The Senate

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Economics
References Committee

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Future of Australia’s naval shipbuilding industry

Final report

June 2018
Committee membership during the 45th Parliament

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### Abbreviations

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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ADF</td>
<td>Australian Defence Force</td>
</tr>
<tr>
<td>AIC</td>
<td>Australian Industry Capability</td>
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<tr>
<td>AIP</td>
<td>Australian Industry Plan</td>
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<tr>
<td>AISC</td>
<td>Australian Industry and Skills Committee</td>
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<tr>
<td>AMWU</td>
<td>Australian Manufacturing Workers' Union</td>
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<td>ANAO</td>
<td>Australian National Audit Office</td>
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<tr>
<td>AOR</td>
<td>Auxiliary Oiler Replenishment (also referred to as Supply Ship Program)</td>
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<tr>
<td>ASC</td>
<td>ASC Pty Ltd, formerly Australian Submarine Corporation</td>
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<tr>
<td>ANI</td>
<td>Australian Naval Infrastructure Pty Ltd</td>
</tr>
<tr>
<td>ASPI</td>
<td>Australian Strategic Policy Institute</td>
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<tr>
<td>AUD</td>
<td>Australian dollar</td>
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<tr>
<td>AWD</td>
<td>Air Warfare Destroyer, also known as Hobart Class Destroyer</td>
</tr>
<tr>
<td>CASG</td>
<td>Capability Acquisition and Sustainment Group, Department of Defence</td>
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<tr>
<td>CDIC</td>
<td>Centre for Defence Industry Capability</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CEP</td>
<td>Competitive Evaluation Process</td>
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<tr>
<td>DCNS</td>
<td>Direction des Constructions Navales (name changed to Naval Group in June 2018)</td>
</tr>
<tr>
<td>DCP</td>
<td>Defence Capability Plan</td>
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<tr>
<td>Defence</td>
<td>Australian Defence Organisation</td>
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<tr>
<td>DICP</td>
<td>Defence Industrial Capability Plan</td>
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<tr>
<td>DIPS</td>
<td>Defence Industry Policy Statement</td>
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<tr>
<td>DMO</td>
<td>Defence Materiel Organisation</td>
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<td>DMTC</td>
<td>Defence Materials Technology Centre</td>
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Executive summary and recommendations

In the previous Parliament, this committee tabled three reports on the future of Australia’s naval shipbuilding industry. The committee's first and second reports dealt with the tender process for the navy's new supply ships and the pre-tender process for the future submarines, respectively. The committee's third report reaffirmed recommendations made in earlier reports, and also made findings applicable to the wider topic of Australia's future shipbuilding industry, including a recommendation that particular matters be included in the government's Naval Shipbuilding Plan. In this final report, the first in this Parliament, the committee builds on its earlier findings and recommendations, and has also examined the naval shipbuilding plan, and recent procurement and policy announcements made by the government.

The committee remains concerned about the government's management of the naval shipbuilding programs, particularly given the findings of the Auditor General in Audit Report No. 39 Naval Construction Programs—Mobilisation. The Auditor General concluded that in order for the submarine program to be successful, implementation of the programs must be 'seamless'. There are early warning signs that the government’s management of naval shipbuilding is far from seamless. Further, the committee is concerned that the government has at times actively excluded Australian workers and shipbuilders from participating in naval shipbuilding programs.

In relation to the Future Submarine Program, the committee was disappointed to hear that the Strategic Partnership Agreement (SPA) between the Commonwealth and Naval Group Australia is still under negotiation, placing enormous cost and scheduling pressures on work programs reliant on a completed SPA. The committee is concerned that in the absence of a signed SPA, the delay in the transfer of background intellectual property and information between the parties will place the whole submarine project under enormous cost and scheduling pressures. The committee is also concerned that delays related to the future submarine program risk leaving a sovereign capability gap.

In relation to the Future Frigate Program, the announcement of the successful designer for the future frigates program is due by the end of June 2018. The committee is concerned that there will be minimal participation from the Australian shipbuilding industry because the government's request for tender does not require the three shortlisted foreign designers to subcontract Australian businesses in their proposals. This decision undermines the government's publicly stated commitment to the local shipbuilding industry and its workforce, and runs counter to the development of domestic and sovereign capability. The committee believes that it is not too late to include a mandatory requirement that Australian businesses be involved in the future frigate program, and evidence suggested that such inclusion would accelerate the program rather than delay it.
In relation to the Offshore Patrol Vessel Program (OPV), the procurement process was poorly managed. The government inserted Austal into Luerssen's commercial negotiations after the announcement that Luerssen was the preferred tenderer. This approach did not put Austal in a strong negotiating position, nor was there any incentive for Luerssen to reach a mutually beneficial settlement once it had won the prime contract.

The Auditor General expressed concern that the OPV program had progressed through second-gate approval without detailed sustainment costs and finalised commercial arrangements. The committee shares these concerns and notes that any disruptions to the OPV build will result in subsequent disruptions to the Future Frigate Program.

Other examples of cost blow outs, delays and poor management include the following.

- The delay and cost increases related to the establishment of the Naval Shipbuilding College. The cost of the college has increased from $25 million to $62 million, even before the College’s ongoing costs have been considered. The College was scheduled to commence operations in January 2018 but is still not operational.

- The Naval Shipbuilding Advisory Board, established in December 2016, has already cost taxpayers more than $2.4 million in payments to board members alone. The committee has not been provided with any evidence that the board represents value for money, and remains unclear as to the role of the board. The committee is also concerned at recent attempts by the board to avoid public scrutiny.

- The appointment of former Defence Minister, David Johnston to the position of Defence Export Advocate is perplexing given his failure to recognise the skills and strategic importance of the Australian Submarine Corporation (ASC) and his potential conflicts of interest. The committee is also concerned about the lack of transparency relating to his appointment and his remuneration.

- The government's lack of planning and failure to communicate regarding the future role of the ASC and its staff, as the numbers of ASC staff continues to fall.

Nevertheless, throughout this inquiry the committee was reminded of the tremendous capacity of Australian industry and Australian workers to contribute to the naval shipbuilding enterprise. The committee notes that the decision on the Future Frigates is imminent. It is critical for the development of Australia's sovereign capability that Australian shipbuilders have a significant role in the build of the Future Frigates.
National long-term planning

National long-term planning is vitally important for Australia's naval shipbuilding industry to sustain and consolidate its sovereign capability. The release of the naval shipbuilding plan on 16 May 2017 attempted to formalise a long-term plan for the industry. However, the committee believes that further work is required to provide a more comprehensive and holistic long-term plan for the Australian naval shipbuilding industry.

The naval shipbuilding plan failed to include key information identified by witnesses as vital for inclusion. For example, the plan lacks guidelines about mandated levels of Australian industry involvement and content in defence projects. As a result, information about when Australian industry involvement and content should be achieved in these projects, how these requirements would be enforced, and what penalties exist for not adhering to the mandated requirements, is absent.

A plan should be a strategic document for industry and provide a framework for action. However, this plan is little more than a repetition of decisions and announcements already made. The plan does not provide a detailed project schedule for the continuous build and it does not specify the related dependencies between projects. Further, limited detail is provided about projects. For example, little information is available in the Plan regarding the $100 million naval infrastructure investment in Western Australia promised by the government. A further weakness is that the Plan does not mandate regular reporting or updates. The committee considers that a status report and an updated plan should be provided to Parliament every 6 months.

In sum, the committee considers that the government’s Naval Shipbuilding Plan is limited in scope and falls short of contributing to the goal of a continuous building of ships in Australia.

The committee considers that a continuous build of ships and utilisation of Australian industry is more readily achievable through the development of a truly national shipbuilding plan that includes all Commonwealth vessel procurements and leases, state vessel procurements, as well commercial opportunities and support for a growing exports industry. The committee considers that one national plan is required. This plan should incorporate the government's existing naval shipbuilding plan, along with plans for other Commonwealth and state/territory vessels, commercial vessels, and all existing Australian shipbuilding yards. Australia can only plan for, and achieve, a continuous build of ships, if all ships produced in Australia are included in a national plan.

The committee notes that state and territory procurements are a matter for state governments and that procurement frameworks differ across jurisdictions. Moreover, the committee is aware that in the past decade a large number of state and territory vessel procurements have been awarded to Australian industry. On balance, the committee considers that there is value in developing a shared principles framework to ensure that:

- state involvement in industry continues;
• the Commonwealth can learn from the states; and
• the Commonwealth and state and territory governments work together to ensure a national continuous build of ships, maximising Australian involvement.

Recommendation 1

3.116 The committee recommends that the Commonwealth and state governments work together to develop a national shipbuilding plan, incorporating the existing naval shipbuilding plan. A national shipbuilding plan should include the following:

• agreed procurement principles focused on support for a continuous build of vessels in Australia utilising Australian industry and Australian shipyards;
• at a minimum, all vessels procured by the Commonwealth, scientific and research vessels, federal police and customs and border protection vessels, and agriculture vessels. These procurements should be subject to the same level of scrutiny as naval procurements have been, and be planned accordingly in the national interest;
• how remaining shipyards not identified in the government’s naval shipbuilding plan will be utilised in a continuous national shipbuilding build program;
• how Australia's commercial and exports industry can be supported and planned for into the future;
• the requirement that reporting against the plan be provided every six months to the Commonwealth Parliament for scrutiny; and
• any other matters deemed essential to the development of a holistic national plan.

Recommendation 2

3.117 The committee recommends that in the absence of a national shipbuilding plan in the short term, reporting against the government's current naval shipbuilding plan and its four key enablers and three major continuous build programs be provided to the Commonwealth Parliament every six months.

Workforce planning strategy

Workforce planning is critical for the successful implementation of the naval shipbuilding plan and the government's continuous build of naval ships in Australia.

The committee examined the government's workforce plan, industry demographics and key skills required for the industry, and training opportunities available for new employees. The committee also examined of the future of the Australian Submarine Corporation (ASC) and its workforce.

On 11 October 2016, the government announced that the ASC would be separated into three individual government owned companies: shipbuilding, submarine sustainment
and infrastructure. This announcement was not widely publicised until much later and the practical implications remain unclear. During the course of the inquiry the committee learned that the separation had not in fact occurred.

The government is considering moving ASC Collins Class submarine heavy sustainment activities from Adelaide to Perth, leaving hundreds of workers in limbo about their future. The naval shipbuilding plan provided no detail about the long term plan for the location and usage of Australian shipyards. The committee does not understand how a naval shipbuilding plan could have been published without holistic consideration of all Australian shipyards and their employees. This has led to uncertainty for Australian industry and for Australian workers, who need certainty about where this work will occur and need to know the government's plans for Australian naval yards. A lack of transparency about these decisions is a significant failure on the part of the government.

Further, the number of ASC staff continues to fall. The committee finds it difficult to understand why the additional appropriation for scholarships, valued up to $29.4 million, was not made available to prevent the recent loss of ASC jobs. The build of the first offshore patrol vessel is imminent and the future frigate and submarine programs will soon follow. In this environment, retaining the shipbuilding workforce in readiness for a rapidly expanding workforce should be a priority.

The complexity of the continuous shipbuilding task requires seamless transferability and mobility of skills between the various projects. The task will not be assisted by incoherence between training structures and the development and validation of training products. For these reasons, the formation of the Naval Shipbuilding Industry Reference Committee (IRC) is puzzling. The Naval Shipbuilding IRC appears to duplicate the work of existing IRCs, yet adequate measures have not been implemented to prevent significant overlap with the work of the current IRCs. The committee heard no evidence to suggest that existing IRCs are failing to meet the specific needs of naval shipbuilding.

**Recommendation 3**

4.115 The Committee recommends that the government prioritise finalising the future location of Collins Class sustainment activities and confirm plans for the future of the ASC and its employees.

**Recommendation 4**

4.116 The committee recommends that the funding announced in MYEFO expenditure of $29.4 million over three years from 2017-18 for ASC job retention scholarships be immediately released to the ASC to prevent further job losses from the strategically vital naval shipbuilding industry.

**Recommendation 5**

4.117 The committee recommends that the Naval Shipbuilding College establish structured consultations mechanisms with Industry Reference Committees associated with Naval Shipbuilding Occupations.
Recommendation 6

4.118 The committee recommends that the Australian Industry Skills Committee task the existing Industry Reference Committees, responsible for the development of training products associated with naval shipbuilding occupations, with establishing Technical Advisory Groups to ensure that skills gaps identified through their own industry consultations or by Naval Shipbuilding Colleges are integrated into existing training package development and maintenance work.

Australian sovereign capability

It is vitally important that Australia develop and maintain a sovereign capability to design and build ships in this country. By doing so, Australia will have a naval shipbuilding industry that will generate sustainable, long-term jobs in our country. The committee was dismayed to learn that Austal had been cut from the $3 billion Offshore Patrol Vessel program. This decision by the government reveals how poorly the project has been managed.

An Australian sovereign capability in naval shipbuilding is vital for the defence of the nation and the capacity of Australian industry to meet future defence needs. However, without clearly defined and mandated requirements outlining the level of Australian industry involvement and content required in defence projects, the survival of an Australian naval shipbuilding industry with sovereign capability is at risk.

The recent Industrial Capability Plan has moved in the right direction by requiring an Australian company to have more than an ABN to be considered local.

The government states that it is committed to achieving 'maximum participation' of local industry. But the phrase 'maximum participation' does not describe what is being evaluated. Does this phrase refer to Australian labour involvement in the build, the percentage of Australian products used, or both? The committee did not receive advice about what constitutes Australian involvement, or definitions of terms such as 'involvement', 'content' and participation'. Clear and precise definitions agreed to by industry and the government are essential in order to examine any mandated requirements. This is a necessary first step in securing Australian sovereign capability for each of the major projects set out in the government's naval shipbuilding plan.

The committee has seen a copy of the draft Naval Group AIC plan for the future submarine project, obtained through a Senate order for production. The release of this draft document enabled the committee to examine the plan, and discuss its contents with industry witnesses and the Department of Defence at public hearings. The final document was provided to the Department of Defence in April 2018. The committee notes that the Department has indicated an intention to comply with the order for the production of the document. The document is yet to be released to the committee or tabled in the Senate.

Draft tenderer AIC plans submitted to the Department of Defence during the competitive evaluation processes for Defence projects should be made available for
This would occur after a successful tenderer has been selected, but before the AIC plan is finalised between the Department of Defence and the successful tenderer. This is preferable to using coercive measures, such as an order for production in the Senate, before such information is made available.

In addition, the committee believes there is value gained through prescribing a formal, periodic Senate examination of these plans against actual project progress to ensure that Australian industry commitments outlined in the plan are met. The drafting and finalisation of contracts and AIC plans should not take place behind closed doors. These processes should be transparent and subject to parliamentary and public debate considering how much taxpayer money is at stake.

**Recommendation 7**

5.94 The committee recommends that the government provide clear definitions about what constitutes Australian involvement, content, and participation, and how this will be achieved in each project outlined in the government's naval shipbuilding plan. These definitions and requirements for Australian industry involvement are to be stipulated in each contract.

**Recommendation 8**

5.95 The committee recommends that Australian Industry Capability plans for new Defence naval projects are subject to examination by the Senate – conducted in a manner similar to international treaties. The committee further recommends that finalised Australian Industry Capability plans are subject to six monthly reviews against progress by the Senate.

**Support available to small and medium sized enterprises**

The committee examined the difficulties encountered by small and medium sized enterprises when attempting to become part of supply chains.

The Naval Shipbuilding Plan outlines the government's commitment to the inclusion of Australian industry in supply chains. One way that this is achieved is by a requirement that tenderers complete an Australian industry participation plan as part of their bid for major defence contracts.

The committee acknowledges the value of creating an Australian Industry Capability Plan during the tender process for government programs. However, without mandated Australian industry requirements for involvement and content, or enforcement to ensure that the successful tenderers' industry plan is adhered to, the committee is not assured that the government has taken all steps available to fully support Australian SMEs.

The committee is supportive of the industry briefing days that took place in 2017 and the effort demonstrated by both the Department of Defence and prime companies to engage with local industry about upcoming programs. While it is still too early to evaluate the effectiveness of the support provided to SMEs by the CDIC and the NGTF, the government must continue to support SMEs while these evaluations take place.
In the absence of other support, industry briefing days are not enough. The committee notes that SMEs require meaningful, practical assistance as they begin to develop technologies and work to improve their products so that they meet the standards required by the primes. This includes support for crucial research and development.

The committee is concerned that delays could affect the ability of industry to participate in naval shipbuilding programs.

However, while the government appears to have been providing multiple avenues of support to SMEs, particularly in the past 12 months, unless recommendations seven and eight are implemented, SMEs will continue to face uncertainty about their long-term involvement in government programs.
Chapter 1
Introduction

1.1 The inquiry into the future of Australia's naval shipbuilding industry was conducted over the course of two Parliaments. On 11 October 2016, following the 2016 federal election\(^1\), the Senate re-adopted the inquiry into naval shipbuilding from the 44th Parliament in the 45th Parliament. In re-referring the inquiry, the Senate agreed to an amended terms of reference to reflect advances in the inquiry:

The future sustainability of Australia’s strategically vital naval shipbuilding industry, including:

a) the development of contracts relating to naval ship and submarine building;

b) the design, management and implementation of naval shipbuilding and submarine defence procurement projects in Australia;

c) the utilisation of local content and supply chains;

d) the integration of offshore design work and supply chains in Australia;

e) opportunities for flow on benefits to local jobs and the economy; and

f) any related matters.

1.2 On 27 November 2017, the Senate granted the committee an extension to report from 1 December 2017 to 27 June 2018.

Submissions and public hearings

1.3 The committee received 21 submissions following the re-referral in the 45\(^{th}\) Parliament, as well as additional information, including answers to questions on notice, listed at Appendix 1.

1.4 The committee held six public hearings:

- 3 April 2017 in Perth;
- 4 April 2017 in Adelaide;
- 20 June 2017 in Canberra;
- 8 September 2017;
- 13 October 2017; and
- 7 June 2018.

\(^1\) On 9 May 2016, the inquiry lapsed with the dissolution of the Senate and the House of Representatives ahead of a federal election on 2 July 2016.

Evidence received at several Senate Estimates hearings in 2017 and 2018 is directly relevant to this inquiry and has been used throughout this report. The Finance and Public Administration Legislation Committee held Senate Estimates hearings with the Australian Submarine Corporation (ASC) on:

- 28 February 2017;
- 24 May 2017;
- 24 October 2017;
- 23 February 2018; and
- 27 February 2018.

The Foreign Affairs, Defence and Trade Legislation Committee held Senate Estimate hearings with the Department of Defence on:

- 30 March 2017;
- 29 May 2017;
- 30 May 2017;
- 25 October 2017;
- 28 February 2018; and a
- 29 May 2018.

**Background**

During the 44th Parliament, the overall terms of reference for the inquiry was first referred to the Senate Economics References Committee on 25 June 2014. The terms of reference was straightforward yet comprehensive in its coverage—the future sustainability of Australia's strategically vital naval shipbuilding industry. The inquiry contained several parts, including a more narrow terms of reference adopted by the committee on 10 July 2014 for Part I of the inquiry—examining the tender process for the Royal Australian Navy's new supply ships and any related matters given its significant impact on the Australian shipbuilding industry.

The previous terms of reference is contained in the committee's first report and is also available on the committee's webpage.

The committee tabled three substantive reports on Australia's naval shipbuilding industry:

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Part I - the tender process for the new supply ships, tabled on 27 August 2014;
Part II - the future submarines, tabled on 17 November 2014;
Part III - long-term planning, tabled on 1 July 2015.

First report, Part I— Tender process for the navy's new supply ships

1.11 On 10 July 2014, as part of its broader inquiry into Australia's naval shipbuilding industry, the committee resolved to inquire into the tender process for the Royal Australian Navy's (RAN) new supply ships as its first order of business. This decision was prompted by the government's announcement on 6 June 2014 that it had given approval for Defence to conduct a limited competitive tender between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea for the construction of ships.

1.12 During this inquiry, the committee considered the strategic importance of the replenishment of supply ships to the Australian Navy; the capacity of Australian industry to build the ships; and the contribution that such construction could make to sustaining Australia's naval shipbuilding industry. The committee tabled this report on 27 August 2014. The committee recommended that the tender process for the two supply ships be opened up to allow all companies, including Australian companies, to compete in the tender. It further recommended that tender documents should clearly note that a high value would be placed on Australian content in the project. The report's recommendations are reproduced at Appendix 2.

1.13 On 11 May 2015, the government's response was tabled responding to the report's four recommendations.4 The government disagreed with three of the four recommendations, and agreed in principle with the recommendation that Defence should become actively involved in encouraging and to supporting Australian industry to explore opportunities to become involved in the replenishment ship project.

Second report, Part II—Future submarines

1.14 In the second report tabled 17 November 2014, the committee recognised the immense national importance of the future submarine project and of every decision relating to the project. The committee highlighted the vital importance of having ideas and proposals thoroughly tested and assumptions about the future submarines objectively and critically assessed by competent personnel in order to provide government with the best possible advice. In the committee's view, open and informed debate would confer much needed transparency on government decisions; it would allow genuine scrutiny of government decisions; and provoke robust and informed analysis.

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3 A final report was due 28 August 2015. On the 28 August 2015, the committee tabled a fourth interim report in the form of a letter as an interim measure, noting the committees intention to table a final report on or before 26 February 2016, after the conduct of a further public hearing. A final report was not tabled.

4 A detailed assessment of the government's response is discussed in Chapter 2, of the committee's Third report.
1.15 Such a process, the committee reasoned, would also enable public, industry and multi-partisan political support for the proposed acquisition to be obtained. The committee asserted that the decision to acquire future submarines was a decision in the national interest and should be owned by Australians. The report's recommendations are reproduced at Appendix 3.

1.16 On 21 March 2017, the government's response was tabled responding to the report's five recommendations. The government agreed in part with recommendation 5, and noted the remainder.

**Third report, Part III—Long-term planning**

1.17 The committee's third report tabled in July 2015, developed and expanded on the findings of the first and second reports noting concern with the limited tender process used for the acquisition of the new supply ships. In particular, the committee expressed concern that to select just one contender at this early juncture may be premature and that the government should consider proceeding with two tenderers who could then further refine their proposals and develop their design to a more mature stage. As part of the report's six recommendations, the committee recommended that the government adopt a specific procurement process to acquire the 12 future submarines.

1.18 The report also examined the competitive evaluation process for Australia's future submarines, the independent audit of the Air Warfare Destroyers project, the continuous build of vessels, the development of an enterprise-level naval shipbuilding plan, and industry investment. All six of the report's recommendations are reproduced at Appendix 4.

1.19 On 21 March 2017, the government's response was tabled responding to the report's six recommendations. The government disagreed with recommendation 3, agreed in principle with recommendations 5 and 6 and noted the remainder. Significantly, the government rejected a recommendation, also contained in the committee's first report, that the tender process for the two replacement replenishment ships be opened up to allow Australian companies to compete and place a high value on Australian content. The government awarded the contract to Navantia S.A. and the ships are being built in Spain.

**Structure of the report**

1.20 This report comprises 6 chapters including this introduction. In summary:

- Chapter 2 – Background
- Chapter 3 – National long term planning
- Chapter 4 – Workforce planning strategy
- Chapter 5 – An Australian sovereign capability
- Chapter 6 – Support available to small and medium-sized enterprises
Note

1.21 References to the Hansard transcript throughout the report refer to the official transcript, unless otherwise stated. Page numbers may vary between the proof and official transcript.

1.22 On 28 June 2017, DCNS officially changed its name to Naval Group. All references in this report are to Naval Group Australia except where direct quotations have been used.

Acknowledgements

1.23 The committee thanks all those who assisted with the inquiry, especially those who made written submissions and attended the committee's public hearings. Witnesses are listed at Appendix 5.

Chapter 2

Background

2.1 This chapter provides an overview of the Commonwealth's ambition to establish an indigenous naval shipbuilding enterprise in Australia and outlines some major developments following the tabling of the committee's third report in July 2015.

2.2 Since the committee's last report, the government has made a series of announcements supporting the implementation of a continuous Australian naval shipbuilding industry worth $89 billion. These announcements, which were formalised in the government's Naval Shipbuilding Plan (NSP) published in May 2017, commit to the construction of naval vessels in Australia, as well as infrastructure upgrades and governance matters.

2.3 The government's commitment to a continuous shipbuilding program is based on three build programs for submarines, major surface combatants (frigates and destroyers) and minor naval vessels, including:

- A rolling acquisition of submarines, commencing with the Future Submarine Program (SEA 1000)—a rolling acquisition program of 12 future submarines worth up to $50 billion, with construction commencing from 2022 to 2023 at the Osborne Naval Shipyard;

- A continuous build program for major surface combatants, commencing with the Future Frigate Program (SEA 5000)—a continuous build of nine major surface combatants, with construction also at Osborne Naval Shipyard commencing from 2020 worth up to $35 billion; and

- A continuous build program for minor vessels, commencing with the Pacific Patrol Boat Replacement Program (SEA 3036) in 2017 and the Offshore Patrol Vessel Program (SEA 1180) from 2018. The construction of 21 Pacific patrol boats will take place at Austal's facility at the Henderson Maritime Precinct in Western Australia, and construction of the first two offshore patrol vessels will be at the Osborne Naval Shipyard before transferring to the Henderson Maritime Precinct for the build of the remaining 10 vessels in 2020. The Pacific Patrol Vessel Replacement program has been costed at $280 million\(^1\) and the Offshore Patrol Vessel Program at up to four billion dollars.

2.4 A detailed study of key documents, including the NSP and related documents, is provided in Chapter 3.

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\(^1\) Department of Defence, *Answers to question on notice*, Question reference no. 6, 20 June 2017 hearing (received 25 October 2017).
The naval shipbuilding plan's program

2.5 These three major naval shipbuilding programs will co-exist with three significant current naval programs: the Hobart Class Destroyer (also known as the Air Warfare Destroyer or AWD) and the continuing sustainment of the Collins Class submarines and ANZAC Class frigates.2

Future Submarine Program (SEA 1000)

2.6 The Future Submarine Program (FSP) involves the construction of 12 military-off-the-shelf design diesel-electric submarines at the cost of $50 billion. The cost of sustainment for the fleet was estimated to be in the order of another $50 billion.3 The submarines will be constructed at the Osborne Naval Shipyard in South Australia, commencing from 2022 to 2023, with the first submarine expected to enter service in the early 2030s. The last is expected to be constructed sometime in the late 2040s and sustainment to the end of the 2080s.4 These submarines will replace the existing diesel-electric Collins Class submarines.5

2.7 The selection of Naval Group of France (formerly Direction des Constructions Navales or DCNS) as the preferred international partner for the submarine's design on 26 April 20166 involved a competitive evaluation process.7 As part of the process, participants provided an Australian Industry Plan that identified how Australian industry involvement could be maximised during the program.8 The other two invited

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3 Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 32. Rear Admiral Sammut, Head Future Submarine Program, placed a caveat on the information he provided by adding that Defence was 'still in the design process for the future submarine and that many of the detailed costs of acquisition and sustainment will be determined during the design process through the choices made'.
4 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 9; Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 26.
6 Senator the Hon Marise Payne, Minister for Defence, 'Prime Minister, Minister for Defence – Future submarine program', Media release, 26 April 2016.
international participants were ThyssenKrupp Marine Systems (TKMS) of Germany, and the Government of Japan.

2.8 The selection of Lockheed Martin Australia as the preferred combat system integrator for the submarines, also through a competitive evaluation process, occurred in parallel with the selection of a partner for building the new submarines.\(^9\)

2.9 The acquisition and procurement process for the submarine program was the subject of the committee's second report. Due to Australia's unique requirements, there is no military-off-the-shelf (MOTS) option that exists to replace Australia's submarine fleet.\(^10\) As a result, and reflecting the government's policy, the FSP is not subject to MOTS design constraints and will be a developmental acquisition.\(^11\) Despite criticism about the procurement process, the Australian National Audit Office (ANAO) found Defence had 'effectively designed and implemented a competitive evaluation process to select an international partner for the Future Submarine program'.\(^12\) However, in the most recent ANAO report Naval Construction Programs—Mobilisation, the Auditor General had concerns relating to issues of governance, program costs, and risk management.\(^13\) These issues are examined in detail below.

2.10 On 20 December 2016, the governments of Australia and France signed an agreement on the Future Submarine Program to establish a framework between the two nations for the development of the Australian navy's new fleet of submarines.\(^14\)

2.11 The framework was the subject of an inquiry by the Joint Standing Committee on Treaties (JSCOT) and a report was tabled on 13 April 2017.\(^15\) The report noted that

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9 Subject to further discussion on commercial matters, on 30 September 2016, the Minister for Defence and Minister for Defence Industry announced that Lockheed Martin Australia had been selected. The Hon Christopher Pyne MP, Minister for Defence Industry, 'Combat System Integrator for Future Submarines', Media release, 30 September 2016.

10 Senate Economics References Committee, Part II: Future of Australia's naval shipbuilding industry – Future submarines, November 2014, pp. 37-43. Evidence before the committee indicated that there was not anything available that had the range and mobility to match Australia's needs. Any modification to an existing submarine is not a simple exercise and would mean a complete redesign with the accompanying time, costs and risks. Furthermore, there is a reluctance of overseas countries to relinquish their most advanced technology and this means in some instances that a submarine sold by a company resident in a country is not the same submarine exported overseas.


14 Senator the Hon Marise Payne, Minister for Defence, 'Australia and France sign Future Submarine Inter-Governmental Agreement', Media release, 20 December 2016. This treaty was tabled in Parliament on 7 February 2017.
the agreement was not an agreement to design or build the submarines, rather, it was an agreement to establish a framework for cooperation to support the delivery of the submarine program. The report recommended that the Department of Defence learn the 'full lessons' from the Collins submarine shipbuilding experience, including:

- how to appropriately manage the FSP's associated intellectual property;
- that future submarine agreements must allow Australian companies to bid for work; and
- that binding treaty action must be taken.

2.12 In the government's response on 20 November 2017, it agreed with four of the five recommendations contained in the report, one of which was in-principle, and noted the remaining recommendation. In relation to the recommendation that the government bring forward its work program to connect state and federal law enforcement and judicial information systems with the personnel security clearance systems, the government noted that work was underway to 'improve the use and access to relevant information to improve vetting decision making'. Full recommendations are available in Appendix 8.

2.13 On 18 May 2018, Naval Group Australia's board appointed Mr John Davis as its chief executive and Future Submarine Program director from 1 July 2018. Mr Davis takes over from Mr Brent Clark, who has served as interim CEO since March 2017 following Mr Sean Costello's resignation. Mr Clark will transition to the role of special advisor to the Chairman of Naval Group Australia. In the meantime, Mr Jean-Michel Billig, currently the executive vice president of the Future Submarine Program, will act in the CEO role until 1 July 2018.

2.14 As CEO, Mr Davis will lead Naval Group Australia through the design and building of the submarines and the design of a new submarine shipyard at the Osborne
precinct, in South Australia. Mr Billig, as executive vice president of the future submarine project for Naval Group is responsible to the parent company's CEO (Naval Group) for the program. The board of the Naval Group France has the ultimate authority to approve the Strategic Partnership Agreement (SPA), although most negotiations will be undertaken between the Commonwealth government and the executive vice president of the Australian Future Submarine Program for Naval Group. Defence has advised that the CEO of Naval Group Australia (currently Mr Billig as acting CEO) also participates in these negotiations. The CEO of Naval Group only gets involved when matters escalate.

2.15 At the committee's most recent hearing on 7 June 2018, Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, provided an update on the work the company was undertaking since it was confirmed as the successful tenderer. Mr Clark informed the committee the program was currently progressing through concept design on schedule, which involved establishing the initial length, diameter and displacement of the submarine ahead of the submarine design phases.

2.16 Mr Clark added:

We are working with the Commonwealth on the components and systems that will be required for the submarine. The first stage of the submarine design, known as the functional analysis, was completed on schedule in October 2017, culminating in a successful preliminary system requirements review. We have finalised our Australian Industry Capability Plan, which will detail our early work to honour our commitments to maximise Australian industry involvement, particularly including SMEs [small and medium-sized enterprises].

2.17 The committee was disappointed to hear that Strategic Partnership Agreement (SPA) is still under negotiation, placing enormous cost and scheduling...
pressures on work programs reliant on a completed SPA. The SPA is the head contract that sets out the terms and conditions that will endure for the life of the FSP's acquisition, and covers matters that go into more detailed design of the submarine which will take place in the future as well as the production of the submarines.

2.18 Vice Admiral Ray Griggs, Vice Chief of the Defence Force, explained the contract's architecture and complexity, stating that:

[The SPA is] an overarching contract, under which there will be program contracts that cover various phases of the program. And given the complexity and length of this program, we do want the flexibility to make sure that we structure our contracts for various phases most appropriately so that we can properly manage risk and exposure of the Commonwealth as we proceed forward. That means that with the strategic partner agreement, the first program contract that will sit under that, will be the design contract, which will help us complete the basic design of the submarine. We then envisage that, after that, we'll be able to place a program contract, again sitting underneath the strategic partner agreement, under which the overarching terms and conditions have already been negotiated before we enter all of these contracts, a program contract following design for detailed design and production of the first boat. And then we have the option, of course, of placing further contracts for additional submarines that we can price accordingly and manage risk with the right pricing mechanisms and the right contract structure to best deliver those programs in a value-for-money way. 

2.19 The committee heard on 7 June 2018 that Defence has been in negotiations with Naval Group on the agreement since November 2017 and anticipates that those negotiations will conclude before the middle of 2018. The committee is concerned that in the absence of a signed SPA, the delay in the transfer of background intellectual property and information between the parties will place the whole submarine project under enormous cost and scheduling pressures. This was confirmed by Mr Clark's evidence before the committee where he acknowledged the lack of a completed SPA will delay the transfer of background intellectual property and information between the Commonwealth, Naval Group Australia and Lockheed Martin. Mr Clark noted that although parties can continue to transfer information to

27 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 13.


31 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 16.
themselves, they cannot do this between each other. Ultimately, Mr Clark advised, the absence of a SPA ‘would slow the program down’.

2.20 The committee's concern about the lack of an SPA is heightened by the news that Naval Group Australia has appointed its third CEO in 18 months, which could cause further delay and disruption to the SPA negotiations.

2.21 In response to questions in relation to whether the FSP's $50 billion cost was referenced in constant or out-turned prices, Defence clarified that the acquisition cost as quoted in the Integrated Investment Program was $50 billion on a constant price basis. The constant cost does not take into account the rate of inflation. If the figure was out-turned at 2.5 per cent inflation, the total cost according to independent analysis, would be $79 billion. The sustainment cost would also be higher than the $50 billion figure provided—rising to approximately $124 billion out-turned cost at a 2.5 per cent inflation rate. The total cost of the continuous shipbuilding program could also jump from $89 billion dollars to around $200 billion in out-turned dollars.

2.22 The committee heard that over the next four years, Lockheed Martin, which is working in partnership with Naval Group, ‘will establish the combat system testing and integration facility to test the capabilities that will contribute to the submarines' lethality and regional superiority’. In conjunction to this, Naval Group will 'build a land based propulsion and testing facility to derisk the submarine's propulsion system, which is a sophisticated piece of engineering that attempts to reduce the noise signature of the diesel-electric propulsion system'.

32 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 16.
33 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 16.
34 Senate Economics References Committee, Proof Committee Hansard (future of Australia's naval shipbuilding industry), 29 May 2018, p. 54.
35 Rear Admiral Gregory Sammut, Head Future Submarine Program, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 32.
38 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 9.
39 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 10-11.
Concerns have been raised by some witnesses regarding the viability of using pump-jet propulsion on a conventional electric-diesel powered submarine. Naval Group and Defence officials dismiss these concerns. Naval Group's Chairman Hervé Guillou stated that pump-jet propulsion means the submarine can 'move more quietly than those with obsolete propeller technology'. Similarly, the Head of the Future Submarine Program, Rear Admiral Greg Sammut commented that pump-jet propulsion 'can be efficient across the entire speed range, taking account of submarine's size, the speed required and stealth'.

The Department of Defence has responded to these concerns in answers to written questions on notice and at the most recent committee hearing on 7 June 2018. Defence has agreed to provide the committee a response to Mr Aidan Morrison's evidence critical of Defence's choice of pump-jet propulsion for a conventionally-powered submarine.

**Future Frigate Program (SEA 5000)**

The Future Frigate Program involves building nine frigates locally at the Osborne (south) shipyard in South Australia at a cost of $35 billion. The program, which will incorporate anti-submarine warfare and air warfare capabilities, will contribute to border control and anti-piracy patrols. The government brought forward the future frigate program to replace the existing eight ANZAC Class frigates

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43 Department of Defence, responses to written questions on notice for the Economics References Committee's inquiry into the future of Australia's naval shipbuilding industry, received on 22 May 2018. See also Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, and Mr Stephen Johnson, General Manager Submarines, Department of Defence, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 75.

with a continuous onshore build program that commences in 2020 instead of 2023, with the delivery of the ninth future frigate in 2038. The earlier start date was to help address the capability gap between the construction of three Air Warfare Destroyers (AWDs) and nine future frigates.

2.26 The procurement process for the future frigate program is based on the selection of an existing frigate design following a competitive evaluation process. This is in contrast to the procurement process for the FSP, which involved a new off-the-shelf design to meet Australia's unique submarine capability requirements. Accordingly, while the design of the future submarine is expected to continue until 2026 (with build starting in 2022–23 once 85 per cent of the design is completed), the construction of the future frigate is expected to commence in 2020.

2.27 The announcement of the successful designer for the future frigates program is due by the end of June 2018. The committee has serious concerns that there will be minimal participation from the Australian shipbuilding industry. These concerns follow the government's release of the program's request for tender documents which do not require the three shortlisted foreign designers (BAE, Fincantieri and Navantia) to subcontract Australian businesses in their proposals.


46 The Hon Kevin Andrews MP, then Minister for Defence, 'The Government's plan for a strong and sustainable naval shipbuilding industry', media release, 4 August 2015. The earlier start date is also in line with the recommendation of the RAND Corporation's 2015 report Australia's Naval Shipbuilding Enterprise Preparing for the 21st Century.


Evidence presented before the committee and reported in the media indicated that the absence of a requirement to use Australian businesses has already had an adverse effect on local shipbuilders Austal and the ASC. Both these shipbuilders have entered a partnership arrangement with each other to lobby for a major share of the future frigate project. Prior to the release of the tender documents, Austal reported a strong interest from the three tenderers for the company, in partnership with the ASC, to be involved in the project. However, these companies lost interest when it became clear they were not required to include local industry involvement.

Mr Singleton stated that prior to the release of the tender documents the company was 'heavily involved with the bidders in developing an Australian shipbuilding solution for the project'. The attitude from these companies towards Austal changed when the documents became public. Mr Singleton added:

> When the [Request for Tender] came out, that was really the end of that engagement between us and those companies. ….There was something about the RFT that seemed to draw the foreign shipbuilders away from continuing the dialogue with ourselves.

This belief was supported by Mr Bruce Carter, Chairman, ASC Pty Ltd and ASC Shipbuilding Pty Ltd:

> We had strong engagement with the three potential designers. I visited each of the yards. We had management working with them. We approached them in the same manner that we approached the three potential designers for the submarines, in an equal manner and very observant of the appropriate protocols and probity. Once the RFT went out, the request the tender, the level of inquiry with those three reduced significantly.

> In terms of what was in the tender documents, the companies got the tender documents, we sought to engage and they said, 'If we want to engage with you, we will,' and the engagement slowed down.

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2.31 Participation by Australian shipbuilders in the frigate program was further undermined by evidence that Defence had contacted the shortlisted tenderers to advise them to disregard ASC and Austal's teaming arrangements. Contact between Defence and each of the designers was acknowledged by Mr Gillis:

I actually called in the three tenderers...What I did was reiterate a letter that we had sent them which was that the tender requirements are extant, they haven't changed and that's all we said to them.

2.32 The committee heard from witnesses that the government's intervention via Defence disadvantaged both Australian shipbuilders' engagement with the three shortlisted tenderers.

2.33 The government's decision not to require participation from Australian shipbuilders in the future frigates' construction undermines the government's publicly stated commitment to the local shipbuilding industry and its workforce. This decision by the government runs counter to the development of domestic and sovereign capability.

2.34 The committee heard that Defence remained committed to the future frigates program running on schedule at its Canberra public hearing on 20 June 2017. Rear Admiral Jonathan Mead, Head, Naval Capability, stated that Defence were seeking to minimise changes to the future frigate design to stay on schedule. He noted that consistent with the RAND report, it was important to limit any risk to the project by having both the designer and builder working together with any design changes and to minimise any design changes.

2.35 The procurement of a designer for the future frigates is taking place concurrently with sustainment work on the existing fleet of ANZAC frigates over the next eight years. The sustainment work, to be undertaken in Henderson, Western Australia, is worth $2 billion. The work will be conducted by BAE Systems Australia Defence Pty Limited, Saab Australia Pty Ltd, Naval Ship Management Australia Pty Ltd (a joint venture between UGL and Babcock), and the Commonwealth.

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56 Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 13 October 2017, p. 43.


58 Rear Admiral Jonathan Mead, Head, Navy Capability, Department of Defence, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, pp. 23–24.

