

# Chapter 16

## Defence—an informed buyer

16.1 The report has demonstrated clearly that naval shipbuilding is an expensive and complex undertaking requiring costly infrastructure and a highly skilled workforce. It has also acknowledged the strategic importance of having a navy capable of defending the country and its people, its coastal waters and its transport and communication routes.

16.2 The changing nature of Australia's security concerns, together with the continuing advances in technology and substantial costs of acquisitions mean that Defence must be a savvy, competent and knowledgeable buyer. It needs strategic analysts with the skills and experience to identify the capability Australia needs to protect its interests, and the technical experts able to draw up and articulate specifications and assess the technology solutions that meet these requirements. Defence needs highly skilled project managers able to manage very complicated tender and contracting processes and oversee delivery of complex projects, often involving joint ventures, alliances or partnerships. It needs leaders with the vision to look beyond individual projects to Defence's long-term capability needs and the most efficient use of industry-wide resources.

16.3 This chapter looks at the requirement for Defence to have the highly skilled strategic analysts, technical specialists and competent and experienced project managers and leaders necessary to perform as an informed buyer.

### *Strategic analysts*

16.4 Australia's broader strategic Defence environment was beyond the scope of this inquiry. The committee believes, however, that Defence procurement and Australian Industry Involvement policy must derive from Australia's strategic capability needs now and into the future. It considers, as stated in the previous chapters, that the DCP must provide a broad analysis of Australia's strategic requirements as the foundation for the capability plan. Defence needs trained analysts to undertake such strategic assessment and to articulate it through the DCP.

### *Technical specialists*

16.5 Given its position as a monopsonist, Defence can assist industry efficiency by ensuring that it has the technical knowledge, thinking and skills to manage acquisitions effectively. Mr Peter Hatcher told the committee that 'it is difficult to have a good working relationship...if the customer is not knowledgeable: that is it much easier to work with a well-informed, intelligent customer'.<sup>1</sup>

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1 *Committee Hansard*, 18 August 2006, p. 10.

16.6 Defence outlined a number of initiatives that have been taken to enhance relevant staff skills and to improve the professional standing of DMO.<sup>2</sup> DMO has been actively recruiting experienced industry personnel to increase the skills available to conduct complex tasks such as assessing tenderers' ability to deliver on time, on budget and at the required performance levels. DMO has also been improving the technical skills and qualifications of existing staff. Defence informed the committee that:

Increasing the number of chartered engineers and technical officers is one of the key priorities of the DMO's professionalisation agenda. Since initiating the professionalisation program in April 2004 the numbers of engineers and technical officers who have achieved chartered status has increased from 125 to 218. There are a further 398 enrolled and working towards their chartered status.<sup>3</sup>

16.7 In addition, DMO has access to significant numbers of scientists and engineers in DSTO to provide specialist technological advice.<sup>4</sup> Depending on the complexity of a project, Defence also engages specialist consulting companies to analyse information provided by tenderers and independently assess industrial capacity. The companies engaged include BMT, KBR and Appledore which are specialists in the areas of financial and commercial management, shipbuilding and facilities and cost modelling.<sup>5</sup>

16.8 Not all witnesses were convinced of Defence's ability to operate as an informed buyer. Several witnesses commented on the decrease in Defence's technical and engineering workforce. They expressed concerns about Defence's ability to clearly articulate requirements, ensure that proposed designs meet operational requirements and hold contractors accountable. In the opinion of Rear Admiral (ret'd) W.R. Rourke, the Navy needs to increase its capability with regard to 'technological and engineering development'. He suggested that Navy should give consideration to training officers who will be able to participate constructively in the Navy's technological future and who would 'be able to contribute to high quality technological management in the DMO'.<sup>6</sup> Rear Admiral Scarce stated:

In my view, in the early 2000s we were lapsing to the stage where we were not intelligent customers about naval vessels. We did not have the skills because we were not involved in the design and detailed engineering work

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2 Department of Defence, answer to question on notice, 28 March 2006 (received 29 May 2006), questions 58 and 59, pp. 25–27.

3 Department of Defence, answer to question on notice, 28 March 2006 (received 29 May 2006), question on notice no. 60.

4 Department of Defence, answer to question on notice, 28 March 2006 (received 29 May 2006), questions 40 and 60, pp. 25 and 27.

