

## Executive Summary

The interaction between Australia's unique geographic, strategic, military and political qualities are perhaps most evident in its choice of submarine. Australia is a geographically isolated middle power with a significant leadership role in the Asia-Pacific region. We have a small but powerful military with a wide-ranging remit, including the protection of far-flung sea lanes that we rely upon for our prosperity.

These factors, alongside Australia's decision to opt for a conventional submarine, place Australia in a unique situation. We require a submarine that can travel very long distances, remain on station for long periods of time and perform a wide range of tasks. Australia's future submarine will be a vital part of the Royal Australian Navy's fleet past the middle of this century, so it must provide the best capability at a competitive price for Australian taxpayers.

The future submarine project is now approaching a critical stage. It is, therefore, timely that this committee has examined the options available to the government for this vital strategic capability.

The committee resolved on 28 October 2014 to report its findings to the Senate. The committee took this step because it feared that critically important decisions were about to be made without adequate public consultation and moreover without a fair, proper and transparent competitive tender process.

Evidence provided to the committee by subject matter experts, including Australia's foremost submariners and ship building experts, was compelling.

This evidence has driven the committee to make the following recommendations:

- 1. The government should 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.**
- 2. The government should begin this competitive tender immediately to ensure a submarine capability gap is avoided.**
- 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.**
- 4. The government should formally and publically rule out a military-off-the-shelf (MOTS) option for Australia's future submarines.**
- 5. The government should 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.**

## **The need for a competitive tender**

*There are significant technical, commercial and capability gap risks invoked by prematurely and unilaterally committing to a preferred overseas, sole-source supplier.*

**Dr John White**

*If the Government were to make it known that it was sole-sourcing a contract...then it would place that Government in a negotiating position where it would be difficult, if not impossible, to get a good deal on both price and terms and conditions. This would de facto expose Australia to an unacceptable level of risk in the national security domain.*

**Professor Goran Roos**

*The only way to pick it is to conduct a competitive project definition study where you can get the answers back to your top-level requirements.*

**Rear Admiral Peter Briggs (Rtd)**

*It just beggars belief that you would go with one provider without testing the market.*

**The Hon Martin Hamilton-Smith, South Australian Minister for Defence Industries**

*You will never know the true potential cost of a project until you get multiple companies to put their names to dollar figures on firm tender bids.*

**Mr Chris Burns, Defence Teaming Centre**

Witness after witness gave emphatic and overwhelming support for the government to conduct a competitive process before choosing Australia's future submarine. Witnesses agreed that decisive action must be taken to start the tender but insisted that there was time for a competitive process where all proposals from tenderers could be tested and their claims validated.

The reasons for holding a competitive tender are numerous and compelling. It is the only way that we can ensure that Australia secures a conventionally-powered submarine that meets our unique requirements at a price that is competitive for Australian taxpayers.

Witnesses outlined a process and timeline for a competitive tender to acquire the future submarines that would:

- challenge assumptions, interrogate assertions, question and compare proposals and finally allow specialist engineers and technicians to test and evaluate the tenderers' claims to ensure that the capability proposed is deliverable;
- place tenderers under competitive pressure so that they develop an optimal solution for Australia;

- stress test the costings associated with the proposals, compare costings to ensure value for money and pro-actively manage the risks associated with the proposals;
- ensure that the integration of other desired systems (particularly the combat system) is compatible with the proposed designs; and
- provide the means to give priority to an Australian build for the submarine and maximise Australian content in the submarine.

The committee understands that Australia requires international partners to assist in the design to build a world-class submarine.

The only way to ensure that Australia has access to the very best technology and is assisted by capable and reliable partners who share Australia's commitment and ambitions is through a competitive tender. Anything short of this process would be scandalous and place the future submarine at unnecessary risk.

### **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.**

### **Avoiding a capability gap**

*There is still sufficient time available, with adequate contingency, for the competitive PDS to be carried out and to build the Future Submarines in Australia.*

**Dr John White**

*There does not have to be a capability gap if we get on with it now.*

**Commodore Paul Greenfield (Rtd)**

*Our strong recommendation is that we get bids from all four potential contenders and make a sensible, informed choice at that point and that we get on with it, because the clock is running.*

**Rear Admiral Peter Briggs (Rtd)**

Several independent witnesses gave evidence that 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 to obtain the best submarine capability at the best price, while avoiding a capability gap.

## **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.**

## **Australia can build our future submarine fleet**

*The future submarine should be designed specifically for Australia and built here in Australia. A sail-away cost of \$20 billion for 12 submarines built in Australia is entirely feasible, and Australian industry has much to offer in solving the truly unique engineering challenges.*

**Commodore Paul Greenfield (Rtd)**

*It is better to build to ensure that you have the skills to maintain.*

**Mr Glenn Thompson, Australian Manufacturing Workers' Union**

*Australia as a country is at least \$21bn better off to build in Australia than to purchase overseas in addition to creating 120,000 man years of additional jobs in the economy over the life of the project as compared to building overseas.*

**Professor Goran Roos**

*When the host nation stopped operating them, the supplies dried up and we had occasions where submarines were unable to sail because of vital components and spare parts that were unavailable.*

**Commander Frank Owen (Rtd), Submarine Institute of Australia,  
on Australia's Oberon-class submarines (built in the United Kingdom)**

The committee has found that Australia has the capacity and capability to build the future submarines in Australia and that our shipyards have the capability to deliver the submarines at an internationally competitive price for the Australian taxpayer.