59 On the 29 April 2016, the government announced that they had signed a contract for the sustainment of the existing ANZAC Class Frigates. See Senator the Hon Marise Payne, Minister for Defence, 'ANZAC Class Frigate sustainment', *Media release*, 29 April 2016.
to the Defence Minister, this partnership will streamline a number of existing contracts for the whole-of-life sustainment for the ANZAC Class frigates.60

2.36 The committee believes that it is not too late to include a mandatory requirement that Australian businesses be involved in the future frigate program. The committee heard that involving an Australian subcontractor would not slow down the development of the frigate program, indeed it would accelerate the development of the frigate program. Mr Singleton, Austal, told the committee that:

If there is a requirement to use Australian shipbuilding capability in these programs, I would imagine that would be highly beneficial to the program both in its cost and in its speed of execution.61

2.37 Due to the compressed schedule for the build of the future frigates, concerns were raised in the ANAO's recent report about the program's ability to meet its schedules and the delivery of the program's expected capability within budget, especially in the absence of a detailed risk management plan. This is discussed further in Chapter 3.

Pacific Patrol Boat Replacement Program - Pacific Maritime Security Program (SEA 3036)

2.38 The Pacific Patrol Boat Replacement Program, valued at more than $500 million, involves the construction of 21 steel-hulled Pacific Patrol Boats (PPB) at the Austal shipyard in Henderson, Western Australia.62 Of the 21 boats, 19 will replace the existing fleet of PPB as part of Australia's new Pacific Maritime Security Program.63 All 19 boats will be gifted to 12 Pacific Island countries as part of Australia's commitment to strengthening the capabilities of Pacific Island countries to protect their national sovereignty and resources and act in support of regional security. These boats will be used to conduct maritime surveillance and enforcement operations, such as combating illegal fishing. The remaining two vessels were offered to Timor-Leste as part of the new Pacific Maritime Security Program.64

2.39 On 4 May 2016, the government signed a contract with Austal to design and construct the first 19 vessels. In addition, Austal was also awarded a $24 million

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60 Senator the Hon Marise Payne, Minister for Defence, 'ANZAC Class Frigate sustainment', Media release, 29 April 2016.
61 Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 27.
contract to provide support services to the replacement vessels for an initial seven-
year period.65

2.40 On 24 February 2017, Austal advised that the Detailed Design Review for the
PPB had been successfully completed on time and in accordance with the contracted
schedule. Construction commenced in Western Australia in April 2017, with
deliveries scheduled from 2018 to 2023. On 26 April 2017, the Australian company
contracted by Austal, HD Plasma and Laser Cutting Services, commenced cutting
steel for the first boat.66 Sustainment of the new fleet of vessels will occur at Austal's
facility in Cairns, Queensland.67

2.41 The first of the 21 new boats, named Guardian Class, was launched on
30 May 2018 at Henderson in Western Australia. According to Austal, the Guardian
Class PPB project supports around 400 jobs either directly or indirectly or through the
supply chain. According to the Minister for Defence industry's media release,
construction of the second and third vessels is underway and scheduled for delivery at
approximately three-month intervals from late 2018 until 2023.68 This timeline is
ahead of the schedule in Naval Shipbuilding Plan — which anticipated the delivery of
the first PPB to occur in 2019 and the final boat expected in 2025.

Offshore Patrol Vessel Program (SEA 1180)

2.42 The Offshore Patrol Vessel Program involves the construction of 12 offshore
patrol vessels (OPVs) to replace the current fleet of 13 Armidale Class patrol boats.
The OPV program, which is worth up to $4 billion, will provide greater range and
endurance than the existing Armidale Class fleet. These vessels will be capable of
undertaking several different roles, including enhanced border protection and patrol
missions over greater distances than is currently possible.69

65 Excluding GST. Senator the Hon Marise Payne, Minister for Defence, 'Contract signed for
replacement Pacific Patrol Boats', Media release, 4 May 2016.
66 The Hon Christopher Pyne MP, Minister for Defence Industry, 'Historic milestone for
Australia's shipbuilding program', Media release, 26 April 2017.
67 Austal, Pacific Patrol Boat Replacement Project on schedule as Austal completes Detailed
68 The Hon Christopher Pyne MP, Minister for Defence Industry, 'First new Guardian Class Patrol
69 ABC website, 'Navy Offshore Patrol Vessels to be built in WA and SA by German company
contract-awarded-to-german-firm-
luerssen/9188426?utm_source=sfmc&utm_medium=email&utm_campaign=%3a8935&user_id
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(accessed 19 January 2018). See also Department of Defence, 2016 Defence White Paper,
25 February 2016, p. 93.
2.43 The prime contractor Luerssen\(^{70}\) of Germany was selected to design and build the vessels following a competitive evaluation process with two other contenders (Damen and Fassmer).\(^{71}\) The first two OPVs to be built in Adelaide will utilise the ASC's existing AWD workforce and the remaining 10 OPVs will be built with Civmec (Forgacs Marine and Defence Pty Ltd). The government also identified work for Austal, following its unsuccessful bid with Fassmer. Austal's inclusion was 'subject to commercial negotiations'.\(^{72}\) On 11 May 2018, Luerssen announced that following negotiations between the parties since December 2017, it had not been able to reach a viable commercial agreement and will revert to the original intent of the contract with Defence,\(^{73}\) which was to work with Forgacs (a wholly owned subsidiary of Civmec) to build the 10 offshore patrol vessels at the Henderson precinct.\(^{74}\) Defence has advised that Civmec will be publicly listed in Australia and will have Australian leadership, with the former Chief of Navy as the CEO of the new joint venture.\(^{75}\)

2.44 The procurement process was poorly managed. The government inserted Austal into Luerssen's commercial negotiations after the announcement that Luerssen was the preferred tenderer. This approach did not put Austal in a strong negotiating position, nor was there any incentive for Luerssen to reach a mutually beneficial settlement once it had won the prime contract. Even the use of a facilitator, Mr John Grill, was to no avail.

\(^{70}\) There is an inconsistent approach to the spelling of the German shipbuilder Luerssen, also spelt Lurssen. Except where direct quotations have been used, for consistency, this report uses the former spelling.

\(^{71}\) ABC website, 'Navy Offshore Patrol Vessels to be built in WA and SA by German company Luerssen', 24 November 2017, [http://www.abc.net.au/news/2017-11-24/offshore-patrol-vessel-contract-awarded-to-german-firm-luerssen/9188426?utm_source=sfmc&utm_medium=email&utm_campaign=%3a8935&user_id=1e67a2b6f5429422d42e42e0ca232a7f33a375cdae12c67ee403c72a5935a9&WT.tsrc=email&WT.mc_id=Email%7c%7c8935&utm_content=ABCNewsmail_topstories_articlelink](http://www.abc.net.au/news/2017-11-24/offshore-patrol-vessel-contract-awarded-to-german-firm-luerssen/9188426?utm_source=sfmc&utm_medium=email&utm_campaign=%3a8935&user_id=1e67a2b6f5429422d42e42e0ca232a7f33a375cdae12c67ee403c72a5935a9&WT.tsrc=email&WT.mc_id=Email%7c%7c8935&utm_content=ABCNewsmail_topstories_articlelink) (accessed 19 January 2018).

\(^{72}\) The Hon. M Turnbull MP, Senator the Hon. M Payne and the Hon. C Pyne MP, (Prime Minister of Australia, Minister for Defence and Minister for Defence Industry), 'Hundreds of Australian jobs created in Offshore Patrol Vessel project', *Media release*, 24 November 2017. On 28 February 2018, Defence advised the Senate Committee on Foreign Affairs Defence and Trade that contracts had not been finalised between Luerssen, Civmec and Austal.

\(^{73}\) Mr Kim Gillis, Deputy Secretary, CASG, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates), 29 May 2018, p. 34.


\(^{75}\) Mr Kim Gillis, Deputy Secretary, CASG, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget Estimates), 29 May 2018, p. 48. It was noted that Civmec was started by Australians who could not find appropriate funding so went to Singapore to get the capital to start the company.
2.45 Mr Singleton, Austal, attributed the failure to reach a commercially viable agreement between the parties to the inequity in the balance of power between the two negotiating sides. During the committee’s hearing in Canberra on 7 June 2018, Mr Singleton made the following observation:

[If you have some points of leverage or some points of power in a negotiation, then you can come out with an equitable solution. The reality of the situation was that the Lurssen company had been awarded and had signed, only a few weeks before, a $2 billion program for the build of the vessels. We didn't have anything at all. And I don't know that they necessarily felt a keen need for our support. They were confident in their own ability, so they didn't feel they needed to make any significant compromises. For our part, we felt that the work that was offered to us was minor. It was of very low quality in terms of the sophistication of it. It was the sort of work that a metal fabricator could do quite easily, and we felt we could make a much more significant contribution than was being put forward. And we made that statement to them, but we weren't in a position to twist anybody's arm or force anybody into an agreement. We tried to see whether there was some common ground in the middle, but that didn't happen.]

2.46 Furthermore, Austal was only notified about the negotiation's breakdown 'about half an hour before a public announcement was made' through a letter from Luerssen to Austal's office informing that it would no longer be discussing contracting arrangements with Austal. Prior to the announcement, the committee heard Austal was 'still waiting for what [it] thought was going to be a mediated suggestion on an alternative outcome'. The committee heard that during the negotiation process, both parties had one face-to-face meeting with Mr Grill in Singapore where both parties stated their positions. Mr Singleton stated:

There was a statement at that meeting of our position. There was a statement by Lurssen of their position. We understood that Mr Grill would take back what he believed would be a compromise solution, but we saw no more of that compromise…

2.47 Construction on the first two vessels at the Osborne Naval Shipyard in Adelaide will commence from 2018, before relocating to the Henderson Maritime Precinct, Western Australia prior to the future frigates' construction in Adelaide from 2020. The delivery of the final vessel is expected to occur in 2030. To avoid any gap

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76 Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 25.

77 Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 26. See also, Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget Estimates), 29 May 2018, pp. 34-36.

78 Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 25.

in the Navy's capability, two leased Cape Class patrol boats will supplement the Armidale fleet and support its remediation program prior to the OPVs' commencement.80

2.48 The decision to have a split location for the construction of the OPV program was made to provide enough work to sustain a core naval shipbuilding workforce in Adelaide following the completion of the third AWD and in the lead up to the first frigate's construction.81 Further, not building all the OPVs in South Australia would avoid any delays to the $35 billion future frigate program. The Minister for Defence stated that any delay to the future frigate program would not only put at risk about 2000 jobs to South Australia, but also place at risk the country's naval capability.82 The Department of Defence confirmed its intention to maintain jobs in South Australia and to mitigate risks to the future frigate program on 30 March 2017.83

2.49 However, the timeline for the construction of these vessels (building OPVs in 2018 and future frigates in 2020) has attracted criticism. Mr Graeme Dunk, Executive Manager, Australian Business Defence Industry argued that it prevents Australian industry content from being maximised in these projects. He claimed that as a result, these dates will likely cause 'an entrenchment of offshore supply chains, rather than the development of Australian alternatives, and a reduction in associated maritime-related research and development'.84 This is due to the limited opportunity for Australian companies to participate in any design changes and consequently supply chains prior to the construction of the vessels.

2.50 The decision to split the vessel's construction sites has attracted criticism that the decision was not made in the national interest. For instance, Western Australia was also facing its own 'valley of death' following the state's resources boom and would have benefitted from building the two OPVs scheduled for South Australia. Some critics argued that splitting the construction of the vessels between different sites and using separate workforces introduced unnecessary risk and inefficiency to the program. Instead, the government of Western Australia submitted, a fourth AWD should have been built.85

80 Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 36.
82 Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Additional Estimates), 30 March 2017, pp. 45-46.
83 Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Additional Estimates) 30 March 2017, p. 34.
84 Mr Graeme Dunk, Executive Manager, Australian Business Defence Industry Committee Hansard (Additional Estimates), 3 April 2017, p. 27.
85 Western Australian government, Submission 56.2, pp. 7 and 8.
2.51 The ANAO in its audit *Naval Construction Programs—Mobilisation* expressed concern that the OPV had progressed through second gate approval without detailed sustainment costs and finalised commercial arrangements.86

**Hobart Class Guided Missile Destroyer (SEA 4000)**

2.52 The Hobart Class Destroyers Program (also known as the Air Warfare Destroyers or AWD) involves of AWD Alliance at the Osborne (south) shipyard constructing three vessels.87 The AWD program, worth a total value of $9 billion, is on schedule to deliver the second ship *Brisbane* to the Commonwealth this year, with the final vessel *Sydney* expected to be delivered in 2019.88

2.53 The intellectual property for these warships was recently transferred to Navantia Australia, which according to the Minister for Defence Industry, will ensure Australia has sovereign control over the AWD's capability.89

2.54 These vessels replace the navy's six Adelaide Class guided missile frigates. Two were withdrawn from service in 2005 and 2008 and the remaining four are scheduled for withdrawal by June 2019.90

2.55 According to the Minister for Defence Industry, there was a 60 per cent productivity improvement for the second AWD ship over the first AWD ship. This improvement was attributed to the skilled workers from the AWD Alliance: ASC, Raytheon Australia, Navantia Australia and Defence. More than 5,000 people have worked directly on the program along with 1,500 suppliers to build and integrate what the Minister for Defence Industry described as 'three of the most capable and potent warships the Royal Australian Navy has ever possessed'.91

2.56 To support continuous shipbuilding at the Osborne shipyard, the Department of Defence has retained a core of skilled workers to work on new shipbuilding and sustainment activities (construction on two OPVs and sustainment work on the Collins Class submarines) when the final AWD vessel is completed. This decision also helps

87  For more on the AWD Alliance, refer to chapter 3 in the Australian National Audit Office's report *Air Warfare Destroyer5 Program*, Audit Report No. 22 2013–14.
to minimise the costs for ramping up a large number of skilled workers at short notice and saves time training up people for the next shipbuilding project.92

Other naval vessels

Collins Class Submarines

2.57 The Collins Class Submarines program was established in 1982 to provide the navy with six new Australian built submarines. The Collins Class submarines program has been a subject of several reviews and ANAO reports.93 The navy will continue with capability enhancements and sustainment of these submarines into the 2040s until the future submarines replace them.94 The sustainment work for the submarines is currently undertaken by the ASC at the Osborne (north) shipyard (full-cycle sustainment work) and at the Henderson shipyard (shorter duration sustainment activities).95 ASC’s contract has recently been renewed, allowing this sustainment work to continue for another five years.96

ANZAC Class Frigates Program

2.58 The ANZAC Class Frigate Program was developed in the mid-1980s to replace the RAN’s River Class frigates. The fleet is made up of 12 ANZAC frigates constructed by the Tenix and Blohm+Voss team at Tenix's facility in Williamston, South Australia.97 Ten of these frigates were built for the Royal Australian Navy, with the remaining two built for the Royal New Zealand Navy. The total cost of the frigate program was $7 billion, the largest spend on any defence project at the time.98

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93 The Australian National Audit Office noted that there has been five reviews conducted since 2012. The first was Study into the Business of Sustaining Australia’s Strategic Collins Class Capability, November 2012, pp. 57–58; and the most recent was Study into the Business of Sustaining Australia’s Strategic Collins Class Capability, Beyond Benchmark, May 2016, p. 2. See Australian National Audit Office, Audit Report No. 39 2017–18, Naval Construction Programs—Mobilisation, p. 21.


97 In 1989, AMEC changed to Australian Marine Engineering Consolidated Limited (AMECON) and in 1993, to Transfield Shipbuilding Ltd. In 1997, following a reorganisation of the Transfield Group, the ownership of the dockyard and the frigate project was in the name of Tenix Defence Marine Division. Senate Foreign Affairs Defence and Trade References Committee, Blue water ships: consolidating past achievements, 7 December 2006, p. 61.

98 Senate Foreign Affairs Defence and Trade References Committee, Blue water ships: consolidating past achievements, 7 December 2006, pp. 60-61.
Foreign Affairs Trade and Defence Committee's report *Blue water ships: consolidating past achievements* stated that all 10 vessels for the RAN were delivered on time and on budget. Some were even delivered ahead of schedule.  

2.59 In parallel to the process to secure a designer of the future frigates, on 29 April 2016, the government announced it had signed a contract for the sustainment of the existing ANZAC Class Frigates over the next eight years. The sustainment would take place in Henderson, Western Australia and is valued at $2 billion.

2.60 The Minister for Defence noted that the strategic partnership between BAE Systems Australia Pty Limited, Saab Australia Pty Ltd, Naval Ship Management Australia Pty Ltd (a joint venture between UGL and Babcock) and the Commonwealth, will streamline a number of existing contracts for the whole-of-life sustainment for the ANZAC Class Frigates.

**Royal Australian Navy Supply Ship Program (SEA 1654)**

2.61 The Royal Australian Navy Supply Ship Program consists of two replacement auxiliary oiler replenishment ships (AORs) to the cost of $640 million. These ships will replace existing HMAS *Success* and HMAS *Sirius* vessels.

2.62 Of the $640 million, more than $130 million was directed towards Australian industry for Combat and Communication Systems integration, Integrated Logistics Support, and elements of the on-board cranes. The government and Navantia also signed a five-year sustainment contract, to be undertaken in Australia, worth $250 million.

2.63 Navantia was selected as the prime contractor to build the two ships in Spain. The handover of the first ship will occur in August 2019 and the second in May 2020. The Department of Defence reported that European steel will be used for the first ship and Bluescope Steel, an Australian company, will supply four and a
half thousand tonnes of Australian steel in raw form for the second replenishment ship.\textsuperscript{105}

2.64 The supply ship program was not included in the government's Naval Shipbuilding Plan. The Minister for Defence explained that this exclusion was due to Australian shipyards not having the capacity to complete the replenishment vessels in the required time and a local build would risk jobs and capability by delaying the OPVs, Future Frigates and Future Submarines.\textsuperscript{106}

2.65 This claim has been contested by testimony presented before the committee's public hearing in April 2017. The committee understands a number of shipbuilders had shown interest in a hybrid build involving domestic and international construction with a partner country. Rather than sending the work overseas, the committee heard that there was local capacity for these supply vessels to be built in Australian shipyards by local workers in such arrangements.\textsuperscript{107}

2.66 The government's rationale for a limited tender process that excludes Australian shipyards also reminded the committee of its previous findings in its earlier reports. Specifically, in the committee's first report, the committee noted that:

\begin{quote}
[T]he relatively small upfront costs for the improvements should not be considered in isolation but with a view to the long term benefits, especially when such infrastructure is regarded as a fundamental input to capability. The committee has heard that such an investment would support the construction in Australia of large vessels, including the supply ships, and that long term dividends would result from such investment. By excluding Australian companies from the tender, the government has not allowed these matters, including the amount of investment required to upgrade current facilities and the long-term benefits of this investment, to be fully explored and contested.\textsuperscript{108}
\end{quote}

\begin{enumerate}
\item[	extsuperscript{105}] Senate Foreign Affairs, Trade and Defence Legislation Committee, \textit{Committee Hansard} (Budget estimates), 29 May 2017, p. 118.
\item[	extsuperscript{106}] Senator the Hon Marise Payne, Minister for Defence, 'Replacement replenishment vessels', \textit{Media release}, 6 May 2016.
\end{enumerate}
Other recent developments

ASC review and structural separation

2.67 Following the government's commissioned strategic review of the Australian Submarine Corporation's (ASC) long-term arrangements and capacity, the government announced on 11 October 2016 the separation of the ASC into three separate government-owned companies to support the key capabilities of shipbuilding, submarine sustainment and infrastructure.

2.68 The ASC's structural separation, which was operational from 1 July 2017, resulted in all infrastructure assets previously held by the ASC transferred to the new infrastructure company Australian Naval Infrastructure Pty Ltd (ANI). Following the Commonwealth government's agreement with the South Australian government to purchase what was previously the state owned common user facility, the ANI owns the shipbuilding and submarine sustainment land and critical infrastructure at Osborne. Although funds for ANI's development of the shipyard infrastructure are provided by the federal government, the ANI will 'primarily' be funded from lease revenue from shipbuilders once shipbuilding construction begins. This ownership allows ANI to support the implementation of the government's $90 billion Naval Shipbuilding Plan. A five member interim board was established in June 2017.

2.69 The ANI's main functions are to support the Commonwealth's continuous shipbuilding policy. It does this through work on the shipbuilding and submarine programs with activities covering: landlord and asset management; developer of


program, infrastructure; provider of precinct services; and common user facilities management.\(^\text{115}\)

2.70 The committee heard that phase two of the separation, which involves the splitting the shipbuilding and submarine business into individual entities is currently on hold until the outcome of the Future Frigate decision. The two divisions currently operate as two discrete business units within the organisation.\(^\text{116}\)

2.71 The committee examines the impact these changes will have on the future of the ASC in Chapter 4 of this report.

**Naval Shipbuilding Advisory Board**

2.72 On 22 October 2016, the government established the Naval Shipbuilding Advisory Board (the board), appointing Professor Don Winter, former Secretary of the United States Navy, as Chair on 22 October 2016.\(^\text{117}\) Further appointments to the board were announced by the Minister for Defence Industry on 17 December 2016,\(^\text{118}\) with all board members appointed on recommendations of the Minister for Defence Industry and the Minister for Defence.\(^\text{119}\)

2.73 The committee is concerned about the lack of Australian representation on the board. The majority of board members are based in the United States and only two board members are Australian.

2.74 The committee heard from Defence that the board's establishment was 'predicated on the four key enablers that were outlined in the Naval Shipbuilding Plan' — a modern and secure shipbuilding infrastructure; a highly capable, productive

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\(^{116}\) Senate Economics References Committee, *Proof Committee Hansard* (Future into Australia's naval shipbuilding industry), 7 June 2018, p. 43.

\(^{117}\) The development of the Naval Shipbuilding Advisory Board (NASB) was first announced by the Government in December 2016 and the Cabinet decided on its establishment on 27 September 2016.

\(^{118}\) Department of Defence, Response to QON portfolio question number 117, Supplementary Budget Estimates 2017-18, Foreign Affairs, Defence and Trade Committee.

\(^{119}\) Ten board members were initially appointed. The majority of members are based overseas (the United States), with two Australians. The board chaired by Professor Don Winter (Chair), include the following members: Hon Ms Emily DeRocco; RADM Tom Eccles, USN (retired); Mr Irwin Edenzon; Mr Ron Finlay, AM; VADM William Hilarides, USN (retired); Ms Lisa Paul, AO, PSM; Ms Becky Stewart. Mr Mike Burgess, who was previously a board member, left following his appointment to the Australian Signals Directorate and no-one has replaced him on the board. Refer to Department of Defence, Response to QON portfolio question number 115, Supplementary Budget Estimates 2017-18, Senate Foreign Affairs, Defence and Trade Committee. See Mr Daniel Fankhauser, Secretariat, Naval Shipbuilding Advisory Board, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 47.
and skilled workforce, an innovative, cost competitive and sustainable industrial base and a national approach to delivering the shipbuilding plan.\textsuperscript{120}

2.75 The board reports to the Minister for Defence Industry and its role is to ‘provide expert, independent advice to Government on all aspects of naval shipbuilding as plans are finalised for establishing and sustaining a viable, continuous naval shipbuilding capability in Australia’.\textsuperscript{121} The first sitting of the board was convened by the Minister for Defence Industry on 23 January 2017.\textsuperscript{122} The board has met in person on ten occasions in Australia and the United States, with the last meeting in April 2018. Meetings were typically three days in duration, with additional teleconferences.\textsuperscript{123}

2.76 Board members are remunerated according to expertise in their respective fields and commensurate with their private and commercial rate, with five members paid a consultancy rate above AUD $4,500 per day.\textsuperscript{124} From December 2016 through to 9 March 2018, board members were paid $2.4 million in remuneration, including for costs of specialised tasks undertaken by individual members.\textsuperscript{125} With travel and allowances factored in, this figure increased to approximately $2.8 million as of 31 October 2017.\textsuperscript{126} The Department did not provide the committee with an update on these figures at the public hearing on 7 June 2018.\textsuperscript{127}

2.77 During these meetings the board has provided advice to individual members of government and received briefings from a range of senior executives across the Department of Defence, Department of Finance, the Department of Prime Minister

\textsuperscript{120} Mr Daniel Fankhauser, Secretariat, Naval Shipbuilding Advisory Board, \textit{Proof Committee Hansard} (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 49.

\textsuperscript{121} The Hon Christopher Pyne MP, Minister for Defence Industry, 'Chair of the Naval Shipbuilding Advisory Board appointed', \textit{Media release}, 22 October 2016.

\textsuperscript{122} The Hon Christopher Pyne MP, Minister for Defence Industry, 'Address to the Naval Shipbuilding Advisory Board', \textit{Transcript}, 24 January 2017.

\textsuperscript{123} Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard} (Budget Estimates), 29 May 2018, p. 64.

\textsuperscript{124} Defence also noted its contracted engagement with members varies, with some engaged directly and others through corporate consultancy firms. Senate Foreign Affairs, Defence and Trade Committee, Additional Estimates 2017-18, Question on notice no. 25 (Portfolio question no. 26).

\textsuperscript{125} Senate Foreign Affairs and Trade Legislation Committee, Additional Estimates 2017-18, 28 February 2018, Question taken on notice no. 24 (portfolio question no. 25).

\textsuperscript{126} Senate Foreign Affairs and Trade Legislation Committee, Supplementary Estimates 2017-18, 25 October 2017, Question taken on notice no. 116.

\textsuperscript{127} Defence took on notice to provide the committee with up-to-date figures at the May 2018 Budget Estimates. Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard} (Budget Estimates), 29 May 2018, pp. 65-66.
and Cabinet and other Commonwealth agencies. The Department of Defence has also claimed that the board's advice to members of the National Security Committee, which forms part of the deliberative Cabinet processes, is confidential.

2.78 On 19 April 2018 the Australian Industry and Skills Committee (AISC) established a Naval Shipbuilding Industry Reference Committee (IRC). The purpose of this specialist IRC is to, among other things, identify skills gaps in the naval shipbuilding and sustainment industry. The committee was surprised that board members could not identify what specialist skills or requirements of shipbuilding were not already covered by existing industry reference bodies for manufacturing skills. Further, the committee is also concerned that board members did not appear to have been consulted about the establishment of this IRC body.

2.79 When questioned on what skills gap was not currently covered by existing IRC bodies, Ms Lisa Paul, a board member, replied:

I can't answer the question. I'm happy to look at it. We met with the college in April, and it had just been stood up, as you are probably aware.

2.80 Unfortunately, the committee's public hearing scheduled for 2 May 2018 was postponed to 7 June 2018, due to difficulties confirming the availability of the Naval Shipbuilding Advisory Board to appear and give evidence. In the first instance the Department of Defence refused the committee's invitation on behalf of the board. The committee postponed the hearing and considered issuing a formal summons. Before doing so, Defence advised the committee that representatives from the board would

128 Defence also noted its contracted engagement with members varies, with some engaged directly and others through corporate consultancy firms. Refer to the Senate Foreign Affairs, Defence and Trade Committee, Additional Estimates 2017-18, Question on notice no 25 (Portfolio question no. 26).

129 Senate Economics References Committee (Inquiry into Australia's Naval Shipbuilding Industry), Correspondence from Department of Defence regarding Senate Economics References Committee's invitation to attend a public hearing, received on 12 April 2018.

130 The Australian Industry and Skills Committee (AISC) was established by the COAG Industry and Skills Council in May 2015 to give industry a formal role in approving vocational education and training (VET) training packages for implementation. Members include industry leaders nominated by Commonwealth and state and territory ministers responsible for skills and training, a peak body representative (rotating between the Australian Chamber of Commerce and Industry, the Business Council of Australia and the Australian Industry Group), and two ex-officio members (senior government officials). Australian Industry and Skills Committee, 'About the AISC', https://www.aisc.net.au/content/about-aisc (accessed 23 June 2018).


appear before the committee, and two board members subsequently appeared at the public hearing on 7 June 2018.133

Infrastructure upgrades

2.81 Following the Department of Defence's assessment in 2016 that the Osborne and Henderson shipyards didn't have the capabilities required for a modern shipyard, the government announced an investment of $775 million to fund the development of a common user shipbuilding facility, the purchase of additional land, and develop surface ship infrastructure.134 This need to substantially upgrade shipyard facilities at Osborne (south) was previously noted in the Naval Shipbuilding Plan. The plan also provided an outline of schedules which needed to occur prior to the future frigates' construction in 2020.135 A memorandum of understanding was signed between the Commonwealth and South Australian government for the transfer of land and operation assets from the South Australian government to the Commonwealth.136

2.82 On 20 February 2017, the government announced that between 2017 and 2020, $100 million would be invested in Navy-related industrial infrastructure and sustainment in Western Australia. The government stated that the investment would go towards improving shipbuilding production lines and facilities, such as wharves, jetties and cranes at HMAS Stirling (Fleet Base West) and at the Henderson industrial precinct.137

2.83 However, further details about what the $100 million would fund were not available. At the committee's public hearing in Perth on 3 April 2017, the Hon Paul Papalia CSC, MLA, Western Australian Minister for Defence Issues, explained that he had little understanding of what the announcement included. He indicated his suspicion that it could be a re-announcement of part of a $370 million 2015 announcement as it had 'very similar objectives' and 'identical time frames'.138

133 See, Senate Economics References Committee (Inquiry into Australia's Naval Shipbuilding Industry), Correspondence between the Department of Defence and the Committee, 28 March 2018, 12 April 2018, 16 April 2018 and 2 May 2018. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Navalshipbuilding45th/Additional_Documents


135 Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 52.


138 Hon. Paul Papalia, Minister for Defence Issues, Western Australian Government, Committee Hansard, 3 April 2017, p. 2. At the 30 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, Mr Mark Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence provided an overview of the procurement process for the college. Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget estimates), 30 May 2017, p. 39.
Similarly, Mr David Singleton, Chief Executive Officer, Austal Limited, understood the funding was related to infrastructure upgrades but indicated he was not sure whether the funding was new money or old money.139

2.84 The Department of Defence took on notice a request to provide a list of projects that the $100 million would go towards.140 At the end of June 2018, 18 months after the initial announcement, no clarification has been provided on how these funds will be spent.

**Maritime technical college (Naval Shipbuilding College) Adelaide**

2.85 On 24 March 2017, the government announced that it would establish a Maritime Technical College to identify, train or retrain Australian workers for the shipbuilding program, investing an initial $25 million into the college.141 This figure, which the Department of Defence explained was an initial estimate, has since increased to $62 million following more information from tenderers.142 Referred to as the 'Naval Shipbuilding College' in the Naval Shipbuilding Plan, the college will 'ensure a coordinated, national approach to workforce development and skilling across the naval shipbuilding enterprise'.143

2.86 The college will work collaboratively with providers across the country to train and educate people for employment opportunities in the shipbuilding industry. The college will be established progressively to meet the evolving skills needs of shipbuilders.144

2.87 The college, which will be established and managed by the Naval Shipbuilding Institute,145 will be based at Osborne. More recently, the ANAO has reported its concerns that the cost for the college has risen from $25 million to

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139 Mr David Singleton, Chief Executive Officer, Austal Limited, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 3 April 2017, pp. 9 & 10.

140 A response to this question on notice as at 23 June 2018 remains outstanding.


142 Senate Foreign Affairs, Defence and Trade Legislation Committee, Mr Peter Chesworth, First Assistant Secretary Naval Shipbuilding Taskforce, *Committee Hansard* (Budget Estimates), 29 May 2018, p. 38.


$62 million (approximately 2.5 times the original cost estimate) even before the college's ongoing costs have been considered.\(^{146}\)

**Naval Shipbuilding Industry References Committee**

2.88 As mentioned above, on 19 April 2018 the Australian Industry and Skills Committee (AISC) established a Naval Shipbuilding Industry Reference Committee (IRC).\(^{147}\) The AISC states that the new committee will:

- work with the Naval Shipbuilding College to understand workforce requirements for the naval shipbuilding and sustainment industry;
- examine relevant competencies, skillsets and national training package qualifications to address any gaps to support the specific needs of the naval shipbuilding and sustainment industry;
- examine new approaches to career structuring, progression and transition in the sector, and the education pathways needed to support these; and
- scope opportunities for collaboration across VET [vocational education and training], higher education and industry sectors to take advantage of opportunities presented by naval shipbuilding.\(^{148}\)

2.89 The establishment of this new committee adds unnecessary complexity and appears to duplicate the work of separate IRCs already working on occupational standards for shipbuilding in the vocational education and training sector. These concerns are discussed in more detail in Chapter 4.

**Defence Export Advocate**

2.90 On 9 April 2018, the government announced that former Defence Minister David Johnston (from September 2013 until late December 2014) had been appointed the first 'Australian defence export advocate' as part of the government's plan to increase the nation's defence exports.\(^{149}\) Australian media expressed surprise at this appointment given Mr Johnston's comment in relation to the ASC that:


2.91 The Australian media also queried whether Mr Johnston held a potential conflict of interest, given his position on the board of Saab Technologies, an Australian subsidiary of the Swedish company. The company has contracts to sustain the ANZAC frigates, provide systems for the Collins Class submarines, the offshore patrol vessels and the Future Frigates.151

2.92 The role was first mentioned in the Defence Export Strategy released in January 2018. As the first Australian defence export advocate, Mr Johnston will also work closely with the Australian Defence Export Office, which opened on 23 April 2018, to provide senior advocacy.152

2.93 The Minister stated that the Australian Defence Export office will deliver a range of initiatives to assist and support Australian defence industry, including producing market intelligence, partnering with industry in multi-year campaigns, and leading the Australian Military Sales and Team Defence Australia initiatives. 153

2.94 Committee members, through this committee and also through Senate Estimates have sought information on Mr Johnston's remuneration. Requests for information remain outstanding.154

Committee comment

2.95 While the committee welcomes the government's naval announcements during 2015 and 2018, it is disappointed that such limited information was available for each announcement, and that the government's Naval Shipbuilding Plan, which brought all these announcements together, failed to provide further information. For example, little information is still available regarding a $100 million naval infrastructure investment in Western Australia, despite repeated questions for further information at hearings by the committee and Senate Estimates hearings.


151 'Exclusive payments to former minister concealed', The Saturday Paper, 9 June 2018.


2.96 Upgrades to construction and sustainment shipyards around the country were announced, but again little detail was provided for public scrutiny. The late release of information in June 2017 relating to the ASC’s October 2016 structural separation and continued confusion caused from the lack of certainty regarding the separation of the remaining business units does not engender confidence that the work was undertaken in a transparent manner.

2.97 Other announcements have raised concerns that the committee will outline in more detail in later chapters. In the next chapter, the committee examines the current state of Australia's naval shipbuilding industry and the need for a national shipbuilding plan.
Chapter 3
National long term planning

3.1 The importance of a long term national strategic plan for Australia’s naval shipbuilding industry continued to be a focus during public hearings in the 45th Parliament. This followed similar discussion in the committee's third report, tabled during the 44th Parliament, which recommended the establishment of an ongoing shipbuilding industry advocate providing advice to the government during the development of the defence investment plan and naval shipbuilding plan. The third report emphasised that a national strategic naval shipbuilding plan was central to achieving the goal of maintaining a continuous stream of work for Australian shipyards.

3.2 During the course of the 45th Parliament inquiry, evidence presented to the committee indicated that a naval shipbuilding plan would perform an integral role in assisting small and medium enterprises (SMEs) to identify and plan for opportunities to become involved in the Australian naval shipbuilding industry. A plan would also provide an assurance to the industry that there would be continuous work into the future – enabling economic and employment benefits gained through securing the permanency and longevity of an Australian naval shipbuilding sovereign capability. Witnesses also suggested that a naval shipbuilding plan should go beyond a focus on Australian industry supporting Australian customers, and move towards building an internationally competitive Australian shipbuilding industry which includes non-navy vessels, such as research vessels, police vessels and ferries.

3.3 This chapter examines the current state of the Australian naval shipbuilding industry, key defence-focused industry planning documents, the government's naval shipbuilding plan, economic benefits derived from the industry, and the potential for a national exports industry. The committee then assesses this material against progress made towards implementing a continuous shipbuilding program that would support an indigenous defence industry. Insights from the ANAO's recent report Naval Construction Programs—Mobilisation are also considered.

Overview of the Australian naval shipbuilding industry

3.4 Australia's naval shipbuilding industry includes:

- The government owned ASC Pty Ltd, which was supposed to have been separated into three independent companies from July 2017: ASC Shipbuilding, ASC Submarine Sustainment (maintenance and support), and Australian Naval Infrastructure (ANI);

- Australian and international defence prime companies servicing both commercial and defence production lines; and

- SMEs contracted to these primes.
3.5 The Australian government, through the Department of Defence, is the major procurer of ships from the industry. In its Defence Industry Policy Statement, the Department of Defence stated that:

A robust partnership between Defence and industry and a highly skilled Australian workforce will be critical if we are to deliver shipbuilding and submarine programs of such national significance.¹

3.6 Australia’s shipbuilding and repair services industry consists of 448 businesses in both defence-related and commercial industries.² A snapshot of market share by major players in the Australian industry is below, followed by a breakdown by state and territory of business locations.

3.7 **Figure 3.1: Snapshot of market share by major players in the industry³**

![Market Share Chart]

3.8 **Figure 3.2: Breakdown by state and territory of business locations⁴**

![State Breakdown Chart]

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3.9 The Department of Defence Industry Policy Statement states that 25,000 people are employed by the Australian defence industry, with prime companies accounting for 50 per cent of employment in the industry. Approximately 3000 SMEs operate in Australia as subcontractors to prime companies.  

**Key planning documents**

3.10 Prior to the release of the government's naval shipbuilding plan and subsequent planning documents from May 2017 and onwards into 2018, the 2015 RAND report and the 2016 Defence White Paper provided insight into the government's strategic direction for the shipbuilding industry in Australia. The content of these reports, along with the announcements outlined in Chapter two, culminated in the eventual publication of the government's naval shipbuilding plan, which is discussed further below.

**2015 RAND Corporation report**

3.11 In September 2014, the Department of Defence commissioned the RAND Corporation to undertake a series of material studies and analysis activities to inform the development of an enterprise-level naval shipbuilding plan for consideration by the government.  

3.12 On 16 April 2015, the government released the RAND report titled *Australia's Naval Shipbuilding Enterprise: Preparing for the 21st Century*. The report explored the question of whether Australia should support a domestic naval shipbuilding industry or buy ships from foreign shipbuilders. The report found that:

1. Production of naval warships in Australia involves a 30 per cent to 40 per cent price premium over the cost of comparable production at shipyards overseas. This premium could drop over time, however, with steady production drumbeats and mature designs.

2. The economic benefits of a domestic naval shipbuilding industry are unclear and depend on broader economic conditions. That said, the industry could potentially employ more than 2,000 people in long-term positions.

3. Controlling critical production offers wider strategic benefits and flexibility. It would avoid dependence on foreign sources; enable performance of ship alterations, modernisations, and life-of-class maintenance; and support in-country suppliers.

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4. Sustaining a naval shipbuilding industry will require specific steps. These include adopting a continuous build strategy starting with the Future Frigate and matching industrial base structure to demand.\textsuperscript{8}

3.13 As part of implementing a continuous build strategy, the report proposed four strategies 'to close the short-term gap in demand for naval shipyard workers while retaining the ability to build all the planned warships domestically'. This included the option to commence construction of the Offshore Patrol Vessels by the end of 2017 and the Future Frigate class before 2020. This option, along with the recommendation to adopt a continuous build strategy, was adopted by the government.\textsuperscript{9}

3.14 On 4 August 2015, the Hon Tony Abbott MP, Prime Minister, and the Hon Kevin Andrews MP, Minister for Defence announced that the government would implement a continuous build of surface warships in Australia. In addition, the government announced that it would bring forward the Future Frigate program (SEA 5000) to replace the ANZAC class frigates, and the construction of the Offshore Patrol Vessels (SEA 1180) to replace the Armidale class patrol boats.\textsuperscript{10}

3.15 Some stakeholders, however, did not agree with this option proposed by RAND, arguing that it relied disproportionately on ship production in one state (South Australia) to the detriment of other states. For example, the Western Australian government submitted that the report contained limited content on the shipbuilding capabilities and capacities of Western Australia and other states.\textsuperscript{11}

3.16 The committee was informed a second RAND review was underway which focussed on workforce, basing and facilities.\textsuperscript{12} Various stakeholders advised they had been contacted by people involved in the second RAND review. The Western Australian government indicated that the inquiry was likely to take into account the capability and capacity of Western Australia's infrastructure and industry to deliver naval shipbuilding programs beyond building minor vessels.\textsuperscript{13}

\textsuperscript{8} RAND Corporation, \textit{Australia's Naval Shipbuilding Enterprise: Preparing for the 21st Century}, 2015, p. xxxviii and xxxix.


\textsuperscript{10} The Hon. Kevin Andrews MP, Minister for Defence, 'The Government's plan for a strong and sustainable naval shipbuilding industry', \textit{Media release}, 4 August 2015.

\textsuperscript{11} Western Australian Government, \textit{Submission 56.2}, p. 11. This assessment was also supported by Senator Linda Reynolds, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 3 April 2017, pp. 6–7.

\textsuperscript{12} See, for example, Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 33.

\textsuperscript{13} To this point, they also noted that they were seeking clarity from the Commonwealth Government on how the RAND study, and other studies undertaken in the later half of 2017, would factor into the future infrastructure planning and investment in Western Australia. Refer to Western Australian Government, \textit{Submission 56.2}, pp. 6–7.
The Department of Defence advised the second report's publication would likely occur during 2017–18. The second report has not yet been published.

