3AW Interview with Dee Dee Dunleavy with Jon Davies – 10 November 2021', <https://www.constructors.com.au/initiatives/construction-industry-culture-taskforce/>, viewed 7 March 2022.

industry's culture remains as it is and has always been—rigid, adversarial and inhospitable to a balanced lifestyle.<sup>29</sup>

8.28 UNSW found that work practices in construction are 'outdated' and 'rigid' and were not working for men or women. It also found that 'women were less willing and able to tolerate these work practices that do not allow them to combine work with care responsibilities'.<sup>30</sup> Other factors influencing women to leave the sector included a tolerance of sexism, informal career paths and gender bias.

8.29 The proposed requirements set out in the draft Culture Standard relating to diversity are:

- 3.1: Organisations will provide workplaces that enable inclusive participation by a diverse workforce, especially women, through self-assessing their current practices on the Culture Maturity Scorecard and developing a plan for achieving improvement on the project. They will be required to show evidence to support their results.
- 3.2: Organisations will provide workplaces that enable inclusive participation by the workforce through ensuring there is no pornography or offensive material in the workplace.
- 3.3: Organisations will provide workplaces that enable inclusive participation of a diverse workforce, particularly women, through ensuring appropriate amenities and personal protective equipment are provided on the project.
- 3.4: Organisations will target the appointment of women across critical workforce segments and strategic decision-making roles and develop a plan for the project to achieve these targets.
- 3.5: Organisations will target the appointment of women on their leadership and governing bodies or advisory boards and demonstrate commitment to this. Action is to include self-nominated targets, targets linked to industry average and specified targets.
- 3.6: Organisations are to identify and disclose gender pay gaps across job roles; and develop and implement a plan to reduce gender pay gaps.
- 3.7: Organisations are to create and implement professional standards for the interviewing, shortlisting and selection of people.<sup>31</sup>

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<sup>29</sup> Ms Kristine Scheul, Chair of National Board, National Association of Women in Construction (NAWIC), *Committee Hansard*, 5 October 2021, Canberra, p. 44.

<sup>30</sup> UNSW Australian Human Rights Institute, *Submission 19*, p. 2.

<sup>31</sup> Culture in Construction, *A Culture Standard for the Construction Industry*, Consultation Paper, October 2021, pp. 27-35.

8.30 NAWIC outlined in its submission its core policy goal of achieving a minimum of 25 per cent female participation across all the construction industry by 2025.<sup>32</sup> It recommended that the engagement of women should be a prerequisite to undertaking government contracts as reforming procurement practice is ‘one of the most significant ways in which the government can make an impactful and sustainable change to both the industry and women’s economic security’.<sup>33</sup> NAWIC outlined that:

This would be achieved by either mandating female participation in the projects as evaluation criteria. A requirement of 30 per cent participation of women and/or demonstrated gender equality policies such as gender pay gap audits, flexible working arrangements and leadership programs for women.<sup>34</sup>

8.31 In relation to establishing quotas or mandates NAWIC told the committee that the current approach to encouraging more women to work in the industry and retain them is not working. It stressed that the ‘softer target approach is not working’.<sup>35</sup>

8.32 However, the CFMMEU raised the issue of the barriers imposed by the current *Code for the Tendering and Performance of Building Work 2016* on establishing quotas. The CFMMEU explained that:

The construction unions—not just the CFMMEU, but also the ETU [Electrical Trades Union] and others—have, through bargaining, sought to reach agreement with employers to promote the proposition that there should be a minimum number of women engaged, and likewise apprentices and Indigenous Australians. That’s currently prohibited by the federal government’s Construction Code. You can’t have any quotas set by workplace agreements under the procurement guidelines. Although it would be perfectly legal to do so under the general laws of the land, there’s a particular set of requirements in that code that mean that any company that agreed to any quotas, including around women, would be in breach of the code...<sup>36</sup>

8.33 An area of opportunity for government to address women’s participation in construction that was brought to the committee’s attention is enhancing

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<sup>32</sup> NAWIC, *Submission 39*, p. 1.

<sup>33</sup> NAWIC, *Submission 39*, p. 2.

