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Principles and practice – Australian defence industry and exports

Inquiry of the Defence Sub-Committee

Joint Standing Committee on Foreign Affairs, Defence and Trade

November 2015
Canberra

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Contents

Foreword	viii
Membership of the Committee	x
Membership of the Defence Sub-Committee.....	xiii
Terms of reference	xvi
List of abbreviations	xvii
Executive summary	xxi
List of recommendations	xxv
1 Introduction	1
Conduct of the Inquiry.....	1
Structure of the report	1
Defence policy and capability planning	2
2 Australian defence industry.....	3
Introduction	3
An overview of the Australian defence industry	4
Australian defence imports and exports	7
Domestic defence sales and Defence's requirements of industry	9
The economic and strategic significance of the Australian defence industry.....	12
Spillover and second order effects of the defence industry.....	15
Australian defence industry policy.....	20
Intellectual property and innovation	26
Defence's procurement decisions.....	32

The Australian Industry Capability and Priority Industry Capability programs.....	38
Defence industry as a fundamental input to capability	45
First Principles Review reforms to capability development.....	48
RAND report - continuous build strategy an example of managing FIC	50
Departmental and ministerial responsibilities for the defence industry	52
Forthcoming White Paper and industry policy statement	53
Implications for defence exports	55
Identifying FIC and alternatives to competition.....	56
Committee comment.....	58
Recommendations	62
3 Defence industry engagement and assistance	65
Introduction	65
Defence industry support programs	66
Global Supply Chain program	71
Austrade and market advice	74
Australian Military Sales Office assistance	76
Access to finance.....	78
4 Export support available in other countries.....	83
Introduction	83
Forms of industry support and protection available in other countries	83
Offsets.....	85
Comparable countries	89
Canada	94
United Kingdom	96
United States	100
5 Barriers and impediments to the growth of Australia’s defence exports ...	107
Introduction	107
International market competition.....	107
Defence industry challenges.....	110
Sponsorship and advocacy.....	113
Defence attachés	114

Trade shows	116
Ministerial advocacy.....	118
Importance of selling to the ADF	119
Committee comment.....	121
Recommendations	124
6 Operations of the Defence Export Control Office	127
Introduction	127
Role and operation of the Defence Export Control Office	129
Regulation of defence exports.....	136
Australian export control law	137
Restrictions on re-export of US technology.....	138
Exports restricted due to temporary sanctions regimes	139
Export pre-approval.....	140
Approval of sensitive exports	142
Areas of possible improvement or reform.....	145
Administrative arrangements.....	145
Communication regarding status of applications.....	146
Complex regulations	149
Risk management	155
Implementation of the <i>Defence Trade Controls Act 2012</i>	160
Committee comment.....	163
Recommendations	164
Appendix A: List of Submissions	167
Appendix B: List of Exhibits	169
Appendix C: Answers to questions on notice.....	171
Appendix D: Witnesses who appeared at public hearings	173
Appendix E: Extracts of the United Kingdom's 'Defence Industrial Strategy: Defence White Paper' (December 2005).....	179

Appendix F: Extracts from 2009 contract between the United Kingdom Secretary of State for Defence and BVT Surface Fleet Ltd.....201

LIST OF TABLES

Table 2.1	Top defence contractors and small/medium enterprises in Australia 2014.....	5
Table 2.2	Leading suppliers of major weapons 2009 to 2013	7
Table 2.3	Leading recipients of major weapons 2009 to 2013	9
Table 4.1	Offset policies in other countries.....	86
Table 4.2	Australia, Canada, UK and US economic and defence industry comparison	91
Table 4.3	Australia, Canada, UK and US defence industry policy comparison.....	92
Table 6.1	Defence Export Control Office assessment process.....	132
Table 6.2	Export applications related to Regulation 13E	133
Table 6.3	Export applications related to the Defence Trade Controls Act	133
Table 6.4	Export assessments related to WMD Act and MEU provisions	133
Table 6.5	Percentage of export applications processed within 15 working days	134
Table 6.6	Overview of Australian Government export control legislative responsibilities	146
Table 6.7	Number of export applications received and rejected or denied	149

LIST OF FIGURES

Figure 1	Defence acquisition and exports framework.....	xxiv
Figure 3.1	Overview of departments and agencies involved in defence industry exports.....	70
Figure 3.2	EFIC finance to exporters.....	79



Foreword

The conduct of this inquiry highlighted, yet again, the yawning gap between many elements of Defence industry policy and its implementation as experienced by Australia's defence industry sector. The Committee's comments in Chapter two and the associated appendices outline an approach that will lead to a far more strategic partnership between Defence and industry.