**2016 Defence White Paper**

The government's 2016 *Defence White Paper* (DWP), released on 25 February 2016, is the primary document that sets out Australia's defence policy and capability needs, based on its assessment of a more complex strategic environment that the country will face out to 2035.

The 2016 DWP stated that 'modernising our maritime capabilities will be a key focus for Defence over the next 20 to 30 years'. The DWP reiterated the government's policy announcement made on 4 August 2015 that it would implement a continuous build of surface ships that will transform the country's naval shipbuilding industry, generate significant economic growth, sustain local jobs for decades and provide a long-term future for this defence industry. These plans will commence with the build of offshore patrol vessels from 2018 and future frigates from 2020.

Investments outlined in the DWP included the new generation of submarines, surface warships, surveillance aircraft and support vessels. In particular:

- the rolling acquisition of 12 future submarines to enter service from the early 2030s, and upgrades to wharves and port facilities, simulators, training and submarine rescue systems;
- the investments in the existing Collins Class fleet until the introduction of the future submarine fleet;
- the acquisition of 12 new major surface vessels: three *Hobart* Class Air Warfare Destroyers (AWDs) entering into service in 2020s, and nine new future frigates entering into service in the late 2020s to replace the existing fleet of ANZAC Class frigates;
- the acquisition of 12 new Offshore Patrol Vessels (OPVs), with construction to start in 2018 and delivery by 2030, and;
- updates to mine countermeasures and military hydrography capability.

**2016 Defence Industry Policy Statement**

The Defence Industry Policy Statement (DIPS), released with the 2016 DWP, aligns defence capabilities with the DWP's strategy to establish an internationally competitive and innovative Australian defence industrial base. As industry has a 'fundamental input' to capability, the DIPS is an attempt to transform the Department...
of Defence's relationship with industry. Over a ten year period, the government will invest in programs to: build industry skills, drive competitiveness and export potential; and harness Australia's innovation and expertise.

2016 Integrated Investment Program

3.22 The 2016 Integrated Investment Program (IIP), released alongside the DWP, brings together all capability-related investments including new weapons, platforms, infrastructure and science and technology over a ten-year period. The IIP provides guidance on the implementation of the DWP's policy goals and will be annually reviewed in response to the development of the budget and changes in capability priorities and the like. The IIP was developed through a comprehensive Force Structure Review that assessed the country's defence capability needs into the 2030s.

3.23 The IIP's capability stream for maritime and anti-submarine warfare attracted around 25 per cent of the IIP to enhance Australia's maritime and anti-submarine warfare capabilities. In addition to existing approved acquisitions, new investments included those listed in the shipbuilding program contained in the Naval Shipbuilding Plan.

2017 Naval Shipbuilding Plan

3.24 On 16 May 2017, the Prime Minister, Minister for Defence and Minister for Defence Industry released the Naval Shipbuilding Plan (the Plan) in Adelaide, South Australia. This followed a lengthy delay from the government's original schedule that such a plan would accompany a 2015 Defence White paper. The Minister stated in February 2017 that its release was 'imminent', but the plan was not available until after the committee had held its two hearings for the re-referred inquiry in April 2017.

Background

3.25 Prior to the plan's release in 2017, the development of an enterprise-level naval shipbuilding plan to provide for the long-term future of Australia's naval shipbuilding
industry was initially raised with the then Minister for Defence's announcement in 2015. The 2016 Defence White Paper was eventually released on 25 February 2016 (originally scheduled for 2015) without the promised accompanying naval shipbuilding plan.

3.26 In the intervening period, and in the absence of such a shipbuilding plan, the government made a series of announcements as part of its broader naval shipbuilding program. The government's subsequent advice that the plan's release was 'imminent' drew attention to its delayed publication at Senate estimates hearings and in the parliamentary chambers. The delayed release also prompted discussion among industry stakeholders who were seeking certainty on the government's industry policy for the sector. At two April 2017 hearings in Perth and Adelaide, which predated the plan's eventual delayed release, the committee heard from multiple witnesses who emphasised the importance of a naval shipbuilding plan for the industry, and expressed concerns about the delayed release of the plan.

3.27 For example, Air Commodore Margot-Lee Forster (Retired), Chief Executive Officer, Defence Teaming Centre stated:

[A plan would give] Australian businesses confidence about what is going to happen so they can make the investments necessary to prepare themselves to be capable and accredited to be a part of the supply chains for all of the builds.

3.28 The committee heard that a plan would formalise the government's commitment to a continuous build and provide the industry with certainty. Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing

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24 The Hon Kevin Andrews MP, Minister for Defence, Speech to the RUSI Submarine Summit, 24 March 2015.

25 The Hon Christopher Pyne MP, Minister for Defence Industry, House of Representatives Hansard Ministerial Statements, 9 February 2017, p. 503. On 9 February 2017, the Hon Christopher Pyne MP, Minister for Defence Industry, made a ministerial statement to the House of Representatives providing an update on defence industry activities since the 2016 federal election. The publication date of the shipbuilding plan was discussed at the Senate Foreign Affairs, Defence and Trade Legislation Committee's Estimates hearing on 30 March 2017: Committee Hansard (Additional estimates), 30 March 2017, pp. 43–45.

26 See, for example, Mr Graeme Andrew Dunk, Executive Manager, Australian Business Defence Industry, Committee Hansard, 3 April 2017, p. 27; Mr John O'Callaghan, Executive Director, Australian Industry Group Defence Council; Mr Andy Keough, Chief Executive, Defence SA; Mr Peter Horobin, Member, Submarine Institute of Australia Inc.; Dr Michael Green, Executive Director, Sector Development, Department of Economic Development, Jobs, Transport and Resources, Victoria; and Air Commodore Margot-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, pp. 16, 23, 24, 31, 34, 38.

27 Air Commodore Margot-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Committee Hansard, 4 April 2017, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 39.
Workers Union (AMWU) stated that without a plan and the industry policy contained within, little was known about how local content could be maximised.  

3.29 In anticipation of the release of the Plan, Mr Andy Keough, Chief Executive of Defence SA, tabled a copy of the United States (US) 2016 fiscal year national shipbuilding plan prepared by the Office of Chief Naval Operations. Mr Keough suggested that Australia should produce a similar document containing the level of detail that would be useful for industry. He explained that the US document:

…provides absolute clarity for the next 30 years on their best estimate of the number of ships they are going to have, how many aircraft carriers they will have in the mid 2040s and how many submarines et cetera. That is the sort of document we need, and that is the level of detail that industry needs in order to get clarity around some of these issues.  

Overview  

3.30 When the Plan was released on 16 May 2017, the Minister for Defence Industry emphasised the historical scale of the naval shipbuilding enterprise:

The [naval shipbuilding project is] largest project for any state, any territory, for the whole country, $89 billion of naval shipbuilding, twice the size of the National Broadband Network, much, much bigger than the Snowy Hydro scheme...  

3.31 The Plan reiterated policy commitments previously announced regarding the acquisition and sustainment of naval ships, infrastructure upgrades, and workforce growth. It provides the policy and direction-setting architecture for the naval shipbuilding enterprise. The Plan does this by setting out the government's delivery strategy based on four key enablers:

- a modern, innovative, and secure naval shipbuilding and sustainment infrastructure;
- a highly capable, productive, and skilled naval shipbuilding and sustainment workforce;
- a motivated, innovative, cost-competitive, and sustainable Australian industrial base, underpinned initially by experienced international ship

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28 Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers Union, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 7.


30 Mr Andy Keough, Chief Executive, Defence SA, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 23.

designers and builders who transfer these attributes to Australian industry; and

- a **national approach** to delivering the *Naval Shipbuilding Plan*.\(^{32}\)

3.32 These four enablers form the foundation for implementing the naval shipbuilding plan, which is based on the RAND Corporation's 2015 analysis for the Department of Defence. The RAND analysis outlined 'guiding principles' that drew from lessons learnt from previous shipbuilding programs, like the Collins Class submarine and Hobart Class Destroyer programs.\(^{33}\)

3.33 These 'guiding principles' include:

- establishing a consistent production and build demand;
- selecting a mature design at the start of the build and limiting the amount of changes once production starts;
- limiting the amount of unique Australian design changes;
- introducing a continuous build philosophy for naval combatants and a different in-service model based on retention of vessels for no more than 25–30 years;
- ensuring a well-integrated designer, builder and supplier team;
- ensuring there is visionary leadership provided by company management; and
- developing a productivity based culture of continuous improvement.\(^{34}\)

3.34 In a recent update, the ANAO's audit report *Naval Construction Programs—Mobilisation* reported that the Department of Defence's planning and mobilisation activities related to the four enablers 'remain a work in progress'.\(^{35}\) The next four sections consider each enabler in more detail.

**Infrastructure**

3.35 The first enabler refers to investments in infrastructure following a strategic review of infrastructure needs at the two major shipyards in South Australia (Osborne Naval Shipyard) and Western Australia (Henderson Maritime Precinct) responsible for the delivery of Australia's continuous shipbuilding programs.\(^{36}\)


\(^{36}\) Department of Defence, *Naval Shipbuilding Plan*, 16 May 2017, p. 15.
The government made several announcements in support of infrastructure upgrades, including the redesign work of the Osborne South shipyard by Defence and Odense Maritime Technology (OMT), a Danish company. OMT will work with Defence, the South Australian Government and ASC to deliver a shipyard required to sustain the surface ships and then later the submarines. This investment is valued at up to $535 million with commencement for the second half of 2017. Another investment of $100 million for sustainment and industrial infrastructure projects at the Henderson naval shipyard in Western Australia was announced in February 2017. The Henderson investment was due to take place from 2017 to 2020, with costings approved in 2018, but has not yet commenced.

Recently, the ANAO reported that Defence has identified short term infrastructure requirements and has commenced construction. The longer term requirements remain under development. These relate to the core physical infrastructure at the Osborne (south) shipyard required for the surface ship (OPV and future frigate) programs' construction. Shipyard upgrade at Osborne commenced in late 2017 and is expected to be ready for the future frigate program. Elements of the core IT infrastructure are still under determination. The Henderson shipyard infrastructure requirements for the OPV program are in the process of finalisation and the infrastructure requirements for the Future Submarine Program (FSP) at Osborne (north) shipyard are still in the early stages. As previously discussed in Chapter 2, the committee is concerned that the delay in finalising a strategic partnership agreement will have a flow on effect and cause further delays to programs, including work on the submarine program at the Osborne (north) shipyard.

Australian Naval Infrastructure has the responsibility of managing the infrastructure at the Osborne shipyard. This includes managing assets, developing program infrastructure, providing precinct services, and managing common user facilities.
Workforce

3.39 The workforce enabler of the naval shipbuilding enterprise requires a highly capable, productive and skilled naval shipbuilding and sustainment workforce.\(^{43}\)

3.40 As the work on the third and final vessel nears completion, the naval shipbuilding workforce will shrink. According to the Naval Shipbuilding Plan, this period, also known as the 'valley of death', has resulted in the loss of thousands of employees with critical skills from the industry in recent years. The recruitment of these skilled workers and more will again be necessary when the new shipbuilding programs commence. When these new shipbuilding programs start, there may be difficulties in mobilising the necessary number of skilled workers to meet the industry's demand.\(^{44}\) The Plan predicted that by 2026 the industry will need over 5,200 construction workers, and over 15,000 people directly and indirectly employed in the industry.\(^{45}\)

3.41 Recruitment, training and retention of highly skilled workers in the naval shipbuilding enterprise requires an investment over a lengthy period of time.\(^{46}\) Mr Herve Guillou, CEO of Naval Group, recently commented in the media that the company was facing challenges in building an experienced local workforce to assist with the submarine build:

> My worry is always that people confuse education with experience. These are very, very different.

> …

> Finding people with a diploma is not so difficult, finding people with experience and managerial skills is more difficult…it's nearly a one-by-one exercise.\(^{47}\)

3.42 A workforce plan for the whole of the naval shipbuilding programs remains under development. The Auditor General found that Defence had not considered cost-effectiveness when determining its approach to maintain a shipbuilding workforce between the Hobart Class destroyer's completion and the surface ship program's commencement.\(^{48}\)

\(^{43}\) Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 15.

\(^{44}\) Department of Defence, Naval Shipbuilding Plan, 16 May 2017, pp. 15–16.

\(^{45}\) Department of Defence, Naval Shipbuilding Plan, 16 May 2017, pp. 15–16.

\(^{46}\) Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 16.


3.43 Chapter 4 discusses in more detail issues related to workforce planning and government investments related to workforce skilling for the naval construction programs, along with recent workforce developments at the ASC.

*Industrial base*

3.44 The third enabler of the naval shipbuilding enterprise is 'a motivated, innovative, cost-competitive and sustainable industry'. Building an industrial base in Australia that is capable of implementing the naval shipbuilding plan is critical to securing a 'sustainable, long-term Australian naval shipbuilding industry with a sovereign capability to build and sustain its vessels'.

3.45 To establish a strong industrial base, underinvestment in the shipbuilding industry must be remedied. This means significant re-investments in Australia's heavy manufacturing and engineering capability and a closer partnership between Australian governments, industry, unions and the workforce.

3.46 Reforms to address deficits in the country's industrial base are underway, with recent funds directed towards infrastructure modernisation and the establishment of training centres to broaden and deepen the skills required for a shipbuilding workforce for decades ahead.

3.47 The ANAO recently reported that broad areas of industrial reform required to achieve productive and cost-effective naval construction programs have been identified. However, no decision has been reached on how these reforms might take place.

3.48 An important aspect of establishing an industrial base is the requirement that when selecting an international ship designer to deliver any of the major shipbuilding programs, certain transfers of technology, intellectual property, business processes and workplace cultures to Australian industry should be mandated during the competitive evaluation process. Chapter 5 discusses sovereign capability in greater details.

*National approach*

3.49 The fourth enabler of the naval shipbuilding enterprise involves a national approach to the shipbuilding plan's implementation. The committee agrees that a national approach is required to build an internationally competitive Australian industry. Such a historically large scaled project that is technologically challenging and complex requires a coordinated national approach. This means support and contributions from all state and territory governments, as well as from many sectors,

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49  Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 16.
50  Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 15.
51  See also Department of Defence, Naval Shipbuilding Plan, 16 May 2017, pp. 16–17.
53  Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 17.
will be required. The ANAO reported that 'initial activities have commenced towards adopting a national approach'.

3.50 In the absence of a national approach, state and territory governments as well as companies will likely expend their resources competing with one another. During the course of the inquiry, the committee heard that discussion about the national naval shipbuilding industry was often premised as a competition between states about who would win defence contracts and the subsequent flow-on work. This discourse suggested that only one state could host Australia's naval shipbuilding industry. However, as demonstrated by the Offshore Patrol Vessels project which will take place in both Adelaide and Perth and the content of Figure 3.2 in this chapter, Australia's naval shipbuilding industry is not limited to just one state but is rather a national industry located across Australia.

3.51 Evidence presented to the committee suggested that the Australian industry should redirect its focus from a state versus state debate towards providing an internationally competitive exports industry, servicing international customers, in addition to defence projects, other Commonwealth projects and commercial projects.

3.52 In an opinion article published after the release of the government's naval shipbuilding plan, Mr David Singleton, Chief Executive Officer, Austal, suggested that rather than a focus on unhelpful domestic competition between states on 'who gets what', attention should be directed towards competing for export contracts with foreign defence companies. Such an approach is necessary if the country is to expand its shipbuilding industry and create thousands of jobs across Australia.

3.53 At the committee's public hearings, several witnesses reiterated the national contribution to the shipbuilding programs. For example, at the committee's hearing on 4 April 2017, Mr John O'Callaghan, Executive Director, Australian Industry Group Defence Council, explained that shipbuilding is a national enterprise and there were many examples of where this national approach has proven successful, including supply of smart technology related to combat system activity from NSW and work undertaken by Victorian companies on the ANZAC frigates.

3.54 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, observed that although the future submarine's hull construction and assembly take

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55 Department of Defence, Naval Shipbuilding Plan, 16 May 2017, pp. 17–18.

56 For instance, at the Perth public hearing, Mr David Singleton, Chief Executive Officer, Austal Limited, argued in support of a shift in focus towards building a successful Australian exports industry. See Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, pp. 9, 11.

57 David Singleton, 'Come hull or high water', Sunday Mail Adelaide, 21 May 2017.

58 Mr John O'Callaghan, Executive Director, Australian Industry Group Defence Council, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 21.
place in Adelaide, the parts and component suppliers will come from across the country. He added that despite Queensland often being left out of the naval shipbuilding discourse, suppliers from Queensland have supplied parts that go into a warship—pumps, cables, componentry, and electrical equipment.59

3.55 Similarly, the Hon Greg Combet, Victorian Defence Industry Advocate, explained that even though Victoria had not been awarded major contracts for defence builds, Victorian industry will still contribute to the nation's endeavours. He noted that Victoria's 'very significant' supply chain will be a large contributor to shipbuilding programs. Further, Victoria's capabilities in research and in engineering will play a large role in the delivery of these shipbuilding programs.60

Defence Export Advocate

3.56 As noted in Chapter 2, the former Defence Minister David Johnston was appointed to the role of Australia's first Defence Export Advocate on 9 April 2018.61 The government advised Mr Johnston will provide international advocacy work on behalf of Australian defence industry to support Australian defence industry to secure export sales and contracts. This includes overseas travel to support defence export objectives, including assistance to government and Commonwealth officials as required. Mr Johnston will work closely with the Defence Export Office (via Team Defence Australia which sits within the office) as well as Austrade and the Centre for Defence Industry Capability. He will support the development and delivery of strategic export campaigns, including working with States and Territories to achieve this. In his role as Defence Export Advocate, he will also be the Chair of the Defence Export Forum—working closely with States, Territories and industry to provide a national approach to support the delivery of defence exports. The Defence Export

59 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, pp. 1–2.

60 The Hon. Greg Combet, Victorian Defence Industry Advocate, Department of Economic Development, Jobs, Transport and Resources, Victoria, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 33.

61 At the Senate Foreign Affairs, Defence and Trade Legislation Committee estimates hearing on 29 May 2018, the Department of Defence advised the appointment was made on the Minister for Defence Industry’s advice to Cabinet. Mr Scott Dewar, Acting Deputy Secretary Strategic Policy and Intelligence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget estimates), 29 May 2018, p. 10. See also Amelia McMahon, 'A former defence minister has been appointed as Australia's first defence export advocate', Defence Connect, 9 April 2018, https://www.defenceconnect.com.au/key-enablers/2129-inaugural-defence-export-advocate-revealed (accessed 26 April 2018); and Amy Remeikis, 'Abbott's defence minister the new face of export industry despite 'canoe' blunder', The Guardian, https://www.theguardian.com/australia-news/2018/apr/09/abbotts-defence-minister-the-new-face-of-export-industry-despite-canoe-blunder (accessed 9 April 2018).
Advocate reports to the Minister for Defence Industry and the Secretary of the Department of Defence.  

3.57 At the Foreign Affairs Defence and Trade Legislation Committee's estimates hearing on 29 May 2018, the Department of Defence confirmed that the role was a paid position and refused to release further details on Mr Johnston's remuneration, noting only that the remuneration was commensurate with those for 'eminent persons' who are in similar advisory roles. The department was queried on the Defence Minister's previous correspondence advising the President of Senate that the position's remuneration was nil. The Department clarified that the advice referred to Mr Johnston's role as an unpaid member of the Centre for Defence Industry Capability Advisory Board rather than to his Defence Export Advocate role, which is a paid position. 

2018 Defence Export Strategy

3.58 The government released its Defence Export Strategy on 29 January 2018. The strategy sets out an ambitious vision for the industry to become one of the top ten global defence exporters within the next decade. In launching the Strategy, the Minister for Defence Industry stated that it provides Australian companies the necessary support to grow, invest and to deliver defence capability.

3.59 The Australian Industry Group described the Strategy as a significant step in helping to build the capability of the defence industry to support the Australian
Defence Force, grow the country's local industry, and promote Australia's economic goals.67

3.60 The Minister listed several new initiatives and investments contained in the Defence Export Strategy, including:

- A new Australian Defence Export Office. The Office will work hand-in-hand with Austrade and the Centre for Defence Industry Capability to coordinate whole-of-government efforts, providing a focal point for defence exports.

- A new Australian Defence Export Advocate (discussed above).

- A $3.8 billion Defence Export Facility administered by Efic, Australia’s export credit agency. This will help Australian companies get the finance they need to underpin the sales of their equipment overseas. It will provide confidence to the Australian defence industry to identify and pursue new export opportunities, knowing Efic’s support is available when there is a market gap for defence finance.

- $20 million per year to implement the Defence Export Strategy and support defence industry exports, including $6.35 million to develop and implement strategic multi-year export campaigns, an additional $3.2 million to enhance and expand the Global Supply Chain program, and an additional $4.1 million for grants to help build the capability of small and medium enterprises to compete internationally.68

3.61 Some experts have commented on assumptions implicit in the Strategy that do not appear to be founded, pointing to the Strategy's optimistic estimates of current defence export activity, which lacks documentary and corroborating evidence.69 For example, Mr Ron Burke in an article published in The Strategist, described the estimates of current defence export activity – between $1.5 and $2.5 billion – as 'unusually high'. Mr Burke explained:

Those figures appear optimistic for a number of reasons. To start, the exact origin of the figures is difficult to determine. Also, the strategy lacks corroborating evidence identifying the largest contributing companies and/or projects (even in an aggregate form to guard against the disclosure of confidential information). And the project at the vanguard of Australia’s recent export success—JSF global supply chain participation—accounts for


only around 5 per cent of the $2.5 billion figure. Further, the estimates seem to hinge on company predictions (possibly for export projects spanning many years) rather than actual, annual export outcomes. Finally, SIPRI data for Australia, based on actual rather than predicted values for major defence projects, show a great deal of volatility, with 2016 representing a peak that far exceeds anything achieved over the preceding five years. 

3.62 Mr Burke observed that evidence from a departmental industry survey targeted at capturing export activity and Austrade data demonstrate that 'exports may equate to no more than 10 per cent of what the industry as a whole produced—or roughly one-third of what the strategy implies'.

2018 Defence Industrial Capability Plan

3.63 On 23 April 2018, the Minister for Defence Industry released the Defence Industrial Capability Plan (the DICP). The DICP builds on the 2016 Industry Policy Statement. It also outlines Australia's long-term vision and objectives for the country's defence industry and how the government and Defence will partner with industry to achieve the government's ambition.

3.64 The Minister for Defence Industry stated that the DICP addresses defence and defence industry sovereignty and outlines the initial Sovereign Industrial Capability Priorities. The DICP makes it clear that simply having an ABN and an Australian shopfront is not enough to be considered an Australian defence company. The Minister stated that:

[W]e want to see Australian leadership, an Australian board, and an Australian workforce value-adding right here at home.

3.65 The DICP explained that:

The Government’s investment in Australia’s defence capability comes with an expectation that international companies wishing to work with Defence


will invest in Australian defence industry and establish Australian subsidiaries. The Government has an expectation that those companies wishing to work with Defence will have an Australian presence and Australian leadership influence, including at the senior leadership and board level.⁷⁴

3.66 The Sovereign Industrial Capability Priorities are industrial capabilities critical to achieving the Australian Defence Force's operational mission and to the development of Australia's future force over the next few years.⁷⁵ Collins Class Submarine maintenance and technology upgrade and the continuous shipbuilding program (including rolling submarine acquisition) are included among the ten sovereign capability priorities.⁷⁶ They are assessed as:

- operationally critical to the Defence mission;
- priorities within the Integrated Investment Program over the next three to five years; or
- in need of dedicated monitoring, management, and support due to their industrial complexity, Government priority, or requirements across multiple capability programs.⁷⁷

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Support for the Defence Industrial Capability Plan's implementation will be provided by Australian industrial strategies for each of the six Integrated Investment Program capability streams and Implementation Plans for each Sovereign Industrial Capability Priority from 2019.79

The DICP allocated up to $17 million in annual funding from 2018–19 to support Sovereign Industrial Capability Priority grants. The grants will be delivered by the Centre for Defence Industry Capability.80

ASPI has described key additions to the Naval Shipbuilding Plan as including:

- a tighter definition of Australian defence industry;
- a list of 10 'sovereign industry capability priorities', along with a framework to assist with force design and contracting; and
- more information on the capability streams that make up the $200 billion Integrated Investment Program.81

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Economic benefits

3.70 The government's naval shipbuilding plan stated that the establishment of a continuous naval shipbuilding industry will create 'economic growth through maximising Australian industry participation, and securing Australian jobs that will endure for decades to come'. The committee heard that by sustaining a long-term industry, families and their communities will be supported through secure, long-term careers. It was also noted that a strong domestic sovereign capability has the potential to become a competitive and thriving exports industry into the future, leading to further economic benefits and less reliance on Australian defence contracts to sustain the industry.

3.71 The long-term benefits of naval shipbuilding investments can be substantial. Although the shipbuilding and repairs services industry has grown slowly over the past five years, the industry is expected to experience 'robust' growth onwards. This is mostly due to the Commonwealth government's commitment to support the industry through the continuous naval shipbuilding program, which aims to stabilise revenue streams and shorten times between contracts. It is anticipated that for the current 2017–18 period, industry revenue will reach $3.3 billion with $397.2 million in expected profits. Industry revenue is forecast to grow at a compound annual rate of 4.4 per cent over the five years from 2018 to 2023, to reach $4.1 billion.

3.72 Economic benefits extend to broader shipbuilding industry exports. Although international trade comprises a small part of the industry, only accounting for 1.6 per cent of industry revenue in 2017–18, there are opportunities for growth in niche product segments such as high-speed passenger catamarans, particularly in Southeast Asian markets. These commercial exports will be an important driver of economic benefits going forward.

82 Department of Defence, Naval Shipbuilding Plan, May 2017, p. 11.
85 Ibisworld noted that exports have been volatile over the past five years and this was underscored by massive growth over the two years through 2014-2015 followed by a large drop. Strong competition from foreign manufacturers also had an effect on exports. IBISWorld, Industry Report C2391: Shipbuilding and Repair Services in Australia, February 2018, p. 15.
Production efficiencies

3.73 Findings by the 2015 RAND report and the ANAO's performance audit report suggest that ships built in Australia come at a premium cost. Witnesses and submitters considered that this premium was worth it, given the other benefits of a local ship building industry.

3.74 The 2015 RAND report found that producing naval ships in Australia includes a 30 to 40 per cent premium in price in contrast to comparable ships produced overseas. The RAND report noted that this premium could drop over time with continuous production, reform to acquisition and contracting processes focusing on cost effectiveness, selection of mature designs containing minimal changes, and adoption of an integrated design, builder and supplier model of production. This was supported by the Department of Defence's evidence that with more ships built, the productivity and cost of each subsequent ship built will improve. This productivity is also reflected in the learning curve moving down until it reaches the 'most efficient and effective build process' in place and workers become more skilled and experienced.

3.75 However, the ANAO's recent report into the competitive evaluation process for the future submarines project suggested a more modest price premium, with the submarines provided by the successful participant Naval Group likely to incur a premium of around 15 per cent for an Australian build option (in comparison to an international and hybrid build).

3.76 The committee reiterates its conclusion from its third report during the 44th Parliament that 'the committee is not convinced by assessments that dismiss the economic benefits from a vibrant domestic ship building industry'. Primarily, naval shipbuilding is a critical input to national security and 'most countries are more than willing to pay a price premium for this security'. As Ms Deirdre Willmott, Chief Executive Office, Chamber of Commerce and Industry of Western Australia, explained, it is important for Australia to have a naval shipbuilding sovereign capability despite narrow considerations of immediate cost. She added that it made little sense to 'keep going overseas' to build ships when Australia can build these ships


88 Rear Admiral Gregory Sammut, Head Future Submarine Program, and Mr Stephen Johnson, General Manager Submarines, Senate Foreign Affairs, Defence and Trade Legislation Committee, 29 May 2018, *Proof Committee Hansard (Budget estimates)*, pp. 33 and 58.


locally, and with the added built in advantage of having sovereign capability for the future.92

3.77 Mr David Singleton, Chief Executive Officer, Austal explained that it was possible for ships to be produced economically if the buyer requires the supplier to produce subsequent ships at a cheaper cost. He gave the example of Austal’s experience with the US government:

[We] have two ships and no competition for those ships at all—so there is not another aluminium defence shipbuilder and there isn’t anybody else who competes for both the littoral combat ship and the EPF. I can tell you that the US government has an extremely effective way of making sure that we produce ships to a very good economic standard. In fact, we are managed by the US to make sure that every single ship we produce is cheaper than the previous ship we produced, and by quite large percentages.93

3.78 Mr Glenn Thompson, Assistant National Secretary, AMWU, explained that the more ships built, the more efficiently and economically they are produced. In the case of the AWD project:

From ship 1… to ship 2, there is a 45 per cent increase in productivity. [And the] government has announced that it is ahead of budget and on time.94

3.79 At the 24 May 2017 Senate Finance and Public Administration Legislation Committee estimates hearing, Mr Mark Lamarre, then Chief Executive Officer, Australian Submarine Corporation Shipbuilding, confirmed these productivity and economic gains. Indeed, on the day of the hearing, ASC delivered ship one to the Capability Acquisition and Sustainment Group (CASG) within the Department of Defence.95 Mr Lamarre explained that productivity and financial gains made with each subsequent AWD program ship produced had a multiplier effect: ship three would be more economical than ship two and one, with ship three currently 38 per

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92 Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, Senate Economics References Committee, Committee Hansard (Future of Australia’s naval shipbuilding industry), 3 April 2017, p. 34.

93 Mr David Singleton, Chief Executive Officer, Austal Limited, Senate Economics References Committee, Committee Hansard (Future of Australia’s naval shipbuilding industry), 3 April 2017, p. 11.

94 Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers’ Union, Senate Economics References Committee, Committee Hansard (Future of Australia’s naval shipbuilding industry), 4 April 2017, p. 4.

cent less expensive than ship two, and over 50 per cent complete. 96 Mr Lamarre stated that the ASC was proof that Australia could produce ships economically without a premium cost:

We are cost competitive, as I have indicated in the turnouts that we are getting on the three ships, but also as benchmarked by others... [T]he team ... are absolutely smashing the notion that Australians have to accept a 40 per cent premium for building ships. 97

3.80 Findings by the ANAO in an audit report in March 2017 further supported this evidence. In the ANAO's audit report into the procurement of the replacement Antarctic Vessel, the ANAO found that the view held by the Department of Defence that a home build will cost 40 per cent more was not adequately supported by relevant documentary evidence. 98

**ANAO Audit Report: Naval Construction Programs—Mobilisation 2018**

3.81 The recent ANAO Audit Report Naval Construction Programs—Mobilisation, released on 14 May 2018, raised serious concerns for the committee about aspects of the government's implementation of the naval shipbuilding plan. These concerns were not fully assuaged by the Department of Defence's explanations at the recent Foreign Affairs, Defence and Trade Legislation Committee's budget estimates hearing on 29 May 2018.

3.82 In its findings, the ANAO noted that:

The Naval Shipbuilding Plan did not identify how Defence will address the high to extreme level of risk associated with its naval construction programs, as advised to the Government in 2015 and 2017. 99

3.83 The ANAO reported that Defence's main risk mitigation strategy was the implementation of the government's guiding principles. The ANAO reported that the successful implementation of the Naval Shipbuilding Plan would require 'seamless' management of the naval construction program and the following factors falling into place:

- the timely and effective mobilisation of key enablers;
- the timely and effective implementation of each construction project; and
- the seamless management of the naval construction program as a whole, to avoid flow-on effects and maintain a continuous build process which delivers the specified capability on time and within budget. 100

96 Mr Mark Lamarre, then Chief Executive Officer, Senate Finance and Public Administration Legislation Committee, *Committee Hansard* (Budget Estimates), 24 May 2017, pp. 24–25.


3.84 The ANAO noted that based on Defence's past experiences with naval shipbuilding programs in Australia, successful implementation of the naval shipbuilding plan required very high expectations:

The history of naval construction programs in Australia suggests that these are very high expectations indeed. Shortcomings in the management of program risk will result in the extension of service of the Armidale and ANZAC class ships, and the Collins Class submarines, and the associated costs and effects on naval capability.101

3.85 The ANAO also noted that Defence did not have an updated cost estimate for its naval construction programs that included the FSP's domestic build.102 Indeed, current cost estimates do not reflect changes to the earlier design and build milestones for its surface ships.103

3.86 Other issues raised which are of concern to the committee include:

- the progress of the Offshore Patrol Vessel through second gate approval without detailed sustainment costs and finalised commercial arrangements;104 and
- the high risk level related to aspects of the Future Frigates program identified by Defence in an internal review in 2016.

3.87 The 2016 Defence internal review found an accelerated schedule would risk cost and construction overruns. It provided two options to mitigate these risks but an alternative option was chosen. This alternative option allowed for construction to commence in 2020 with 'prototyping activities'. The ANAO noted this alternative option was not supported by any analysis.

3.88 The Department of Defence responded to these concerns at the Foreign Affairs, Defence and Trade Legislation Committee's estimates hearing on 29 May 2018. It also took the opportunity to respond to the negative media coverage and 'selective'...

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102 The RAND Corporation's 2015 report, on which the Naval Shipbuilding Plan is based, was not asked to include submarines in its analysis. In contrast, both the Gillard and Howard governments' 2013 and 2002 shipbuilding plans included analysis of both submarines and surface ships.


reporting and interpretation of the ANAO's report. Mr Kim Gillis, Deputy Secretary CASG, claimed media coverage had conveniently ignored the report's positive findings that:

- Defence continues to work towards effective planning and mobilisation to deliver the Australian government's Naval Shipbuilding Plan;
- Defence has identified the key elements for a successful continuous shipbuilding enterprise; and
- Defence is currently meeting scheduled milestones for the naval construction programs, noting that each program is in the early stages.

3.89 Mr Gillis advised that the department was making steady progress in its implementation of the government's national shipbuilding plan, stating that in the year since the naval shipbuilding plan's release, 'Defence has progressed the key policy initiatives and critical milestones outlined in the plan in a timely and coordinated national effort'.

3.90 Mr Gillis also refuted several negative claims reported in the media. Mr Gillis told the Foreign Affairs, Defence and Trade Legislation Committee that:

- There was 'no cost blowout' related to the Offshore Patrol Vessel program. As the contract is a fixed-price contract, the department 'understands precisely' the costs of building these vessels in both South Australia and Western Australia.
- The 'government was provided sustainment data for the Offshore Patrol Vessel, based on historical usage and designer forecasts'. This was 'standard shipbuilding practice'. Further, the most current sustainment costs for the Offshore Patrol Vessels are only available following the outcome of the tender process and the known type of vessel to be purchased.
- Defence has provided the government 'with an indicative life-cycle cost for the Offshore Patrol Vessel across a 20 year-year life'. The cost was 'based on previous programs, historical usage and upkeep data provided by tenderers'. This was typical for a shipbuilding project at a similar stage.
- Defence first used the terms 'high to extreme risk' (and not the ANAO) when it identified that aspects of the future frigate program were of a 'high to extreme risk level' in early 2016.
- 'All of the changes associated with the domestic build of the future submarine and future frigate programs are been reflected in Defence's Integrated Investment

105 Mr Kim Gillis, Deputy Secretary, Capability Acquisition and Sustainment Group (CASG), Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget estimates), 29 May 2018, p. 7.
106 Mr Kim Gillis, Deputy Secretary, CASG, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget estimates), 29 May 2018, p. 7.
107 Mr Kim Gillis, Deputy Secretary, CASG, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget estimates), 29 May 2018, p. 8.
3.91 Mr Gillis disagreed with the ANAO's concern that there were no detailed sustainment costs for the OPV, stating that:

[The ANAO] misinterpreted the requirements, because the requirements are to have tender-quality pricing for the tender. There was only one tender there, which was to build ships. It's a separate tender to actually provide the detailed costing for sustainment. We have been doing that for as long as I can remember because it would be illogical for me to then ask three tenderers to then go and have, potentially, five or six sustainment companies then tender against three different ships, when we haven't selected one, to go through that process. It is an illogical path to say that we should have had tender-quality prices for sustainment when we hadn't even released the tender.109

3.92 The Department of Defence reported several strategies were adopted to lower these risks to a manageable level. These strategies included:

- The commencement of the future frigate prototyping in 2020 to demonstrate the ship design, shipyard processes and workforce are production ready110;
- The decoupling of shipyard design and construction ahead of the future frigate decision; and
- The adoption of an enterprise approach to Combat Management Systems and bringing forward the future frigate combat management decision. This has allowed for the commencement of studies prior to the future frigate decision.111

3.93 At the committee's public hearing on 7 June 2018, Dr Tom Ioannou, Group Executive Director, ANAO, advised that the office remained committed to the findings and recommendations contained in the report, notwithstanding the statements

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108 Mr Kim Gillis, Deputy Secretary, CASG, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget estimates), 29 May 2018, pp. 7-8.

109 Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 71.

110 These prototyping activities would allow Defence to 'test the shipyard's tools and procedures, and train and qualify the shipyard workers'. The costs for these activities would be met by efficiencies gained during the frigate program's build. See Australian National Audit Office, Australian National Audit Office, Audit Report No. 39 2017-18, Naval Construction Programs—Mobilisation, pp. 43–44.

111 Mr Kim Gillis, Deputy Secretary, CASG, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget estimates), 29 May 2018, p. 8.
made by Defence officials during the May 2018 Budget Estimates. In relation to the suggestion by Defence officials that the report was out of date, Dr Ioannou advised the committee that the audit continued up until the day it was tabled by the Auditor General, on 14 May 2018:

Our report was, of course, tabled on 14 May 2018, and it includes at page 12 a formal, written Defence response to the audit report, which was received on 26 March 2018. It's in the nature of such responses that we also receive a variety of more detailed comments in addition to the formal response to be published in the report. Our audit standards require us to continue the audit process until the completion of an audit.

3.94 In relation to the use of the term 'high to extreme risk' with regard to the future frigate program, the ANAO agreed that this term was first used by the Department of Defence. Dr Ionannou told the committee that he had no reason to doubt that this term had been used accurately by the Department.

Committee comment

3.95 National long term planning is vitally important for Australia's naval shipbuilding industry to sustain and consolidate its sovereign capability. Since the tabling of the committee's third report in July 2015, the Coalition government has made a number of announcements in support of the continuous naval shipbuilding program. The eventual release of the naval shipbuilding plan on 16 May 2017 went some way to formalising a long term plan for the industry. However, the committee believes that further work is required to provide a more comprehensive and holistic long term plan for the Australian naval shipbuilding industry.

3.96 The committee acknowledges that a large amount of evidence received at the April 2017 hearings pre-dated the release of the government's naval shipbuilding plan and associated documents. However, the evidence remains relevant, in that the delayed release of the Plan created unnecessary uncertainties for industry. Further, having assessed the Plan after its release, it is clear that the Plan has failed to meet the expectations of witnesses who were disappointed in its lack of details.

ANAO Audit Report Naval Construction Programs—Mobilisation

3.97 The ANAO report raises serious concerns about Defence's mitigation of the risks associated with its implementation of the naval shipbuilding plan. Despite Defence's evidence that it identified risks early and undertook risk mitigating
strategies to manage them, the committee remains concerned with the management and implementation of the naval shipbuilding programs. Much of Defence's risk mitigation strategies to minimise any cost overruns and construction delays are premised on all the pieces in the strategies falling into place smoothly, including prototyping activities to address the future frigate's accelerated schedule. Against this background are Defence's past challenges working on Australian shipbuilding projects in Australia.

**Defence Export Advocate**

3.98 The committee is concerned that information on the remuneration for the Defence Export Advocate is not publically available and that such information was withheld from the Foreign Affairs, Defence and Trade Legislation Committee at its recent estimates hearing. As at the date of this report's tabling, the committee's questions on the matter remained unanswered. The lack of information impedes on the work of the senate and its ability to hold the government and departments accountable to Parliament.

**The naval shipbuilding plan**

3.99 The committee welcomes the release of the Naval Shipbuilding Plan (NSP). However, the NSP failed to include key information identified by witnesses as vital for inclusion. For example, the NSP lacks guidelines about mandated levels of Australian industry involvement and content in defence projects. As a result, information about when Australian industry involvement and content should be achieved in these projects, how these requirements would be enforced, and what penalties exist for not adhering to the mandated requirements, are absent. The committee returns to this issue in Chapter 5.

3.100 A plan should be a strategic document for the industry, providing a framework for action. However, the NSP as currently drafted is little more than an explanation of decisions and announcements already made. If the government's intent was to produce a project plan for the management of these announcements already made, it failed by not providing a detailed project schedule for the continuous build nor specifying the related dependencies between projects—something a project plan would be expected to contain. In addition, limited detail was provided about these projects—for example, no further information was provided about the $100 million Western Australian infrastructure upgrade announcement discussed earlier in this chapter.