The complexity of the submarine and its critical role in Defence's capability strengthens the link between local construction and its maintenance and upgrade over the length of the submarine's operational life.

Indeed, a number of witnesses noted that the submarine would be one of the critical Defence assets where reliance on overseas suppliers could compromise operational independence and ultimately Australia's national security.

### **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.**

## **Rule out the MOTS option**

*There are no MOTS options. Even the most capable of available overseas submarines will require modification.*

**Commander Frank Owen (Rtd), Submarine Institute of Australia**

*A MOTS design will not suit Australia and the design will have to be heavily modified. A MOTS design even slightly modified ain't MOTS. There is no shortcut.*

**Commodore Paul Greenfield (Rtd)**

*It is apparent therefore that SORYU would need to be heavily modified to meet the Australian requirements, particularly for long ocean transits and patrols. This would carry cost, performance and schedule risks and will amount to a new design; it will not be a Military Off The Shelf (MOTS) acquisition.*

**Rear Admiral Peter Briggs (Rtd) and Commodore Terrence Roach (Rtd)**

**CHAIR:** *Are you saying that, if we went from where we are now to here, we would be going backwards?*

**Commander Roach:** *If we went with Soryu, as described in that publicly available information, yes, we would.*

*Buying an off-the-shelf submarine with a 6,000-mile range would be worse than a waste of money; it would be an illusion. You will think you have submarine capability and the day you want to use it you will find that it cannot get there or stay there and do the job.*

**Rear Admiral Peter Briggs (Rtd)**

*If a Soryu and a Collins left Fleet Base West near Perth together and travelled at 10 knots to Darwin, the Soryu might not actually make it or, if it did, it would be very low on fuel.*

**Commodore Paul Greenfield (Rtd)**

A number of people with a great depth of knowledge and experience of submarines and their technologies have given evidence to the committee that there are no military-off-the-shelf submarines that meet Australia's needs.

In May 2013, the previous government suspended investigation of a MOTS option for the future submarine program, in order to focus on the 'new design' and 'son-of-Collins' options.

Given the evidence provided to the committee, particularly in relation to the inadequacy of the current Japanese Soryu submarine to meet Australia's needs, there does not appear to be any benefit in reopening this option for further evaluation.

## **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.**

### **A national endeavour requires nation-wide support**

*The South Australian government feels that the country has successfully built both naval ships and submarines in South Australia using overseas designed technology transfer; and now, with even more experience under our belts, there is no reason Australian industry and Australian workers cannot do it again.*

**The Hon Martin Hamilton-Smith, South Australian Minister for Defence Industries**

*Australia is much better prepared than it was in the 1980s, when it was decided to design and build Collins. Since then we have learned and achieved so much. Our industry partners include specialist submarine support businesses—such as Babcock, Pacific Marine Batteries and MacTaggart Scott—approximately 120 small to medium enterprises and more than 2,000 associated companies that supply products and services.*

**Mr Stuart Whiley, Interim CEO ASC**

*A vibrant and sustained naval shipbuilding industry of all shapes and forms is vital to our self-reliance.*

**Mr Malcom Jackman, Defence SA**

*Australian industrial tenacity and innovation turned the project around to the point where we now operate among the most capable conventional submarines in the world.*

**Mr Chris Burns, Defence Teaming Centre, on the Collins submarine**

The May 2014 Portfolio Budget Statement identified the following key risk for the future submarine project:

...the mobilisation of resources across Government, industry and academia necessary to manage the Future Submarine Program with appropriate

international support, informed by our experience and knowledge of similar programs.<sup>1</sup>

Evidence before the committee clearly indicates that this particular risk, especially of mobilising the resources of industry and academia, has yet to be addressed.

In fact, the process so far has had the opposite effect—it has tended to ignore, even isolate, defence industry and exclude submarine subject matter experts.

The committee believes that the government and Defence need to reverse this tendency quickly and begin a more transparent and open process that would allow much greater collaboration and feedback from industry, state governments, community organisations and specialists, including the community of retired submariners whose wealth of knowledge and experience should be tapped.

The committee believes that if the future submarine project is to be a truly nation building endeavour then Australians need to be involved.

### **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**

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1 Portfolio Budget Statements 2014–15, Defence Materiel Organisation, [http://www.defence.gov.au/budget/14-15/pbs/2014-2015\\_Defence\\_PBS\\_04\\_DMO.pdf](http://www.defence.gov.au/budget/14-15/pbs/2014-2015_Defence_PBS_04_DMO.pdf) (accessed 27 September 2014).



**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.**