The Committee's starting point was accepting the evidence provided during this inquiry – and validated by recommendations of the First Principles Review – that elements of defence industry are essential to Australian Defence Force capability. Defence therefore has an interest, indeed an obligation to identify elements in industry that are fundamental inputs to capability (FIC) and then to use available means – including domestic procurement programs and support for exports – to enhance and sustain them.

This will need a new approach to identifying and managing risk, and an acceptance that for complex systems, value for money may be found more often in long term partnerships than through ongoing, open competition. Where elements of industry are identified as being FIC, programs that encourage research and development that leads to intellectual property and a path to commercialisation should be funded as a priority. The Defence Material Technology Centre model is one existing example that should be expanded into other technology areas to help achieve this goal.

In summary, support for defence exports – where they assist to sustain or develop industry elements that are identified as FIC – should be viewed as a core Defence responsibility in the same way as the services manage other FIC elements including training, personnel plans, facilities and doctrine development.

I commend this report to the reader and thank the many witnesses who gave time and effort to inform the deliberations of the Committee.

Senator David Fawcett
Chair
Defence Sub-Committee



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Terms of reference

The Joint Standing Committee on Foreign Affairs, Defence and Trade shall inquire into and report on Government support for Australian Defence industry exports, having particular regard to:

1. Identification of barriers and impediments to the growth of Australia's Defence exports;
2. How Government can better engage and assist Australian Defence industry to export its products;
3. The operations of the Defence Export Control Office;
4. Assessment of the export support given to Defence industry by governments of comparable nations; and
5. Any other related matters.



List of abbreviations

ABDI	Australian Business Defence Industry
ACB	Arms Control Branch
ACBPS	Australian Customs & Border Protections Service
ADF	Australian Defence Force
ADJR	<i>Administrative Decisions (Judicial Review) Act 1977 (Cth)</i>
AG	Australia Group
AGDESF	Australian Government Defence Export Support Forum
AIC	Australian Industry Capability
AIDN	Australian Industry and Defence Network
AIG	Australian Industry Group [Defence Council]
AMSO	Australian Military Sales Office
AMWU	Australian Manufacturing Workers Union
ANAO	Australian National Audit Office
ASC	Australian Submarine Corporation
ASPI	Australian Strategic Policy Institute
AUSTRADE	Australian Trade Commission
CASG	Capability Acquisition and Sustainment Group

CDG	Capability Development Group
CPR	Commonwealth Procurement Rules
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CTD	Capability and Technology Demonstrator
DCP	Defence Capability Plan (Note: DCP is also used to refer to the Defence Cooperation Program)
DECO	Defence Export Control Office
DEU	Defence Export Unit
DFAT	Department of Foreign Affairs and Trade
DIIC	Defence industry Innovation Centre
DIPS	Defence Industry Policy Statement
DIRF	Defence Innovation Realisation Fund
DMO	Defence Materiel Organisation
DLTP	Defence Logistic Transformation Program
DMTC	Defence Materials Technology Centre
DPPM	Defence Procurement Policy Manual
DSGL	Defence and Strategic Goods List
DSTG	Defence Science and Technology Group (formerly DSTO)
DSTO	Defence Science and Technology Organisation
DTC	Defence Teaming Centre
DTCA	<i>Defence Trade Controls Act 2012 (Cth)</i>
EFIC	Export Finance and Insurance Corporation
FIC	Fundamental Input to Capability
FMS	Foreign Military Sales