3.101 The committee further notes that the NSP does not mandate regular reporting or updates to the NSP. In contrast, the committee heard that in the United States, an updated Annual Long-Range Plan for Construction of Naval Vessels is required under law to be submitted to Congress annually. If the Secretary of Defence does not

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115 Section 231 of Title 10, United States Code states that the Secretary of Defence shall include with the defence budget materials for a fiscal year, a plan for the construction of combatant and support vessels, and a certification by the Secretary that both the budget for that fiscal year and future defence program are sufficient. This is provided around the time the President submits a budget request to Congress for the next fiscal year, which must be submitted by the first Monday in February.
provide this to Congress, funds available for implementation of the plan in that financial year are reduced by 50 per cent until such documentation is provided. By comparison, the Australian naval shipbuilding plan simply states that the government will provide regular updates on its implementation through national security statements and naval shipbuilding updates to the Parliament. While the committee acknowledges the internal governance arrangements in place and direct reporting to the National Security Committee of Cabinet, this does not enable the public or the Parliament to hold the government to account in regard to its implementation of the NSP, as limited as it is. The committee considers that at a minimum, a status report and updated plan is required to be provided twice a year to the Parliament.

3.102 The Plan only focussed on one part of the Australian industry – government defence contracts—ignoring a thriving domestic commercial sector and a growing exports industry. An internationally competitive Australian industry is vital to the sustainability of the Australian naval shipbuilding industry, enabling it to maintain its sovereign capability, and the realisation of future economic benefits. Long term planning for consolidating the commercial and exports side of the industry is still required.

3.103 Evidence presented by Mr Glenn Thompson, AMWU, highlighted the use of minor and support vessels by the Commonwealth, outside of the Defence sector.\textsuperscript{116} The committee considers that these vessels should also be included in a national shipbuilding plan.

3.104 A large number of support vessels relied on by the Royal Australian Navy are being managed by Serco Defence which operates across Australia.\textsuperscript{117} As one of the country's largest maritime service operators, with facilities across the country, it has an important role to play in sustaining a viable shipbuilding industry in Australia. This means having a consistent flow of maintenance and construction work for people to build skills, gain experiences, and for businesses to 'attract investment and improve productivity'.\textsuperscript{118} The company has designed, built, operated and maintained a large number of vessels. It has provided maintenance and in service support for the Pacific

\textsuperscript{116} Evidence presented by Mr Glenn Thompson from the AMWU highlighted use of minor and support vessels by the Commonwealth. Senate Economics References Committee, \textit{Proof Committee Hansard} (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 32-35.

\textsuperscript{117} Serco Australia is an Australian proprietary limited company and is owned by Serco Group plc (Serco Group), a company incorporated in the UK and listed on the London Stock Exchange. Serco Defence was created in 2012 after the Serco Group acquired DMS Maritime Pty Ltd (DMS). See additional information provided to the Senate Economics References Committee by Serco Australia Pty Ltd, received 15 May 2018, p. 1; Australian Manufacturing Workers' Union, \textit{Supplementary submission 42.1}, p 1.

\textsuperscript{118} Senate Economics References Committee, \textit{Proof Committee Hansard} (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 32.
Patrol Boats, Bay Class Australian Customs Vessels, Cape Class Patrol Boats, and Armidale Class Boats.\textsuperscript{119}

3.105 Mr Thompson, AMWU, advised the committee that Serco Defence manages a large number of vessels for Defence and other government agencies, including the Antarctic Supply and Research Vessel (ASRV) which will replace the icebreaker and research vessel \textit{Aurora Australis}, and a 93-metre aviation training vessel to the Australian government.\textsuperscript{120} The training vessel was built in Vietnam and the replacement icebreaker vessel will be built in Romania.\textsuperscript{121} Unfortunately Serco Defence declined the committee's invitation to attend and give evidence at the hearing on 7 June 2018. As a consequence, the committee has not had an opportunity to discuss these vessels with Serco Defence.

3.106 The committee considers that the contracts, construction, maintenance and support services related to all Commonwealth procured and leased vessels, such as those outlined above, should also be included in a national shipbuilding plan.

3.107 The finding by ANAO that the naval construction program's cost of implementation did not reflect changes to the original cost assumptions remains relevant. The committee is not convinced that the original cost assumption which omits an Australian build for the Future Submarine program and an earlier construction of the surface ships (bringing forward expenditure) has been satisfactorily reflected in the Integrated Investment Program. The committee does not believe the arrangement that shortfalls between the funding requirements and existing provisions be covered by 'offsets' is a satisfactory solution for not having more up-to-date cost assumptions.

\textsuperscript{119} Pacific Patrol Boats: from 2010 to 2017, Serco Defence was contracted by the Commonwealth as the maintenance provider; Cape Class Patrol Boats: from 2011 to 2017 Serco Defence was contracted by Austal to provide in service support of the Australian Border Force's eight vessels; Armidale Class Patrol Boats: from 2007 to 2017, Serco was contracted to provide in service support of the RAN's 14 patrol boats. Refer to Serco Australia Pty Ltd's correspondence provided to the Senate Economics References Committee, received 15 June 2018, pp. 2-3.

\textsuperscript{120} The numbers provided at the hearing has been subsequently disputed by Serco Australia. For instance, Serco Defence has disputed that it manages over 100 vessels for government and have around 847 contracts with government valued in excess of $3 billion. Serco Defence advised it manages 64 vessels, two of which are capital assets and the remainder comprising of harbour tugs, general purpose workboats and other various support vessels. Refer to Serco Australia Pty Ltd's correspondence provided to the Senate Economics References Committee, received 15 June 2018, pp. 1-2. Senate Economics References Committee, \textit{Proof Committee Hansard} (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 33-34.

\textsuperscript{121} This vessel is being built at Damen Shipyards in Romania, with Romanian Steel by ArcelorMittal Galati. See, Anca Bernovici, 'ArcelorMittal Galati provides steel for Antarctic state-of-the-art research vessel', \textit{Romania Journal}, 18 January 2018. Available online \url{https://www.romaniajournal.ro/arcelmittal-galati-provides-steel-for-antarctic-state-of-the-art-research-vessel/} (accessed 22 June 2018).
Other Commonwealth vessel procurements

3.108 One of several notable absences from the government's Naval Shipbuilding Plan is the absence of other key Defence Department and Commonwealth vessel procurements. For example, the Plan did not include:

- the Department of Defence's own RAN replacement replenishment ships (SEA1652) program (the subject of this committee's first report); or
- the Department of the Environment and Energy's Replacement Antarctic Vessel (the subject of a March 2017 ANAO audit report).

3.109 In both instances, the successful tenderers were both international companies, Navantia of Spain and DMS Maritime Pty Ltd (now Serco Defence) respectively.

3.110 The committee can only assume in the instance of replenishment ships (SEA1652), because these ships will not be built in Australia by an Australian company, the program was not included in the naval shipbuilding plan and as a result, Australian industry involvement will not be prioritised in these projects.

3.111 The committee considers that the government's Naval Shipbuilding Plan is limited in scope and falls short of achieving the government's intended aim of a continuous national build of ships in Australia. It is a document that focuses on a small number of defence naval procurements and their sustainment, in a limited number of Australian states.

The need for a national shipbuilding plan

3.112 The committee considers that a continuous build of ships and utilisation of Australian industry is more readily achievable through the development of a truly national shipbuilding plan that includes all Commonwealth vessel procurements, state vessel procurements, as well commercial opportunities and support for a growing exports industry. The committee considers that one national plan is required. This plan should incorporate the government's existing naval shipbuilding plan, along with plans for other Commonwealth and state/territory vessels, commercial vessels, and all existing Australian shipbuilding yards. Australia can only plan for, and achieve, a continuous build of ships, if all ships produced in Australia are included in a national plan.

3.113 The committee notes that state and territory procurements are a matter for state governments and that state procurement frameworks may differ. Predominantly, the main vessels procured by state and territory governments are for their police forces. While there are a limited number of procurements for state public transportation, a mixture of private and public ownership and operations arrangements makes a national approach difficult in these circumstances.

3.114 Moreover, the committee is aware that in the past decade, an overwhelming number of state and territory vessel procurements have been awarded to Australian industry. Despite this, the committee considers there to be value in developing a shared principles framework to ensure that:

- state involvement in Australian industry continues;
• the Commonwealth can learn from its state counterparts; and
• the Commonwealth and state and territory governments work together to ensure a national continuous build of ships, maximising Australian involvement.

3.115 In regards to non-defence naval Commonwealth vessel procurements, the committee is aware of several procurements that should have been, or should be, planned in conjunction with defence procurements and non-government opportunities in order to sustain a continuous national build of vessels in Australia. These include:


• Cape Class Patrol Boats. Australian Border Force (formerly Department of Immigration and Border Protection and before that Australian Customs and Border Protection Service). Awarded to Austal. Discussed in ANAO report 13 2014–2015;

• RV Investigator – scientific research vessel. CSIRO. Teekey Holdings Australia, constructed in Singapore. The number of days spent at sea by this vessel and the backlog of bookings for use by researchers was discussed at a Senate Environment and Communications References Committee public hearing into the impacts of climate change on marine fisheries and biodiversity held in Sydney on 17 March 2017;\(^\text{122}\)

• STS Young Endeavour ship. Operated by the Royal Australian Naval for the Young Endeavour Youth Scheme. This vessel was a gift from the United Kingdom government in 1988. At the 30 May 2017 Foreign Affairs, Defence and Trade Legislation Committee’s estimates hearing it was revealed that the vessel had a planned withdrawal date of 2021–22.\(^\text{123}\) The Department of Defence is in the process of developing options for replacement of the vessel;\(^\text{124}\)

• Vessels used by Australian Border Force such as the Ocean Shield and Thaiyak.

• Vessels used by the Department of Agriculture and Water Resources; and

• Vessels such as patrol boats and rigid hull inflatable boats used by the Australian Federal Police.

**Recommendation 1**

\(^{122}\) Dr Andreas Schiller, Acting Director, Oceans and Atmosphere, Commonwealth Scientific and Industrial Research Organisation, Senate Environment and Communications References Committee, *Committee Hansard* (Inquiry into current and future impacts of climate change on marine fisheries and biodiversity), 17 March 2017, pp. 4–5.

\(^{123}\) Vice Admiral Tim Barrett AO CSC, RAN, Chief of Navy, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Committee Hansard* (Budget estimates), 30 May 2017, p. 81.

\(^{124}\) Vice Admiral Tim Barrett AO CSC, RAN, Chief of Navy, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Committee Hansard* (Budget estimates), 30 May 2017, p. 81.
The committee recommends that the Commonwealth and state governments work together to develop a national shipbuilding plan, incorporating the existing naval shipbuilding plan. A national shipbuilding plan should include the following:

- agreed procurement principles focused on support for a continuous build of vessels in Australia utilising Australian industry and Australian shipyards;
- at a minimum, all vessels procured by the Commonwealth, including scientific and research vessels, federal police, and customs and border protection vessels, and agriculture vessels. These procurements should be subject to the same level of scrutiny as naval procurements have been, and be planned accordingly in the national interest;
- how remaining shipyards not identified in the government’s naval shipbuilding plan will be utilised in a continuous national shipbuilding build program;
- how Australia's commercial and exports industry can be supported and planned for into the future;
- the requirement that reporting against the plan be provided every six months to the Commonwealth Parliament for scrutiny; and
- any other matters deemed essential to the development of a holistic national plan.

Recommendation 2

The committee recommends that in the absence of a national shipbuilding plan in the short term, reporting against the government's current naval shipbuilding plan and its four key enablers and three major continuous build programs be provided to the Commonwealth Parliament every six months.
Chapter 4

Workforce planning strategy

4.1 Workforce planning is critical for the successful implementation of the naval shipbuilding plan and the government's continuous build of naval ships in Australia. Chapter four of the government's naval shipbuilding plan provided broad ideas of how the government intends to build and support the naval shipbuilding workforce.

4.2 This chapter examines the government's workforce plan, industry demographics and key skills required for the industry, and training opportunities available for new employees. The chapter concludes with an examination of the future of the Australian Submarine Corporation (ASC) and its workforce.

National workforce plan

Naval shipbuilding plan

4.3 In the naval shipbuilding plan, the government iterated its commitment to supporting Australian naval shipbuilding jobs, stating that the government will play an active role in managing workforce issues.1 The naval shipbuilding plan observed that without government intervention, severe workforce shortages would occur, effecting delays to shipbuilding schedules and delivery of planned naval capability:

Leaving workforce development solely to industry could result in multiple approaches to workforce skilling with little or no coordination at the national level, and little consideration to meeting the skilled workforce needs of the broader naval shipbuilding enterprise (including the supplier and sustainment base and the Commonwealth).2

4.4 The naval shipbuilding plan indicated that construction of the Future Submarine Program (FSP) is expected to sustain around 1,100 Australian jobs in direct build and around 1,700 Australian jobs through the supply chain.3 The Future Frigate program will create over 2,000 jobs, and the Pacific patrol boats project will create around 200 jobs.4 Projected growth of naval acquisition, sustainment and supply chain workforces is expected to reach approximately 15,000.5

Strategic workforce plan

4.5 The government is finalising a strategic workforce plan in collaboration with key national and international stakeholders.6 The naval shipbuilding plan explained a strategic workforce plan would assist Defence and industry to work closely on

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1 Department of Defence, Naval Shipbuilding Plan, 16 May 2016, p. 63.
2 Department of Defence, Naval Shipbuilding Plan, 16 May 2016, p. 63.
4 Department of Defence, Naval Shipbuilding Plan, 16 May 2016, p. 33 & 37.
5 Department of Defence, Naval Shipbuilding Plan, 16 May 2016, p. 68.
6 Department of Defence, Naval Shipbuilding Plan, 16 May 2016, p. 63.
meeting projected demands in a collaborative way. It would do this by identifying growth targets and developing strategies to achieve required growth and skills development at the national level. The plan would still allow the selected companies to retain responsibility for their own commercial recruitment and workforce development decisions.7

4.6 At the 30 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee estimates hearing, Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, explained that the availability of inducements to fill any skill shortages associated with the naval shipbuilding plan will depend on the content of the completed strategic workforce plan.8 Mr Ablong stated that there will likely be some labour mobility from other parts of Australia to where the activities will be located—to South Australia and Western Australia as the major sources of naval construction activities, and New South Wales and Queensland where there are sustainment activities. Once supply and demand is determined, consideration will be given to whether there is a long-term need for people to relocate to another state and whether inducements are required.9

Workforce plan delay

4.7 The ANAO's performance audit reported that the workforce plan to determine industry workforce requirements was due to be finalised in December 2017, but was still not completed as at 15 February 2018.10

4.8 Defence informed the committee it was leading a whole-of-government approach to develop an integrated strategic workforce plan. The department is undertaking the work in coordination with Department of Jobs and Small Business, the Department of Industry, Innovation and Science and the Department of Education and Training.11

4.9 In response to the committee's concerns about the plan's delay, Defence explained that the strategic workforce plan remained an ongoing piece of work. In particular, information for specific workforce requirements from the shipbuilding projects (submarine sustainment, OPVs, and future frigates) was not yet available. Mr Peter Chesworth, First Assistant Secretary Naval Shipbuilding Taskforce,

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7 Department of Defence, Naval Shipbuilding Plan, 16 May 2016, p. 64.
8 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget Estimates), 30 May 2017, p. 42.
9 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget Estimates), 30 May 2017, p. 42.
11 Mr Stephen Johnson, General Manager Submarines, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 44.
explained that it takes time for the department to work across government on such a large scale nation-building project to ensure an appropriate workforce is 'provided at the right time and at the right sequence of events'.

4.10 Defence officials queried the ANAO’s statement that the Plan was due at the end of 2017. Mr Stephen Johnson, General Manager Submarines, informed the committee he did not know the original estimate of a plan to be finalised in December. He noted that such a date did not take into consideration the timing of the contract release for the offshore patrol vessel and the future frigate programs, with the contract for the frigates yet to be finalised. Mr Johnson expected that a workforce plan is more likely to be finalised in 2019.

4.11 The December 2017 timeframe may have arisen from evidence provided by Defence officials at the Foreign Affairs, Defence and Trade Legislation Committee’s estimates hearing on 30 May 2017. For example, Mr Marc Ablong, then First Assistant Secretary Naval Shipbuilding Taskforce, stated:

‘we expect [the strategic workforce plan] to be completed by the end of this year’.

4.12 It was against this backdrop that Defence advised the committee it had not yet determined industry workforce requirements for the naval construction program. According to Defence, it was ‘quite clear’ why the ANAO reported in its performance audit report Naval Construction Programs—Mobilisation that Defence was 'currently developing a workforce plan to address labour and productivity requirements across the naval construction programs'. As Mr Johnson explained:

We are doing that with industry and we are doing it with Navy for the uniformed ADF side. We're doing it within the Australian Public Service, with Defence People Group. ...The reality is we are making steady progress in [the] implementation of the national shipbuilding program.

**Internal Defence workforce plan**

4.13 The committee heard evidence from Defence that it was shaping the capability to support the shipbuilding enterprise through its internal integrated
workforce plan for the ADF and APS workforce. The department has more broadly extended their focus and engagement with universities to recruit high performing STEM students. It will also provide for the first time a graduate pathway that is dedicated to naval construction.\textsuperscript{16}

4.14 Ms Justine Grieg, Acting Deputy Secretary, Defence People, highlighted that of the current 312 graduates recruited in 2017 and still with Defence, approximately 60 per cent had a qualification in a STEM discipline and 40 per cent of them were women. To support these new recruits in a new shipbuilding program, Defence informed it has put 'equal effort into the scaffolding' by assigning and giving training to mentors. It was also necessary to provide career progression to retain graduates over the next five to ten years.\textsuperscript{17}

4.15 Other recruitment efforts undertaken by Defence included fast-tracking recruitment of people for the APS workforce to create of pool of suitable candidates for managers and delegates to draw upon. The department has piloted a recruitment program within the shipbuilding space by offering candidates the opportunity to provide a resume and sit a cognitive and behavioural test. If candidates meet the benchmark they become part of a merit pool. The committee heard that the process was promising and the department had widened its pool of interested applicants.\textsuperscript{18}

4.16 The ANAO's performance audit report stated that the assumptions of Defence's current workforce planning activities were not based on a cost-benefit analysis. In particular, the choice to maintain the shipbuilding workforce between the Hobart Class Destroyer and follow-on surface ship builds was not undertaken on the basis that it was the most cost-effective way of establishing the naval shipbuilding enterprise.\textsuperscript{19}

\textit{Foreign workers}

4.17 The use of foreign workers instead of Australian workers for Australian naval projects was of concern to the committee. With regards to foreign workers, the naval shipbuilding plan stated that it was expected that selected foreign shipbuilders would bring their own workers from abroad who would have the necessary experience with the companies' production techniques and processes. These roles, mostly at the middle

\textsuperscript{16} Ms Justine Grieg, Acting Deputy Secretary, Defence People, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard (Budget Estimates)}, 29 May 2018, p. 45.

\textsuperscript{17} Ms Justine Grieg, Acting Deputy Secretary, Defence People, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard (Budget Estimates)}, 29 May 2018, p. 45.

\textsuperscript{18} Ms Justine Grieg, Acting Deputy Secretary, Defence People, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard (Budget Estimates)}, 29 May 2018, p. 45.

\textsuperscript{19} Australian National Audit Office, Audit Report No. 39 2017-18, \textit{Naval Construction Programs—Mobilisation}, p. 10. See also, Mr Stephen Johnson, General Manager Submarines, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard (Budget Estimates)}, 29 May 2018, p. 41.
management and supervisory level, would be essential to the process of knowledge transfer to the Australian naval shipbuilding industry. As the Australian workforce develops its own specialised shipbuilding skills for vessel construction, this would be reflected in the expected decline in the number of foreign workers. The plan noted that this would be an important area of discussion with selected shipbuilders as projects develop.20

4.18 This was confirmed by Defence at its estimates hearing in 2017, when Mr Kim Gillis, Deputy Secretary, Capability Acquisition and Sustainment Group (CASG), explained that foreign workers will be brought in for a short period by the successful tenderer to 'transfer knowledge to Australian supervisors and managers and then return home'.21

4.19 The Hon Christopher Pyne MP, Minister for Defence Industry, made a similar point about the central role of the local workforce at the launch of the naval shipbuilding plan. He stated that foreign workers will not be brought over to build these ships or submarines and then clarified that some French staff from Naval Group (formerly DCNS) will travel to Australia to assist in training the Australian workforce.22

4.20 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia (formerly DCNS Australia), explained that in parallel to this, Australian workers will travel to France to learn from Naval Group (formerly DCNS) designers. He added that they were also looking at people with program management, engineering, technical and administrative expertise in the setup of a company.23 He advised the committee on 7 June 2018 that six engineers were currently in France with another 31 being recruited to France this year. The number will grow to about 100 Australian engineers in France over the next few years. Naval Group's workforce was expected to increase by the end of 2018 to about 155. By the end of 2019, Naval Group would be laying the foundations for the new submarine construction yard at Osborne in Adelaide's northern precinct.24

4.21 Mr Clark stated that up to 60 people will be required to sustain the Australian Design Authority located within Naval Group for the submarines going forward.

20 Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 70.
21 Mr Kim Gillis, Deputy Secretary, Capability Acquisition and Sustainment Group (CASG), Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget Estimates), 30 May 2017, p. 28.
23 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 5.
24 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 9.
These workers would be transferred to France for up to three years to work with the French naval architects to learn the processes and skills that will then be brought back to Australia Design Authority and Naval Group Australia.  

4.22 Mr Clark outlined the work Naval Group will be undertaking in the next several years ahead:

Over the next three years, the construction sheds, which will house the equipment to build the submarines, and the construction halls for the submarines will go up. The establishment of the infrastructure in this time frame will be required to ensure that construction of the submarines can begin from 2022–23. We envisage building up the Naval Group Australia workforce to around 1,500 employees by around 2028–29. Overall, the program is expected to generate an annual average of around 2,800 jobs in Australia.  

4.23 The Department of Defence noted that the number of personnel engaged for the FSP will continue to grow as the design phase progresses and preparations for the build continue, while the number of jobs in France should not exceed 50 personnel. In contrast to the expected 50 jobs in France, the number of direct jobs in Australia will increase to approximately 1,100, with an increase of around 1700 jobs in the supply chain for the construction phase.  

4.24 However, in its submission to the inquiry, Naval Group stated that as at June 2017, there were currently 130 Naval Group (France) employees working on the Australian FSP, up from 86 in January 2017.  

**Contractors**

4.25 The committee heard that contractors are assisting in the start-up work associated with the FSP. As of 17 March 2017, 38 Australian personnel had been engaged by the Commonwealth, and 11 by Naval Group since signing the Design and Mobilisation Contract on 30 September 2016 with Naval Group.  

4.26 On 14 June 2017, the ABC reported that six naval architects were being paid almost $1 million each as private contractors by the Department of Defence to work on Australia's submarine program for the period 2017–19.  

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25 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, *Committee Hansard* (Future of Australia’s naval shipbuilding industry), 20 June 2017, p. 6.  

26 Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia’s naval shipbuilding industry), 7 June 2018, p. 9.  

27 Senate Foreign Affairs, Defence and Trade Legislation Committee (Additional Estimates 2016-17), *Answer to question on notice*, Question reference no. 22.  

28 Naval Group Australia, *Answers to questions on notice*, 20 June 2017 hearing (received 13 July 2017).
4.27 On 15 June 2017, it was also reported that the Department of Defence will pay $5.5 million for the services of eight contractors from the International Centre for Complex Project Management (ICCPM), hired as part of the FSP.\textsuperscript{30}

4.28 At the 20 June 2017 Canberra public hearing, Rear Adm. Sammut confirmed that personnel from ICCPM had been engaged 'to provide a number of services, including strategic advice, program management services, strategic industry advice, industry and supply chain management, and project services'.\textsuperscript{31} He noted that there were four contracts for six personnel engaged with the FSP for contracts totalling $4.9 million.\textsuperscript{32}

4.29 The committee also pursued issues reported in the media relating to conflicts of interest and misconduct by contractors without Defence oversight.\textsuperscript{33} Defence advised the committee that there is currently an inquiry underway in the Defence Science and Technology Group. The committee was informed such practice of allowing a contractor to contract out is very unusual and does not occur in the area of Defence that has primary oversight of the FSP, the Capability Acquisition and Sustainment Group.\textsuperscript{34} Ms Rebecca Skinner, Acting Associate Secretary, reassured the committee that:

\begin{quote}
[I]n the meantime, in the research services area of Defence science, where that work was being led, we have ensured that the practice of having anybody other than an Australian public servant sign the contracting is the only way in which a contract would be approved.\textsuperscript{35}
\end{quote}

\begin{itemize}
\item 31 Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 27.
\item 32 Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 27.
\item 34 Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Committee Hansard} (Budget Estimates), 29 May 2018, p. 70.
\item 35 Ms Rebecca Skinner, Acting Associate Secretary, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Committee Hansard} (Budget Estimates), 29 May 2018, p. 71.
\end{itemize}
Industry demographics and skills

Current demographics

4.30 At the 30 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, Mr Marc Ablong explained that the age profile of industry workers had changed over the last decade as a result of redundancies and retirement, and the average age profile of a worker in the naval shipbuilding industry is now mid-30s. He noted that there were many more opportunities for people at the start of their careers, rather than later.

4.31 Defence's new graduate recruitment program to support the naval shipbuilding programs will also have an effect on the demographic profile of the naval shipbuilding industry's future workforce.

Industry skills

4.32 The Austrade Industry Capability report for the shipbuilding industry provides an overview of the existing skill sets in the industry. The report described the industry's 'rich base of naval and marine architects with skills and proven track records in designing and overseeing construction of high-performance vessels'. Other occupations include in-house designers and engineering personnel, and freelance naval architects who service the domestic and international markets.

4.33 At the Adelaide public hearing, Ms Forster explained that the industry currently has difficulties recruiting for existing jobs both in prime companies and SMEs. Even before the commencement of the three major naval shipbuilding projects (future submarines, future frigates and offshore patrol vessels), stakeholders within the Defence Teaming Centre and defence industry had 'consistently' reported difficulties in filling existing positions with adequately skilled and experienced people.

36 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget Estimates), 30 May 2017, pp. 42–43.

37 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget Estimates), 30 May 2017, pp. 42–43.

38 Ms Justine Grieg, Acting Deputy Secretary, Defence People, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, pp. 44–45.


40 The Defence Teaming Centre is a member based organisation that represents some 250 member companies across the country, including Prime Defence Contracts, SMEs and Professional Service providers who are involved in supplying Defence capability and/or Defence support services. Document tabled by Defence Teaming Centre at the Economics References Committee's hearing into naval shipbuilding on 4 April 2017.

41 Air Commodore Margot-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 39.
4.34 The committee heard that future planning for the industry must consider future workforce requirements. Ms Forster warned that without strategic intervention, a skills shortage within the naval shipbuilding workforce represents the greatest risk to successfully delivering the required capability to the Australian Defence Force. Ms Forster observed that the core competencies, knowledge and skills from the Air Warfare Destroyer (AWD, Hobart Class Destroyer) and other naval projects are not found within the primes and shipyards alone. Although SMEs are a critical component of the steady supply chain needed to improve a continuous build program, they are unlikely to have the capacity to compete with the major players (the primes, the Australian Defence Force, overseas programs and other sectors) to recruit sufficient numbers of skilled workers to deliver the key components of these major programs. 42

4.35 Ms Forster advised that to successfully deliver a skilled workforce to support the naval shipbuilding enterprise:

...any future workforce strategy must take into account consideration of the workforce requirements of the Australian small- and medium-sized businesses that we wish to become part of our supply chain. 43

4.36 The lack of experienced shipbuilding skills was also an issue raised by the Naval Group’s CEO, Mr Herve Guillou. According to some media reports, Mr Guillou stated that the company was facing challenges in building a suitably experienced local workforce to assist with the submarine build. He noted that while it was not difficult to find people with the right qualifications, it was more difficult to recruit people with the required shipbuilding experience at the management level. 44

4.37 This was supported by evidence presented at the recent estimates hearing on 29 May 2018. Mr Johnson, General Manager Submarines, reported that while the shipbuilding firms that Defence worked with were confident the supply of blue-collar workers across Australia would be sufficient, they were more concerned about the ability to attract, train and retain a pool of very experienced professionals, particularly those with experience in shipbuilding, such as engineers, naval architects, program managers and schedulers. 45

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42 Air Commodore Margot-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, *Committee Hansard* (Future of Australia’s naval shipbuilding industry), 4 April 2017, p. 39.

43 Air Commodore Margot-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, *Committee Hansard* (Future of Australia’s naval shipbuilding industry), 4 April 2017, p. 39.


45 Mr Stephen Johnson, General Manager Submarines, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget Estimates), 29 May 2018, p. 43.
4.38 Defence advised that its defence industry forum, which was set up two years ago, allows it to engage with a broad range of defence businesses 'to forecast the industry side of the workforce demand'. 46 A key initiative arising from that forum was the pilot of a job placement to retain experienced people within naval construction. The pilot involved eight organisations, including people from various parts of Defence and TAFE South Australia. 47

4.39 The Department of Defence's current ongoing work on an integrated strategic workforce plan from a whole-of-government approach is directed to addressing these concerns about skills shortages.

**Training and support for staff**

4.40 The committee heard that it takes significant financial investment and often a number of years to train someone to work in the industry.

4.41 At the Perth public hearing, Mr Tanner explained some of the challenges for employees coming across from other industries. As shipbuilding is a standalone industry, even people with standard trade skills such as boilermaking or welding in a fabrication capacity have to learn new skills when moving across to naval shipbuilding work. This means there will be initial difficulties upskilling these people to a level where full productivity can be achieved and the workforce is effective. 48

4.42 At the 30 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, Mr Ablong was positive about the opportunities for people in the oil and gas, mining and automotive sectors transitioning to naval shipbuilding industry. He stated that with 'an appropriate level of retraining', they would be able to undertake specialised work in naval shipbuilding. 49

4.43 At the 28 February 2017 Senate Finance and Public Administration Legislation Committee Estimates hearing, Mr Lamarre, then Chief Executive Officer, ASC Shipbuilding, stated that since ASC commenced operation in 2010, the company has trained both employees new to the profession, and employees from existing workforces with transferable skills. Mr Lamarre remarked:

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46 Mr Stephen Johnson, General Manager Submarines, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget Estimates), 29 May 2018, p. 44.

47 Mr Stephen Johnson, General Manager Submarines, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget Estimates), 29 May 2018, p. 44. For example, Defence has supported 800 scholarships in an effort to maintain the skilled workforce leading up to the build of the first two patrol vessels in South Australia.

48 Mr Ian Tanner, Private Capacity, Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 16.

49 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Committee Hansard (Budget Estimates)*, 30 May 2017, p. 40.
… we have trained lots and lots of employees. Some of them came with experience. In the case of electricians, for example, all of the electricians we hired were licenced, so then we brought them on a journey of understanding the specific technical requirements of building a surface combatant. In other cases, we have folks who were boilermakers and welders and came from other trades. As is well known, in South Australia we have had other reductions in workforces, so we brought folks over. If we are starting from scratch, of course that takes years…

4.44 Mr Lamarre added that it was perfectly reasonable for training for one person to cost tens of thousands of dollars.

4.45 At the Perth public hearing, Mr Ian Tanner, an advanced rigger with BAE Australia who appeared in a private capacity, explained that an experienced boilermaker will generally pick up the extra requirements associated with naval shipbuilding within the first six to 12 months, and an experienced plumber would take a similar amount of time. However, a person who had just finished his or her apprenticeship would take longer.

Training available

Maritime Technical College, Adelaide (Naval Shipbuilding College)

4.46 The government intends to deliver training to new employees through the Naval Shipbuilding College based in Adelaide, South Australia. At the 30 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, Ms Rebecca Skinner, Deputy Secretary, Strategic Policy and Intelligence, advised that over a series of phases the college will be provided with 'the infrastructure, the framework and the coordination across all facets of ship skilling, from very early trades through to high level qualifications'. The college will engage nationally with stakeholders (particularly with the current centre in Tasmania) to develop a workforce that can support the naval shipbuilding program.

4.47 The Naval Shipbuilding College is located in the former maritime skills centre in the Osborne precinct and is currently undergoing refurbishment. The building was

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50 Mr Jim Cuthill took over from Mr Mark Lamarre in December 2017. Mr Mark Lamarre, then Chief Executive Officer, ASC Shipbuilding, Senate Finance and Public Administration Legislation Committee, Committee Hansard (Additional Estimates), 28 February 2017, p. 12 & 13.

51 Mr Mark Lamarre, then Chief Executive Officer, ASC Shipbuilding, Senate Finance and Public Administration Legislation Committee, Committee Hansard (Additional Estimates), 28 February 2017, p. 13.

52 Mr Ian Tanner, Private capacity, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, pp. 18–19.

53 Ms Rebecca Skinner, Deputy Secretary, Strategic Policy and Intelligence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Additional Estimates), 30 March 2017, pp. 37–38.
entered into under lease from the Australian Naval Infrastructure. It will be the headquarters for the Shipbuilding College and will work with education and training providers across the Australia. The majority of the training will delivered by existing educational providers.

4.48 Prime contractors will play an important role in the functioning of the college. Mr Ablong stated that the role of the prime contractors (future submarine, future frigate and offshore patrol vessel programs) will be critical as they will be responsible for hire of their workforce. Defence will assist by working closely with them to identify the relevant skills needed for their companies, ensuring that there will be a sufficiently large pool of capability from which to recruit.

4.49 The announcement of the college was broadly well received. At the 24 May 2017 Senate Finance and Public Administration Legislation Committee Estimates hearing, Mr Lamarre, ASC, welcomed the announcement and noted that the college was located in 'a very advantageous place as it relates to shipbuilding and tech work'. Similarly, at the 20 June 2017 Canberra public hearing, Mr Clark noted that the college's establishment in Adelaide will also assist Naval Group to recruit 'talented workers to take on the program'.

4.50 The cost of the Naval Shipbuilding College has increased significantly since it was first announced, from $25 million to $62 million. Mr Peter Chesworth, First Assistant Secretary, Naval Shipbuilding Taskforce, explained that the original figure was an initial estimate based on information available at the time following the tender process. Further information from the tenderers allowed Defence to 'enhance and further detail the scope of the Naval Shipbuilding College' and the expected cost increased to $62 million. The increased cost will be sourced from within the total spread for the shipbuilding enterprise.

54 Mr Dan Fankhauser, Assistant Secretary, Naval Shipbuilding Taskforce, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 40.

55 Mr Dan Fankhauser, Assistant Secretary, Naval Shipbuilding Taskforce, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 40.

56 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 30 May 2017, p. 39.

57 Mr Mark Lamarre, then Chief Executive Officer, Australian Submarine Corporation Shipbuilding, Senate Finance and Public Administration Legislation Committee, Committee Hansard (Budget Estimates), 24 May 2017, p. 15.

58 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 1.

59 Mr Greg Moriarty, Secretary, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 38.
4.51 The government advised that the Naval Shipbuilding College would commence operations on 1 January 2018.\textsuperscript{60} However, there have been significant delays in getting the college operational, in part because of delays associated with awarding the contract to establish and manage the college. The college is in its first phase of establishment and will not deliver outcomes until August 2018 when enrolment starts. A contract was signed in late March 2018 with Huntington Ingalls Industries and Kellogg Brown & Root (in a joint venture) to establish and manage the college.\textsuperscript{61}

4.52 Under the first phase of the college, Defence advised that 'the plan is to engage with industry, develop a communications strategy and a career awareness program, develop the register of interest and focus on key entry qualifications, particularly trade'.\textsuperscript{62}

4.53 Further, as part of the department's de-risking strategy, the college would be assuming work traditionally undertaken by each of the tenderers—working with all prime contractors across the shipbuilding enterprise to understand their workforce needs and working with educational and vocational providers to understand what courses are being offered to meet those needs.\textsuperscript{63}

4.54 The enrolment profile was not available to the committee as at 29 May 2018, with the department offering to provide the information on notice. At the 30 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, Mr Ablong stated that the initial focus of the college will be on vocational trades such as welding, structural work, carpentry and electro-technical work. The second phase of the college will focus on higher education—naval

\begin{itemize}
\item \textsuperscript{62} Mr Dan Fankhauser, Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard} (Budget Estimates), 29 May 2018, p. 40.
\item \textsuperscript{63} Mr Dan Fankhauser, Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard} (Budget Estimates), 29 May 2018, p. 40.
\end{itemize}
architecture, naval engineering and professional skills in project planning and logistics and supply arrangements.  

4.55 Mr Moriarty advised at the Foreign Affairs Defence and Trade Legislation Committee's estimates hearing in May 2018 that the college will be rolled out progressively. Defence will work closely with industry and education institutions to identify the skills gaps and to develop the skills that industry will be seeking at particular times. He added the department is hoping that industry's projected requirement for workers over the next decade will be shaped by the Naval Shipbuilding College.  

*Australian Maritime College, Launceston, Tasmania*

4.56 The Australian Maritime College (AMC) was created by the Commonwealth Maritime College Act 1978. In January 2008, the AMC was formally established as an institute of the University of Tasmania in accordance with the Commonwealth's Maritime Legislation Amendment Act 2007, following the repeal of the Maritime College Act 1978.  

4.57 The college offers vocational certificates, bachelor degrees and diplomas, and postgraduate certificates and degrees. Course subjects include Maritime Engineering and Hydrodynamics, Maritime Business and International Logistics, Ocean Seafaring and Coastal Seafaring.  

4.58 Following the announcement of the naval shipbuilding college in Adelaide, the ABC reported that the head of the Australian Maritime College in Tasmania, Professor Neil Bose, had expressed concerns at the announcement that the Maritime Technical College was to be based in Adelaide:  

> We are caught in the crossfire...clearly this is political, it's about jobs in South Australia where there's a lot of people out of work and industries have collapsed so it's about retraining those people for this promised new defence industry.  

…

64 Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget Estimates), 30 May 2017, p. 39.  

65 Mr Greg Moriarty, Secretary, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 39.  


We'd like to play a lead role in it even to the point of, in effect offering to, or putting in a tender to do the operations in this and tying the AMC and this new maritime technical college as closely as possible.69

4.59 Both the Minister for Defence and representatives from the Department of Defence sought to ameliorate any potential concerns about the naval shipbuilding college competing with the existing Maritime College in Tasmania. In a 2017 media release, Minister Pyne stated that the Naval Shipbuilding College will work, rather than compete, with existing education institutions across Australia.70

4.60 At the 30 May 2017 estimates hearing, Ms Rebecca Skinner, Deputy Secretary, Strategic Policy and Intelligence, noted that the naval shipbuilding college would be engaging with the existing Australian Maritime Centre in Tasmania during the implementation of the government's workforce plans to support the naval shipbuilding plan.71

**ARC Research Training Centre for Naval Design and Manufacturing (RTCNDM)**

4.61 The Research Training Centre for Naval Design and Manufacturing (RTCNDM) is a collaboration between the University of Tasmania, the University of Wollongong and Flinders University, alongside industry partners ASC Pty Ltd, Babcock Pty Ltd, Defence Science and Technology Group, Defence Materials Technology Centre, Thales Australia Ltd, PMB Defence Engineering Pty Ltd, Serco Defence and Austal.72

4.62 The centre provides support to postdoctoral and postgraduate candidates to undertake a combination of research and professional training in an industrial environment. The centre currently supports 13 researchers who are focused on developing advanced techniques to efficiently design, construct and sustain naval platforms.73

4.63 Upon the release of the naval shipbuilding plan, Associate Professor Jonathan Binns, Director, RTCNDM, stated that 'more than half of the man hours that go into the production of a ship are needed to design the ship and facilitate the

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71 Ms Rebecca Skinner, Deputy Secretary, Strategic Policy and Intelligence, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Committee Hansard* (Budget Estimates), 30 May 2017, p. 38.


production'. He emphasised the importance of more professional naval architects to the Naval Shipbuilding Plan and noted the benefits of a life-long career for graduate naval architects.\(^{74}\)

**Naval Shipbuilding Industry Reference Committee**

4.64 On 19 April 2018 the Australian Industry and Skills Committee (AISC) established a Naval Shipbuilding Industry Reference Committee (IRC).\(^{75}\) As discussed in Chapter 2, the establishment of this new committee adds unnecessary complexity and appears to duplicate the work of separate IRCs already working on occupational standards for shipbuilding in the vocational education and training sector. The committee heard no evidence to suggest that existing IRCs are failing to meet the specific needs of naval shipbuilding.

**Future of the ASC workforce**

**Number of ASC employees**

4.65 ASC workforce numbers were the subject of discussion at a number of Senate Estimates hearings in 2017 and 2018. At the 20 June 2017 hearing for the inquiry, Rear Adm. Sammut provided ASC staffing numbers involved in the sustainment of the Collins Class submarines:

> There are 900 in ASC in Adelaide and we have about 350 in Western Australia, all engaged in the sustainment of the Collins class submarine. We do what is called full-cycle dockings in Adelaide on the Collins class and we do all of our other dockings and maintenance in Western Australia, where the submarines are based.\(^{76}\)

4.66 Mr Lamarre also confirmed that redundancies will be sorted from across the ASC including the front-end of the business, procurement, engineering, planning, management, trades and subcontractors.\(^{77}\) Redundancies were necessary, Mr Lamarre explained, because

> …the only work that we have under contract is the AWD program for shipbuilding, and so we will be on a steady decline certainly through 2017

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\(^{76}\) Rear Admiral Gregory Sammut, Head, Future Submarine Program, Department of Defence, Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 19.