<sup>34</sup> NAWIC, *Submission 39*, p. 3.

<sup>35</sup> Ms Kristine Scheul, Chair of National Board, NAWIC, *Committee Hansard*, 5 October 2021, Canberra, p. 45.

<sup>36</sup> Mr David Noonan, National Secretary, Construction and General Division, CFMMEU, *Committee Hansard*, 5 October 2021, Canberra, p. 47.



education and training efforts, targeted at younger women prior to entering the workforce. While current government initiatives and programs were acknowledged, it was emphasised that more needed to be done to address the attractiveness of a career in construction for women.

- 8.34 NAWIC recommended establishing an ongoing and increasing pipeline of women by partnering with organisations focused on reaching women earlier in their careers. It recommended mandating requirements through contract for industry to engage with schools and tertiary institutions to engage female students, apprentices, and cadets to gain work experience, or via apprenticeships partly funded through the procurement by government.<sup>37</sup>
- 8.35 The Business Council of Australia proposed that another option is for government to extend the eligibility for Additional Identified Skills Shortage incentive payments to women taking up apprenticeships in occupations with skill shortages and low participation by women, including construction.<sup>38</sup>

## Committee comments

- 8.36 The committee recognises that there are already overarching employment standards that cover the Australian workforce more broadly and the construction industry specifically. This includes the *Fair Work Act 2009* and the *Code for the Tendering and Performance of Building Work* (the Code)—enforced by the Australian Building and Construction Commission—which set workplace standards that cover Australian Government funded construction projects. The Code imposes a comprehensive range of requirements, including compliance with work, health and safety legislation.
- 8.37 However, the committee believes that there needs to be a concentrated and coordinated effort to improve working conditions and culture in the construction industry. Improving these areas will enhance the industry's ability to attract and retain workers, improve safety, improve mental health and wellbeing, and boost productivity.
- 8.38 The committee understands that culture is not easily reformed, however, the infrastructure pipeline of work requires a sustainable and productive workforce. For an industry that has such an important part to play in Australia's economic recovery and future growth, the construction industry

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<sup>37</sup> NAWIC, *Submission 39*, p. 3.

<sup>38</sup> Business Council of Australia, *Submission 38*, p. 5.

is significantly hampered by cultural challenges that must be urgently addressed if it is to progress.

- 8.39 Research indicates that a quarter of construction sector workers are affected by a mental health condition and are experiencing elevated rates of depression and anxiety. Further, the committee notes the disturbingly high suicide rate in the construction industry—the second highest in any sector—with workers six times more likely to die from suicide than a workplace incident. In addition to the tragic loss of life, the committee also heard that this is costing the Australian economy an estimated \$1.57 billion.
- 8.40 The committee supports greater efforts to improve the diversity of the workforce, particularly gender diversity. It acknowledges that cultural issues are preventing a greater representation of women in the construction industry workforce—currently only 12 per cent—and that improving this will be beneficial for the entirety of the workforce, industry and indeed the wider economy.
- 8.41 There is strong support for increasing female participation in construction, not just as sound policy, but as one of the solutions for a more sustainable and productive construction industry. However, substantial barriers to attracting and retaining women are imposed by the rigidity of the industry's working conditions and practices. The committee recognises that these barriers to women's participation are multi-faceted, with concerns including access to amenities, safety on site, and access to proper fitting personal protection equipment, in addition to the structural and cultural aspects of the working environment.
- 8.42 In evidence presented to the committee, particular ways put forward to encourage more women to enter the workforce included greater training and education efforts and utilising the procurement process to put the issue of gender diversity at the forefront.
- 8.43 The committee recognises the work of the Culture in Construction Taskforce (CICT) in developing a Culture Standard to lift the productivity and performance of the construction industry and address the major issues holding it back—such as excessive work hours and fatigue, poor mental health, and a failure to attract a diverse workforce. The work of the CICT reflects the widespread industry support for these changes. The committee looks forward to seeing the final draft of the Culture Standard and encourages governments at all levels and industry to adopt and implement it as a priority.

8.44 The committee agrees that the Culture Standard will offer a significant framework for clients and contractors to work together to reshape the construction industry into one that supports health, safety, wellbeing, diversity and productivity in its workforce, and that can deliver Australia's infrastructure pipeline.