FPR	First Principles Review
GAO	Government Accountability Office (United States)
GDP	Gross Domestic Product
GSC	Global Supply Chain
IP	Intellectual Property
ISPE	Industry Skilling Program Enhancement
ITAR	International Traffic in Arms Regulations (United States)
JSF	Lockheed Martin F-35 Joint Strike Fighter
MEU	Military End User
MTCR	Missile Technology Control Regime
NACC-ISP	New Air Combat Capability – Industry Support Program
NSC	National Security Committee
NSG	Nuclear Suppliers Group
OEM	Original Equipment Manufacturer
PICs	Priority Industry Capabilities
PICDF	Priority Industry Capability Development Fund
R & D	Research and Development
RPDE	Rapid Prototyping Development and Evaluation
SADI	Skilling Australia Defence Industry
SICs	Strategic Industry Capabilities
SIDCDE	Standing Interdepartmental Committee on Defence Exports
SIPRI	Stockholm International Peace Research Institute
SME	Small to Medium Enterprise
TDA	Team Defence Australia

UKTI DSO	United Kingdom Trade and Investment Defence Security Organisation
UNSC	United Nations Security Council
VFM	Value for Money
WA	Wassenaar Arrangement
WMD	Weapons of Mass Destruction
WP	White Paper



Executive summary

The terms of reference for this inquiry required the Committee to consider whether it was in the national interest for the taxpayer, via Defence, to fund additional¹ measures to help Australian defence industry export products and services. Evidence to the Committee made it clear that attempts to do this in the past have not generally been seen as core Defence business, reflecting the culture that “the Defence budget is to equip Defence, not to support industry”.

Evidence to the Committee also showed that, with a few exceptions, there was a strong relationship between export potential and a sustainable domestic capacity to design, manufacture and support defence materiel. The cost-benefit of enhanced support for export could therefore only be made in the context of policies governing the relationship between Defence and the domestic defence industry sector in matters of capability development, acquisition and sustainment.

Defence engagement with domestic industry has largely been defined by a combination of acquisition practices and Defence industry policy which have a chequered history of coordination and implementation in Australia. The practical effect of these two policy areas has tended to please neither those who want to acquire equipment off-the-shelf at the lowest possible price nor those who wish to use the investment in Defence to create Australian jobs.

In the Committee’s view, neither of those outcomes are the appropriate measures to assess value in the strategic relationship between Defence and Defence industry. The Committee formed this view on the basis of evidence – supported

1 Government already helps facilitate exports from many business sectors through programs operated by the Department of Industry.

by the First Principles Review – that some elements of defence industry are in fact fundamentally important to the operational and materiel support of complex equipment used by Defence. Rather than remaining at arm’s length from industry, the Committee supports the notion that Defence has an interest, indeed an obligation, to adjust its capability development and procurement policies to work with industry to identify, and then help sustain, those elements that represent fundamental inputs to capability (FIC).

In the Committee’s view, this fundamentally changes how the assessment of value-for-money should be approached and then leads to three discrete procurement priorities.

The assessment of value-for-money should take into account:

- The extent to which the procurement helps sustain a FIC element of industry;
- The whole-of-life costs and benefits, including second order effects (where appropriate);²
- The value added by contractual models that allow for long term partnerships to drive productivity, innovation and efficiency instead of a default reliance on competition throughout the life of any given capability.

This approach to assessing value-for-money should be applied across three procurement streams that reflect a more strategic approach being:

- A primary focus in acquisition and industry policy that identifies and sustains (through carefully programmed procurement) the sub-set of the domestic defence industry sector that provides key enabling inputs to Australian Defence capability.³ This ties in closely with the First Principles Review recommendation for defence industry to be regarded as a fundamental input to capability (procurement stream A);
- A secondary focus – recognising that overseas suppliers will continue to provide many of the complex platforms/systems used by Defence – to use

2 The Committee accepts evidence that not all Defence acquisition will deliver second order benefit to the Australian economy. There is however evidence that complex procurement activity generates new IP and productive capacity that does generate measurable economic benefit that should be assessed.