\(^{77}\) Mr Mark Lamarre, then Chief Executive Officer, Australian Submarine Corporation Shipbuilding, Senate Finance and Public Administration Legislation Committee, *Committee Hansard* (Budget Estimates), 24 May 2017, p. 18.
and then until we can secure more work with the offshore patrol vessel contract.78

4.67 At the estimates hearing in February 2017, Mr Lamarre explained the ASC's redundancy process and the skills that are sought for retention, noting the retention of apprentices and people with particular technical skills would be among their top priorities.79

4.68 At the Finance and Public Administration Legislation Committee's estimates hearing on 23 May 2018, Mr Jim Cuthill, Acting Executive Officer, ASC Shipbuilding, reported that on 5 May 2018, there were a total of 1,279 employees, of whom 1,008 were permanent and 271 were contractors. During the same reporting period, there were also 11 apprentices.80

4.69 On 11 December 2017 the Minister for Defence Industry, the Hon Christopher Pyne and the Minister for Finance, Senator the Hon Mathias Cormann issued a joint press release on the employment at the Osbourne Shipyards. The Ministers noted the need to develop the size and skill of the naval shipbuilding workforce:

[The] government has agreed to a targeted retention strategy to create up to 200 positions within ASC Submarines for current shipbuilders working on the Air Warfare Destroyer program.

... We are stabilising the shipbuilding workforce.

4.70 However, the evidence indicates that the shipbuilding workforce is far from stabilised. The ASC identified 223 positions as 'at risk' following the AWD program's completion in May 2018, Mr Cuthill explained that ASC were currently investigating redeployment opportunities before pursuing voluntary and compulsory redundancies. At the 7 June 2018 hearing, Mr Cuthill reported that they were able to reduce the number of at risk employees by redeploying 137 people, including 63 temporary transfers, to the submarines business to work on the HMAS Waller full-cycle

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78 Mr Mark Lamarre, then Chief Executive Officer, ASC Shipbuilding, Senate Finance and Public Administration Legislation Committee, Committee Hansard (Additional Estimates), 28 February 2017, p. 6.

79 Mr Mark Lamarre, then Chief Executive Officer, ASC Shipbuilding, Finance and Public Administration Legislation Committee, Committee Hansard (Additional Estimates), 28 February 2017, pp. 6 & 7.

80 Mr Jim Cuthill, Acting Chief Executive Officer, ASC Shipbuilding, Senate Finance and Public Administration Legislation Committee, Committee Hansard (Budget Estimates), 23 May 2018, p. 4. See also Mr Stuart Whiley, CEO and Managing Director, ASC, Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry, 7 June 2018, p. 36. For earlier estimates of staff, see Senate Finance and Public Administration Legislation Committee, Committee Hansard (Budget Estimates), 24 May 2017, p. 11.
These temporary transfers, made up of salaried and non-salaried staff, will be for a period of nine to 12 months. The remaining 44 people from the 223 initially identified will therefore be required to leave the business through compulsory redundancies if redeployment opportunities cannot be found. Thirty-two people have already left through voluntary and involuntary redundancies, including 21 non-salaried (blue-collar) staff and 11 salaried (white-collar) staff.

4.71 The committee notes that this departure of specialist shipbuilders from the ASC is a significant loss to the industry, and a sad and unnecessary outcome for South Australian workers.

**Announcement of $29.4 million in the 2017-18 MYEFO**

4.72 In December 2017, the Government announced in MYEFO expenditure of $29.4 million over three years from 2017–18 to support the retention and development of critical shipbuilding skills in the ASC workforce in support of the shipbuilding programs. The funds will help support the transition of 200 jobs from shipbuilding to submarines and include 100 scholarships. The transition program is based on the needs requirements of submarines versus the roll-off in the AWD program, which will occur in the next 18 or 19 months.

4.73 On 7 June 2018, Mr Stuart Whiley, Chief Executive Office and Managing Director, ASC, provided the committee with an update of the initiative's progress:

> This financial year, 21 people have been transferred from our shipbuilding business to the submarines business, ASC North. In addition, more than 60 have temporarily transferred to full-cycle docking, thereby reducing the number of people required to leave the shipbuilding business as part of the

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81 Mr Jim Cuthill, Acting Chief Executive Officer, ASC Shipbuilding, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 37.

82 At the Finance and Public Administration Legislation Committee's budget estimates hearing the ASC identified 60 shipbuilding workers (five salaried staff and 55 non-salaried) for secondment to the submarines business. Mr Jim Cuthill, Acting Chief Executive Officer, ASC Shipbuilding, Senate Finance and Public Administration Legislation Committee, *Committee Hansard* (Budget Estimates), 23 May 2018, p. 4.


86 Mr Stuart Whiley, Chief Executive Officer and Managing Director, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 39.
latest round of redundancies. The remaining transfers will be implemented in a phased and controlled manner that takes into account the skills requirement of ASC submarine business versus the roll-off of the AWD program. ASC and the department are in the final stage of working out logistics and contractual requirements of the scholarship program, and we anticipate that commencement of applications for scholarships will be sought in the coming weeks, with the intention of starting in early 2019.  

4.74 The committee also heard from ASC that it has not yet been able to access the funds, despite the announcement regarding the additional money in December 2017. ASC indicated that it anticipated that access to the money would be made available shortly. Once the funds were released, recruitment could commence.

4.75 The committee finds it difficult to understand why the additional appropriation for scholarships, valued up to $29.4 million dollars, was not made available to prevent the recent loss of ASC jobs. The first build of the offshore patrol vessel is imminent and the future frigate and submarine programs will soon follow. In this environment, retaining the shipbuilding workforce in readiness for a rapid shipbuilding workforce expansion should be a priority.

**ASC separation into three separate entities**

4.76 The committee was surprised to learn at the 7 June 2018 hearing that the ASC's structural separation into three separate companies had not been finalised. The committee was advised that phase 2 of the separation, which splits the shipbuilding and submarine business into separate entities, is on hold until the outcome of the Future Frigate decision. This advice from the ASC contradicted the information published on the Department of Finance's webpage, which reported the ASC would separate into its three component elements by 2017.

4.77 Officials from the Department of Finance explained that the first stage of the separation which established the Australian Naval Infrastructure was completed in March 2017. The managerial separation has also taken place and the final stage of the separation will be the formal split of the shipbuilding and the submarine sustainment

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87 Mr Stuart Whiley, Chief Executive Officer and Managing Director, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 36–37.

88 Mr Stuart Whiley, Chief Executive Officer and Managing Director, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 38–39.

89 Mr Stuart Whiley, Chief Executive Officer and Managing Director, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 42–43.

90 Mr Stuart Whiley, Chief Executive Officer and Managing Director, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 43.

91 Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 42 and 70.
businesses. Mr Andrew Jaggers, Acting Deputy Secretary, Commercial and Government Service, informed the committee that the final stage will depend on the outcome of currently pending procurement processes. Mr Jaggers advised the committee that ASC understood the government's 'timing considerations' and was 'fully abreast of the issue'.

4.78 The committee is concerned that the government's approach risks devaluing the ASC. The committee is especially concerned that the ASC does not have any further projects lined up after the OPVs. The ASC is a significant Commonwealth asset and the government should be taking action to ensure that shareholders – the Australian tax payers – benefit.

ASC involvement in the future submarine program

4.79 On 7 June 2018, Naval Group informed the committee it has a formal agreement in place with the ASC to work collaboratively for 'the betterment of the sovereign submarine capability within Australia'. Mr Whiley acknowledged that the ASC has a framework agreement to collaborate with Naval Group, however this was not a formal partnership of the kind referred to by Mr Clark.

4.80 ASC advised that its core business is supporting the Collins submarines. Although the ASC can add benefit to the Naval Group's build environment, ASC resources are 'fully tied up' supporting the Collins' capability. Regarding the ASC's submarine workforce, Mr Whiley stated that:

We need Collins available for the nation, in the 2030s and the 2040s. The expertise to support that platform is unique in my company—absolutely unique. It doesn't exist anywhere else in the world. And I can't afford to let that go. So, I need those people focusing on that job. They understand that job, and they understand the importance to the nation in doing that job.

4.81 Mr Whiley informed the committee that while he was 'really keen' to get a role in the FSP, in order to pursue these future opportunities the ASC needed to focus
on the Collins sustainment work and staff retention. It had not been determined whether the ASC's involvement in the FSP would be in a joint venture or in a subcontract.\textsuperscript{97}

4.82 Prior to the committee's Canberra hearing on 7 June 2018, the evidence presented to the committee regarding ASC's role was conflicting. There was some confusion as to whether the ASC would have any substantive involvement in the submarine program, with some confirming involvement and ASC advising it was not aware of any involvement. Some examples follow.

4.83 The committee heard at its 20 June 2017 Canberra public hearing that the ASC would not be subcontracted or involved in the FSP, as Naval Group would be both the designer and builder of the submarines.\textsuperscript{98} In response to a question about the role of the ASC in the project, Mr Clark, Naval Group, told the committee:

> Very little at this stage. As you would be aware, the government split ASC into three companies: ASC shipbuilding, ASC Collins sustainment, and the Australian national infrastructure company. We are working with ASC, and they are assisting us with looking at facilities requirements and upgrades. We are working with ASC with respect to a controlled measure of transfer of personnel from one entity to the next. ASC has obviously done a fair amount of work in terms of the ramp-down process for their workforce. We are obviously doing a lot of work with the ramp-up process, and we are working together with the two companies.\textsuperscript{99}

4.84 Rear Adm. Sammut from the Department of Defence explained that from the beginning of the Competitive Evaluation Process, there was always an expectation that the successful design tenderer would also lead the build of the submarines.\textsuperscript{100}

4.85 The results of this process, however, did not preclude the ASC from being involved in the submarine program. Rear Adm. Sammut explained that the ASC workforce will be integral to enabling the success of the FSP:

> We always understood that there would be involvement from ASC in making sure that the submarine workforce in Australia continued to be

\textsuperscript{97} Mr Stuart Whiley, Chief Executive Officer and Managing Director, ASC Pty Ltd, Senate Economics References Committee, Proof \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 45.

\textsuperscript{98} Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 4.

\textsuperscript{99} Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 4.

\textsuperscript{100} Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 17.
nurtured and would be available to support the build of the Future Submarine and ongoing sustainment of the Collins class.\footnote{Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard (Future of Australia's naval shipbuilding industry)}, 20 June 2017, p. 16.}

4.86 As part of the October 2016 announcement regarding the restructure of the ASC, the government confirmed that the ASC would be responsible for finalising the air warfare destroyer project and sustainment of the existing Collins Class submarines. The announcement on 11 October 2016 about the structural separation of the ASC into three different companies did not mention what role the ASC may or may not play in the FSP.\footnote{Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard (Future of Australia's naval shipbuilding industry)}, 20 June 2017, p. 20.}

4.87 In response to a suggestion by the committee that the decision that ASC would not be involved in the FSP was not publically known, Mr Ablong suggested that it may have been a statement by omission in the 11 October 2016 announcement.\footnote{Mr Marc Ablong, then First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard (Future of Australia's naval shipbuilding industry)}, 20 June 2017, p. 21.} Despite this, Rear Adm. Sammut stressed the important role the ASC will perform in supporting the FSP:

...making sure that the workforce [is] managed, including the transition of work, that would manage both Collins sustainment and the Future Submarine. There is a need to make sure that we look at supply chains that ASC currently use. We need ASC's input into infrastructure requirements to make sure that the build of the Future Submarine yard can be managed alongside the sustainment of the Collins and so forth...\footnote{Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard (Future of Australia's naval shipbuilding industry)}, 20 June 2017, p. 27.}

4.88 Mr Gillis assured the committee that the ASC will perform a vital role in supporting the submarine capability over the next few decades, with the ASC sustainment activities of the existing Collins Class submarines expected to extend into the 2030s.\footnote{Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence; and Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard (Future of Australia's naval shipbuilding industry)}, 20 June 2017, p. 19.} Mr Gillis further stated that:

...ASC will have an enduring, long-term support of our Australian submarine capability. And one of the things that is most important to our
Australian submarine capability is the sustainment and the life extension of the Collins-class submarine.\textsuperscript{106}

4.89 This was in contrast to the ASC's response to questions on notice, on 4 August 2017, where it stated:

ASC is not aware that it will not have any substantive involvement in the future submarine program. ASC continues to have a role in the Future Submarine Program and currently has 24 ASC expert staff seconded to the Commonwealth's SEA1000 Project Office and one employee seconded to Naval Group Australia. Further secondments and/or other contractual arrangements are anticipated.\textsuperscript{107}

4.90 The committee is concerned that the ASC does not have any ships on the books after the OPV. Further, it is not clear what involvement, if any, the ASC will have in the future submarines and it is clear from the RFT documents that the government intended to exclude the company from any involvement in the frigates project. The committee notes that the AWD project is winding down and the government is considering moving Collins heavy sustainment to Western Australia.

**ASC involvement in the offshore patrol vessel program**

4.91 On 31 January 2018, the Minister for Defence reported the prime contractor Luerssen, which will be responsible for the offshore patrol vessels' build, will sub-contract the ASC to build the first two ships at the Osborne Naval Shipyard in South Australia. The remaining ten vessels will be built by Luerssen in partnership with Civmec, following Luerssen and Austal's failure to reach a commercially viable agreement to work together. The circumstances relating to Austal's involvement, including the weak negotiating position Austal was placed in by the government, is discussed in Chapter 2.

4.92 Mr Gillis clarified that after the decision to award Luerssen the contract, Defence asked the company to explore options of working with Austal and a number of other companies in Western Australia, which Luerssen is currently doing. Mr Gillis explained that it was not unusual for primes or selected tenderers to change their subcontractors post selection.\textsuperscript{108}

4.93 On 23 May 2018, Mr Cuthill confirmed negotiations between ASC and Luerssen are close to finalisation. Mr Cuthill reported that the contract for the lead in the second ship was 'very close' to signing and is expected to be completed in the next four weeks. He also reported that fabrication work will commence at the end of the year, although the number of workers required for the project is still being worked

\textsuperscript{106} Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 28

\textsuperscript{107} ASC Pty Ltd, *Answers to questions on notice*, 20 June 2017 hearing (received 4 August 2017).

\textsuperscript{108} Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget Estimates), 29 May 2018, pp. 36 and 38.
through with Luerssen. There were several options and the final workforce numbers will depend on which of the options will be included in the contract. Mr Cuthill anticipates that the contribution of ASC shipbuilding's workforce to the program will be approximately 200. He also confirmed that they remained on track to commence the fabrication on the first ship in the last quarter of 2018.

**ASC involvement in the future frigate program**

4.94 On 8 June 2017 *The Australian* reported that Austal and ASC will form a "teaming agreement" to bid for the Future Frigates program. The three shortlisted designers for the project are BAE, Fincantieri and Navantia.

4.95 ASC told the Finance and Public Administration Legislation Committee on 23 May 2018 that it was not aware of what employment opportunities would arise for the ASC from the future frigate program as it is not one of the tenderers. ASC's partnership arrangement with Austal remains, and ASC described its engagement with all three designers as 'positive' but limited.

4.96 As discussed in Chapter 2, the government's decision not to require participation from Australian shipbuilders in the future frigates' construction undermines the government's publicly stated commitment to the local shipbuilding industry and its workforce. This decision by the government runs counter to the development of domestic and sovereign capability.

4.97 The committee hopes that the Future Frigate primes will ensure that Australian shipbuilders are involved in the build.

**Potential decline of ASC employees**

4.98 The committee is concerned that if the ASC is not involved in the build of the future submarine then its staff numbers will continue to decline. On 20 June 2017, Rear Adm. Sammut stated that he expected that the ASC workforce would increase:

[Defence] certainly need that [ASC] workforce going forward to be involved in the build of the Future Submarine. In fact, we need to grow that workforce to build the Future Submarine and also continue to sustain the Collins class. That is the nucleus and kernel of the submarine workforce in Australia. It is scarce. It contains very scarce skills. It is important that we

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110 Mr Jim Cuthill, Acting Chief Executive Officer, ASC Shipbuilding, ASC Pty Ltd, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 37.


actually use that entire workforce to deliver the submarine capability that we have...\textsuperscript{113}

4.99 Mr Gillis stated that there was 'no contemplation that the ASC submarine workforce will actually reduce at all for the foreseeable future' due to the 'considerable' sustainment workload that the ASC will continue to have.\textsuperscript{114}

4.100 The committee heard that alongside ASC, a new workforce is required for the next generation of submarines. Mr Gillis explained that:

We also need to grow a separate but new workforce. ASC has a role in that transition because we need to work very closely with the growth of the new submarine built to make sure we are not having an adverse effect on the sustainment of the Collins class submarines. That is the balance between the relationship between the ASC and DCNS. But we need a new workforce to grow the next generation submarine.\textsuperscript{115}

4.101 In relation to managing staffing for these two parallel streams of work, Mr Clark stated that Naval Group is working with ASC to manage staffing:

We are working with ASC with respect to a controlled measure of transfer of personnel from one entity to the next. ASC has obviously done a fair amount of work in terms of the ramp-down process for their workforce [regarding the AWD build]. We are obviously doing a lot of work with the ramp-up process, and we are working together with the two companies.\textsuperscript{116}

4.102 The committee heard that Naval Group is in the process of growing its workforce for the build of the future submarines. Mr Clark explained that in the short term, there is a 'gentlemen's agreement' with the ASC to not impact upon staffing for the sustainment of the Collins Class. Mr Clark had advised Mr Stuart (then acting CEO of ASC) that they would seek the ASC's endorsement to proceed with any jobs that are advertised or if any applicants come in with a Collins background.\textsuperscript{117}

\textsuperscript{113} Rear Admiral Gregory Sammut, Head Future Submarine Program, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, pp. 18–19.

\textsuperscript{114} Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 19.

\textsuperscript{115} Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 21.

\textsuperscript{116} Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 4.

\textsuperscript{117} Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 5. See also Senate Economics References Legislation Committee, \textit{Proof Committee Hansard} (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 17.
4.103 Mr Clark explained that while there was no formal agreement, there was a written agreement in principle covering a variety of topics including manpower aspects and facilities and infrastructure.¹¹⁸

4.104 Previously, the committee heard that the ASC workforce would eventually transition to become part of Naval Group, with Mr Clark confirming that Naval Group would be assuming that they would be absorbing the ASC.¹¹⁹ In response, the ASC stated on 4 August 2017 that 'ASC is not aware nor has it been advised that it will be "absorbed", or "consumed", by Naval Group or Naval Group Australia'.¹²⁰

4.105 This issue was also raised at several recent hearings, including the May 2018 estimates hearings of the Finance and Public Administration Legislation Committee and the Foreign Affairs, Defence and Trade Legislation Committee, as well as the Economics References Committee's June 2018 hearing.¹²¹

4.106 Mr Clark sought to clarify his statements at the committee's hearing on 7 June 2018. He described the earlier use of the word 'consumed' as a 'poor choice of adjective' and explained that what he meant was ASC's workforce would:

[O]bviously have a role [in the FSP] from a Naval Group Australia perspective, as...submarine experts, depending on what the government decides the future of ASC is in terms of the sustainment of Collins.¹²²

**Committee comment**

4.107 On 11 October 2016, the government announced that the ASC would be separated into three individual government owned companies: shipbuilding, submarine sustainment and infrastructure. This announcement was not widely publicised until much later and the practical implications remain unclear. The committee has now learned that the separation has not, in fact occurred, and is on hold.

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¹¹⁸ Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics Reference Legislation Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 7. See also Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 16–17.

¹¹⁹ Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics Reference Legislation Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 8.

¹²⁰ ASC Pty Ltd, *Answers to questions on notice*, 20 June 2017 hearing (received 4 August 2017).


¹²² Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, Senate Economics Reference Legislation Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 15.
despite conflicting information published on the Department of Finance website that suggested the process had been completed.

4.108 The committee was concerned to learn that the government was considering the movement of ASC Collins Class submarine sustainment activities from Adelaide to Perth, leaving hundreds of workers in limbo about their future. The naval shipbuilding plan released in May 2017 failed to make mention of such a proposal, with no information provided about the long term plan for the location and usage of Australian shipyards. While the committee understands that the government is still considering the future location of Collins Class sustainment activities, the committee fails to understand how a naval shipbuilding plan could be published without holistic consideration of all Australian shipyards and their employees. This has led to uncertainty for Australian industry and Australian workers. Australian industry and ASC workers in particular need long term certainty about where this work will occur and what the government's long term plans for Australian naval yards are.

4.109 The committee is concerned about the government's lack of planning and failure to communicate regarding the future role of the ASC and its staff. The lack of information and public consultation about these possible changes is a major concern for affected workers, SMEs, Australian taxpayers and this committee. Such a lack of transparency about these decision making processes is a significant failure on the part of the government.

4.110 Further, the number of ASC staff continues to fall. The committee finds it difficult to understand why the additional appropriation for scholarships, valued up to $29.4 million, was not made available to prevent the recent loss of ASC jobs. The first build of the offshore patrol vessel is imminent and the future frigate and submarine programs will soon follow. In this environment, retaining the shipbuilding workforce in readiness for a rapid shipbuilding workforce expansion should be a priority.

4.111 The complexity of the continuous shipbuilding task requires seamless transferability and mobility of skills between the various projects. The task will not be assisted by incoherence between training structures and the development and validation of training products. For these reasons, the formation of the Naval Shipbuilding Industry Reference Committee (IRC) is puzzling.

4.112 The Naval Shipbuilding IRC appears to duplicate the work of existing IRCs, yet adequate measures have not been implemented to prevent significant overlap with the work of the current IRCs. The committee has heard no evidence that would support the conclusion that the existing structures are not well-positioned and actively engaged in the development of training products designed to meet the specific needs of naval shipbuilding.

4.113 The committee is also concerned that the Naval Shipbuilding Advisory Board was not consulted about the establishment of the Naval Shipbuilding IRC, particularly given the high costs associated with the NSAB.

4.114 Further, the committee is concerned that creating a specific Naval Shipbuilding IRC may support a view that the skills required for naval shipbuilding
occupations are somehow unique to that industry and therefore are not transferable to other related industries.

Recommendation 3

4.115 The Committee recommends that the government prioritise finalising the future location of Collins Class sustainment activities and confirm plans for the future of the ASC and its employees.

Recommendation 4

4.116 The committee recommends that the funding announced in MYEFO expenditure of $29.4 million over three years from 2017-18 for ASC job retention scholarships be immediately released to the ASC to prevent further job losses from the strategically vital naval shipbuilding industry.

Recommendation 5

4.117 The committee recommends that the Naval Shipbuilding College establish structured consultations mechanism with Industry Reference Committees associated with Naval Shipbuilding Occupations.

Recommendation 6

4.118 The committee recommends that the Australian Industry Skills Committee task the existing Industry Reference Committees, responsible for the development of training products associated with naval shipbuilding occupations, with establishing Technical Advisory Groups to ensure that skills gaps identified through their own industry consultations or by Naval Shipbuilding Colleges are integrated into existing training package development and maintenance work.
Chapter 5
An Australian naval shipbuilding sovereign capability

5.1 The Coalition government's naval shipbuilding plan, published in May 2017, reiterated its commitment to developing an Australian naval shipbuilding sovereign capability:

The Government is investing in a sovereign naval shipbuilding and sustainment capability for the long-term, with the firm belief that as a nation we are up to this challenge.¹

5.2 The naval shipbuilding plan explained that possessing a naval shipbuilding sovereign capability was a strategic national asset:

A productive Australian naval shipbuilding and sustainment industry that is able to deliver affordable and achievable naval capability is a strategic national asset. A sovereign capability to achieve that aim is the Government’s clear priority.²

5.3 The committee heard evidence in support of an Australian naval shipbuilding sovereign capability. The lack of a shared, clear definition of sovereign capability, however, is an obstacle to achieving it. The way the term is used in the Naval Shipbuilding Plan has not assisted in reaching such a definition. Ideally, Australian companies, workers, and products should be involved throughout the entire process. However, the committee heard that there is some difficulty in maintaining local capability throughout key stages of the process, such as the design stage. Further discussion focused on mandating Australian involvement and content in projects, through maximising participation or setting percentage targets specified in legislation or contracts.

5.4 This chapter examines support for an Australia sovereign capability and Australia's involvement in the build and content of programs set out in the naval shipbuilding plan. It examines existing legislation and procurement requirements for Australian Industry Participation and concludes with a discussion of the future use of Australian shipyards.

A sovereign capability

Definition of sovereign capability

5.5 The committee heard a range of definitions of the term 'sovereign capability'. The naval shipbuilding plan outlined the government's understanding of sovereign capability as an industrial capability so essential that it is developed and supported only by Australian defence industry because 'overseas sources do not provide the required availability, security, or warfighting advantages we need for the Australian

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¹ Department of Defence, Naval shipbuilding plan, 16 May 2017, p. 21.
² Department of Defence, Naval shipbuilding plan, 16 May 2017, p. 18.
Defence Force. This translates to naval capabilities for the Australian shipbuilding industry.

5.6 According to Austal, a sovereign (shipbuilding) capability 'is the ability to design, build, sustain, upgrade and export Australian–built vessels, in Australian shipyards by Australian workers.' Mr Singleton, CEO, Austal, advised the committee that in his view sovereign capability means more than simply 'made in Australia':

It meant conceived, designed, supported and even funded out of this country in a way that gave industry in this country the ability to act as a prime contractor in the export of ships overseas. I think that's a very laudable aim by the government, stated very clearly in the white paper, and I still feel that that is an objective that we should be seeking to achieve.

5.7 Mr Dean Rosenfield, Managing Director, Saab Australia suggested that a definition of sovereign capability should include a focus on developing something new that can be exported:

... it is about having that ability to design from first principles and develop or build something that is for use by your nation and then generates the export potential.

5.8 Mr Mike Deeks, Managing Director, Forgacs Marine and Defence provided a definition of a naval shipbuilding sovereign capability with four key elements: design; construction; acceptance into naval service; and through-life sustainment. These four elements have a number of supporting elements—the facilities and infrastructure, skilled workforce recruitment and training, supply chain development and management, and research and development. Within these elements are capabilities that support Australia's ability to:

...exercise its rights as a sovereign state, in terms of ensuring its security and stability and protection of its national interests in whatever political or security environment [Australia] may find [itself] at the time.

5.9 Mr Deeks identified these capabilities as:

...design intellectual property; construction skills, equipment and facilities; technical understanding of the design philosophy; detailed technical knowledge of ship systems and equipment; reliable and assured access to

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4 For instance, sustainment of the future submarine fleet must be undertaken by a sovereign Australian company, due to the classified nature of the technologies and systems. See Department of Defence, *naval shipbuilding plan*, 16 May 2017, p. 85.
8 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 40.
original equipment manufacturers to ensure detailed design knowledge and spare part availability; and sufficient knowledge, IP, skills and equipment to allow upgrades and enhancements throughout the life of the vessels...

5.10 At the recent Foreign Affairs, Defence and Trade Legislation Committee's estimates hearing on 29 May 2018, Rear Admiral Gregory Sammut, Head Future Submarine Program, commented that there was no single definition of sovereign capability. However, there are many things Defence is doing to achieve sovereignty, including understanding from Defence's past experiences with the Collins Class submarine program. He stated that in relation to the Future Submarine program, sovereign capability consists of three legs on a tripod:

- Part one—the ability to build the submarines domestically, to manage their upkeep, update and upgrade within Australia. This requires the ability to deploy intellectual property appropriately for that purpose (and rights over intellectual property).
- Part two—the transfer of technology into Australia so that there is the means to make the building, upkeep, updates and upgrades work well.
- Part three—the involvement of Australian industry to make sure that there are resident capabilities in the country to do the work.

5.11 The range of definitions of 'sovereign capability' offered by witnesses and submitters reveal some common areas of agreement of what sovereign capability is, or could be. Witnesses and submitters also offered general support for sovereign capability.

Support for a sovereign capability

5.12 The government's 2016 Defence Industry Policy Statement states that securing sovereign industrial capabilities is important for Australian defence security. This is because some capabilities are so important to Australian Defence Force (ADF) missions that only an indigenous industry can provide the required security assurances. Therefore, it is 'critical that the industry base associated with these capabilities is maintained and supported by Defence as sovereign industrial capabilities'. A similar reference to providing the ADF with security that cannot be provided by overseas sources can be found in the naval shipbuilding plan's statement on sovereign capability.

5.13 The Hon Malcom Turnbull MP, Prime Minister further reinforced the need for a sovereign naval shipbuilding capability stating:

9 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 40.
10 Senate Foreign Affairs, Defence and Trade Legislation Committee, Proof Committee Hansard (Budget Estimates), 29 May 2018, p. 62.
12 Department of Defence, Naval Shipbuilding Plan, 16 May 2017, p. 85.
... [it] is about national security and it is about economic security. It is about security. It is about opportunity.

5.14 Mr Graeme Dunk, Executive Manager, Australian Business Defence Industry was supportive of building an Australian sovereign capability and the benefits it would bring. He stated that:

[b]uilding sovereign capability will not only grow our industry for future shipbuilding but also improve our capability in maintaining and sustaining our own fleet.

5.15 While statements by the government indicated that they were committed to building a naval shipbuilding sovereign capability, witnesses noted that substantial sovereign capability already exists in Australia both in defence and commercial sectors.

5.16 For example, at the 24 May 2017 Senate Finance and Public Administration Legislation Committee Estimates hearing, Mr Mark Lamarre, then Chief Executive Officer, Australian Submarine Corporation Shipbuilding (ASC) expressed support for the establishment of an Australian naval shipbuilding sovereign capability. Lamarre said that Australia has an existing sovereign capability in the government-owned ASC:

... the government have indicated that they are looking for affordable, achievable outcomes for shipbuilding and sustainment. They want an industry that has been reformed and is secure, productive and cost competitive. ASC, as Australia's only builder of complex surface combatants, is sovereign, of course. We are headquartered here and we are owned by Australia...

5.17 Mr Peter Horobin, Submarine Institute of Australia, agreed that 'there is a substantial sovereign capability in the country right now and it is pretty close to cutting edge', however, he cautioned that this capability would be lost if it was not utilised. Dr Renilson, President, Australian Division, Royal Institution of Naval Architects, also noted his concern that if existing Australian sovereign design capabilities are not utilised, they will be lost:

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14 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 33.

15 Senate Finance and Public Administration Legislation Committee, Committee Hansard (Budget estimates), 24 May 2017, p. 12.

16 Senate Finance and Public Administration Legislation Committee, Committee Hansard (Budget estimates), 24 May 2017, p. 15.

17 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 33.
If you do not use them then you will lose them. If Australia has a habit of constantly going overseas for such services then it will be difficult to keep the naval architects within Australia current and trained up and able to assist.\(^{18}\)

5.18 Leading examples of Australian sovereign capability that Australian companies own and export around the world include Saab's 9LV combat management system, Austal's aluminium ships, and Incat's high speed passenger ferries. In chapter 6 of this report, the committee discusses Australia's thriving exports industry and support available to SMEs to consolidate further capability in the industry.

**Australian content and build**

*Involvement in the design phase*

5.19 A persistent theme arising in the evidence was the importance of Australian industry involvement in the design stage of defence programs. This involvement places Australian industry in the best position to undertake sustainment and repair of ships, and to enable industry to increase its knowledge of the design process for future projects.

5.20 Mr Deeks, Forgacs, supported Australian involvement in the entire shipbuilding process to enable the most qualified and knowledgeable individuals to undertake ship maintenance later on. He stated that the best people to do this are those who have:

…built up a body of knowledge and understanding of the build techniques and the design philosophy. Similarly, the remaining service life of an asset is subject to periodic survey and assessment of the remaining cost of ownership, including enhancements and modernisation versus replacement costs. The know-how and 'know why' behind a submarine or frigate design means that local industry will be able to provide enduring support to such a complex asset.\(^{19}\)

5.21 Dr Martin Renilson, President, Australian Division, Royal Institution of Naval Architects, agreed that Australia should be involved in the design of its ships, to assist with repair and maintenance later on. Dr Renilson explained that:

[It] would be very difficult…to have a situation where Australia does the repair and maintenance but is not involved in the design.

…

If it is only involved in the repair and maintenance you can understand that the people involved would not get to see the big picture and would not understand the whole issues about the ship design when they are conducting maintenance. That in itself can be really quite dangerous if they are making modifications to the ship but do not actually have the original design

\(^{18}\) Senate Economics References Committee, *Committee Hansard (Future of Australia's naval shipbuilding industry)*, 3 April 2017, p. 24.

\(^{19}\) Senate Economics References Committee, *Committee Hansard (Future of Australia's naval shipbuilding industry)*, 3 April 2017, p. 41.
philosophy; if they only have the ship and they are trying to make modifications. Ships are modified during their lifetime as well as repaired. If you are not involved in the original designing it would be much more difficult to safely make the changes or modifications. 20

5.22 Australian industry is involved in the design process conducted by Naval Group, with Australians travelling to France. 21 Naval Group staff will travel to Australia to train Australian industry in building the submarines. Defence will bring white collar workers from Naval Group to Adelaide to train and skill the Australian workforce. 22

5.23 At the 20 June 2017 Canberra public hearing, Rear Admiral Greg Sammut, Head Future Submarine Program, Department of Defence, explained that Australians are currently building both project management and design skills and ensuring the transfer of information and sovereign capability in the process. He stated:

There are project management skills that we are currently building up now in terms of our engagement with Australian industry. Also, our engagement with [Naval Group] in terms of understanding the specifics of the submarine design process that they apply. An important part of this, in selecting [Naval Group], is to ensure that we do not introduce changes to their design processes. It is the experience and skills they have in that design process that we want to make sure is transferred to Australia, and particularly into a company like the [Naval Group] Australia, such that we can be in a position where the management of the program takes place from Australia. 23

5.24 While Australians will be involved in the design stage of the future submarine project, it may not be possible for Australia to create and sustain its own design industry into the future. At the 29 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, Rear Admiral Greg Sammut, argued that it is not possible for Australia to have a sovereign 'design' capability in relation to submarines. This is because an indigenous design capability is a large and expensive capability that requires regular use to be of long-term benefit. He suggested it is difficult for any one country to maintain the capacity to design a new submarine from 'scratch'. For this reason Defence sought an international partner for support. 24

20 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 25.
21 The Hon Malcolm Turnbull MP, Prime Minister, Doorstop Transcript, 16 May 2017, Adelaide.
22 The Hon Malcolm Turnbull MP, Prime Minister, Doorstop Transcript, 16 May 2017, Adelaide.
23 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 25.
24 Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget estimates), 29 May 2017, p. 136.
Australian industry build and content

5.25 The committee heard that primes managing defence programs should be required to involve Australian industry in these projects. However, there was no clear or consistent understanding of what Australian involvement should mean. No common definition of “involvement”, “content” or “participation” was presented in evidence, and the evidence revealed sharp differences between supporters of minimum percentage targets for Australian industry involvement and supporters of providing opportunities to maximise Australian involvement.

5.26 This lack of clarity about what constitutes Australian involvement means that a project may be described as an 'Australian build' even though it is comprised of substantial foreign content. As Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers Union (AMWU) informed the committee:

Our experience from what we know on Collins … the figure was 70 per cent local content, but we know for a fact that many of those companies that were deemed to be local in actual fact sourced the content offshore.25

5.27 Mr Andy Keough, Chief Executive, Defence SA, explained that the distinction between build and content was important, particularly in how Australian involvement is measured. He explained that the value-add component of the content should not be conflated with the labour component of the content. He added:

In some cases, you may have components that are manufactured overseas. They may be shipped to Australia and assembled in Australia and the entire component is then assessed as being AIC [Australian Industrial Capability], whereas in fact the value-adding component of the labour to assemble the parts is only a small component of the total cost of that component.26

5.28 The AMWU suggested one way of measuring Australian content might be the calculation used by Naval Group in its Australian Industry Capability (AIC) Plan, based only on the value 'that has been added by Australian companies and their workers in Australia'. The calculation used in Naval Group's definition of 'Australian Industrial Content' excluded any imported goods and services from Australian content calculation.27

5.29 Although the government has stated that it is committed to maximising Australian involvement and a local build of defence programs, it has not attributed a minimum percentage figure of Australian involvement that primes must meet. Nevertheless, the Minister for Defence Industry advised that the government

25 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 6.
26 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 27.
27 Australian Manufacturing Workers Union, Answers to questions on notice, 3 and 4 April 2017 hearings (received 12 July 2017).
considered a local build to be 'about 60 per cent or above'. The Minister for Defence Industry explained the government is seeking to maximise as much local work as possible, rather than seeking to limit it to a minimum requirement. The Minister has not explained why the government believes that reaching a minimum would inhibit striving to reach a maximum.

5.30 Mr Thompson, AMWU, expressed concern that if the government only encouraged primes to aim for maximum participation, primes may argue that Australian SMEs are unsuitable and use their own international supply chains. He stated that despite Defence's advice to Naval Group that it has to maximise Australian participation and include the supply chain into its project, there was nothing to enforce this.

5.31 Ministers for defence industry from Western Australia, South Australia and Victoria, provided a joint submission stating their shared view on achieving Australian involvement in the future submarine program. The Ministers called for 'a minimum level of Australian participation by value of the contract entered into'.

5.32 Mr John O'Callaghan, Executive Director, Australian Industry Group Defence Council, was supportive of focusing on maximising Australian involvement, stating that it was essential to make sure Defence contracts 'locked in' maximising that content.

5.33 Dr Michael Green, Executive Director, Victorian Department of Economic Development, Jobs, Transport and Resources suggested that there are other measures that could be used to promote Australian industry participation. For example, Australian industry value-add and the number of employees or hours worked on a project in Australia. Noting the difficulty of measuring Australian content in relation to intellectual property, Dr Green suggested that a significant build-up of capability around design and engineering beyond 'just operating and sustaining vessels' in the country was desirable.

Mandated Australian industry participation

5.34 Evidence presented to the committee supported government mandated Australian industry participation in defence projects. Mr Thompson, AMWU, reiterated his concern that the government had not stipulated precise definitions or

28 The Hon Malcolm Turnbull MP, Prime Minister, Doorstop transcript, 16 May 2017, Adelaide.
29 The Hon Malcolm Turnbull MP, Prime Minister, Doorstop transcript, 16 May 2017, Adelaide.
30 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 5.
32 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 19.
33 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 36.
percentage figures of Australian industrial involvement in defence programs. He called for the government to mandate Australian industry participation, stating that the government did 'not come out hard enough' and was 'not transparent enough on what they mean by maximum participation and local content'. 34 Mr Thompson called for the government to provide clarity on the meaning of Australian industry participation and 'what they are doing and mandating in relation to Australian content and supply chain'. 35

5.35 The Victorian government's submission suggested that local content be mandated similar to the Victorian Industry Participation Policy (VIPP). According to the submission, mandating local content maximises the benefit for the nation and will have a positive multiplier effect—creating business opportunities, underpinning ongoing direct economic benefits through jobs and supply chain creation throughout the county. 36

5.36 At the Adelaide public hearing Dr Green restated the Victorian government's position that those measures should be in place to establish a 'robust and achievable local content and for that to be increased over time'. The increase could be achieved:

...both through the life of each vessel and as the vessels get built and for that to be a critical part of the overall plan and contractual arrangements to deliver these programs. 37

5.37 The Hon Greg Combet, Victorian Defence Industry Advocate agreed, noting that ultimately it was up to the Commonwealth government to mandate that local content and participation is achieved. He added:

…it will require appropriate determination on the part of the Commonwealth and Defence to ensure that a rigorous approach to the achievement of Australian industrial capability and therefore local content is achieved. 38

5.38 Mr Serge DeSilva-Ranasinghe, President, Australian Industry & Defence Network Western Australia, also supported the enforcement of a local industry requirements stating:

We [Australian Industry & Defence Network WA] would like to see enforcement of the sovereign industrial capability that demonstrates, based

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34 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, pp. 5 and 6.

35 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, pp. 5 and 6.


37 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 35.

38 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 36.
on evidence, that Australian companies and SMEs are actually getting substantial opportunities.39

5.39 Mr Keough, Defence SA, suggested that the government set mandated requirements. However, he acknowledged that in some projects it may be difficult to reach a high bar of Australian industrial content due to the nature of the work. This would come down to the particular platform—the more complex the project, the harder it is to drive local AIC. Also, the technologies may not be available in Australia.40 Mr Keough, added:

Certainly for OPVs it is fairly simple—you should have a very high level of AIC for that. In submarines, particularly in the first stage, it may be a lot lower AIC and then that is built on. Really, that is an issue for the government to look at, make its decision on and set the leadership on. It needs to set the floor, that floor needs to be in the contract and anything above that is a significant bonus to Australia.41

5.40 Witnesses suggested that the government could mandate Australian industrial participation through contracts between primes and the government to lock in sovereign capability and local industry involvement. Mr Deeks, Forgacs Marine and Defence, argued that:

As the government moves forward with major ship and sovereign acquisition programs, they must put in place contractual mechanisms and intergovernmental agreements and treaties that ensure we have access to, and ownership of, the relevant information to ensure the above-mentioned elements are in our control.42

5.41 Mr Keough, Chief Executive, Defence SA, also suggested that Australian industry requirements be contained within contracts as 'ultimately, the AIC content must be specified in the contract if you are going to have any aspirations of delivering against it'. Otherwise, it would be based on the contractor's best endeavours.43 He emphasised that:

[t]he contractor's responsibility is not to develop the Australian industry. They are there to deliver a submarine, to deliver a product, on time to a specified price to meet a certain capability, so [the] contract [must] make

39 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 36.

40 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 27.

41 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 27.

42 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 3 April 2017, pp. 40 and 41.

sure that [it is added] in the contractor's best interest to make sure they hit certain targets that we specify.  