5 Department of Defence, answer to question on notice, 28 March 2006 (received 29 May 2006), question 8, p. 23.

6 *Submission 1*, pp. 7–8.

of the Anzac class. We got to the stage where we did not understand enough about building ships, designing them and integrating the weapons systems, and we were coming close to the time where we could not warrant the safety of our own ships because we did not have the skills to do it. That was largely there at that particular time because we felt that it was something that industry could do and it could deliver those services for us.<sup>7</sup>

16.9 Mr Peter Hatcher, Thyssen Krupp Marine Systems Australia, presented a similar view. He commented on the shift over the last 15 years to outsourcing Defence engineering functions and surmised:

I do not think there would be many people who would deny that Defence is in a fairly precarious position with regard to its ability to operate as an informed customer, from an engineering point of view. I would not say that that capability needs to reside within Defence, but that capability does need to reside within the country, be in an independent form and be accessible by Defence.<sup>8</sup>

16.10 On the other hand, the Submarine Institute of Australia was of the view that the ADF is held in high regard by a large sector of the international defence community and its high standards demand high-quality products. The Australian Industry Group Defence Council commented on the team that is being built up in DMO, stating that:

...it has a pretty good balance of hard-headed specification type development and it has appropriate experience... It has probably the best legal council team that they have ever put together. They now have industry expertise working actively inside, which they have never had before. So I would give it a big tick at this time. But the verdict is out because, until such time as the air warfare destroyers come through successfully, we will not know how successful it has been—certainly, for the most complex project currently in line.<sup>9</sup>

16.11 The committee notes some witnesses' concerns that Defence lacks the necessary technical and engineering capacity internally to operate as an informed buyer. It is pragmatic for Defence to contract expert technical advice when this capacity is lacking. However, the committee emphasises that Defence and DMO remain accountable to government and the taxpayer for their advice on tender options and the ultimate delivery of acquisitions that meet specifications. This responsibility cannot be outsourced. The committee considers it appropriate that Defence, as part of its strategic planning, identify the skills and expertise it requires in-house to operate as an informed buyer.

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7 *Committee Hansard*, 19 April 2006, p. 37.

8 *Committee Hansard*, 18 August 2006, p. 10.

9 *Committee Hansard*, 28 June 2006, p. 27.

### ***Project managers and leaders***

16.12 In the main, a project is set on the path to success during its early stages. Much of the success of naval acquisition projects depends on the foresight, planning and skills employed by Defence and the DMO in the initial procurement stage. Defence was aware of this role:

...before committing to an acquisition, Defence must independently assure that industry has the capacity to deliver on schedule and within budget the required capability.<sup>10</sup>

16.13 Defence informed the committee that it is responsible for the preparation of tender documentation, the evaluation of tenders and the subsequent provision of advice to government on preferred tenderers. Managing the tendering process efficiently can improve defence industry profitability, in turn producing better outcomes for Defence.<sup>11</sup>

16.14 Defence relies on 'the results of specific tenders to compare actual aggregate costs relevant at the time of acquisition against a specific requirement'. Such information is provided to Defence in a tender on a commercial-in-confidence basis.<sup>12</sup> According to Defence it uses

...commercial tendering to allow comparison of total cost to owner against specific requirements in the economic environment prevailing at the time. This comparison will reflect many economic factors including yard productivity, scale of production, subsidies, other program funding and underlying economic drivers in pricing.<sup>13</sup>

16.15 While Defence relies on the information provided in tenders, it needs skilled analysts and project managers able to objectively assess this information. This is important to avoid what Mr Warren King termed 'the conspiracy of optimism'. He explained:

It is not conspiratorial other than in the sense that everybody wants to do something. So you get the situation where the military clearly want a capability. They need a capability...industry then says—and rightly so; you can see their enthusiasm—'We would like to do these things in Australia,' and who in industry would not? So they say they can do it—let us say...for \$2 billion. The government of the day would clearly like their defence force to have that capability, and they would like their industry to deliver it. Now you have the beginning of what I call 'the conspiracy of optimism'.

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10 Department of Defence, *Submission 20*, p. 4.

11 ACIL Tasman, *A profile of the Australian Defence Industry, Helping align defence industry, defence industry policy, and defence strategic planning*, November 2004, p. xxv.