3 The United Kingdom Ministry of Defence has recently conducted analysis of whole industry sectors that produce complex systems for the UK to determine (down to identifying specific trades and areas of technology) which elements of defence industry have a bearing on their sovereign ability to acquire, sustain and operate complex military equipment. Australia could draw on this approach as well as similar Australian work (eg: Rizzo, Blueprint 2020, RAND Submarine Design Capabilities and Capacities) to help identify FIC.

Defence procurement processes (including contractual arrangements and strategic partnerships) to develop and retain the technical expertise within Defence and Australian industry that allows Australia to be a smart buyer, capable of making informed decisions about the military capability it purchases and then operates (procurement stream C); and

- A tertiary approach – still using the evolved consideration of value for money – that covers those contracts where no FIC or smart buyer considerations apply (procurement stream B).

This framework more clearly defines those areas where it is demonstrably in the national interest for the taxpayer to be funding additional measures to support defence exports. Where an element of the local industry represents a FIC, Defence should make it a priority to support any export opportunity that will help make that industry sector more commercially sustainable and increase the potential – including to Australia’s defence community – of relevant products, services, capacity, competence or intellectual property.

This framework is shown in figure 1.

The First Principles Review has articulated clearly that Defence capability managers have an obligation to ensure that the subset of industry elements that form fundamental inputs to Defence capability remain available and in fact develop along with best practice. In the Australian context, Service Chiefs as Capability Managers are responsible to ensure FIC are effective and sustainable.

The Service Chiefs and Capability Acquisition and Sustainment Group (CASG) therefore have an obligation to oversee a change in both culture and policy that makes identification, development and maintenance of both FIC and smart buyer competence (which often overlap) a priority. This will require an integrated acquisition and industry policy that enables innovation and promotes the development of sustainable industrial capacity in key sectors. Because intellectual property, design and engineering competence as well as manufacturing capacity all take time to develop, constancy of work is essential if personnel are to become competent and industry to remain viable. Defence should work with industry to achieve this across a portfolio of acquisition activities rather than the basis of individual projects. Defence exports are in effect part of the portfolio of activities that can assist industry to remain viable.

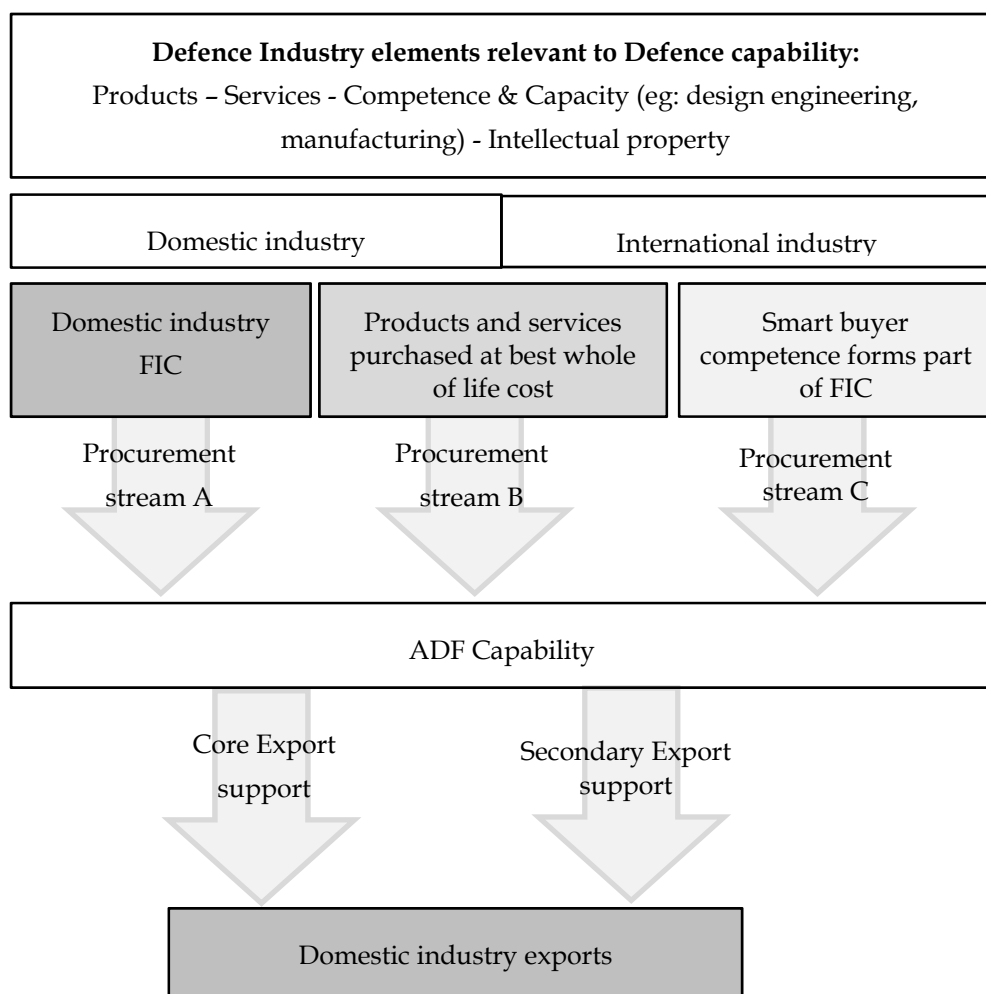
As Defence evolves its policy and culture in respect to industry engagement based on using procurement to sustain FIC, existing programs such as the Priority and Strategic Industry Capabilities (PIC and SIC) should be phased out. For non FIC