5.42 Further, there must also be an incentive for the contractor to comply as it would be naïve to suggest that technology and intellectual property would be transferred from France to Australia without any incentives or motivations simply to assist Australian industry.

5.43 Some witnesses recommended going beyond simply minimum percentage targets, and called for a focus on ensuring that the government attains sovereign control and intellectual property of these naval ship programs. Mr Deeks explained that:

The Australian industry participation should be viewed by the government from a position of the sovereign capability that they wish to have in Australia. It is not a matter of a percentage of Australian industry participation; it is a matter of identifying the key capabilities, the key competencies, the key controls that the Australian government sees as essential in the operation and maintenance of the submarines through their entire life.

5.44 Mr Deeks also suggested that the government be careful to make sure that it has 'an avenue through which it can direct or dictate the terms of the subcontractors supplying into the Future Submarine project to ensure that [Australia] retain[s] that sovereign capability'. Sovereign capability can be managed through the control of IP, or by ensuring a level of Australian industry participation. Mr Graeme Dunk also supported this position stating that 'Australia needs to have access to all intellectual property in order to [...] address its sovereignty concern'.

5.45 At the 20 June 2017 Canberra public hearing, Mr Brent Clark, Senior Advisor to the Chairman, Naval Group Australia, explained that in the case of the future submarine program:

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44 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 24.
45 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 24.
46 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 44.
47 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 44.
48 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 44.
49 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 27.
The background IP obviously resides with the company in France; the foreground IP obviously will reside with the Commonwealth. And there is an arrangement in place to transfer that IP.50

Rear Adm. Sammut, Department of Defence, further explained that:

Any new information that is developed, as is stated in the treaty and elsewhere in our arrangements with [Naval Group], becomes foreground IP, ownership of which vests with the Commonwealth upon its creation.51

90 per cent Australian build?

The National Shipbuilding Plan and related documents do not contain official percentage targets of Australian participation rates for building. The committee heard evidence throughout the inquiry that the failure of the government to set clear targets caused confusion amongst stakeholders. Two examples of confusion created by the government, in relation to submarines and frigates, are discussed below.

For example, at the 4 April 2017 Adelaide public hearing, speculation about what percentage of the future submarine build would take place in Australia was discussed. In the previous month, Naval Group advised that over 90 per cent of the future submarine build would occur in Australia.52 On the day of the committee's hearing the Minister for Defence Industry stated that 60 per cent of the future submarines project build would take place in South Australia. The Minister confirmed that the figure of a '90 per cent' Australian build was provided by Naval Group, not the government.53

The confusion around the percentage of Australian involvement remained during the Adelaide hearing. Mr Thompson, AMWU, noted his surprise at comments made by the Minister for Defence Industry on radio that morning, regarding a change from a 90 per cent Australian build to a 60 per cent South Australian build. Mr Thompson suggested that these comments highlighted the general confusion about Australian participation:

The point that I would make is this, once again: there is no clear public position in relation to the [Request for Tender]—for example, on frigates. It talks about maximum Australian participation; it does not mandate or it does not put any emphasis on the French, for example, or on whoever it is

50 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 10.

51 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 25.


going to be on the frigates, to engage Australian companies to assist Australian companies to be supply-chain ready.  

5.50 At the 20 June 2017 Canberra public hearing, and again on 7 June 2018, Mr Clark explained that the 90 per cent figure mentioned by the former Naval Group Australia CEO pertained to assembly and production activities only and not the overall content of the submarine.  

5.51 In 2017 Mr Clark stated that he could not confirm what the percentage of Australian industry content would be as Naval Group were still working with the Commonwealth and the Department of Defence. This work included examining the Commonwealth and Department of Defence 'system by system to look at what can be done on the submarine from an Australian industry capability perspective'. Naval Group would aim for a minimum target of 60 percent industry involvement. Naval Group expected to complete the work and to refine a figure of Australian industry content by the end of 2017 early 2018. Mr Clark advised the committee that Naval Group would provide a figure for local content by the end of 2017. However, at the committee's hearing on 7 June 2018, Mr Clark was still unable to provide a figure.

5.52 Defence Teaming Centre supported the requirement for maximising Australian industry involvement in the future submarine program, suggesting that a more sophisticated solution was required than simply determining a percentage of involvement; this would involve a determination of the meaning of sovereign capability:

The Federal Government must then focus on developing a transparent plan with [Naval Group] as to how and when the knowledge and skills to build
the Future Submarine will be transferred to Australians. Australia will need to make itself ready for this knowledge and skills transfer.  

5.53 At the June 2018 hearing, Naval Group was questioned again in relation to the former CEO’s comment about a 90 per cent Australian build. Mr Clark clarified that his predecessor’s comment applied to production and not the overall Australian industry content. Mr Clark confirmed that he could not find any documentation produced by the company that referred to 90 per cent local content.

5.54 Naval Group has still not provided a figure about the level of content it will use for the submarine program. Mr Clark advised that Naval Group was still in the design phase and would be in a better position to answer the question during the procurement phase. Mr Clark advised that the company has been engaging with Australian industry for nearly three years and the number of prequalified suppliers is growing rapidly. He expressed confidence in what Naval Group has seen from an Australian industrial perspective.

5.55 Relatedly, the Minister for Defence Industry’s reference to a minimum 60 per cent local build (which he defined as Australian content), attracted media attention following the release of unclassified sections of the future frigate program’s request for tender documents on 25 January 2018. The documents were subject to a protracted FOI process which included a review by the Information Commissioner. The media reported that the future frigate program would achieve a minimum 50 per cent local content. The documents stated that the Air Warfare Destroyers (AWD) had achieved Australian contract expenditure of 60 per cent across the whole program, and anticipated that the frigates would achieve the same or higher. Minister Pyne referenced the level of Australian content in the AWD (beyond 60 per cent) and the Collins (beyond 80 per cent) programs as basis for his claim.

5.56 Mr Keough, Defence SA, warned at the April 2017 hearing, when the Naval Shipbuilding Plan had not yet been released, that without a naval shipbuilding plan

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61 Defence Teaming Centre, *Answers to questions on notice*, 4 April 2017 hearing (received 17 July 2017).


63 Senate Economics References Committee, *Proof Committee Hansard* (Future of Australia's naval shipbuilding industry), 7 June 2018, p. 14

64 More documents were released on 11 May 2018 on the Future Frigate procurement process under the Senate Order for production of document.

containing official percentage targets, the confusion and discussion would continue. Unfortunately, as the two examples outline above illustrate, this remains the case following the release of the naval shipbuilding plan, as plan does not contain percentage targets.

Contracts underway

5.57 Initial contracts for the future submarine program have been signed. As at 20 June 2017, Naval Group had signed approximately $11 million worth of contracts with 91 Australian subcontractors. At that time, the value of contracts with French companies exceeded the value of contracts with Australian companies. This increased to 107 subcontracts valued at about $26 million at the end of May 2018. The committee heard that the number of contracts signed with Australian companies exceeded the number of contracts signed with French companies over the same period.

5.58 However, without similar figures available to the committee on the number of contracts signed with French companies, the committee cannot fully understand how capabilities are being developed.

2017 Naval Group (formerly DCNS) Australian Industry Capability Plan

5.59 Although the government has not specified any percentage targets (or other measures) for Australian industrial requirements, tenderers bidding for defence contracts must provide an Australian Industry Capability (AIC) plan that sets out how it will maximise Australian industry involvement should it be successful in winning the tender. The successful tenderer then develops a subsequent AIC with the government.

5.60 Non-corporate Commonwealth entitles under the Public Governance, Performance and Accountability Act 2013 (PGPA Act) (which includes the Department of Defence), require successful tenderers to prepare and implement AIC plans for Commonwealth tenders of $20 million or more. The Department of Defence procurement policy manual outlines the requirements of the AIC plan:

[T]enderers are required to submit an AIC plan which sets out the tenderers’ Local Industry Activities (LIAs) to meet the specified Industry

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66 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 26.
67 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 9.
68 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 17-18.
69 Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, pp. 17-18. Figures available for the French side went back to the beginning of April 2017—24 project-related contracts signed with French companies valued at 12.4 million euros [approximately 18.25 million AUD]: Naval Group, Answers to questions on notice, 20 June 2017 hearing (received 13 July 2017).
Requirements of the procurement. Tenderers are required to describe the benefits of their LIAs, including the significance of the work, the skills and knowledge that will be transferred, the training that will be provided, the new technologies or innovations that will be introduced, and the contribution to Australian company competitiveness, including access to global supply chains, technical data and intellectual property.\footnote{Department of Defence, \textit{Defence Procurement Policy Manual}, April 2017, pp. 12.}

5.61 Tenderers are not required to specify a percentage target of Australian industrial involvement, only how they will endeavour to maximise Australian involvement.

5.62 On 30 September 2016, the government and Naval Group signed the Design and Mobilisation contract. The contract required both parties to produce an AIC plan to commence the design phase of the program.\footnote{The Hon Christopher Pyne MP, Minister for Defence Industry, 'First contract signed with Naval Group to commence design phase', \textit{Media release}, 30 September 2016, \url{https://www.minister.defence.gov.au/minister/christopher-pyne/media-releases/first-contract-signed-dcns-commence-design-phase} (accessed 12 June 2018).} This is in addition to the AIC plan produced earlier by Naval Group as part of Competitive Evaluation Process (CEP) in accordance with the PGPA Act, outlined above. The committee was advised in October 2017 that delays in developing the AIC plan related to establishing security arrangements for Australian companies.\footnote{Rear Admiral Sammut, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Committee Hansard} (Supplementary estimates), 25 October 2017, pp. 158-159.} The government was not provided with a final AIC plan by the Naval Group until April 2018.\footnote{Rear Admiral Sammut, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard} (Budget estimates), 29 May 2018, p. 57. Defence has also received the Australian Steel Development and Qualification Plan in April 2018. Testing of steel in Australia has commenced, and Bisalloy and Bluescope will be involved in determining its suitability for the construction of the submarine's pressure hull.} Defence has advised that it is working towards releasing the AIC plan by October 2018.\footnote{Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Proof Committee Hansard} (Budget estimates), 29 May 2018, p. 57.} As the committee does not have access to the AIC plan provided to Defence by Naval Group in April 2018, the committee provides some commentary on the contents of the earlier AIC plan.

5.63 Due to delays in preparing the final AIC plan, the committee initially sought access to the AIC plan submitted as part of the CEP. At the 4 April 2017 Adelaide
public hearing, a copy of the redacted March 2017 Naval Group AIC plan for the future submarine program was tabled.\textsuperscript{76}

5.64 The 2017 AIC plan outlined Naval Group's plans, procedures and responsibilities for the management of Australian Industry Capability during the future submarine program.\textsuperscript{77} One interpretation of the document is that any final decision as to the involvement of Australian companies, products and services in the Future Submarine project is a matter for Naval Group, not the Australian government. For example, Mr Thompson, AMWU, expressed concern that the Naval Group AIC plan suggested that Naval Group had the decision making power about what could and could not be built in Australia, noting that when Naval Group 'was announced as the preferred design partner, the French community were dancing on the streets in relation to the establishment of 4,000 jobs in France'.\textsuperscript{78}

5.65 At the 20 June 2017 Canberra public hearing, Mr Clark stated that 'the Commonwealth always has the final say in these matters'.\textsuperscript{79} Mr Clark also stated that he would not provide the committee with the percentage figure of Australian involvement outlined in the CEP 'because the plans that were done during the CEP obviously involved a lot of assumptions'.\textsuperscript{80} In a response to questions on notice, Naval Group confirmed that the 90 per cent figure discussed by the former CEO was not provided in any Australian industry participation plan documentation.\textsuperscript{81}

\begin{footnotes}
\item[76] The document was tabled by former Senator Xenophon and was dated March 2017. Although the document indicated that it was a final version, Defence emphasised at the 4 April 2017 hearing that the government has not accepted the document, which based on Naval Group's view of 'the way in which Australian industry engagement will work'. Senate Economics References Committee (Future of Australia's naval shipbuilding industry), Committee Hansard, 4 April 2017, p. 25. The Department of Defence received a final version of this document from Naval Group in April 2018, and is working towards providing it to the Senate: Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry), 7 June 2018, p.57. The 2015 version of this document, prepared as part of the CEP process, was tabled in the Senate on 10 May 2018, following an order for the production of documents. See Journals of the Senate, 12 February 2018, p. 2667. The document is available online: http://parlinfo.aph.gov.au/parlInfo/download/publications/tabledpapers/95d14f8-d23d-42ff-bc12-2a503d480d8b/upload_pdf/submarine.pdf;fileType%3Dapplication%2Fpdf (accessed 11 May 2018).

\item[77] Naval Group, Australian Future Submarine Program: Australian Industry Capability Plan, March 2017, p. 6.

\item[78] Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 5.

\item[79] Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 9.

\item[80] Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 13. Mr Clark also advised on 7 June 2018 that a number of these assumptions had changed: Senate Economics References Committee, Proof Committee Hansard (Future of Australia's naval shipbuilding industry),7 June 2018, p. 14.

\item[81] Naval Group, Answers to questions on notice, 20 June 2017 hearing (received 13 July 2017).
\end{footnotes}
5.66 Mr Clark explained that the CEP was quite a short process and Naval Group was not able to do a robust analysis of Australian industry during this period. However, since Naval Group had been selected as the designer of the future submarine program, Naval Group has 'spent a considerable amount of time travelling around Australia and looking at Australian industry and the capabilities and understanding what exists'. According to Mr Clark, this process would provide a robust, defensible and justifiable percentage for the committee.

5.67 On 29 June 2017, the government announced changes to the AIC template to strengthen the requirement for Australian involvement in Defence projects. The new template is intended to require defence companies to outline how and where they will involve Australian industry before bids are considered.

5.68 The Defence Teaming Centre stated that they would expect the Commonwealth to seek supplementary information from Naval Group to ensure its AIC plan meets the new template requirements. The AMWU stated that it reserved its judgement on the efficacy of the AIC plan. It welcomed the 'strengthened guidelines and additional focus on using defence procurement to foster longer term investment and diversification' but was less optimistic about the new AIC plan requirements. It noted that 'without pressure from government, the plans required under the AIC plan may just become hollow promises sitting forgotten on a government website'.

5.69 On 12 February 2018, the Senate ordered that government table the AIC plan submitted by Naval Group to the Department of Defence as part of the CEP for the submarines. The Minister for Defence tabled the document on 10 May 2018. The document, created in 2015, contained redactions on the grounds of public interest immunity. There have been some criticisms about the material that remains, not least that the Naval Group initially planned to use 1,700 ASC employees. During the

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82 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 12.

83 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 13.

84 The Hon Christopher Pyne MP, Minister for Defence Industry, 'Turnbull Government moves to increase Australian involvement in Defence Projects', *Media release*, 29 June 2017.

85 Defence Teaming Centre, *Answers to questions on notice*, 4 April 2017 hearing (received 17 July 2017).

86 Australian Manufacturing Workers Union, *Answers to questions on notice*, 3 and 4 April 2017 hearings (received 12 July 2017).


committee's hearing on 7 June 2018, Naval Group advised that the assumptions made when developing the 2015 AIC plan had changed by the time it completed a later plan in 2017. In particular, Naval Group were not aware of the government's intention that the designer of the submarines would also build the submarines.  

**The Merchant Marine Act of 1920 (The Jones Act)**

5.70 At the Adelaide public hearing, Mr David Singleton, Chief Executive Officer, Austal, informed the committee about the United States Jones Act, which enshrines the United States' shipbuilding sovereign capability by requiring all shipbuilding work to take place in the United States. Mr Singleton explained that:

The Jones Act is a piece of legislation in the United States that requires that any commercial vessel that goes port to port in the US or any military vessel in the United States is built in the United States. It also requires that certain maintenance activities on military ships are also carried out in US ports as well. So it is not possible by law in the United States to build ships anywhere other than in continental US for defence purposes.

5.71 Section 1 of the Jones Act outlines the purpose of the Act:

It is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency, ultimately to be owned and operated privately by citizens of the United States; and it is declared to be the policy of the United States to do whatever may be necessary to develop and encourage the maintenance of such a merchant marine, and, in so far as may not be inconsistent with the express provisions of this Act, the Secretary of Transportation shall, in the disposition of vessels and shipping property as hereinafter provided, in the making of rules and regulations, and in the administration of the shipping laws keep always in view this purpose and object as the primary end to be attained.

5.72 Mr Matthew Primiero, an AMWU delegate, explained the impact of the Jones Act on the shipbuilding industry:

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89 Mr Clark, Senior Advisor to the Chairman, Naval Group Australia, Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), pp. 11-12.

90 Formally known as the *Merchant Marine Act of 1920*.


92 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 10.

The Jones Act in the US is anything built and sought in the US. Any defence contract is done in the US with US labour. It allows outside companies to bid for the work, but it puts a tax on them…[but they] still has to use US labour.\textsuperscript{94}

5.73 Mr Singleton explained that in order for Austal to undertake work for the United States government, ships had to be built in the United States by local workers. Austal currently has approximately four and a half thousand employees in the United States.\textsuperscript{95} Mr Singleton explain that when establishing the Austal shipyard in the United States:

We took 300 Australians from Henderson—from the design and product areas at Henderson—to Mobile, Alabama to set up the facilities. They designed not only the vessel and then modified it to the needs of the US Navy but also the manufacturing system, which is extremely novel and the most efficient manufacturing system for warships in the United States—and that was all done with Australians in the US.\textsuperscript{96}

5.74 Australia does not have an equivalent piece of legislation in relation to mandating Australian industry involvement and content in the construction of Australian naval vessels. The \textit{Australian Jobs Act 2013}(Cth) requires consideration of Australian involvement in procurements through Australian Industry Plans, discussed above in relation to the Naval Group Australian Industry Plan. However, the Act does not mandate the use of Australian entities, only that Australian entities should have full, fair and reasonable opportunity to bid for the supply of key goods or services for a project or a new facility's initial operational phase.\textsuperscript{97}

\textbf{Australian industry participation in the future submarine program}

5.75 On 7 June 2018, the committee was advised Naval Group issued 1,623 requests for information to 541 Australian companies.\textsuperscript{98} This was an increase from the previous year where there had been 793 requests for information to 174 companies.\textsuperscript{99} In 2017, it pre-qualified 52 Australian companies who were considered appropriate to

\begin{itemize}
\item \textsuperscript{94} Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 3.
\item \textsuperscript{95} Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 10.
\item \textsuperscript{96} Senate Economics References Committee, \textit{Committee Hansard} (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 11.
\item \textsuperscript{97} Australian Industry Participation Authority, \textit{User Guide for developing an Australian Industry Participation Plan}, June 2016, p. 4.
\item \textsuperscript{98} Senate Economics References Committee, \textit{Proof Committee Hansard} (Future into Australia's naval shipbuilding industry), 7 June 2018, p. 18
\item \textsuperscript{99} Senate Foreign Affairs, Defence and Trade Legislation Committee (Additional Estimates 2016-17), \textit{Answer to question on notice}, Question reference no. 49.
\end{itemize}
participate in supply chain activities for the future submarines program. This number increased to 86 as at 1 May 2017.

5.76 The committee notes the lack of comparable information on the French side made it difficult for the committee to assess whether Australian or French companies were getting the majority of contracts. Mr Clark from Naval Group Australia agreed to provide the information to the committee as soon possible, noting the inquiry’s tight reporting date of 27 June 2018.

**Australian shipyards**

5.77 The naval shipbuilding plan set out infrastructure upgrades required for shipyards in both South Australia and Western Australia to enable construction of programs outlined in the plan.

5.78 As outlined in chapters two and three, following Defence's assessment that current shipyards in Osborne and Henderson were inadequate and required substantial upgrades to meet the requirements of the naval shipbuilding programs, Defence contracted Odense Maritime technology to redesign the shipyard at Osborne and allocated $100 million to improve the infrastructure at the Henderson shipyard. The ANAO reported that work on the physical infrastructure at the Osborne (south) shipyard was already underway and is on track for the future frigate's commencement. The infrastructure requirements at the Henderson shipyard for the offshore patrol vessel program are in the process of being finalised whereas the shipyard requirements for the future submarines at Osborne (north) are still at an early stage.

**Infrastructure for build of future submarines**

5.79 The committee heard that the future submarine program would not use the existing Collins facilities in Techport, but that facilities for the build of the future submarines will be built and designed to meet the requirements of the program. Rear Adm. Sammut noted the facilities used by the Collins submarines were designed and built in the early 1980s. It was necessary to build a shipyard with the capacity to efficiently and effectively build a submarine that is designed differently to the Collins one and 'can continue to build submarines on a rolling acquisition program.'

5.80 The committee was informed that the new facilities for the future submarines will be built around existing facilities used for the sustainment of the Collins class.

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100 Senate Foreign Affairs, Defence and Trade Legislation Committee (Additional Estimates 2016-17), Answer to question on notice, Question reference no. 50.

101 Senate Foreign Affairs, Defence and Trade Legislation Committee, Committee Hansard (Budget estimates), 29 May 2017, p. 59.

102 Senate Economics References Committee, Proof Committee Hansard (Future of Australia’s naval shipbuilding industry), 7 June 2018, p. 18.


104 Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 20.
These new facilities will have to be built to match Naval Group's design and build processes and provide Defence with 'the ability to efficiently build submarines into the future'. Rear Admiral Sammut advised:

> There has to be a new whole construction hall. There has to be facilities for the building of modules. There will be land-based test sites that are necessary and so forth that currently do not exist on the existing ASC site.\(^\text{105}\)

**Sustainment**

5.81 At the 20 June 2017 Canberra public hearing, the committee heard that Defence was seeking to ensure that Australia obtains the sovereign sustainment capability for the future submarines through the appropriate transfer of information and technology. Rear Admiral Sammut advised that one of the lessons learnt from the Collins class program was the importance of obtaining the sovereign sustainment capability:

> One of the key lessons of the Collins program was that, regardless of the level of Australian industry involvement that we had, we did not end that program with the sovereign sustainment capability. In other words, the enduring industrial capability in Australia to look after the boats through time. It is only at this point in the boats lives, through the improvements and transformations that ASC have been largely involved in, that we have developed that capability. So we are working on the mechanisms now to make sure the transfer of that information and technology into Australian industry occurs so that we have those outcomes.\(^\text{106}\)

**Future location of sustainment of Collins**

5.82 In April 2016 the Prime Minister stated that that all heavy sustainment work would remain in South Australia:

> Sustainment at the moment is done both between Henderson [Perth] and Osborne [Adelaide] and that would continue…it will be shared between the two but the heavier work was obviously always going to be done here at Osborne, as it is now.\(^\text{107}\)

5.83 Defence stated that there was no decision to move sustainment of the Collins class from Adelaide. Rear Adm. Sammut stated that was no plan 'at this stage' to change the current arrangements 'whereby full-cycle dockings are conducted in Adelaide on the Collins submarines and other dockings an maintenance activities are conducted in Western Australia.'\(^\text{108}\) Defence was considering options on how best to

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105 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 20.

106 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 25.

107 Tory Shepherd 'Fears SA defence jobs may go west', *Adelaide Advertiser*, 2 September 2016 (accessed 2 February 2018).

108 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 19.
manage the sustainment work of the Collins fleet while embarking on the construction of the future submarine. Relevant considerations include the necessary workforce expansion and the ability to 'grow the infrastructure in Adelaide to support the build of the submarine'.

5.84 The issue was also canvassed at a recent estimates hearing on 29 May 2018. Information was sought from Defence on the Collins Class tasking statement, which raised the prospect of relocating sustainment and full-cycle docking activities to Western Australia. Mr Stephen Johnson, General Manager Submarines, explained that Defence was exploring a variety of contingency plans with respect to full-cycle dockings for the Collins Class submarines. Mr Johnson discussed types of considerations involved in the year 2034 when:

…there is a good chance that we'll have two full-size submarines in the water in the final test mode, there'll be a full-size submarine in the building ways, there'll be a submarine in modules, there'll be a submarine in the warehouse, so to speak, in terms of parts, a full-size Collins and the first full-cycle docking. So we're sceptical that we have the right footprint in that shipyard for seven submarines, for example.

5.85 The committee heard that there will also need to be the capacity to increase production.

5.86 The Western Australian government argued that it made sense to transfer sustainment of the Collins fleet to Western Australia because the fleet is already based there at HMAS Stirling and the state has the capability and capacity to meet sustainment requirements.

Committee comment

5.87 An Australian sovereign capability in naval shipbuilding is vital for the defence of the nation and the capacity of Australian industry to meet future defence needs. However, without clearly defined and mandated requirements outlining the level of Australian industry involvement and content required in defence projects, the survival of an Australian naval shipbuilding industry with sovereign capability is at risk.

5.88 The recent Industrial Capability Plan has moved in the right direction by requiring an Australian company to have more than an ABN to be considered local.

109 Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 19.


111 Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget estimates), 29 May, p. 58.

112 Senate Foreign Affairs, Defence and Trade Legislation Committee, *Proof Committee Hansard* (Budget estimates), 29 May, p. 58.

113 Western Australian Government, *Submission 56.2*, p. 9.
The government states that it is committed to achieving 'maximum participation' of local industry. But the phrase 'maximum participation' does not describe what is being evaluated. Does this phrase refer to Australian labour involvement in the build, the percentage of Australian products used, or both? The committee did not receive advice about what constitutes Australian involvement, or definitions of terms such as 'involvement', 'content' and participation'. Clear and precise definitions agreed to by industry and the government are essential in the examination of any mandated requirements. This is a necessary first step in securing Australian sovereign capability for each of the major projects set out in the government's naval shipbuilding plan.

5.89 The committee heard that mandating percentage targets for both Australian involvement and content would be more effective at guaranteeing Australian industry involvement than the government's commitment to achieving maximum participation. It was also argued by some witnesses that setting only minimum percentage targets might encourage shipbuilding companies to meet that set target but not endeavour to exceed it. In regards to mandated targets, the committee believes that further clarification is required from the government about the definitions of key terms before decisions about quantitative or qualitative metrics are mandated. In the meantime, this does not preclude projects from continuing to be subject to close examination of how Australian industry will be utilised.

5.90 The committee believes that close examination of major defence contracts between primes and the government is important to enable transparency around taxpayer funded projects. For example, in relation to the future submarine program, the treaty between the governments of France and Australia was examined by the JSCOT and a report produced.

5.91 The committee has seen a copy of the draft Naval Group AIC plan for the future submarine project, obtained through a Senate order for production. The release of this draft document enabled the committee to examine the plan, and discuss its contents with industry witnesses and the Department of Defence at public hearings. The final document was provided to the Department of Defence in April 2018. The committee notes that the Department has indicated an intention to comply with the order for the production of the document. The document is yet to be released to the committee or tabled in the Senate.

5.92 Draft tenderer AIC plans submitted to the Department of Defence during the competitive evaluation processes for Defence projects should be made available for scrutiny by the Senate. This would occur after a successful tenderer has been selected, but before the AIC plan is finalised between the Department of Defence and the successful tenderer. This is preferable to using coercive measures, such as an order for production of document in the Senate, before such information is made available.

5.93 In addition, the committee believes there is value gained through prescribing a formal, periodic Senate examination of these plans against actual project progress to ensure that Australian industry commitments outlined in the plan are met. The drafting and finalisation of contracts and AIC plans should not take place behind closed doors. These processes should be transparent and subject to parliamentary and public debate considering how much taxpayer money is at stake.
Recommendation 7

5.94 The committee recommends that the government provide clear definitions about what constitutes Australian involvement, content, and participation, and how this will be achieved in each project outlined in the government's naval shipbuilding plan. These definitions and requirements for Australian industry involvement are to be stipulated in each contract.

Recommendation 8

The committee recommends that Australian Industry Capability plans for new Defence naval projects are subject to examination by the Senate – conducted in a manner similar to international treaties. The committee further recommends that finalised Australian Industry Capability plans are subject to six monthly reviews against progress by the Senate.
Chapter 6

Support available to small and medium sized enterprises

6.1 This chapter examines the difficulties small and medium sized enterprises (SMEs) face in becoming part of supply chains. It explores the industry briefing days held by the government and prime companies, and the government programs designed to provide information and targeted assistance to SMEs to enable them to become part of major contracts and supply chains.

6.2 Small and medium-sized enterprises (SMEs) are an integral part of Australia's naval shipbuilding industry. Evidence presented to the committee during the course of the inquiry suggested that SMEs have found it difficult to become part of supply chains for major defence procurements – particularly where international prime companies secure Australian defence contracts and utilise their own established international supply chains. Some witnesses argued that the federal government does not provide SMEs with the support required to win contracts and become part of supply chains. Information about how to become involved in projects and supply chains is reportedly unavailable or difficult to comprehend. Since the committee began its inquiry there have been some recent improvements in this area, however, much more needs to be done.

Difficulties faced by SMEs in becoming part of supply chains

6.3 The difficulties faced by SMEs to become part of supply chains were discussed at the inquiry's public hearings. Mr Serge DeSilva-Ranasinghe, President, Australian Industry and Defence Network Western Australia advised that SMEs across Australia encountered issues with obtaining access to defence contracts.

6.4 One particular barrier for SMEs concerned Australian Defence procurements won by international primes who utilise their own international supply chain. Mr DeSilva-Ranasinghe explained:

… The conversations I have had with a range of SMEs would suggest a lot of frustration with the process. The other thing is that, when we have prime contractors that are primarily foreign owned, naturally they are going to represent the interests of their host countries as well.

6.5 Mr Mike Deeks, Managing Director, Forgacs Marine and Defence, noted the difficulty often faced by both SMEs and primes in surviving periods where Defence work is unavailable. Mr Deeks stated:

1 Mr Serge DeSilva-Ranasinghe, President, Australian Industry and Defence Network Western Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 35.

2 Mr Serge DeSilva-Ranasinghe, President, Australian Industry and Defence Network Western Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 36.
... I would support some of the comments ... that it is quite difficult to get into Defence business. Even though Forgacs and our parent company, Civmec, are a large manufacturing company, and so we have the resources and the capability to weather the long gestation period of Defence contracts, it is still very difficult. I cannot imagine what it is like for SMEs trying to do the same thing... ³

6.6 Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers' Union (AMWU), reinforced this point, adding that there was a lack of information about what support is available to SMEs to help them get into the supply chain.⁴

6.7 At the Joint Standing Committee (JSC) on Treaties' inquiry into the agreement with France on the Future Submarine program public hearing, Mr Steve McCartney, State Secretary (Western Australia), Australian Manufacturing Workers' Union, described in more detail one particular information barrier that SMEs encountered when trying to enter the supply chain:

... If you are looking especially at second- and third-tier contractors that are trying to get into parts of the supply chain and find their niche, I think it was the amount of different high jumps you had to get into through government departments to actually get into the supply chain. You pass a series of alphabet letters coming your way—have you got that capability, have you passed that capability and have you done this to get into this position?—and there is really nothing to say how you get into that first stage. It is almost assumed that you are going to know those three steps to get in. They talk about those steps as if they exist and everyone should know how to get there, but there is no way to get there...⁵

6.8 Naval Group Australia stated that since being selected as the preferred tenderer for the Future Submarine program, it had commenced discussions and the prequalification audit process with Australian industry to enable them to become part of the Future Submarine program.⁶ At a public hearing for the JSC on Treaties inquiry, Mr Brent Clark, then interim Chief Operating Officer, Naval Group

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³ Mr Mike Deeks, Managing Director, Forgacs Marine and Defence Pty Ltd, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 43.
⁴ Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers' Union, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 8.
⁵ Mr Steve McCartney, State Secretary (Western Australia), Australian Manufacturing Workers' Union, Joint Standing Committee on Treaties, Committee Hansard (Agreement with France on the Future Submarine program, Maritime arrangements with Timor-Leste), 14 March 2017, p. 8.
⁶ Joint Standing Committee on Treaties, Inquiry into the agreement with France on the Future Submarine Program, Naval Group Australia, Submission 4, p. 3.
Australia\textsuperscript{7}, outlined the prequalification audit process for becoming part of the supply chain:

It is a relatively simple process. What we have done is that we engage with companies and we go around and meet with them. We do a review and inspection of the company's capabilities, its quality processes and the like. Once we have satisfied ourselves with that, we can then do a prequalification audit. It is a very simple process, so we basically notarise that all of the things that they have done and said are actually true. We can actually look at their ISO 9001 accreditation et cetera. Once they have satisfied that—that is the prequalification audit—they are then able to move into our supply chain from there.\textsuperscript{8}

6.9 However, Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, suggested that the lack of information about how to become involved and the opportunities available was a barrier SMEs faced. Ms Willmott referred to the Naval Group contract for the future submarines as an example:

…I think industry here in Western Australia is wanting to know a little bit more about what the audit requirements are and what the skills requirements are. We understand that there is a list of the skills that they are looking for. I think that is a conversation that is still being undertaken. I think, if Western Australian companies are told exactly what the audit requirement of DCNS is, they will quickly work out whether they are able to meet that audit requirement or whether that is something that they do not have the capacity to do.\textsuperscript{9}

6.10 Mr Clark noted in March 2017 that despite the efforts of Naval Group, there had been a lack of industry interest in becoming involved in the program.\textsuperscript{10} Three months later at the Canberra public hearing, Mr Clark stated that he no longer stood

\begin{itemize}
\item[7] Mr Brent Clark was interim CEO of Naval Group Australia from March 2017 until May 2018 when he moved into the role of Senior Advisor to the Chairman, Naval Group Australia.
\item[8] Mr Brent Clark, then interim Chief Operating Officer, Naval Group Australia, Joint Standing Committee on Treaties, \textit{Committee Hansard} (Agreement with France on the Future Submarine program, Maritime arrangements with Timor-Leste), 14 March 2017, p. 48. See also Naval Group Australia, 'Australia's future submarine program briefing comes to Melbourne', \textit{Media release}, 23 March 2017. Naval Group expressed its commitment 'to maximising Australian industry involvement in the FSP [Future Submarine Project], especially with regard to operation and sustainment'.
\item[9] Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, \textit{Committee Hansard}, 3 April 2017, p. 35.
\item[10] Mr Brent Clark, then interim Chief Operating Officer, Naval Group Australia, Joint Standing Committee on Treaties, \textit{Committee Hansard} (Agreement with France on the Future Submarine program, Maritime arrangements with Timor-Leste), 14 March 2017, p. 48.
\end{itemize}
by those comments, indeed following his evidence to the committee the 'Australian industry has stepped up quite strongly'.

6.11 As at 20 June 2017, 106 Australian companies had been identified in the prequalification process. Mr Clark confirmed that despite French companies being a part of the Naval Group France supply chain, no French companies had pre-qualified with Naval Group Australia for the future submarine project:

...We have done no pre-qualifications with any French company. We have only been concentrating on Australian companies. What DCNS France does in France and what DCNS Australia does in Australia are different things. We will have a very similar process—because the process that has been used in France is tried and tested—but we are not involving French companies in this process in Australia, at this stage.

6.12 The committee understands that while it can take a long time for Australian business to break into the supply chains, it can be worth it in the end as Mr Dean Rosenfield, Managing Director, Saab Australia Pty Ltd explained in relation to a small company in New South Wales:

We have only been in Australia for 30 years; they have been here for 50 years. They are a small company but they have done extremely well. We use them in our aircraft, we introduced them to the Swedish supply chain, we have used them on the Collins class submarine where we did the control system. They are highly innovative, they are mobile, they are agile, and they are expanding quite rapidly now in the US as well. So I think we have the skills, we have the knowledge and we have that management capability. It really comes down to having the patience to wait out the defence cycle, in terms of responding to tenders, tender evaluation, and getting into contract. I think that is what makes it difficult for smaller companies.

6.13 As at July 2017, over $125 million AUD in contracts have been awarded to ten Australian companies as part of Australia's supply ship program (SEA 1652) contracted to Navantia of Spain.

11 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 4.

12 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 4.

13 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 8.

14 Mr Dean Rosenfield, Managing Director, Saab Australia Pty Ltd, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 14.

15 Defence Teaming Centre, Answers to questions on notice, 4 April 2017 hearing (received 17 July 2017).
Industry briefing days

6.14 While the committee heard evidence that SMEs face difficulties engaging with defence work due to a lack of information being available, the Department of Defence highlighted industry briefing days as a means to engage local industry.

6.15 Industry briefing days, conducted by the government and prime companies, provide an avenue to distribute information about upcoming projects to SMEs, and to explain how they can become involved in a particular project or a global supply chain. They provide an opportunity for SMEs to talk directly with primes and clients to better understand their needs, and also enable primes to gain a clearer picture of what SMEs are operating in Australia. In 2017, industry briefing days took place in capital cities and regional centres where primes and SMEs are located.

6.16 During the June 2017 public hearing, Mr Kim Gillis, Department of Defence stated that in the last 18 months the Department had engaged with SMEs more than previously. Significantly, this engagement included work with newer entrants. Mr Gillis noted that the Department needed to adapt its strategies and contracting methodology for the newer entrants to the market.16

Naval Shipbuilding Industry regional briefings – Department of Defence

6.17 On 27 March 2017, the Department of Defence announced that it would conduct a series of naval shipbuilding industry briefings across regional Australia in April and May 2017. The Department of Defence stated that:

The briefing will focus on the next generation of naval surface ships; specifically the Future Frigate and Offshore Patrol Vessels, which represent a $40 billion investment by the Australian Government. The briefings will provide industry with an update on each project and information on the Centre for Defence Industry Capability (CDIC) and the Defence Industry Policy agenda and programs. This will include how industry can get involved in opportunities over the life of the shipbuilding programs.

6.18 Briefings were held in Geelong, Geraldton, Nowra, Bunbury, Launceston, Whyalla, Newcastle and Cairns.17

SEA 5000 industry engagement days - Navantia

6.19 In early 2017, Navantia held five industry engagement days in Brisbane, Fremantle, Melbourne, Adelaide and Sydney. Navantia is one of three companies currently participating in the competitive evaluation process for the SEA 5000 Future Frigate program.18 The industry engagement days were held to explain how Australian

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16 Mr Kim Gillis, Deputy Secretary, CASG, Department of Defence. Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 23.


industry could be part of Navantia's bid for the SEA 5000 Future Frigate program.\textsuperscript{19} As an indication of attendance, on 24 March 2017, more than 450 companies attended the Sydney industry day.\textsuperscript{20}

6.20 Navantia stated that its frigate design bid will include a significant number of Australian suppliers and subcontractors.\textsuperscript{21} Expression of interest applications for the 69 work package contracts associated with the bid closed on 1 May 2017.\textsuperscript{22}

\textbf{SEA 1000 future submarine program industry briefing – Naval Group}

6.21 In early 2017, Naval Group and the Department of Defence jointly delivered a series of industry briefings in relation to progress to date on the future submarine program; future development plans; and potential engagement opportunities.\textsuperscript{23} Briefings took place in Adelaide, Sydney, Melbourne, Brisbane and Perth. At the 29 May 2017 Senate Foreign Affairs, Defence and Trade Legislation Committee Estimates hearing, the Department of Defence reported that 706 companies, research and development institutions, and education organisations had participated in these industry briefings with 240 in Adelaide, 182 in Sydney, 210 in Melbourne, and 74 in Brisbane.\textsuperscript{24}

6.22 At the 20 June 2017 Canberra public hearing, Mr Clark summarised the success of the industry briefings:

Australian industry has begun embracing the program, as evidenced by the hundreds of companies that have attended industry briefings held prior to and after the completion of the bid process. These industry briefings run in concert with the Commonwealth and combat system integrator, and our partner, Lockheed Martin Australia. They have been staged in Adelaide, Sydney, Melbourne, Brisbane and Perth and so far have attracted more than

\begin{enumerate}
\item Naval Group Australia, 'Australia's future submarine program briefing comes to Sydney', \textit{Media Release}, 16 February 2017.
\item Rear Admiral Greg Sammut AM, CSC, RAN, Head Future Submarine Program, Senate Foreign Affairs, Defence and Trade Legislation Committee, \textit{Committee Hansard} (Budget Estimates), 29 May 2017, p. 84.
\end{enumerate}
1,400 attendees from companies and educational and research institutions. Of particular relevance, I feel, is that there have been some 875 requests for information, which we have sent to 234 firms nationally. These include 76 firms from Victoria, 71 from New South Wales, 37 from Western Australia, 36 from South Australia and 14 from Queensland so far. There are more briefings to come, in Darwin and Hobart and at the Pacific 2017 naval conference in Sydney. Regarding all the systems and parts that go on the submarine, they will come from all over Australia, whether it is Broome, Burnie or Bundaberg.25

6.23 In its submission to the inquiry, the former Western Australian government was supportive of industry briefing days:

The State Government…strongly supports the recent efforts of Defence, led by CASG, to directly engage with industry through the industry engagement roadshows for acquisition programs including the Future Frigates and Offshore Patrol Vessels. The State Government has partnered with the Commonwealth to deliver these sessions in Western Australia which have provided local industry with an opportunity to learn about the programs and discuss their capabilities directly with Defence.26

6.24 Local industry membership associations are also involved in promoting and organising industry briefing days. Chief Executive Officer, Defence Teaming Centre Inc. Air Commodore Margot-Lee Forster (Retired), explained that:

…We also approach the primes, who we know are trying to get a sense of the capacity of the supply chain in this country. We approach them and offer assistance to coordinate our members—and, in fact, anybody who wants to be a part of a presentation. We will assist the likes of Navantia, Fincantieri and Damen to get as many SMEs together in one venue—so that these organisations can talk about their strategy for shipbuilding.27

Government support for SMEs

6.25 The Defence Industrial Capability Plan was released on 23 April 2018, discussed in Chapter 2. The Plan sets out information about support that Defence will provide to SMEs.