12 Department of Defence, answer to question on notice, 18 August 2006 (received 31 October 2006), question 2.

13 Department of Defence, answer to question on notice, 18 August 2006 (received 31 October 2006), question 1.

Typically, in our industry experience, when you put bids together, you have to hit a middle ground: 'How much risk; how much opportunity; what's my price?'<sup>14</sup>

16.16 DMO considers that it assesses tenders against a wide range of criterion, including weighing up factors such as operational capability and maximising Australian industry involvement. DMO may also engage expert consultants to analyse tenders. Clearly, managing the process of formulating specifications and then testing tenders against these specifications, while objectively assessing many other factors and input from external analysts requires highly skilled project managers.

16.17 Defence also has responsibility for contracting the successful tender. As noted in chapter 2, the growing complexity in the construction of naval vessels, with their highly sophisticated and expensive systems, has influenced the business arrangements for major contracts. Different contracting arrangements and business models are used for different projects. Prime or major contractors may come together under a range of partnering or alliance arrangements that share project risks and project rewards.

16.18 There have been a number of significant changes to Defence tendering and contracting arrangements in recent years. One of the most significant reforms to Defence procurement has been the implementation of the Kinnaird recommendations. As a result of the Defence Procurement Review, a 'Two Pass Government Approval' system for Defence projects has been instituted to ensure that government is provided with the opportunity to make better informed decisions regarding the procurement of Defence systems. Defence also informed the committee that it has 'embarked on a program of continuous improvement to ensure that lessons learned and internal and external stakeholder feedback are considered in the development/review of procurement policy, practices and related tendering and contractual documentation'.<sup>15</sup> It outlined how, in recognition of the need to ensure that its standard contracting procedures and templates reflect commercial 'best practice', it commenced a 'Procurement Improvement Program' in July 2005. Defence maintained that this initiative will benefit both Industry and Defence. It would:

- reduce unnecessary processes and documentation;
- place Defence procurement and contracting on a commercial footing while remaining consistent with Government accountability frameworks; and
- provide increased attention to Defence and defence industry concerns to ensure a full understanding of Defence's capability requirements and full understanding of defence industry offers before entering into a contract.<sup>16</sup>

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14 *Committee Hansard*, 18 August 2006, pp. 50–51.

15 Department of Defence, answer to question on notice, 28 March 2006 (received 29 May 2006) question 9, p. 4.

16 Department of Defence, answer to question on notice, 28 March 2006 (received 29 May 2006) question 9, p. 4.

16.19 A number of submitters commended the progress made by DMO to improve its tendering and contracting process especially the earlier involvement of industry. In brief, ADI was of the view that there had been a 'demonstrable change and benefit with the establishment of DMO'.<sup>17</sup> The Australian Industry Group Defence Council praised the work being done by DMO.<sup>18</sup> As well as improving the professional standing of DMO and its endeavour to introduce world best practice in their tendering and contracting processes, DMO has also reviewed the effects on industry of their contracting practices. It has identified weaknesses and put in place remedies to rectify them.

16.20 Raytheon Australia was positive about the new approach. It commented that its role as a Mission System Integrator (MSI) fitted well with the Kinnaird process, as mission systems integration involves working with both the customer to specify capability requirements and with industry to deliver outcomes. Dr Stevenson said:

I guess what we are finding is that by getting with the customer earlier and working with them we can help make sure that we have the right documents that specify the system in going forward...basically there is a lot more interaction between capability in DMO now than there was previously.<sup>19</sup>

16.21 Mr Gaul, President of CEA Technologies, commented that the Kinnaird process provides more rigour which is healthy. He stated further:

It does cause delays, which cause us problems, but Defence is very flexible and able to overcome that with CCP activity and things like that in our case so that contracts can still march forward until everything lines up. As long as that flexibility is there, I think the system will continue to work.<sup>20</sup>

16.22 Mr Fisher, Raytheon Australia, commented on improvements in scrutinising in-contract performance. He stated:

I would say that, under Dr Gumley, industry is more aware—if your schedule is 12 months, your schedule is 12 months. But the prior practice was that, if they brought it to nine months, they would win the job. Industry is being held more accountable for its overruns than previously. Before that, people used to do a CCP and just change it.<sup>21</sup>

Further:

From a taxpayer perspective, the process they are running today is a good process. What it really is doing is sorting out people who used to hide

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17 *Committee Hansard*, 28 June 2006, p. 16.

18 *Committee Hansard*, 28 June 2006, p. 27.

19 *Committee Hansard*, 3 July 2006, p. 8.

20 *Committee Hansard*, 3 July 2006, p. 34.