acquisition, tender rules requiring global primes to involve Australian industry through the Australian Industry Capability program (AIC) may still be applicable as could participation in the Global Supply Chain program.

Priority export support could include funds to support R&D and the development of Intellectual Property (IP) in FIC related areas. Greater funding for cooperative engagement models such as the Defence Materials Technology Centre (DMTC) should assist commercialisation of products for domestic use or export where they are considered to help sustain FIC. Defence support should also include support at trade shows (including overt advocacy by ADF personnel), utilising defence attachés at foreign diplomatic posts to identify and exploit export opportunities. Ministerial advocacy would also be appropriate for priority exports which help sustain FIC.

For non FIC related exports, existing Government programs (eg: Austrade and EFIC) should be continued, as should low cost, opportunity based support where feasible for exports.

Figure 1 Defence acquisition and exports framework





List of recommendations

2 Australian defence industry

Recommendation 1

The Committee recommends that the Department of Defence incorporate into policy, doctrine, procurement instructions and all associated training the addition of defence industry as the ninth fundamental input to capability.

Recommendation 2

The Committee recommends that the Department of Defence build on previous activities in Australia and abroad to develop a system to identify those elements of industrial competence or capacity that are deemed to be fundamental inputs to ADF capability (FIC). This activity should be led by the Service Chiefs and implemented by Capability, Acquisition and Sustainment Group at a strategic level with an assessment of how each new significant project may change the assessment of FIC or indeed could contribute to the maintenance of FIC from a whole of program perspective.

Recommendation 3

The Committee recommends that when implementing the First Principles Review changes to roles and responsibilities, capability development, procurement and sustainment, Defence take into account the framework for industry engagement based around the fundamental inputs to capability illustrated in Figure 1.

Recommendation 4

The Committee recommends that in areas where an aspect of industry is identified as a fundamental input to capability, Defence's procurement and probity guidelines provide suitable pathways for long term partnerships to be the default approach to driving innovation,

productivity and value for money rather than a primary focus on open competition. Defence should publicly report savings achieved by virtue of this revised approach to procurement.

Recommendation 5

The Committee recommends that where a procurement activity is linked to a fundamental input to capability, the Department of Defence develop guidelines that encourage identification and management of risk rather than avoidance of risk through defaulting to an offshore contract.

Recommendation 6

The Committee recommends that the Department of Defence significantly expand its investment in activities that generate fundamental input to capability-related innovation and intellectual property, and support commercialisation through partnership models such as the Defence Materials Technology Centre.