6.26 Prior to the release of the Defence Industrial Capability Plan in April 2018, the committee received evidence that identified difficulties for SMEs who were unclear as to how to engage in procurement processes.

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25 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 1.

26 Western Australian Government, Submission 56, p. 7.

27 Air Commodore Margo-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 42.
Role of government in developing capability

6.27 Both Commonwealth and state governments have an important role to perform in developing domestic SME capability.

6.28 Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, suggested that:

…the role of government is to genuinely believe that Australians can do this and to go and look for the Australians who can do it and award contracts to those people…[T]he capability is here in terms of shipbuilding, and I think the government should actually talk to the industry and say, 'We have got this vessel we would like to build. What don't we have in Australia that you would require in order to do that?' and then look at whether there is any intervention required to do that.28

6.29 Mr Thompson, AMWU, explained that the government should ensure:

… Australian businesses of all sizes are able to enter the supply chain. To achieve that they must lower the barrier to entry for firms wishing to tender for the naval shipbuilding work, identify work that needs to be done in Australia and engage local firms to do so, provide a long-term pipeline of work so that businesses can invest in their businesses with confidence, support SMEs to grow by enabling them to invest in new equipment and skills in their workforce, set local content Australian industry participation requirements and put in place and monitor those to ensure that they are generally being met, and ensure that the work in the design phase is undertaken in Australia. This will deliver high-skills high-wages jobs around Australia, including here in Perth. Importantly, it will also deliver sovereign capability that will enable Australia to build, maintain, sustain and upgrade our ships and submarines through their whole life cycle…29

6.30 In regards to the future submarine program, Ms Margo Forster CSM, Chief Executive Officer, Defence Teaming Centre explained that the government needed to provide clear plans and schedules to enable SMEs to plan accordingly:

Without a transparent plan (and schedule) to transfer this work [from DCNS] to Australian companies, industry will not be able to plan for the long and complex journey to achieve the high safety, high quality standards and highly skilled workforce required to work in the Future Submarine supply chain. Our companies need to have confidence that the question is not 'will we get the work?', but rather 'when we achieve the standards and

28 Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 35.

29 Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers' Union, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 15.
get the work'. This journey will take significant financial investment, it can't be for nothing.  

6.31 The Hon. Greg Combet, Victorian Defence Industry Advocate, said that the Victorian government was very keen to facilitate local industry inclusion in national programs. However, the Commonwealth has a role to play in committing to clear policy commitments and contractual obligations. Mr Combet stated:

We recognise the significance of those announcements for the shipbuilding capabilities in South Australia and Western Australia. We have concerns about the implications for the Williamstown naval dockyard in Victoria, but we also are very keen to help, as part of a national endeavour, facilitate access to the industrial and research capabilities that are within Victoria to help deliver these programs. But we do wish to emphasise, as we have put in our submission, that, without clear, coherent national public policy that supports local content being delivered through these programs, we will not generate the capabilities that are necessary to be resident in Australia and that deliver on Australian industry capability commitments that have been stated publicly. We cannot do that without very clear public policy commitments and contractual obligations. 

6.32 Mr David Singleton, Chief Executive Officer, Austal Limited, suggested that government support was not always necessary, as industry had demonstrated its capacity to achieve results without government support. Mr Singleton explained:

… I will give you an example of why I say the industry here is strong. In this country, we are already by far the biggest builder and designer of large aluminium ships in the world. We are the envy of the world in aluminium shipyards. Between Austal, Incat in Tasmania and a number of design houses in this country, most large aluminium ships are designed and built in Australia with Australian labour. We should not forget that we have been able to do that largely without government assistance…

6.33 In the 2016 Defence White paper, the government outlined its commitment to supporting Australian industry:

The Government is committed to maximising opportunities for competitive Australian businesses; building export potential, depth of skills and
diversification for defence industry, and cutting red tape to make it simpler and less costly for Australian industry to support Defence.33

6.34 The Defence White paper went on to outline a $1.6 billion commitment to create the Centre for Defence Industry Capability (CDIC), the Defence Innovation Hub and the Next Generation Technologies Fund to develop innovative technologies and support SMEs.

**Defence industrial capability plan**

6.35 The Defence Industrial Capability Plan sets out information about support that Defence will provide to SMEs.

6.36 Relevant initiatives include Sovereign Industrial Capability Grants of up to $17 million a year for SMEs contributing to a Sovereign Industrial Capability. The grants, of up to $1 million, will match dollar for dollar with funds spent by the SME and are available for capital spending or non-recurring engineering costs.34 Defence advises that SMEs contributing to a Sovereign Industrial Capability Priority may have a range of obligations, including managing and building Australian workforce skills and capabilities. SMEs would also be required to consult with Defence prior to changing ownership structures.

**Centre for Defence Industry Capability**

6.37 Initially foreshadowed in the 2016 Defence White Paper and the Defence Industry Policy Statement, the Adelaide-based Centre for Defence Industry Capability (CDIC) was officially opened on 5 December 2016. The CDIC provides government support to SMEs through assistance to build SME supply chains and SME knowledge. The online Defence Innovation Portal serves as a single entry point for SMEs to connect with the CDIC. The government's naval shipbuilding plan provides an overview of the CDIC's role.35

6.38 At the April public hearing in Adelaide, Mr John O'Callaghan, Executive Director, Australian Industry Group Defence Council, was positive about the role of the CDIC and the Defence Innovation Portal, so far:

> Already we are seeing evidence of a large number of companies applying through the innovation portal to participate in the programs which are coming downstream, and I think that is really positive.36

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36 Mr John O'Callaghan, Executive Director, Australian Industry Group Defence Council, Senate Economics References Committee, *Committee Hansard* (Future of Australia’s naval shipbuilding industry), 4 April 2017, p. 18.
6.39 Mr Thompson, AMWU, was also supportive of the establishment of the CDIC. Other witnesses, while welcoming the CDIC, told the committee that they had reservations about certain aspects. The Western Australian Labor Government Minister for Defence Issues expressed support for the CDIC, while stating his concern that the CDIC was headquartered entirely in South Australia.

6.40 Ms Willmott, Chamber of Commerce and Industry of Western Australia, was critical about the information flow in and out of the CIDC, citing concerns about transparency around when briefing sessions are held, who is invited, and a sense that there is not 'uniform access to information'.

6.41 Ms Forster, Defence Teaming Centre, noted that while the CDIC's mandate was similar to the role of the Defence Teaming Centre, the two organisations have a close relationship and complement each other:

[The] CDIC is a team of 30 or so people around the country and, whilst they have the mandate to support industry to be prepared to enter into contracts with Defence or with primes, they have not got the capacity to reach out and support every single organisation that has the aspiration to be involved. So we see our relationship with the CDIC as preparing our members to get to a level of sophistication, that they can then access the support from the CIDC.

6.42 The CIDC has partnered with Austrade and the Defence Export Office on a number of initiatives. For example, recently the CIDC partnered with Austrade and the Defence Export Office to support 39 Australian companies, the majority of whom were SMEs, to participate in Eurosatory 2018, 'a premier international defence and security exhibition' in France.

Global Supply Chain Program

6.43 The Department of Defence Global Supply Chain Program works with multinational defence companies to identify opportunities for Australian companies to

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37 Mr Glenn Thompson, Assistant National Secretary, Australian Manufacturing Workers' Union, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 8.
38 Hon. Paul Papalia, Minister for Defence Issues, Western Australian Government, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 3.
39 Ms Deidre Willmott, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 3 April 2017, p. 37.
40 Air Commodore Margo-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 42.
become part of their international supply chains for both civilian and military business.

6.44 At the time of publishing, the 2016 Defence Industry Policy Statement identified six prime companies involved in the program: BAE Systems; Boeing; Lockheed Martin; Northrop Grumman; Raytheon; and Thales. According to the Policy Statement:

[O]ver 1,000 commercial opportunities have been provided to Australian industry under the Global Supply Chain Program and in excess of 115 Australian companies have won over 700 contracts together worth over $755 million.42

6.45 On 27 March 2017, the Hon Christopher Pyne MP, Minister for Defence Industry, announced that Lockheed Martin has signed a new three year global supply chain agreement which will grow the international competitiveness of small to medium sized companies and their ability to enter export markets.43 On 2 June 2017, the Minister announced that Northrop Grumman and BAE Systems had both signed new agreements under the program.44

6.46 The NSW government's submission to the inquiry was supportive of the Global Supply Chain Program 'which drives inclusion of small-and-medium enterprises into supply chains of defence prime contractors providing access to global markets'.45

6.47 The Department of Defence Global Supply Chain Program currently operates out of the CDIC as part of a broader suite of export programs.

**The Defence Innovation Hub**

6.48 On 5 December 2016, the Minister for Defence Industry, the Hon Christopher Pyne MP, launched the Defence Innovation Hub (the Hub). The Hub is a virtual network which will bring together Defence innovation programs. First flagged in the 2016 Defence White Paper, the Hub is funded at $640 million through to 2025–26.46 The Hub will 'enable industry and Defence to undertake collaborative innovation activities throughout the Defence capability life cycle from initial concept, through prototyping and testing to introduction into service'.47 Minister Pyne stated that:

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44 The Hon Christopher Pyne MP, Minister for Defence Industry, 'Export opportunities enhanced for Australian companies', *Media release*, 5 December 2016.


The Defence Innovation Hub will provide an equal opportunity for all participants from small to medium enterprises to prime defence contractors to put forward their great ideas, make connections and collaborate in the development of innovative technology.48

6.49 The government's naval shipbuilding plan provides an overview of the role of the Defence Innovation Hub.49

6.50 On 14 July 2017, the government announced the second tranche of Defence Innovation Hub investments worth $12.3 million.50

**Defence Materials Technology Centre**

6.51 The Defence Materials Technology Centre (DMTC) was established in 2008 and currently operates out of the Hub. The DMTC describes its purpose as follows:

Collaborating through DMTC allows Australian industry to leverage our existing relationships with Defence and research agencies, and build their supply chains. DMTC's standardised approach to contract management and our project oversight role removes an administrative burden for companies and allows industry partners to direct all resources to realising project outcomes … DMTC supports Australian defence capability by advancing the knowledge and technical capability of Australia's defence industry.51

6.52 On 26 April 2017, Naval Group announced that they had signed on as a supporting industry participant with the DMTC. Naval Group noted that:

The agreement will see DMTC and DCNS collaborate on developing technical expertise and building industrial capacity within Australian maritime sector supply chains, with a focus in the first instance on naval shipbuilding and repair.52

6.53 Minister Pyne noted that this agreement 'highlights DCNS's [Naval Group] commitment to ensuring Australian industry participation in defence construction and sustainment projects'.53

6.54 At the 20 June 2017 Canberra public hearing, Mr Clark provided an overview of the purpose of the agreement:

We have a memorandum of understanding, an agreement, in place to work cooperatively with the DMTC to try to promote and ensure that the

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53 The Hon Christopher Pyne MP, Minister for Defence Industry, 'DCNS shows further support for Australian industry', *Media release*, 24 April 2017.
Australian level of industry and Australian involvement can be maximised. That is the overarching intent of that agreement.

... Basically the synopsis of the agreement is for DCNS and the DMTC to work together to bring Australian industry into the view. What we have agreed with the DMTC is that we feel that they are best placed to look for particularly SMEs and smaller Australian industry involvement, so anyone that is part of that process can actually get access to and be part of that process with us.54

6.55 The agreement came in to effect on 31 January 2017.55

Next Generation Technologies Fund

6.56 On 16 March 2017, the Next Generation Technologies Fund (NGTF) was formally launched.56 Initially announced in the 2016 Defence White Paper, $730 million over the next decade will be provided for research on next generation technologies with the potential to deliver game-changing capabilities critical to defence and national security'.57 The Department of Defence further explained that:

The NGTF is a forward looking program which will focus on research and development in emerging and future technologies and develop early ideas into innovation concepts that could further be explored and matured through the Defence Innovation Hub. This will include technologies that are expected to deliver on a time horizon that may be greater than ten years.58

6.57 While both the NGTF and the Hub are separate initiatives within the Defence innovation system, the NGTF will be focused on funding research while the Hub will be focused on development of ideas that are 'able to deliver Defence capability and Australian Defence industry growth in the near term'.59

54 Mr Brent Clark, then interim Chief Executive Officer, Naval Group Australia, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 20 June 2017, p. 3.
55 Naval Group, Answers to questions on notice, 20 June 2017 hearing (received 13 July 2017).
6.58 Air Commodore Forster, Defence Teaming Centre, was positive about the impact of the NGTF, stating:

For me, the next gen tech fund provides defence industry support to take these foreign-designed ships and develop innovative Australian adaptations that will contribute to the sovereign capability, continuous technology development and, potentially, spin-off for commercial opportunities for our Australian supply chain.\(^{60}\)

6.59 Mr O’Callaghan indicated that the fund is an important component in engaging local industry in the naval shipbuilding programs underway:

The key element in this, I think, is this: over time, Defence Science and Technology Group has been somewhat slow over the previous years to pick up on innovative activities eventually getting to commercial outcomes. So I think that the next generation fund is principally designed to get those outcomes. In other words, the research is being done in partnership between Defence Science and Technology Group and other research arms whether universities or other independent research entities like, for example, the DMTT—the Defence Materials Technology Centre and others. But the key then is to encourage Australian companies to participate in exactly that innovative activity so that they get commercial outcomes of relevance to all of those programs we are talking about.\(^{61}\)

6.60 Mr O’Callaghan agreed that the CDIC and NGTF have an important role to play in sustaining a continuous naval shipbuilding program:

The bottom line is basically that for the technologies that they are talking about, from the point of view of having capability which is relevant to particular circumstances and particular points in time, you need to have any industry constantly providing solutions to the technical challenges. That is where the innovation component comes in. The fact that the government is encouraging companies to actually apply for and participate in that way gives a lot of hope about the longer term sustainment of each of the platforms.\(^{62}\)

6.61 Mr Andy Keough, Chief Executive Defence SA indicated that South Australian industry was already engaging with the NGTF:

You may not be aware, but the state government has initiated a Defence Innovation Partnership. It is a collaboration between the South Australian state government, DSTG—the Defence Science and Technology Group—

\(^{60}\) Air Commodore Margo-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 42.

\(^{61}\) Mr John O’Callaghan, Executive Director, Australian Industry Group Defence Council, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 18.

\(^{62}\) Mr John O’Callaghan, Executive Director, Australian Industry Group Defence Council, Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 18.
three local universities and also industry. That is a way of us engaging with that Next Generation Technologies Fund. That is a good long-term strategy and we hopefully will see increasing amounts of R&D being translated into products.63

6.62 However, an examination of the $16.8 million NGTF allocation for the 2016-17 financial year found that there were no initiatives related to the naval shipbuilding industry funded.64 The Minister for Defence Industry indicated that the funds would be invested by June 2017, with the first program Grand Challenges to be funded. Grand Challenges is a program where Defence puts forward a problem with 'no easy solutions' and asks Australians to come up with an answer. Minister Pyne informed:

The program will bring small agile companies, including start-ups, larger companies and academic researchers to work alongside Defence scientists in pursuing large-scale, mission-focused projects with clearly-defined end goals.65

**Australian Trade and Investment Commission**

6.63 Australian Trade and Investment Commission (Austrade) also assists Australian exporters and education providers with undertaking business in overseas markets and understanding foreign regulations and business practices.66 In parallel, Austrade also helps companies around the world identify and take up investment opportunities in Australia, and source Australian goods and services. Austrade provides insight into Australia's capabilities, identifying potential investment projects and strategic alliance partners, and helps companies to identify and contact Australian suppliers.67

6.64 Austrade produces Industry Capability Reports across 19 Australian industry capabilities which provide overviews of each industry with case studies to highlight industry achievements. In December 2016, Austrade published an Industry Capability Report on Australia's Commercial Shipbuilding and Services. The report provides an overview of Australia's maritime industry, supply capability, maintenance repair and overhaul sustainment, companies and government and industry associations. The

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63  Mr Andy Keough, Chief Executive, Defence SA, Senate Economics References Committee, *Committee Hansard* (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 26.


The report notes that:

International partners are easily able to collaborate with Australian companies and research institutions, invest in or incorporate Australian solutions into existing products, or enter into joint ventures to take products to the global market. Australia has the capabilities to participate in global value chains at every stage of the innovation cycle, including research, design, development, testing and production.69

Both the CDIC and Austrade are sources of government support which SMEs can take advantage of when aspiring to enter the international market and become part of international prime company supply chains.

Non-government support

There are also a number of non-government sources of support for SMEs, most notably industry associations. Industry groups include: Australian Commercial Marine Group, Australian Industry Defence Network, Australian Industry Defence Council, Australian Shipbuilding and Repair Group, the Henderson Alliance and the Defence Teaming Centre. For example, the Committee was informed that:

The Defence Teaming Centre is based in South Australia; however, it represents some 250 member companies across the country, including prime defence contractors, SMEs and professional service providers, who are involved in supplying defence capability and/or defence support services.70

Committee comment

The Naval Shipbuilding Plan outlines the government's commitment to the inclusion of Australian industry in supply chains. One way that this is achieved is by a requirement that tenderers complete an Australian industry participation plan as part of their bid for major defence contracts.

The committee acknowledges the value of creating an Australian Industry Capability Plan during the tender process for government programs; however without mandated Australian industry requirements for involvement and content, or enforcement to ensure that the successful tenderers' industry plan is adhered to, the committee is not assured that the government has taken all steps available to fully support Australian SMEs.

70  Air Commodore Margo-Lee Forster (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc., Senate Economics References Committee, Committee Hansard (Future of Australia's naval shipbuilding industry), 4 April 2017, p. 38.
6.70 The committee is supportive of the industry briefing days that took place in 2017 and the effort demonstrated by both the Department of Defence and prime companies to engage with local industry about upcoming programs. While it is still too early to evaluate the effectiveness of the support provided to SMEs by the CDIC and the NGTF, the government must continue to support SMEs while these evaluations take place.

6.71 In absence of other support, industry briefing days are not enough. The committee notes that SMEs require meaningful, practical assistance as they begin to develop technologies and work to improve their products so that they meet the standards required by the primes. This includes support for crucial research and development.

6.72 In addition to government support for Australian SMEs to gain entrance into local projects, the government should focus on supporting Australian SMEs to break into the exports market. This is crucial to the long term stability of the naval shipbuilding industry. Indeed, the government already provides multiple programs which can assist SMEs to become part of international supply chains.

6.73 The committee encourages SMEs to take advantage of the support provided by the government, prime companies and industry associations, so that they are competitively prepared to bid for future domestic and international contracts.

6.74 However, while the government appears to have been providing multiple avenues of support to SMEs, particularly in the past 12 months, unless recommendations seven and eight from Chapter 5 of this report are implemented, SMEs will continue to face uncertainty about their long term involvement in government programs.
Dissenting Report by Coalition Senators

1.1 Coalition Senators recognise the Australian Government, through the 2016 Defence White Paper, Integrated Investment Plan, and Naval Shipbuilding Plan, has provided a framework to build a sustainable sovereign shipbuilding industry.

1.2 To achieve the required level of Australian industry involvement in these projects, the Commonwealth Government established the Capability Acquisition and Sustainment Group. Industry days have been held around Australia with the intent of informing local businesses of opportunities in the supply chain for major defence projects.

1.3 Coalition Senators understand through extensive engagement with local industry 800 Australian companies have registered interest with Naval Group and 222 Australian companies have registered interest with Lockheed Martin Australia on the future submarine program alone.

1.4 Coalition Senators commend the Commonwealth Government for the significant work being undertaken to establish a sovereign shipbuilding industry in Australia.

Building a sovereign shipbuilding industry

1.5 Coalition Senators note milestones in the Continuous Shipbuilding Program are being met, with Austal having launched the first Guardian-Class PPB launched on 30 May, 2018.

1.6 Through the 2016 Defence White Paper and Naval Shipbuilding Plan the Government articulated an ambition for a sovereign Australian naval shipbuilding enterprise to be delivered through the continuous shipbuilding plan.

1.7 The investment made by the Government in the Naval Shipbuilding Plan is also intended to revitalise Australia's heavy engineering and advanced manufacturing industrial capability and capacity.

1.8 This includes a vision to maximise Australian industry involvement over time across the full spectrum of the enterprise – from capability design to complex project management, construction and sustainment activities; such that future Australian Governments will be able to plan and execute the design, construction and sustainment of future fleets of major surface combatants in Australia.

1.9 The Shipbuilding Plan describes a productive Australian naval shipbuilding industry with potential for delivery of an export capacity as a strategic national asset.

1.10 Coalition Senators understand through the competitive evaluation process, Government is ensuring that design and build partners deliver Australian Industry Capability solutions that maximise Australian industry involvement and contribute to an enduring shipbuilding and sustainment capability in Australia.

1.11 Coalition Senators recognise a shipbuilding enterprise will require strong and incentivised partnerships between ship designer and shipbuilder. Furthermore, that the
development of a motivated, innovative, cost-competitive and sustainable Australian industrial base will be underpinned initially by experienced international ship designers and builders who transfer these attributes to Australian industry.

1.12 With this, Coalition Senators believe the appropriate framework is in place to ensure the development of a sustainable sovereign shipbuilding industry, maximising local industry involvement.

**Ensuring Australian industry involvement**

1.13 Coalition Senators note that, as part of the Defence Industrial Capability Plan, the Government strengthened the definition of Australian Industry as follows:

> Australian defence industry consists of businesses with an Australian Business Number and Australian-based industrial capability (such as Australian company and board presence, skills base, value-add work in Australia, infrastructure) that are providing or have the capacity to provide defence-specific or dual-use goods or services in a supply chain that leads to the Australian Department of Defence or an international defence force.1

1.14 The Australian Industry Capability (AIC) program requires tenderers to demonstrate how they will maximise opportunity for competitive Australian industry to participate in Defence material procurements of $20 million or greater.

1.15 The Government has strengthened requirements on tenderers in the AIC Plan to demonstrate how they will maximise Australian industry capability over the life of the project and build enduring defence industry capability to meet Defence's broader needs. The commitments made in the successful tenderer's AIC plan form part of the resultant contract and are a binding contract deliverable.

1.16 Coalition Senators understand an AIC assurance review process is currently being designed and piloted. The assurance review process will ensure AIC plans are effectively implemented and monitored and that the work that was committed to Australian industry, especially SMEs, under a contract was delivered by Australian industry. It will also provide a framework for Defence to assist industry to meet their contracted AIC deliverables where they are yet to do so.

1.17 The forthcoming Defence Industry Participation Policy will provide a policy framework for maximising Australian and local industry involvement across Defence materiel and non-materiel Defence procurement of $4 million and above.

1.18 Coalition Senators understand Defence is piloting Local Industry Capability Plans as part of six major capital facilities projects. This requires tenderers to develop a plan outlining how local industry, including SMEs, has been, or will be engaged in the development of the proposed solution. The Plan will also require tenderers to outline the work proposed to be undertaken by local industry. The results of the pilot projects will inform the development of the Defence Industry Participation Policy.

1.19 The new Defence Industry Participation Policy will provide a more consistent approach to the consideration of Australian industry at the national and local levels in

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1 Department of Defence, *Defence Industrial Capability Plan*, April 2018, p. 11
Defence procurement of $4 million and above and for construction procurements of $7.5 million and above.

1.20 Coalition Senators note that the Government's policy is to maximise AIC, however, mandating an AIC level (as suggested in the Chair’s report on p. xiii) would mean that prospective bidders for Defence contracts would only seek to clear a hurdle of local content, rather than have to compete to have the maximum level of Australian industry content in their proposals.

1.21 Coalition Senators further note that the government ensures a high level of Australian industry involvement through the Australian Industry Capability Program. This requires that bidders for major defence acquisitions develop detailed Australian Industry Capability plans, which detail how they plan to involve Australian companies in their build. The commitments made in the successful tenderer's AIC plan form part of the resultant contract and are a binding contract deliverable.

1.22 Coalition Senators reject the assertion in the Chair's report that "the government has at times actively excluded Australian workers and shipbuilders from participating in naval shipbuilding programs."2 The Government is creating a naval shipbuilding industry in this country using Australian workers, Australians shipyards, and Australian steel. Out of 57 new vessels, 54 are being built in Australia, creating more than 25,000 Australian jobs both directly and indirectly.

1.23 To meet the objectives and expectations of the Commonwealth as outlined in the Defence White Paper and Naval Shipbuilding Plan and summarised above, Coalition Senators believe future projects should be:

(a) In support of the objectives of continuous naval shipbuilding, which encompasses the AWD, PPB-R, OPV and Frigate programs, primes will be required to demonstrate how they will provide continuity to the workforce, local supply chain and existing Australian shipbuilding industry engagement.

(b) In support of development of sovereign Australian shipbuilding capability, demonstrate how they will enhance the existing domestic shipbuilding industry, workforce and supply chain and maximise the investments the Government has already made in the capability of the industry.

1.24 Coalition Senators note that Defence's support to SMEs is significant and ongoing. SMEs are a critical part of Australia's defence industry, able to take advantage of the many opportunities to obtain contracts in the supply chains of prime contractors or to partner with larger defence companies.

1.25 Coalition Senators recognise that businesses cannot always secure opportunities alone, especially where they have not been exposed to the defence market or understand the broad opportunities that are available. This is why the

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Australian Government established the Centre for Defence Industry Capability (CDIC) as the single entry point to support and grow Australia's defence industry.

1.26 The CDIC provides a streamlined entry point for SMEs already in the sector and those seeking to engage with Defence and the defence market, and works with SMEs and Defence to help build a world class, globally competitive Australian industry. The CDIC's primary focus is to build the Australian supply chains critical at the beginning of projects and transitioning greater work to Australia in major capital equipment programs, to maximise Australian industry involvement and benefits to Defence and industry.

1.27 Coalition Senators note that the Government has also established the Defence Innovation Hub and the Next Generation Technologies Fund to support SMEs and lower barriers to doing business and innovating with Defence. Together, these initiatives were established to provide industry with improved transparency of Defence's investment plans, enhance Defence's identification and management of sovereign industrial capabilities, and ultimately improve the delivery of capability to Defence.

1.28 Coalition Senators note that the Government has also released a number of other policies and programs which support SME engagement with Defence:

(a) The Government has strengthened the Australian Industry Capability (AIC) Program to ensure that there is maximisation of the inclusion and evidence of having positively engaged Australian SMEs. The requirement calls upon tenderers to present and demonstrate how they will undertake contract development initiatives if successful and lock in work packages with Australian industry. Under the strengthened AIC Program, SMEs will benefit from a requirement for Primes to facilitate the transfer of skills, technology and knowledge to Australia. This supports an enduring industrial base through securing Australian industry access to intellectual property rights. The AIC program further supports SMEs through creating international supply chain opportunities to further leverage Defence's investment in Australian industry through acquisition and sustainment opportunities.

(b) The Government has released the Defence Industrial Capability Plan to outline Australia's long-term vision and objectives for Australia's defence industry and provide detail on the opportunities and support available to our SMEs.

(c) The Government released the Defence Export Strategy on 29 January 2018 to drive Australian defence industry exports in order to establish a robust defence industry to underpin ADF capability needs.

(d) The Government will also release the Defence Skilling and STEM Strategy in 2018 to help Australian defence industry, particularly SMEs, to have a workforce with the right skills to meet future capability requirements.
The forthcoming Defence Industry Participation Policy will provide a policy framework for maximising Australian and local industry involvement across Defence materiel and non-materiel Defence procurement of $4 million and above.

1.29 Coalition Senators believe that the Commonwealth Government has established the appropriate framework to ensure Australian industry involvement by small, medium and large companies in major defence projects.

**Infrastructure upgrades**

1.30 Coalition Senators believe that to support a sustainable sovereign shipbuilding industry, infrastructure upgrades are required at the two Australian Naval Shipbuilding hubs, Osborne in South Australia, and Henderson in Western Australia.

1.31 The Naval Shipbuilding Plan highlights two Offshore Patrol Vessels, nine Future Frigates, and 12 Future Submarines will be built at the Osborne Naval Shipyard.

1.32 ANI entered into a contract valued at over $500 million in October 2017 with Lendlease to be the managing contractor for the construction of the Osborne South Naval Shipyard.

1.33 The Commonwealth Government has also purchased the Techport Common User Facility from the South Australian Government as a cost of $230 million.

1.34 ANI have advised these projects will create up to 600 jobs.

1.35 Coalition Senators understand the Commonwealth Government and Western Australian State Governments are working together to identify infrastructure gaps at the Henderson Marine Complex. The Common User Facility is owned by the Western Australian State Government while other companies based in the Australian Marine Complex are situated on privately owned land.

**Workforce planning**

1.36 Coalition Senators note the Commonwealth Government has established the Naval Shipbuilding College, headquartered in Adelaide. The NSC will operate as a hub-and-spoke model that enable students to undertake courses through NSC approved training organisations or higher education providers across Australia.

1.37 The vast majority of the people working on naval projects will be Australian. In order to mitigate risk and learn from countries more experienced in ship design, it is essential that experts are involved from the start as the Naval Shipbuilding Plan makes clear. Kim Gillis, Deputy Secretary of the Capability Acquisition and Sustainment Group, stated that some foreign workers will be brought in for a short period of time to:

> ...transfer knowledge to Australian supervisors and managers and then return home.³

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1.38 The Chair's Report notes that "The decision to split the [OPV's] construction sites has attracted criticism that the decision was not made in the national interest". The Coalition Senators note that the decision to split the build of Offshore Patrol Vessels because it is crucial to maintain the skills of the workers at Osborne ahead of Future Frigates in 2020 and Future Submarines in 2022-23.

1.39 Coalition Senators note the importance of workforce growth and development in continuous naval shipbuilding. Having a consistent shipbuilding workforce means the government and industry have to spend less on skilling workers and can get more productivity and efficiency as a result.

1.40 Coalition Senators understand the Naval Shipbuilding College will consult with the Naval Shipbuilding Industry Reference Committee to further inform workforce requirements for naval shipbuilding and sustainment.

1.41 Coalition Senators observe steps the Commonwealth Government are taking to retain, retrain and redeploy workers. Measures include:

(a) A targeted retention strategy has been instigated to create up to 200 positions within ASC Submarines for current shipbuilders working on the Air Warfare Destroyer Program. This includes up to 100 workers supporting the Future Submarine Program Office and filling vacant positions in the Collins Class sustainment workforce.

(b) Up to 100 scholarships will be offered to workers to upskill in areas such as operations management, computer-aided design and engineering.

(c) In addition, Australian Naval Infrastructure has advised up to 600 additional jobs will be created through the Osborne South shipyard redevelopment.

**Future Submarine Program**

1.42 Coalition Senators refute the claim in the Chair's report that "the total cost of the continuous shipbuilding program could also jump from $89 billion dollars to around $200 billion in out-turned dollars." The 2016 Integrated Investment Program states that the acquisition cost of the Future Submarine capability is estimated at greater than $50 billion out turned. As has been explained, the current estimate is $50 billion in constant dollars. There has been no cost blowout and the figures quoted by Defence are consistent.

1.43 Coalition Senators believe the Strategic Partnership Agreement is a critical document for our Future Submarine Program. It's essential the Government negotiates the best possible outcome for our nation. Getting this right now will ensure the program runs as well as possible and avoids issues in the future.

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4 Senate Economics References Committee, *Future of Australia's naval shipbuilding industry – Final report*, June 2018, Chair's report, p. 22

1.44 Coalition Senators also note the Department of Defence has provided responses to the committee relating to concerns raised regarding the capability of the Future Submarine, including the use of pump-jet propulsion.

**Current submarines**

1.45 Coalition Senators note that existing submarine infrastructure in Australia to support sustainment of the Collins Class fleet is currently facilitated through two shipyards; ASC West at Henderson in Western Australia, and ASC North at Osborne in South Australia.

1.46 Coalition Senators further note that decisions about the location of Collins Class and Future Submarine sustainment will not be required for some time to come and would be anticipated to be considered as part of longer-term capability management planning.

**Offshore Patrol Vessel Program**

1.47 Coalition Senators note that Defence has contracted Luerssen Australia for the design and build of 12 new Offshore Patrol Vessels.

1.48 The Offshore Patrol Vessels will be constructed in Australia, from Australian steel, and create 400 direct and up to 600 indirect jobs. Government has advised that the project is on time, with a fixed budget. Construction of the first vessel will start this year.

1.49 Coalition Senators note that the Government required the successful designer of the OPVs to partner with an Australian shipbuilder. As part of the OPV tender, designers had to team up with an Australian shipbuilder. In the case of the successful tender, Luerssen teamed up with Forgacs, a subsidiary of Civmec.

1.50 In relation to the claim that Defence chose the winning designer without having any idea about sustainment costs, Mr Kim Gillis, Deputy Secretary of the Capability Acquisition and Sustainment Group made the following statement to Senate Estimates in May:

   The Government was provided with the sustainment data for the Offshore Patrol Vessels based on historical usage and designer forecasts. This is standard shipbuilding practice. Defence provided government with an indicative lifecycle cost for the Offshore Patrol Vessels across a 20-year lifecycle. This indicative cost was based on previous programs, historical usage and upkeep data provided by the tenderers. This is typical for shipbuilding projects at this stage. 

**Australian National Audit Office (ANAO) report**

1.51 Coalition Senators believe establishing an Australian shipbuilding and submarine industry is a significant nation building project, and accordingly carries risk. But Coalition Senators note the risks are manageable.

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1.52 The alternative to an Australian shipbuilding industry would be to send the $200 billion of taxpayers' money we are spending on the largest build-up of our military capability in our peacetime history overseas, creating jobs and advanced manufacturing in other people's economies.

1.53 Coalition Senators note the Government's advice that it is on schedule, on budget and is creating the jobs and investment we expected while delivering the capability the Navy needs.

1.54 Coalition Senators note that majority report of this report has ignored the ANAO report's positive findings that:

(a) Defence continues to work towards effective planning and mobilisation to deliver the Australian Government's Naval Shipbuilding Plan

(b) Defence has identified the key elements for a successful continuous shipbuilding enterprise

(c) Defence has identified the key elements for a successful continuous naval construction programs, noting that each program is in the early stages

(d) Defence is currently on schedule to deliver the OPVs, Future Frigates and Future Submarine Program.

Naval Shipbuilding College

1.55 Coalition Senators note that the Request for Proposals to establish and run the Naval Shipbuilding College closed on 27 October 2017. Following Tender Evaluation, contract negotiations were to be conducted over December 2017 and January 2018.

1.56 There were changes to the timings of this process due to the concerns raised by the Australian Skills Quality Authority with TAFE South Australia. In light of the concerns raised, the Commonwealth and the tenderer needed to understand the ability of TAFE South Australia to provide courses for the College.

1.57 By April 2018 the significant efforts undertaken by TAFE South Australia to resolve the issues of concern to ASQA provided the Australian Government, and the Naval Shipbuilding College, with greater confidence in TAFE South Australia's potential contribution to the naval shipbuilding enterprise.

1.58 Coalition Senators note the NSC original contract value is unchanged and remains $62 million – as signed in March 2018. Defence, in reviewing the information from both Requests for Information and Tendered Information, chose to contract a work scope that resulted in a contracted amount higher than initially estimated in March 2017.

National Shipbuilding Advisory Board

1.59 Coalition Senators believe that concerns expressed in the chair's report about the cost of the NSAB (p. xii) are misguided. The Government is dealing with multi-billion-dollar contracts that demand the best advice possible. The NSAB forms a
crucial part of the Government's plan to prevent the delays and operational issues that have occurred on previous projects.

1.60 Coalition Senators note the Advisory Board members are subject matter experts with unprecedented credentials, and real-world experience running complex Defence projects. The Advisory Board has more than a century of collective submarine and shipbuilding design and construction expertise.

1.61 Coalition Senators do not believe there is cause to be unclear on the role of the board, as is stated in the Chair's report (p. xii). The board's role is to provide independent, expert advice directly to Ministers.

Recommendations

1.62 Coalition Senators believe updates on defence projects should be provided to both the Joint Standing Committee on Foreign Affairs, Defence and Trade and the Senate Legislation Committee on Foreign Affairs, Defence and Trade. Coalition Senators further note the Defence Sub-Committee is inquiring into the benefits and risks of a Bipartisan Australian Defence Agreement, as a basis of planning for, and funding of, Australian Defence capability. The findings of this inquiry should be taken into account when considering the response to this recommendation.

1.63 Similarly, updates relating to defence and shipbuilding infrastructure should also be provided to the Parliamentary Standing Committee on Public Works.

1.64 Coalition Senators note the Department of Defence have made clear the sustainment of the Collins Class Submarine is the subject of long-term capability planning and there are no plans to move the sustainment location.

1.65 Coalition Senators agree-in-principle with recommendation five.

1.66 Whilst noting the Commonwealth Government has already developed a framework to ensure Australian industry involvement in major defence contracts is maximised, Coalition Senators agree-in-principle with recommendation number seven and believe definitions could be further tightened.

Senator Jane Hume
Senator for Victoria

Senator the Hon Ian Macdonald
Senator for Queensland
Additional Comments by Senator Rex Patrick

Increasing Australia’s sovereign shipbuilding capability: a shipload more to be done

Betrayal of a National Kind

1.1 I thank the committee for the work it has done in relation to this long running but very important inquiry. I also thank the secretariat for their behind the scenes efforts.

1.2 I support the general findings in this report and the recommendations that flow from them, but there is a need to emphasise one issue of considerable concern that stands out against the significant ground covered by the committee in its work.

1.3 The $89 billion naval shipbuilding program could have served as a program that would bring not only great economic benefit to the nation, forming the nucleus of a high technology industry sector, but also serve as the bedrock of a sovereign naval shipbuilding capability. Unfortunately the latter will not occur as the Government offshores the lead responsibility, and in some instances the actual build, to foreign entities.

Supply Ships

1.4 As was explained in the main report, in June 2014 the Government gave approval for Defence to conduct a limited competitive tender between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering of South Korea for the construction of the ships.

1.5 Arguments were made that the job could not be done in Australia because of a lack of appropriate infrastructure. Such an argument only stands when subject to shallow consideration. The Government’s planning in this program has been like putting the ‘cart before horse’ – the Naval Shipbuilding Plan was finalised only after all the major shipbuilding tenders were released and, in the case of supply ships and submarines, after procurement decisions had already been made. Had a plan come first, existing infrastructure could have been examined and upgraded to enable a local build of any ship for the RAN.

1.6 The tender eventually concluded and the contract was awarded to Navantia to build the ships in Spain; an outcome that saw Australian taxpayers money being used to support foreign supply chains and jobs at the expense of our own.

Ice Breakers

1.7 About the same time that the Supply Ship contracts were awarded, the Australian Antarctic Division also awarded a contract to have a Dutch Company, Damen, build Australia’s future Icebreaker in a shipyard in Romania. In doing so, more cash and Australian jobs were exported.
Future Submarines

1.8 The Submarines were next. DCNS, now Naval Group, won a competitive evaluation process that was run to select Australia’s strategic partner for the Future Submarine Program. Documents released to the Senate in 2018 in response to an order for production show that DCNS intended, if they were to be the successful design partner, to build the future submarines in partnership with ASC.

1.9 Slowly but surely, Defence has conceded that its preferred outcome is for Naval Group to be the builder and that they are working towards legally committing Naval Group to conduct the build in the Strategic Partnering Agreement about to be signed by the Government. When this occurs, ASC, the company that represents Australia’s most significant body of submarine design, build and sustainment expertise, will have been sidelined in favour of a foreign entity.

Offshore Patrol Vessels

1.10 The lead on the Offshore Patrol Boat (OPV) program has been given to the German company Luerssen. ASC will be the lead builder of the first two ships, with the remaining 10 vessels going to Civmec in Perth (which was a Singaporean listed company at the time).

1.11 The Australian shipbuilder Austal has been excluded from the program.

1.12 Austal is the largest aluminium shipbuilder in the world. In 2016, Austal delivered 10 ships all around the world and had 14 other ships in construction. Some of these ships are as big as, and bigger than, the ships being proposed by the Navy for its future frigate program. In the US, Austal are the only company since American independence that has ever designed and built ships for the US Navy that is not a US based company. In fact, they design and build two classes of ships for the US Navy. No-one else in the world has ever done that, whether they are British, Spanish or Italian.

1.13 The Committee found that “the procurement process was poorly managed.” The Government inserted Austal into Luerssen's commercial negotiations after the announcement that Luerssen was the preferred designer. This approach did not put Austal in a strong negotiating position, nor was there any incentive for Luerssen to reach a mutually beneficial settlement once it had won the prime contract.

1.14 To me, this was not just poorly managed, rather shows significant commercial naivety inside Government. That Luerssen, left alone without strong direction from the Commonwealth, would not find agreement with Austal who operates in the same fiercely contested market space is pretty obvious.

1.15 Instead of supporting a great Australian sovereign shipbuilder, an exporting shipbuilder at that, the Government turned their back on them and simultaneously propped up one of their international competitors.

Future Frigates

1.16 In August last year former Senator Xenophon revealed that Australian shipbuilders, ASC and Austal, would be shut out of the $35 billion project.
A leaked portion of future frigate tender documents stated that:

The Commonwealth’s intention is that the successful tenderer will (itself or through its Related Corporate Bodies) directly manage and supervise the workforce undertaking shipbuilding work. The responsibility for build management and supervision should not be subcontracted in its entirety to a third party entity.