## **Recommendation 8**

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8.45 **To deliver on Australia's significant infrastructure pipeline of projects over the next decade, the committee acknowledges the importance of improving productivity in the construction industry and recommends that the Australian Government investigate how in the tender and delivery processes for government-funded infrastructure projects, firms can demonstrate their:**

- **commitment to, and compliance with, modern workplace standards**
- **support for sector cultural reform in areas including wellbeing, working hours and diversity of their workforces, and having regard to the Culture Standard for the Construction Industry being developed by the Construction Industry Culture Taskforce.**

**John Alexander OAM MP**

**Chair**

**25 March 2022**



# A. List of submissions and exhibits

## Submissions

- 1 Wildermuth Consulting
- 2 Dr Adam Paul Heaton
- 3 Tasmanian Government
- 4 Engineers Australia
- 5 Australian National Audit Office
- 6 Mr David Donnelly
- 7 Queensland Major Contractors Association
- 8 Grattan Institute
- 9 Georgiou Group
- 10 Joint Submission: Australian Constructors Association, Ai Group, Australasian Railway Association, Australian Institute of Quantity Surveyors, Australian Owned Contractors, Building SMART Australasia, Consult Australia, Engineers Australia, Infrastructure Partnerships Australia, Infrastructure Sustainability Council of Australia, Lean Construction Australia and New Zealand, National Association of Women in Construction National Board, Queensland Major Contractors Association and Roads Australia
- 11 Australian Constructors Association
- 12 Australian Institute of Quantity Surveyors
- 13 Department of Finance
- 14 Infrastructure Australia

- 15 WSP
- 16 Infrastructure New South Wales
- 17 Austroads
- 18 Hughes et al
- 19 University of New South Wales
- 20 Plenary Group Holdings Pty Ltd
- 21 Construction Industry Culture Taskforce
- 22 PMRT Consultants Pty Ltd
- 23 Ansarada Pty Ltd
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- 26 Department of Infrastructure, Transport, Regional Development and Communications
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- 28 Roads Australia
- 29 Construction, Forestry, Maritime, Mining and Energy Union
  - 29.1 Supplementary to submission 29
- 30 Australian Owned Contractors
- 31 Joint submission: Felix Group Holdings Ltd and Entwine Pty Ltd
- 32 Joint submission: BuildingSMART Australasia and Lean Construction Australia and New Zealand
- 33 Australasian Railway Association
- 34 Australian Sustainable Built Environment Council
- 35 Jacobs Group
- 36 Laing O'Rourke
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- 37 Australasian BIM Advisory Board
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- 41 New South Wales Farmers' Association
- 42 Australian Small Business and Family Enterprise Ombudsman
- 43 Infrastructure Partnerships Australia
- 44 Master Builders Australia
- 45 Softmed Pty Ltd
- 46 The Australian Workers' Union
- 47 RPS Group
- 48 Australian Chamber of Commerce and Industry
- 49 Apricity Finance Group Pty Ltd
- 50 Department of Industry, Science, Energy and Resources
- 51 Australian Industry Group (Ai Group)
- 52 HWL Ebsworth Lawyers
- 53 Civil Contractors Federation
  - 53.1 Supplementary to submission 53
- 54 IFM Investors
- 55 Australian Institute of Building
- 56 Adbri Limited
- 57 *Name Withheld*
- 59 Infrastructure Commissioner of the Northern Territory
- 60 Tindo Solar
- 61 Sell and Parker
- 62 JNT Consulting Pty Ltd
  - 62.1 Supplementary to submission 62
- 63 Australian Building and Construction Commission

## Exhibits

- 1 Confidential
- 2 Queensland Major Contractors Association



## B. Public hearings and witnesses

**Tuesday, 14 September 2021**

Videoconference, Parliament House, Canberra

*Consult Australia*

- Mr Gerry Doyle, President
- Mrs Nicola Grayson, Chief Executive Officer
- Ms Kristy Eulenstein, Head of Policy and Government Relations