Recommendation 7

The Committee recommends that where an industry-related fundamental input to capability has been identified, the Department of Defence prioritise Australian based procurement contracts so that relevant industry and Defence staff can develop competence in specific tasks via hands-on experience, or where this is not possible, through making the placement of Australian staff in original equipment manufacturers or foreign military engineering bodies a condition of contract.

Recommendation 8

Subject to acceptance of Recommendations 1-7, the Committee recommends that the Department of Defence discontinue the Priority Industry Capability and Strategic Industry Capability programs, retain the Australian Industry Capability targets for procurement activity that do not involve an identified fundamental input to capability and continue to promote the Global Supply Chain scheme wherever possible.

Recommendation 9

The Committee recommends that the Department of Defence increase the level of support to defence exports where such exports will help sustain or develop a fundamental input to capability.

Recommendation 10

The Committee recommends that the Minister for Defence Materiel and Science have responsibility for how the capability development, procurement and sustainment systems work, the investment in fundamental input to capability-related innovation and export

opportunities including an increased focus on Government to Government sales.

Recommendation 11

The Committee recommends that Defence develop performance measures relevant to the management of the defence industry as a fundamental input to capability and publicly report the outcomes.

5 Barriers and impediments to the growth of Australia's defence exports

Recommendation 12

The Committee recommends that defence export assistance efforts be prioritised based on a distinction between areas of core and secondary export focus:

- Core export focus would apply to elements of industry output recognised as a fundamental input to capability (FIC), where defence exports can help sustain or spread production costs. This support should extend to funding for research and development that supports exports that will have an impact on the associated FIC; and
- Secondary export focus would apply to those elements of industry output not recognised as a FIC. In such cases, Defence and other related agencies should provide assistance where practicable.

Recommendation 13

The Committee recommends that the Australian Government develop a defence exports strategy and the Department of Defence expand the role of the Australian Military Sales Office to include implementing the objectives of this strategy, based upon the defence industry as a fundamental input to capability.

Recommendation 14

The Committee recommends that the Department of Defence task appropriate Australian Defence Force personnel to assist at trade shows or exhibitions, alongside defence industry participants, to inform and advise foreign customers of the Australian Defence Force's experience using the displayed products.

Recommendation 15

The Committee recommends that the Department of Defence revise the roles of defence attachés to include:

- Gathering information relevant to defence export opportunities on behalf of the Australian defence industry;

- Relaying this information to industry, along with other advice on export opportunities and constructive feedback on Australian defence industry performance, via the Australian Military Sales Office;
- Initiating discussions with foreign governments regarding potential military sales from Australia; and
- Where appropriate, the promotion of Australian products.

Further, pre-deployment training for defence attachés should include mandatory familiarisation with, and understanding of, the Australian defence industry.

Recommendation 16

The Committee recommends that relevant Government Ministers fulfil a prominent advocacy role on behalf of the Australian defence industry, in particular the Minister for Defence Materiel and Science.

6 Operations of the Defence Export Control Office

Recommendation 17

The Committee recommends that the Department of Defence enhance the existing risk-based approach to assessing applications to export materiel and technology subject to Australian export control laws.

Recommendation 18

The Committee recommends that the Defence Export Control Office improve the defence export approval process by:

- Providing timely updates to applicants on the status of their application;
- Ensuring information regarding regulatory change is promptly communicated to relevant stakeholders;
- Allowing export licences to be valid for longer periods;
- Introducing a simplified process for renewal where approval expires; and
- Managing this process depending on the risks in each case.

Recommendation 19

The Committee recommends that the Department of Defence publicly report the Defence Export Control Office's budget, expenditure, numbers of applications processed and overall performance on an annual basis.