This was an absolute betrayal of Australian’s existing sovereign shipbuilding capability; which was confirmed when the full tender documents were released under FOI laws in January this year. It stated more clearly:

Tenderers should be aware that the Commonwealth has selected the Tenderers on the basis of their Reference Ship Designs and their ability to undertake the design and build of the Ships. As such, the Commonwealth’s expectation is that the core design work relating to the Ships and the management and supervision of build activities will be undertaken by the successful Tenderer (or its Related Bodies Corporate) and not subcontracted to a third party entity. In particular, while the successful Tenderer may decide to engage a Subcontractor to provide shipbuilding labour resources, the Commonwealth expects the successful Tenderer (or its Related Bodies Corporate) to personally and directly manage and supervise the workforce and, in particular, the shipbuilding activities. [emphasis in original]

It was an act of betrayal that then turned into an act of cowardice when, under questioning from Senators, no-one in Government owned up to who had made the decision to deliberately exclude our own sovereign shipbuilding industry.

When Austal and ASC reacted to the developing situation by forming a joint venture, Defence further undermined them. As described in the main body of this report:

Participation by Australian shipbuilders in the frigate program was further undermined by evidence that Defence had contacted the shortlisted tenderers to advise them to disregard ASC and Austal's teaming arrangements.

The approach taken by Defence in the Future Frigate Program is contrary to the national interests and appears to be driven by a deep bureaucratic preference for foreign industry, and arguably malice towards Australian shipbuilders. Australia’s two established and highly capable shipbuilders, ASC and Austal, have been excluded in the tender documents from having responsibility for the build. Instead, the Government has invited three foreign ship designers to bid for the job, offering them a taxpayer-funded shipyard in Adelaide and a $35 billion contract to establish themselves to compete with the long standing Australian companies.

Summary of Betrayal

The following table summarises the treachery.

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Previous Governments</th>
<th>Turnbull Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icebreaker</td>
<td>‘Aurora Australis’ built in Australia by an Aussie Company</td>
<td>New Icebreaker being built in Romania by Dutch Company Damen</td>
</tr>
</tbody>
</table>
1.23 The Government’s approach to this program has taken Australia backwards in its sovereign shipbuilding aim.

1.24 Instead of building upon the substantial capability and experience this country has invested in ASC and giving it responsibility for the build of our future warships, the intention is for the next generation of Australian Navy ships to be built by foreign companies. The Government favours foreign shipbuilders rather than Australian companies to carry forward the work on these vital projects. Foreign companies will operate from Australian waterfront real estate.

1.25 This backwards approach is unprecedented in developed countries and leaves us looking strategically weak. The image below, provided to the committee by Austal, tells the story.

<table>
<thead>
<tr>
<th>Supply Ship</th>
<th>‘HMAS Supply’ built in Australia by an Aussie Company</th>
<th>Two new supply ships being built in Spain by Spanish Company Navantia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore Patrol Vessels</td>
<td>Armidale Patrol Boats built in Australia by an Aussie Company</td>
<td>Twelve Offshore Patrol Boats being built in Adelaide and Perth led by German Company Luerssen</td>
</tr>
<tr>
<td>Frigates and Destroyers</td>
<td>ANZAC’s Frigates and Hobart Destroyers built in Australia by an Aussie Company</td>
<td>Australian companies not permitted to tender for build of Future Frigates</td>
</tr>
<tr>
<td>Submarines</td>
<td>Collins Class submarines built in Australia by an Aussie Company</td>
<td>Australian companies not permitted to tender for build of Future Submarines</td>
</tr>
</tbody>
</table>

Source of image: Austal submission to the Senate Inquiry into the Future of Australia’s Naval Shipbuilding Industry

1.26 The use of Australian companies for the build is important for a number of reasons:
It will ensure the know-how of these programs is transferred to an Australian-controlled company, not to a daughter company of a foreign entity.

It will ensure that foreign entities will not have veto power over any export opportunities Australian shipbuilders wish to engage in.

It will ensure the Australian shipbuilding workforce can be better managed. There will be no competing amongst multiple shipbuilders for a common workforce – under the current regime there will be competition amongst ASC, Austal, Civmec, Luerssen, Naval Group and BAE/Fincantieri/Navantia and, indeed, lay-offs with the ebb and flow of contracted work across multiple shipyards.

Australian shipyards will be able to assure export customers that they have the confidence of their own Navy.

Reduce exposure to foreign corporate risk – we do not want the entirety of this $89 billion work in the hands of foreign entities

It will ensure that Australia retains and develops sovereign shipbuilding and support capabilities able to support a larger and more self-reliant Royal Australian Navy in a strategic environment characterised by considerable uncertainty. It will also allow Australia to confidently exercise independent naval power in our immediate region.

**Recommendations**

1.27 Australia's uncertain strategic future requires a much greater measure of self-sufficiency as a pacific maritime power.

1.28 While Australia can expect to work with our alliance partners for a long time to come, it needs balanced and self-sustaining naval capabilities that will buttress our security in a regional environment that is likely to be more contested than it has been at any time since the Second World War.

1.29 Australia needs to be able to exercise a much greater measure of independent maritime power in our region and to do that we need a sovereign naval shipbuilding and support sector.

1.30 The following critical recommendations are made:

**Recommendation 1**

The Parliament should pass the Defence Amendment (Sovereign Naval Shipbuilding) Bill 2018.

**Recommendation 2**

As is permitted under the tender terms and conditions, the Future Frigate Program should be reconfigured such that an Australian controlled entity has responsibility for the Future Frigate build.
Recommendation 3

Noting Strategic Partnering Agreement negotiations with Naval Group are well advanced, and that this agreement will make a commitment to Naval Group to build the Future Submarines and close off all options to future governments, the following term should be inserted into the Strategic Partnering Agreement:

Nothing in this agreement would prevent ASC being contracted for part or all of the build of the Future Submarines.

Rex Patrick
Senator for South Australia
Appendix 1
Submissions, tabled documents, additional information, answers to questions on notice and correspondence

Submissions

Received during the 44th Parliament

1  Forgacs
1.1 Supplementary to submission 1
2  Australian Business Defence Industry
2.1 Supplementary to submission 2
3  Mr Wade Noonan MP and Mr Cesar Melhem MP
4  Australian Manufacturing Workers' Union
5  Defence SA
5.1 Supplementary to submission 5
6  The Royal Institution of Naval Architects, Australian Division
6.1 Supplementary to submission 6
7  Australian Industry and Defence Network
7.1 Supplementary to submission 7
8  Adelaide Ship Construction International
9  BAE Systems Australia
10 Defence Teaming Centre
11 Lean Design Australia Pty Ltd
12 Navy League of Australia
13 Victorian Government
13.1 Supplementary to submission 13
14 Department of Finance
15 Mr Grant Spork
16 Mr Jon Primrose
17 Mr Peter Briggs AO and Mr Terence Roach AM
18 Mr Paul Greenfield AM
18.1 Supplementary to submission 18
19 LeadWest Ltd
20 Hobsons Bay City Council
Dr John White

Supplementary to submission 21

Submarine Institute of Australia Inc.

Mr Hank Willems

Mr Benjamin Cropley

Professor Göran Roos

Mr Martin Katschner

Emeritus Professor John Norrish

Austal

Raytheon Australia

Dr Duncan Connors, Durham University Business School

Mr Ron Paulus

Defence Materials Technology Centre

Engineers Australia

Mr Christopher Skinner

Department of Defence

Tasmanian Government

AMWU

Government of Western Australia

Shadbolt Engineering Pty Ltd

Mr David Perkins

Received during the 45th Parliament

Harwood Marine

Australian Manufacturing Workers' Union

Supplementary to submission 42

Australian Business Defence Industry

South Australian Government, Defence SA

Returned & Services League of Australia Ltd

Royal Institution of Naval Architects, Australian Division

Navy League of Australia

Saab Australia

Queensland Government

Mr Jon Primrose
Submarine Institute of Australia
Australian Taxpayers Alliance
Department of Finance
Victorian State Government
Aigroup
Western Australian Government
Supplementary to submission 56
Supplementary to submission 56
Northern Territory Government - Department of Trade, Business and Innovation
Austral Limited
NSW Government
Damen Shipyards Group
Mr Gary Johnston

Tabled documents

Received during the 44th Parliament

1 Media articles tabled by Senator the Hon Stephen Conroy at a public hearing in Canberra on 30 September 2014.
2 Document tabled by Dr John White at a public hearing in Melbourne on 13 October 2014.
3 Document tabled by Mr Phillip Taylor at a public hearing in Melbourne on 6 March 2015.
4 Document tabled by Mr John Wardell, Shadbolt Engineering, at a public hearing in Melbourne on 6 March 2015.
5 Opening statement tabled by BAE Systems Australia at a public hearing in Adelaide on 14 April 2015.
6 Opening statement tabled by Defence Teaming Centre at a public hearing in Adelaide on 14 April 2015.
7 Opening statement tabled by the Australian Business Defence Industry at a public hearing in Adelaide on 14 April 2015.
8 Opening statement tabled by Mr Sean Costello, CEO of DCNS Australia at a public hearing in Adelaide on 22 July 2015.
### Received during the 45th Parliament


6. Opening statement tabled by the Defence Teaming Centre at a public hearing in Adelaide on 4 April 2017.


16. Opening statement tabled by the Naval Group at a public hearing in Canberra on 7 June 2018.


19. Opening statement tabled by Mr Jim Cuthill at a public hearing in Canberra on 7 June 2018.


Additional information

Received during the 44th Parliament

1 Documents provided by the Australian Industry and Defence Network following a public hearing in Melbourne on 13 October 2014.
2 Opening statements from ASC's appearance at a public hearing in Adelaide on 14 October 2014.
4 Media release provided by the Economic Development Board of South Australia following a public hearing in Melbourne on 13 October 2014.
5 Notes and talking points provided by the Electrical Trades Union of Australia at a public hearing in Adelaide on 14 October 2014.
6 Interim response received from the Minister for Defence on 27 November 2014.
8 Article from the Canadian Naval Review, provided by BAE Systems Australia on 1 May 2015, following a public hearing in Adelaide on 14 April 2015.
9 Document provided by BAE Systems Australia on 1 May 2015, following a public hearing in Adelaide on 14 April 2015.
10 Correction of evidence provided by the Department of Defence on 31 July 2015, following a public hearing in Adelaide on 22 July 2015.

Received during the 45th Parliament

1 Extract of Request for Tender, part of the Competitive Evaluation Process for the SEA 5000 Phase 1 Project, provided to the committee by Senator Xenophon on 7 September 2017.
2 Letter from Mr Jon Stanford, Director, Insight Economics, to the Chair, received 31 October 2017.
3 Correspondence between ASC and several parties regarding the Future Frigate Program, provided by ASC following a public hearing in Adelaide on 13 October 2017.
## Answers to questions on notice

*Received during the 44th Parliament*

<table>
<thead>
<tr>
<th></th>
<th>Answers to questions on notice from a public hearing in Canberra on 21 July 2014, received from the Department of Defence on 12 and 19 August 2014.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Answers to questions on notice from a public hearing in Canberra on 30 September 2014, received from the Department of Defence on 20 October 2014.</td>
</tr>
<tr>
<td>3</td>
<td>Answers to questions on notice from a public hearing in Canberra on 30 September 2014, received from the Department of Defence on 21 October 2014.</td>
</tr>
<tr>
<td>4</td>
<td>Answers to questions on notice from a public hearing in Canberra on 30 September 2014, received from the Department of Defence on 22 October 2014.</td>
</tr>
<tr>
<td>5</td>
<td>Answer to a question on notice from a public hearing in Newcastle on 8 October 2014, received from Forgacs on 27 October 2014.</td>
</tr>
<tr>
<td>6</td>
<td>Answers to questions on notice from a public hearing in Canberra on 30 September 2014, received from the Department of Defence on 28 October 2014.</td>
</tr>
<tr>
<td>7</td>
<td>Answers to questions on notice from a public hearing in Canberra on 30 September 2014, received from the Department of Defence on 30 October 2014.</td>
</tr>
<tr>
<td>8</td>
<td>Answers to questions on notice from a public hearing in Canberra on 30 September 2014, received from the Department of Defence on 31 October 2014.</td>
</tr>
<tr>
<td>9</td>
<td>Answers to questions on notice from a public hearing in Melbourne on 13 October 2014, received from the Victorian Government on 11 November 2014.</td>
</tr>
<tr>
<td>10</td>
<td>Answers to questions on notice from a public hearing in Canberra on 19 February 2015, received from ASC Pty Ltd on 14 April 2015.</td>
</tr>
<tr>
<td>11</td>
<td>Answers to questions on notice from a public hearing in Adelaide on 22 July 2015, received from the Department of the Prime Minister and Cabinet on 7 August 2015.</td>
</tr>
<tr>
<td>12</td>
<td>Answers to questions on notice from a public hearing in Adelaide on 22 July 2015, received from the Department of Defence on 10 September 2015.</td>
</tr>
<tr>
<td>13</td>
<td>Answers to questions on notice from a public hearing in Adelaide on 22 July 2015, received from the Department of Defence on 15 September 2015.</td>
</tr>
<tr>
<td>14</td>
<td>Answers to questions on notice from a public hearing in Adelaide on 22 July 2015, received from ASC on 19 October 2015.</td>
</tr>
</tbody>
</table>
Answers to questions on notice from a public hearing in Adelaide on 22 July 2015, received from the Department of Defence on 9 November 2015.

Received during the 45th Parliament

1. Answers to questions on notice from a public hearing in Perth on 3 April 2017, received from the Hon. Paul Papalia CSC, Minister for Defence Issues, Government of Western Australia, on 3 July 2017.

2. Answers to questions on notice from a public hearing in Perth on 3 April 2017 and Adelaide on 4 April 2017, received from AMWU on 12 July 2017.

3. Answers to questions on notice from a public hearing in Canberra on 20 June 2017, received from Naval Group Australia on 13 July 2017.

4. Answers to questions on notice from a public hearing in Adelaide on 4 April 2017, received from Defence Teaming Centre on 17 July 2017.

5. Answers to questions on notice from a public hearing in Canberra on 20 June 2017, received from ASC Pty Ltd on 4 August 2017.

6. Answers to questions on notice from a public hearing in Adelaide on 4 April 2017, received from Victorian Government on 10 August 2017.

7. Answers to questions on notice from a public hearing in Perth on 3 April 2017, received from the Chamber of Commerce and Industry WA on 24 August 2017.

8. Answers to questions on notice (Q1) from a public hearing in Canberra on 20 June 2017, received from Defence on 18 July 2017.

9. Answers to questions on notice (Q2) from a public hearing in Canberra on 20 June 2017, received from Defence on 16 August 2017.

10. Answers to questions on notice (Q3) from a public hearing in Canberra on 20 June 2017, received from Defence on 28 August 2017.

11. Answers to questions on notice (Q4) from a public hearing in Canberra on 20 June 2017, received from Defence on 28 August 2017.

12. Answers to questions on notice (Q5) from a public hearing in Canberra on 20 June 2017, received from Defence on 28 August 2017.

13. Answers to questions on notice (Q7) from a public hearing in Canberra on 20 June 2017, received from Defence on 21 July 2017.

14. Answers to questions on notice (Q8) from a public hearing in Canberra on 20 June 2017, received from Defence on 28 August 2017.

15. Answers to questions on notice (Q9) from a public hearing in Canberra on 20 June 2017, received from Defence on 18 July 2017.

16. Answers to questions on notice (Q10) from a public hearing in Canberra on 20 June 2017, received from Defence on 18 July 2017.
Answers to questions on notice (Q11) from a public hearing in Canberra on 20 June 2017, received from Defence on 28 August 2017 (superseded).

Revised answer to question on notice (Q11) from a public hearing in Canberra on 20 June 2017, received from Defence on 14 December 2017.

Answers to questions on notice (Q12) from a public hearing in Canberra on 20 June 2017, received from Defence on 12 July 2017.

Answers to questions on notice (Q13) from a public hearing in Canberra on 20 June 2017, received from Defence on 12 July 2017.

Answers to questions on notice (Q14) from a public hearing in Canberra on 20 June 2017, received from Defence on 28 August 2017.

Answers to questions on notice from a public hearing in Canberra on 8 September 2017, received from ASC Pty Ltd on 22 September 2017.

Answers to questions on notice from a public hearing in Canberra on 8 September 2017, received from the Department of Finance on 18 September 2017.

Answers to questions on notice (Q6) from a public hearing in Canberra on 20 June 2017, received from Defence on 25 October 2017.

Answers to questions on notice from a public hearing in Canberra on 8 September 2017, received from Defence on 25 October 2017.

Answers to questions on notice from a public hearing in Adelaide on 13 October 2017, received from Defence on 16 November 2017.

Answers to written questions on notice, received from Defence on 22 May 2018.

Answers to written questions on notice, received from Defence on 22 May 2018.

Answers to written questions on notice, received from Defence on 22 May 2018.

Answers to written questions on notice, received from Defence on 22 May 2018.

Answers to written questions on notice, received from Defence on 22 May 2018.

Answers to written questions on notice, received from Defence on 22 May 2018.

Answers to questions on notice from a public hearing in Canberra on 7 June 2018, received from Naval Group Australia on 19 June 2018.

Answers to questions on notice from a public hearing in Canberra on 7 June 2018, received from Defence on 26 June 2018.
Answers to questions on notice from a public hearing in Canberra on 7 June 2018, received from the Department of Finance on 26 June 2018.

**Correspondence**

*Received during the 45th Parliament*

1. Correspondence received from the Hon Wade Noonan MP (Vic), the Hon Paul Papalia CSC MLA (WA) and the Hon Martin Hamilton-Smith MP (SA) dated 16 June 2017.


3. Response from Defence declining invitation for the Naval Shipbuilding Advisory Board to appear at May 2018 hearing, received 12 April 2018.

4. 16 April 2018 Letter to Defence – Invitation to Naval Shipbuilding Advisory Board members to attend a hearing in Canberra on 2 May 2018.

5. Response from Defence on the Naval Shipbuilding Advisory Board's availability to attend a future hearing, received 2 May 2018.

6. Correspondence received from Serco Australia Pty Ltd, received on 15 June 2018.
Recommendation 1

The committee recommends that the tender process for the two replacement replenishment ships:

- be opened up to allow all companies, including Australian companies, to compete in the process; and
- make clear that a high value will be placed on Australian content in the project.

Recommendation 2

The committee recommends further that the government require that an open tender process be used for any future naval acquisitions.

Recommendation 3

The committee notes that Defence has identified areas where potential exists for Australian industry to become involved as sub contractors in the replenishment ship project. In this regard, the committee recommends that Defence become actively involved in encouraging and supporting Australian industry to explore such opportunities.

Recommendation 4

The committee recommends that the government release the report of the independent review of the AWD program undertaken by Professor Don Winter and Dr John White.
Appendix 3

Senate Economics References Committee
Inquiry into Australia's Naval Shipbuilding Industry
Part II: Future Submarines
17 November 2014

Recommendations

Recommendation 1
The committee recommends that the government not enter into a contract for the future submarine project without conducting a competitive tender for the future submarines, including a funded project definition study.

The tender should invite at least two bidders, preferably up to four, to participate.

The tender for the future submarine project should be conducted in line with the committee's recommendations and the guidelines set out in the Defence Policy Procurement Manual.

A request for tender should invite the bidders to provide the Commonwealth with:

- a Project Definition Study and preliminary design that meets Top Level Requirements; and
- a pricing arrangement to build a certain number of submarines and provide ten vessel years of integrated logistics support, post commissioning.

Recommendation 2
The committee recommends that the competitive tender process for the future submarines begins immediately.

As noted by several independent witnesses, there remains sufficient time to conduct a competitive tender for the future submarines while avoiding a capability gap. This is due to the work on the future submarines undertaken by the previous government.
In his evidence, Dr John White set out a timetable that included a competitive tender process, contracting, construction, testing and introduction to service without a capability gap.

If followed, this timetable would allow the government obtain the best submarine capability at the best price, while avoiding a capability gap.

Recommendation 3

Given the weight of the evidence about the strategic, military, national security and economic benefits, the committee recommends that the government require tenderers for the future submarine project to build, maintain, and sustain Australia’s future submarines in Australia.

When selecting its preferred tenderer the government must give priority to:

- Australian content in the future submarines; and
- proposals that would achieve a high degree of self-reliance in maintaining, sustaining and upgrading the future submarines in Australia for the entirety of their lifecycle.

Recommendation 4

The committee recommends that:

- The government formally and publically rule out a MOTS option for Australia's future submarines.
- The government focus its efforts on the 'new design' or 'son-of-Collins' options for Australia's future submarines and suspend all investigations for acquiring a MOTS submarine, including the current Japanese Soryu-class.

Recommendation 5

The committee recommends that Defence and the government start immediately to:

- strengthen and build a more collaborative relationship with Australia's Defence industry and engender a co-operative environment in which industry is encouraged to marshal its resources in support of a broader Australian shipbuilding industry capable of acquiring and building a highly capable fleet of submarines;
- listen to the technical community's concerns about risk—the technical community, supplemented by outside expertise from industry and allied technology partners, understand the state of technology and the degree to which a new design extends that technology;
• consult with retired naval engineers and submariners, especially those who have been involved in reviews of the Collins class submarines and subsequent reforms, and include the most knowledgeable and experienced in a first pass gate review;

• work with Australian and Australian-based businesses, from prime contractors to small and medium businesses, to ensure that the contribution that can be made by Australian industry is identified and integrated as much as possible into the project plan;

• ensure that opportunities to improve skills and upgrade facilities, particularly those that have multiple uses, are identified so that investment in the human and physical capital required for this project is maximised;

• risks associated with the transfer of technology are anticipated, identified brought promptly to the government's attention and managed effectively—such risks go beyond securing the rights to IP and also take account of potential or real political and cultural incompatibilities; and

• experienced and senior people in key management positions are involved in the project—this requires a strategy to grow people so they are experienced in various disciplines.
Appendix 4

Senate Economics References Committee
Inquiry into Australia's Naval Shipbuilding Industry
Part III: Long-term Planning
1 July 2015

Recommendations

Recommendation 1

The committee reaffirms recommendation 1 from its initial report that the tender process for the two replacement replenishment ships:

- be opened up to allow all companies, including Australian companies, to compete in the process; and
- make clear that a high value will be placed on Australian content in the project.

Recommendation 2

The committee recommends that the government adopt the following procurement process to acquire 12 future submarines:

- a twelve to eighteen month procurement process, involving a Request for Proposal, followed by a Request for Tender;
- invite the most prominent and relevant submarine designers to participate in the process, encompassing Germany, France, Japan and Sweden;
- conduct a Funded Project Definition Study; and
- down-select two submarine builders to provide full design definition and fixed priced contract bids.

The committee also reaffirms recommendation three from its report on future submarines that:

Given the weight of evidence about strategic, military, national security and economic benefits, the committee recommends that the government require tenderers for the future submarine project to build, maintain and sustain Australia’s future submarines in Australia.
Also, given the national significance and complexity of the project to acquire the future submarine, the committee recommends that the government establish a Naval/Submarine Construction Authority as a 'non corporate Commonwealth entity with appropriate industry and defence expertise and authoritative leadership to deliver the future submarine'.

The committee recommends further that Defence heed and apply the lessons learnt from the AWD regarding the transfer of knowledge and those of the Collins Class submarine about the consequences of being a parent navy to the future submarines.

Recommendation 3

The committee recommends that the Australian Government provide the committee with a copy of the 'forensic audit' of the AWD program.

The committee also repeats its recommendation contained in its first report that the government release the report of the independent review of the AWD program (also known as the Winter Report).

The committee understands that it may be appropriate for a public version of both documents to be released with classified material removed.

Recommendation 4

The committee recommends that the Australian Government take measures immediately to reverse the perilous downturn in Australia's naval shipbuilding industry, reduce the impact of the 'Valley of Death' and enable a program of continuous build by:

- mandating a hybrid build for the first Auxiliary Oil Replenishment Ship and an onshore build for the second;
- mandating that all 12 of the future submarines be built in Australia;
- fast tracking the build of the Pacific Patrol Boats and the replacement of the Armidale Class Patrol Boats; and
- bringing forward the construction of the Future Frigates.

Recommendation 5

The committee recommends that the 2015 White Paper is prepared in such a way that all procurement proposals are costed and scheduled realistically, and informed by the need to have a continuous build program for naval ships.

The committee understands that, following the release of its 2015 Defence White Paper, the government will also publish a Defence Investment Plan and an enterprise-level Naval Shipbuilding Plan.
The committee recommends that both documents take note of the evidence provided in this report about the importance of having a continuous build program that will sustain a viable naval shipbuilding and repair industry.

Further that both documents, provide:

- a schedule of anticipated timelines for the construction and delivery of all Defence Capability Plan (DCP) projects, with continuity of production the paramount feature;
- a discussion about the nation's future strategic capability requirements that identifies the industrial capabilities deemed to be strategically important and Defence's expectations for Australia's naval shipbuilding industry;
- an assessment of the nation's existing shipbuilding and repair facilities, including the shipbuilding supply chain, and predicted investment needs;
- a comprehensive statement providing accurate and reliable information on Defence's future plans for its naval acquisition program that goes beyond ten-year projections;
- a detailed explanation on the acquisition schedule indicating the reasoning behind it and the major factors influencing demand flows; and
- reliable cost estimates.

The committee recommends the establishment of an ongoing naval shipbuilding industry advocate to work with the Australian Government and the shipbuilding industry, including supply chain and SMEs. The shipbuilding industry advocate should advise Defence and industry during the development of the Defence Investment Plan and Naval Shipbuilding Plan.

Recommendation 6

The committee recommends that, given requisite capital investments have already occurred, and as the industry's only effective client, the Australian Government adopt an approach to domestic shipbuilding that ensures sustainable demand in order to realise returns on these investments.

The committee also recommends that, during the development of the forthcoming Strategic Naval Shipbuilding Plan, the Australian Government ensure that the Plan recognises the holistic economic value of any domestic shipbuilding project. It is the strong view of the committee that the Plan must also acknowledge the economics multiplier effect of domestic shipbuilding, including that expenditure generates a level of economic expansion beyond its initial value.
Appendix 5

Public hearings and witnesses

Public hearings during the 44th Parliament

Monday 21 July 2014 - Canberra

Senators in attendance: Senators Canavan, Kim Carr, Dastyari, Edwards, Ketter, Madigan, Xenophon.

Witnesses:

BURNS, Mr Christopher, Chief Executive Officer, Defence Teaming Centre Inc.

DUNK, Mr Graeme, Manager, Australian Business Defence Industry

EDGE, Mr John, Acting Deputy Secretary, Business, Procurement and Asset Management, Department of Finance

FLETCHER, Mr Andrew, Chief Executive, Defence SA

HAMILTON-SMITH, The Hon. Martin, Minister for Defence Industries, South Australian Government

KING, Mr Warren, Chief Executive Officer, Defence Materiel Organisation

SHERIDAN, Mr John, Australian Government Chief Technology Officer and Procurement Coordinator, Department of Finance

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers Union

THORNE, Mr Col, General Manager Land and Maritime, Defence Materiel Organisation

Tuesday 30 September 2014 - Canberra


Witnesses:

BARRETT, Vice Admiral Timothy, AO, CSC, RAN, Chief of Navy, Department of Defence

BRIGGS, Rear Admiral Peter (Retired), Private capacity
GREENFIELD, Commodore Paul (Retired), Private capacity
HALL, Ms Stacie, Branch Manager, Government Business Advice, Department of Finance
JONES, Vice Admiral Peter, AO, DSC, RAN, Chief, Capability Development Group, Department of Defence
KING, Mr Warren, Chief Executive Officer, Defence Materiel Organisation, Department of Defence
NICHOLLS, Commander (Retired) David, Executive Manager, Submarine Institute of Australia Inc.
OWEN, Commander (Retired) Frank, Secretary, Submarine Institute of Australia Inc.
PACEY, Mr Brice, Private capacity
ROACH, Commodore Terence (Retired), Private capacity
SAMMUT, Rear Admiral Gregory, Head, Future Submarine Program, Defence Materiel Organisation, Department of Defence
THORNE, Mr Col, General Manager, Land and Maritime, Defence Materiel Organisation, Department of Defence

Wednesday 8 October 2014 - Newcastle

Senators in attendance: Senators Canavan, Dastyari, Ketter, Xenophon

Witnesses:
CUTTELL, Ms Barbara, Communications Adviser, Forgacs
DICK, Mr Ian, Defence Project Director, HunterNet Cooperative
DUNK, Mr Graeme, Manager, Australian Business Defence Industry
HORAN, Mr Benjamin, Delegate, Australian Manufacturing Workers' Union
KNIGHT, Mr Jeremy, Delegate, Australian Manufacturing Workers' Union
LANE, Mr John, Director of Shipbuilding, Forgacs
PIDGEON, Mr Bradley, Industrial Officer, Australian Manufacturing Workers' Union
ROOS, Professor Goran, Private capacity
STRATTON, Mr Lindsay, Chief Executive Officer, Forgacs
THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union
Monday 13 October 2014 - Melbourne

Senators in attendance: Senators Kim Carr, Dastyari, Edwards, Ketter, Madigan, Xenophon.

Witnesses:

BRAIN, Dr Peter, Executive Director, National Institute of Economic and Industry Research

GILLARD, Mr David, Director, Commercial and Procurement, BAE Systems Australia

KANE, Mr Chris, Head of Strategy and Business Development, Maritime, BAE Systems Australia

LYNCH, Mr Matthew, Director Aviation, Defence and Aerospace, Trade, Manufacturing and Employment Division, Department of State Development, Business and Innovation

MORRIS, Ms Charlotte, Manager, Submarine Industry, Australian Industry & Defence Network Inc., Victoria

NICHOLSON, Mr Peter, AO, Head of Government Relations, BAE Systems Australia

ROWLEY, Mr Craig, Chief Executive Officer, LeadWest

SALTZER, Mr William, Director Maritime, BAE Systems Australia

SLEE, Mr Jeff, Delegate, Australian Workers Union

SMITH, Mrs Sue, Executive Officer, Australian Industry and Defence Network Inc.

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union

VAN ROODEN, Ms Marion, Deputy Secretary, Trade, Manufacturing and Employment Division, Department of State Development, Business and Innovation

VICKERS, Mr David, Delegate, Technical, Supervisory and Administrative Division, Australian Manufacturing Workers' Union

WHITE, Dr John, Private capacity

WHITE, Mr Leon, Delegate, Australian Manufacturing Workers' Union

WILSON, Councillor Sandra, Mayor, Hobsons Bay City Council
Tuesday 14 October 2014 - Adelaide


Witnesses:

BURNS, Mr Chris, Chief Executive Officer, Defence Teaming Centre

CARROLL, Mr Alistair, Production Leader, Electrical Controls, AWD Project

DONNELLY, Mr Robert, South Australian Branch Secretary, Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia, Electrical Energy and Services Division, South Australian Branch

EDWARDS, Mr Martin, General Manager, Current Operations, AWD Project, ASC Pty Ltd

HAMILTON-SMITH, Mr Martin, Minister for Defence Industries, South Australian Government

JACKMAN, Mr Malcolm, Chief Executive, Defence SA

KATSCHNER, Mr Martin, Private capacity

LAMPS, Mr Peter, Acting Secretary, South Australian Branch, Australian Workers' Union

PAULUS, Mr Ron, Electrician, Secretary, Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia, Electrical Energy and Services Division, South Australian Branch

SCUDDS, Mr Paul, South Australian Branch Organiser, Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia, Electrical Energy and Services Division, South Australian Branch

SMITH, Mr Brett, Private capacity

STANBOROUGH, Mr Christopher, Private capacity

SUDHOLZ, Mr Andrew, Private capacity

TAYLOR, Mrs Sarah, Membership and Advocacy Manager, Defence Teaming Centre

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union

WHILEY, Mr Stuart, Interim CEO, ASC Pty Ltd

WOLOWIEC, Mr Stanislaw, Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia, Electrical Energy and Services Division, South Australian Branch
Thursday 19 February 2015 - Canberra

Senators in attendance: Senators Canavan, Kim Carr, Conroy, Dastyari, Edwards, Xenophon

Witnesses:
EDWARDS, Mr Martin, General Manager, Current Operations, ASC Pty Ltd
WHILEY, Mr Stuart, Interim Chief Executive Officer, ASC Pty Ltd

Friday 6 March 2015 - Melbourne

Senators in attendance: Senators Canavan, Dastyari, Edwards, Ketter

Witnesses:
HODGE, Dr Mark, Chief Executive Officer, Defence Materials Technology Centre
McClymont, Mr Scott Gregory, Manager, Alton Personnel Pty Ltd
QUICK, Mr Tony, Chairman, Defence Materials Technology Centre
TAYLOR, Mr Phillip Allan, Director, Taylor Bros Marine Pty Ltd
WARDELL, Mr John, Manager, Shadbolt Engineering Pty Ltd

Tuesday 14 April 2015 - Adelaide

Senators in attendance: Senators Edwards, Ketter, Xenophon

Witnesses:
BURNS, Mr Christopher, Chief Executive Officer, Defence Teaming Centre
DUNK, Mr Graeme, Manager, Australian Business Defence Industry
EDWARDS, Mr Martin, ASC Shipbuilding Chief Operating Officer, ASC Pty Ltd
HAMILTON-SMITH, Hon Martin MP, Minister for Defence Industries, South Australian House of Assembly
KEOUGH, Mr Andy, General Manager, Business and Strategic Development, ASC Pty Ltd
SALTZER, Mr William (Bill), Director Maritime, BAE Systems Australia
THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union
Wednesday 22 July 2015 - Adelaide

Senators in attendance: Senators Kim Carr, Conroy, Dastyari, Edwards, Gallacher, Xenophon

Witnesses:

COCKING, Dr Janis, Chief, Maritime Division, Defence, Science and Technology Group, Department of Defence

COSTELLO, Mr Sean, Chief Executive Officer, DCNS Australia Pty Ltd

DEWAR, Mr Scott, First Assistant Secretary, International Policy Division, Department of Defence

DUNSTALL, Mr Harry, Acting Deputy Secretary, Capability Acquisition and Sustainment Group, Department of Defence

EDWARDS, Mr Martin, Chief Operating Officer, ASC Shipbuilding, ASC Pty Ltd

LAMARRE, Mr Mark, Interim Chief Executive Officer, ASC Shipbuilding, ASC Pty Ltd

MOORE, Mr Stephen, Director, Japan, International Policy Division, Department of Defence

SADLEIR, Mr Richard, First Assistant Secretary, National Security Division, Department of the Prime Minister and Cabinet

SAMMUT, Rear Admiral Gregory, Head, Future Submarine Program, Department of Defence

WHILEY, Mr Stuart, Interim Chief Executive Officer, ASC Pty Ltd

WHITE, Dr John Douglas, Private capacity

Wednesday 3 February 2016 - Adelaide


Witnesses:

KING, Mr Warren, Private capacity
Public hearings during the 45th Parliament

Monday 3 April 2017 - Perth

Senators in attendance: Senators Kim Carr, Reynolds, Smith, Xenophon.

Witnesses:

DE SILVA-RANASINGHE, Mr Serge, President, Australian Industry and Defence Network Western Australia

DEEKS, Mr Michael Edward, Managing Director, Forgacs Marine and Defence Pty Ltd

DOLESCHAL-RIDNELL, Mr Joe, National Policy Advisor, Chamber of Commerce and Industry of Western Australia

DUNK, Mr Graeme Andrew, Executive Manager, Australian Business Defence Industry

GEHLING, Mr Robin Charles, Secretary, Australian Division, Royal Institution of Naval Architects

O'HARE, Mr John, Director, Industry Development, Department of Commerce

PAPALIA, Hon. Paul, Minister for Defence Issues, Western Australian Government

RENILSON, Dr Martin, President, Australian Division, Royal Institution of Naval Architects

SINGLETON, Mr David, Chief Executive Officer, Austal Limited

TANNER, Mr Ian, Private capacity

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union

WILLMOTT, Ms Deidre, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia

Tuesday 4 April 2017 - Adelaide

Senators in attendance: Senators Kim Carr, Hume, Xenophon.

Witnesses:

COMBET, Hon Greg, Victorian Defence Industry Advocate, Department of Economic Development, Jobs, Transport and Resources, Victoria

DALLIMORE, Mr Glen, Private capacity
FORSTER, Air Commodore Margot-Lee (Retired), CSM, Chief Executive Officer, Defence Teaming Centre Inc.

GREEN, Dr Michael, Executive Director, Sector Development, Department of Economic Development, Jobs, Transport and Resources, Victoria

HOROBIN, Mr Peter, Member, Submarine Institute of Australia Inc.

KEOUGH, Mr Andy, Chief Executive, Defence SA

O'CALLAGHAN, Mr John, Executive Director, Australian Industry Group Defence Council

PRIMIERO, Mr Matthew Anthony, Private capacity

ROSENFIELD, Mr Dean, Managing Director, Saab Australia Pty Ltd

TAYLOR, Mrs Sarah, Member and Government Relations Manager, Defence Teaming Centre Inc.

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union

Tuesday 20 June 2017 - Canberra

Senators in attendance: Senators Kim Carr, Hume, Ketter, Xenophon.

Witnesses:

ABLONG, Mr Marc, First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence

CLARK, Mr Brent, Chief Executive Officer, DCNS Australia Pty Ltd

FITZPATRICK, Mr Patrick, Acting General Manager Ships, Department of Defence

GILLIS, Mr Kim, Deputy Secretary, Capability Acquisition and Sustainment Group, Department of Defence

JOHNSON, Mr Stephen, General Manager, Submarines, Department of Defence

MEAD, Rear Admiral Jonathan, Head, Navy Capability, Department of Defence

SAMMUT, Rear Admiral Gregory, Head, Future Submarine Program, Department of Defence

SKINNER, Ms Rebecca, Deputy Secretary, Strategic Policy and Intelligence, Department of Defence
Friday 8 September 2017 - Canberra


Witnesses:

ABLONG, Mr Marc, First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence

DALTON, Rear Admiral Anthony, General Manager Ships, Department of Defence

FITZPATRICK, Mr Patrick, Director General Future Frigate, Department of Defence

GREEN, Dr Michael, Acting Executive Director, Employment, Investment and Trade Policy, Department of Economic Development, Jobs, Transport and Resources, Victoria

JAGGERS, Mr Andrew, Acting Deputy Secretary, Commercial and Government Services, Department of Finance

LAMARRE, Mr Mark, Chief Executive Officer, ASC Shipbuilding

LUDLAM, Mr Steve, Advisory Board Member, Defence SA

MEAD, Rear Admiral Jonathan, Head Navy Capability, Department of Defence

PRICE, Mr Richard, Executive Director Defence and Industry, Defence SA

SARGEANT, Mr Brendan, Associate Secretary, Department of Defence

SINGLETON, Mr David, Chief Executive Officer, Austal Limited

SMITH, Mr Philip, Acting First Assistant Secretary, Commercial and Government Services, Department of Finance

THOMPSON, Mr Glenn, Assistant National Secretary, Australian Manufacturing Workers' Union

Friday 13 October 2017 - Adelaide

Senators in attendance: Senators Kim Carr, Fawcett, Gallacher, Xenophon

Witnesses:

ABLONG, Mr Marc, First Assistant Secretary Naval Shipbuilding Taskforce, Department of Defence

BRADBRURY, Professor Roger, National Security College, Australian National University
Thursday 7 June 2018 - Canberra

Senators in attendance: Senators Kim Carr, Ketter, Patrick, Reynolds

Witnesses:

CHESWORTH, Mr Peter, First Assistant Secretary, Naval Shipbuilding Taskforce, Department of Defence

CLARK, Mr Brent, Senior Advisor to the Chairman, Naval Group Australia

CUTHILL, Mr Jim, Acting Chief Executive Officer, ASC Shipbuilding, ASC Pty Ltd

DALTON, Rear Admiral Anthony (Tony), General Manager, Ships, Capability Acquisition and Sustainment Group, Department of Defence

FANKHAUSER, Mr Daniel, Secretariat, Naval Shipbuilding Advisory Board

FINLAY, Mr Ron, Board Member, Naval Shipbuilding Advisory Board

GILLIS, Mr Kim, Deputy Secretary, Capability Acquisition and Sustainment Group, Department of Defence
HALL, Ms Stacie, First Assistant Secretary, Commercial and Government Services, Department of Finance

IOANNOU, Dr Tom, Group Executive Director, Performance Audit Services Group, Australian National Audit Office

JAGGERS, Mr Andrew, Acting Deputy Secretary, Commercial and Government Services, Department of Finance

JOHNSON, Mr Stephen, General Manager Submarines, Department of Defence

MORRISON, Mr Aidan, Private capacity

PAUL, Ms Lisa, Board Member, Naval Shipbuilding Advisory Board

SINGLETON, Mr David, Chief Executive Officer, Austal Ltd

SORBELLO, Mr Stephen, Assistant Secretary, Commercial and Government Services, Department of Finance

THOMPSON, Mr Glenn, National Assistant Secretary, Australian Manufacturing Workers' Union

WHILEY, Mr Stuart, Chief Executive Officer and Managing Director, ASC Pty Ltd

WILKINSON, Mr Alex, Senior Director, Performance Audit Services Group, Australian National Audit Office