21 *Committee Hansard*, 3 July 2006, p. 9.

behind work in the job after they won it. That is the business approach the DMO has now taken.<sup>22</sup>

16.23 Mr Peter Hatcher noted that Defence had taken measures toward developing 'more innovative contracting arrangements that break down the fixed price contractual barrier between the customer and the supplier, in part to overcome that lack of internal capability within Defence.' He commended this approach as a good way of doing business.<sup>23</sup>

16.24 The AWD project provides an example of a cooperative contracting approach that involves an alliance between ASC, Raytheon Australia, the DMO and the Defence Department's Capability Development Group. In 2005, Defence tendered for the ship build through three separate contracts: one to choose a shipbuilder; another to choose a combat system systems engineer; and a third to select a designer. The weapons system was purchased under a separate arrangement. The Commonwealth selected ASC as the preferred shipbuilder; Raytheon Australia won the contract for the combat systems engineer; while U.S. firm Gibbs and Cox and the Spanish company Navantia are competing for the design contract, to be announced in mid 2007.

16.25 The AWD Alliance approach reflects the complexity of the destroyer project and the need for partnerships that bring together all the necessary skills and expertise to meet the task of integrating high-technology weapons, sensor and communications systems. Defence's close involvement partly reflects its own need to keep up-to-date with this rapidly evolving capability, particularly Raytheon's integration of the Defence-mandated Aegis combat system. Defence also has a strong interest in developing key partnerships, both among the alliance partners and between these companies and potential equipment suppliers, for future warship projects.

16.26 The ability of Defence and DMO to access and draw together skills and expertise from across companies and countries is increasingly important. Defence and DMO require project leaders with the vision and ability to drive complex projects, to inspire productive relationships between companies who may operate as rivals in the commercial world and to take difficult decisions at the outset of a project. Of all the stakeholders in an alliance or partnership arrangement, it is Defence and DMO which require the broad vision to look for opportunities to maximise the government's investment in a specific project. For example, there may be opportunities to improve the efficiency of eventual through-life support or potential spin offs to other projects and capabilities. As discussed in chapter 15, efficient naval shipbuilding requires a collaborative approach which looks at the most efficient use of industry-wide resources. Defence and DMO need the leadership skills to drive this approach and foster the necessary partnerships.

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22 *Committee Hansard*, 3 July 2006, p. 10.

23 *Committee Hansard*, 18 August 2006, p. 10.

16.27 The committee is encouraged by the positive views expressed about DMO and the progress it is making in improving tendering and contract management processes. However, the committee considers that delivery of upcoming projects will provide a more definite measure of the success or otherwise of such initiatives. This underlines the importance of having in place a review process that can gather information and assess projects as they progress through the various phases from concept to completion.

### **Conclusion**

16.28 The complexity of building warships in the current advanced technology, global industry increases the demands on Defence to function as an informed buyer. Some submitters questioned whether Defence has the appropriate level of experience and technical expertise to carry out its naval ship acquisition program effectively. Defence and DMO are aware of the need to have qualified personnel in-house and are taking steps to recruit such staff and to train existing employees. The committee considers it appropriate that Defence articulate through a revised DCP the skills and expertise that it requires and will maintain in-house in order to operate as an informed buyer.

16.29 DMO has undertaken steps to improve its tendering and contracting procedures and practices. Industry's response appears to be positive. A number of submitters commented on the improvements coming from the Kinnaird reforms and DMO's new professional approach. Industry players especially welcomed earlier engagement with DMO.

16.30 Even so, this report has highlighted the growing complexities in managing major naval acquisitions, especially given the complicated network of relationships and partnerships involved in modern naval construction projects. The committee considers that the current acquisition schedule will provide firm ground for assessing the progress made by DMO in improving defence procurement practices.

16.31 Chapter 14 commented on the absence of meaningful data and information, especially on the successes and failures of past projects. The committee considers it imperative that such information is systematically gathered and assessed as Defence progresses through coming major acquisitions. Such information is important for assessing how the Kinnaird process is operating in practice, and whether DMO's investments in staff development and innovative contracting arrangements are yielding results. Throughout the committee's inquiry Defence gave repeated assurances that it has the capacity to act as an informed buyer, that it is able to conduct



rigorous tender assessment and manage complex contracts. The recommendations contained in this report provide the basis for objective evidence, enabling these assurances to be tested, successes flagged and weaknesses documented for assessment and improvement.

**SENATOR DAVID JOHNSTON  
COMMITTEE CHAIR**