Introduction

Conduct of the Inquiry

- 1.1 The inquiry was referred to the Joint Standing Committee on Foreign Affairs, Defence and Trade (JSCFADT) on 7 May 2014 by the Minister for Defence. The JSCFADT then referred the terms of reference to its Defence Sub-Committee for inquiry on 14 May 2014.
- 1.2 The Committee received 49 submissions. A list of all submissions, exhibits and answers to questions on notice are listed at Appendices A, B and C respectively and are available on the Committee's website.¹
- 1.3 Public hearings were conducted by the Committee in Adelaide, Melbourne, Sydney and Canberra. Details of the hearings and the names of witnesses who appeared before the Committee are at Appendix D.
- 1.4 The conduct of the Inquiry was dominated by discussion of the impending release of the First Principles Review and consequent changes within Defence capability development and acquisition structure. The Committee chose to delay completion of the inquiry in order to take account of these developments.

Structure of the report

- 1.5 The report begins with the context of Australian defence industry, current Government policy, introduce the concept of industry as a fundamental input to capability and explain how these factors are relevant to defence exports (chapter two).

1 See <<http://www.aph.gov.au/jfadt>>.

- 1.6 The Committee then assessed current forms of engagement and assistance available to the defence industry, the performance of selected comparable countries (Canada, the UK and the US) and additional barriers and impediments to Australian defence exports (chapters three to five).
- 1.7 Lastly, the Committee considered the operations of the Defence Exports Control Office (DECO), which has regulatory responsibility for approving the export of defence materiel and technology (chapter 6).

Defence policy and capability planning

- 1.8 Following the release of the 2015 Defence White Paper, Defence intends to publish a 10-year Defence Capability Plan and a Defence Industry Policy Statement to provide defence industry with greater certainty about the Government's key priorities and timeframes. The Government has stated that the upcoming White Paper will be fully costed and provide long term funding guidance. This will likely be provided through the Government's intention to increase Defence spending to 2 per cent of gross domestic product.²
- 1.9 Defence's submission noted that programs relevant to defence exports 'will be reviewed in the context of the development of the 2015 White Paper and an accompanying Defence Industry Policy Statement.'³

2 Prime Minister and Minister for Defence media release, 'Delivering a World Class Defence Force', 4 April 2014, at <<http://www.pm.gov.au/media/2014-04-04/delivering-world-class-defence-force-0>> (viewed 26 August 2015).

3 Department of Defence, *Submission 41*, p.1.

Australian defence industry

Introduction

- 2.1 Part One of this chapter provides an overview of the Australian defence industry, its economic and strategic significance and discusses the concept of 'spillover' effects generated by industry.
- 2.2 Part Two of the chapter outlines Australian defence industry policy settings and current measures to support industry. It details three issues that were subject to particular attention during the inquiry:
 - Intellectual property and innovation;
 - The impact of Defence's procurement decisions which seem to be often taken without regard to published defence industry policy; and
 - Extant measures designed to assist Australian defence industry to be involved in large Defence acquisition and sustainment projects; specifically, the Australian Industry Capability and Priority/Strategic Industry Capability programs.
- 2.3 Part Three of the chapter discusses the probable impact of reforms that are expected to be implemented in the near term:
 - Recognising elements of defence industry as a fundamental inputs to capability;
 - Other recommendations of the First Principles Review;
 - Moving to a continuous build approach to naval shipbuilding; and
 - Developments related to the 2015 Defence White Paper.
- 2.4 The chapter concludes with the Committee's view of the implications of the relationship between Defence and industry for defence exports.

An overview of the Australian defence industry

- 2.5 The *Australian Defence Magazine* has estimated that the top 40 Australian defence contractors had an estimated turnover of \$9.27 billion in 2014.¹
- 2.6 Published estimates of the number of people employed in the defence industry have cited varying figures. The 2010 Defence Industry Policy Statement estimated that employment in the Australian defence industry is as high as 29,000 people.² In 2012, Skills Australia estimated the number to be between 15,000 and 25,000 people.³ Defence's submission estimated that 'Defence demand on Australian industry in relation to capital equipment programs accounts for the direct employment of around 27,000 people' and 'substantially more... through economic flow-on'.⁴
- 2.7 The Committee was not provided with nor referred to any current official figures to measure the value of Australian defence exports or the annual revenue of the defence industry.
- 2.8 The following table lists the top 20 Defence contractors and SMEs located in Australia based on annual turnover for 2014.