*Australian National Audit Office*

- Ms Carla Jago, Group Executive Director, Performance Audit Services Group
- Mr Brian Boyd, Executive Director, Performance Audit Services Group
- Ms Amy Willmott, Senior Director, Performance Audit Services Group

*Australian Industry Group Limited (Ai Group)*

- Mr Lindsay Le Compte, General Manager, Construction and Infrastructure

*Grattan Institute*

- Ms Marion Terrill, Transport and Cities Program Director

*Sydney Water*

- Ms Maryanne Graham, General Manager, Customer, Strategy and Engagement
- Mr Bernie Sheridan, General Manager, Customer Delivery
- Mr Paul Plowman, General Manager, Asset Lifecycle
- Mr Mark Simister, Head of Program Delivery

*Department of Defence*

- Mr Tony Fraser AO, CSC, Deputy Secretary, Capability Acquisition and Sustainment Group
- Ms Kate Cameron, Assistant Secretary, Centre for Defence Industry Capability
- Ms Judy Denison, Defence Industry Adviser, Manager
- Dr Peter Sawczak, First Assistant Secretary, Defence Industry Policy
- Ms Celia Perkins, Deputy Secretary, Estate and Infrastructure Group
- Mr Daniel Fankhauser, First Assistant Secretary, Infrastructure

**Tuesday, 5 October 2021**

Videoconference, Parliament House, Canberra

*Australian Constructors Association*

- Ms Meg Redwin, Vice President
- Mr Jon Davies, Chief Executive Officer

*Master Builders Australia*

- Mrs Denita Wawn, Chief Executive Officer
- Mrs Alexandra Waldren, National Director, Industry Policy

*Civil Contractors Federation*

- Mr Christopher Melham, Chief Executive Officer, National

*Queensland Major Contractors Association*

- Mr John Kirkwood, Board Chair
- Mr Adam Edwards, Board Member
- Mr Andrew Chapman, Chief Executive Officer

*Australian Owned Contractors*

- Mr Brent Crockford, Chief Executive Officer
- Mr John Georgiou, Director
- Mr Scott Power, Director

*Georgiou Group*

- Mr Robert Monaci, Chief Executive Officer
- Mr Philip Larson, Business Development Manager

*Laing O'Rourke*

- Mr Mark Dimmock, Director, Clients and Markets

*Construction Industry Culture Taskforce*

- Ms Gabrielle Trainor AO, Chair
- Ms Diana Burgess, Project Manager

*Construction, Forestry, Maritime, Mining and Energy Union*

- Mr David Noonan, National Secretary, Construction and General Division
- Ms Lucinda Weber, Senior Legal Officer, Construction and General Division

*National Association of Women in Construction*

- Ms Kristine Scheul, Chair of National Board

*University of New South Wales*

- Dr Natalie Galea, Postdoctoral Fellow, Australian Human Rights Institute
- Ms Annabel Short, Senior Advisor, Built Environment, Institute for Human Rights and Business

**Thursday, 14 October 2021**

Videoconference, Parliament House, Canberra

*Australian Institute of Quantity Surveyors*

- Mr Grant Warner, Chief Executive Officer
- Mr Simon Squire, Board Member
- Mr Mike O'Shea, Director and Chair of Infrastructure Steering Committee

*Engineers Australia*

- Ms Sybilla Grady, Senior Policy Advisor
- Mrs Mirela Derrin, Chartered Member
- Mr David Karr, Chartered Member

*Roads Australia*

- Mr Scott Olsen, Vice President and Board Member
- Mr Michael Kilgariff, Chief Executive Officer
- Mr Royce Christie, Director, Policy

*Australasian Railway Association*

- Mr Julian Sharp, Board Member; Chair of ARA Rail Contractors Group; and Project Director CPB Contractors
- Ms Natalie Currey, General Manager Supply Chain

*Jacobs Group*

- Mr Keith Lawson, Senior Vice President and General Manager, Asia Pacific and Middle East
- Mr Matthew Faust, Vice President and Executive Market Director, Roads, Ports and Aviation
- Mr Nick Monaghan, Regional Director of Projects

*WSP*

- Mr Tim Gosbell, Director of Transport Clients
- Mr Allan Murray, Indigenous Specialist Services and Indigenous Engagement

*Australasian BIM Advisory Board*

- Mr Andrew Curthoys, Chairperson
- Mr Richard Choy, Executive Committee Member

*Austroads*

- Mr Ross Guppy, Program Manager

*Ansarada Pty Ltd*

- Mr Simon Giles, Business Development Director

*BuildingSMART Australasia and Lean Construction Australia and New Zealand*

- Mr Eric Bugeja, Chairperson, BuildingSMART Australasia
- Mr Ken Panitz, Director, Lean Construction Australia and New Zealand

*Felix Group Holdings Ltd and Entwine Pty Ltd*

- Mr Mike Davis, Chief Executive Officer, Felix Group Holdings
- Ms Leah Singer, Owner and Director, Entwine

**Wednesday, 10 November 2021**

Videoconference, Parliament House, Canberra

*IFM Investors*

- Mr Michael Hanna, Head of Infrastructure, Australia

*Plenary Group Holdings Pty Ltd*

- Mr David Lamming, Chief Executive Officer
- Mr Paul Crowe, Chief Investment Officer
- Mr Damien Augustinus, Managing Director, Origination

*Hughes et al*

- Mr Ben Hughes, Managing Director
- Mrs Suzanne Mitchell, Regional Director

*Australian Small Business and Family Enterprise Ombudsman*

- The Hon Bruce Billson, Ombudsman
- Miss Alexandra Hordern, Director, Policy and Advocacy

*Apricity Finance Group Pty Ltd*

- Mr Linden Toll, Chief Executive Officer

**Tuesday, 16 November 2021**

Videoconference, Parliament House, Canberra

*Business Council of Australia*

- Dr Jennifer Westacott AO, Chief Executive
- Mr Guy Templeton, Co-Chair, Infrastructure, Construction and Housing Committee; and Chief Executive Officer, WSP, Asia Pacific

*JNT Consulting Pty Ltd*

- Mr John Matta, Director and Founder
- Dr Kenn Sullivan, Managing Member, Simplar Sourcing Solutions LLC
- Mr John Savicky, Managing Member, Simplar Sourcing Solutions LLC

*Mace Group*

- Mr Lee Callaghan, Principal
- Mr Dale Evans, Principal
- Mr Andrew Quincey, Principal
- Mr Robert Fields, Managing Director

*Australian Institute of Building*

- Mr John Gaskin, National President
- Mr Geoffrey Dart, Executive Director

*North Projects Pty Ltd*

- Mr Michael James, Associate Director
- Mr Andrew Devery, Associate
- Mr Matt Evans, Associate

*Infrastructure Sustainability Council of Australia*

- Mr Patrick Hastings, Chief Delivery Officer

*Green Building Council of Australia*

- Ms Davina Rooney, Chief Executive Officer
- Mrs Katy Dean, Policy Adviser

*Tindo Solar*

- Mr Shayne Jaenisch, Chief Executive Officer

**Thursday, 18 November 2021**

Videoconference, Parliament House, Canberra

*Infrastructure Australia*

- Mr Peter Colacino, Chief Policy and Research

*Department of Infrastructure, Transport, Regional Development and Communications*

- Mr Philip Smith, First Assistant Secretary, Infrastructure Investment Division
- Ms Lisa La Rance, Assistant Secretary, Investment Advisory and Business Improvement
- Dr Louise Rawlings, Head, Bureau of Infrastructure and Transport Research Economics

*Department of Industry, Science, Energy and Resources*

- Ms Donna Looney, Acting Head of Division, Industry Growth Division
- Mrs Sabrena King, Acting General Manager, Industry Capability and Participation Branch
- Mr David Osborn, General Manager, Safety and Technical, Australian Radioactive Waste Agency

*Department of Finance*

- Ms Stacie Hall, Acting Deputy Secretary, Commercial and Government Services

- Mr Andrew Danks, First Assistant Secretary, Procurement and Insurance Division, Commercial and Government Services
- Mr Christopher Flinders, Acting Assistant Secretary, Procurement Policy Branch, Procurement and Insurance Division, Commercial and Government Services