1 Australian Defence Magazine, Vol.23, No.1, December 2014/January 2015, Top 40 Defence Contractors and Top 20 SMEs Survey, p.27.

2 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.28.

3 Skills Australia, 'Building Australia's Defence Supply Capabilities: Main Report for the Defence Industry Workforce Strategy', 2012, p.9, at <http://industry.gov.au/skills/Publications/Documents/BuildingAustraliasDefenceSupplyCapabilities_260912-2012.pdf> (viewed 26 August 2015).

4 Department of Defence, *Submission 41*, p.2.

Table 2.1 Top defence contractors and small/medium enterprises in Australia 2014

	Top 20 Defence Contractors in Australia	Top 20 Defence SMEs in Australia (Companies with 200 employees or less)
1	BAE Systems Australia	Cubic Defence New Zealand Ltd
2	ASC Pty Ltd	CAE Australia Pty Ltd
3	Thales Australia	Rockwell Collins Australia
4	Raytheon Australia Pty Ltd	Australia Defence Apparel Pty Ltd
5	Airbus Group Australia Pacific	GH Varley Pty Ltd – Defence & Aerospace Division
6	John Holland Group Pty Ltd	Chemring Australia
7	Transfield Services Limited	L-3 Oceania
8	Spotless Group Limited	Rohde & Schwartz (Australia) Pty Ltd
9	Boeing Defence Australia	Marand Precision Engineering Pty Ltd
10	Lockheed Martin Australia Pty Limited	Ultra Electronics
11	Austal	Adagold Aviation Pty Ltd
12	Serco Australia Pty Ltd	Rosebank Engineering Pty Ltd
13	Saab Australia Pty Ltd	Eylex Pty Ltd
14	Lend Lease Building Pty Ltd	Broens
15	Aspen Medical	Cubic Defence Australia Pty Ltd
16	Northrop Grumman Australia Pty Ltd	TAE
17	Babcock ANZ (incl Australian Helicopters)	H.I. Fraser Pty Ltd
18	Forgacs	Communications Design & Management Pty Ltd
19	IBM Australia Limited	Calytrix Technologies Pty Ltd
20	ESS Support Services Worldwide	Owen International Pty Ltd

Source: *Australian Defence Magazine, Vol.23, No.1, December 2014/January 2015, Top 40 Defence Contractors and Top 20 SMEs Survey, p. 27.*

2.9 Sonartech Atlas’ submission described the historic background of the defence industry in Australia:

In the 1970’s and early 80’s Australian defence industry was largely a collection of government owned and operated facilities, with a focus on meeting the needs of the Australian armed services. The commercially owned entities in the defence market place were primarily ‘shopfronts’ for overseas companies to supply their products into Australia.⁵

2.10 During this time, local industry was protected by import quotas and tariffs, which have since been eliminated or reduced to low levels.⁶

5 Sonartech Atlas, *Submission 26*, p.1.

6 Department of Defence, ‘Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base’, June 2010, p.24.

- 2.11 John O'Callaghan (Director, Defence and Government Relations, Australian Industry Group) said that the defence industry had moved from 'unproductive government-owned ammunition, dockyards and aerospace entities' towards 'a more vibrant and efficient innovative world-class commercially driven group of entities such as the prime defence contractors and their sub-entities.'⁷
- 2.12 Determining the size and scale of Australia's defence industry depends upon how the industry is defined. Mr Chris Burns (CEO, Defence Teaming Centre) said there is 'no agreed definition' of the defence industry.⁸
- 2.13 A company may supply products and services sold for either military or civilian purposes. In 2012 a study of the defence industry workforce conducted by Skills Australia⁹ stated:
- Given that many of the firms working for Defence also undertake significant civilian work, many of the employees engaged directly or indirectly in supporting Defence's materiel requirements could move between military and civilian tasks if required. A degree of uncertainty over the exact size of the Defence materiel workforce is therefore to be expected.¹⁰
- 2.14 The significance of defining the 'defence industry' was noted in a submission to the 2015 Defence White Paper process by the Defence Teaming Centre:
- The breadth and scope of Australia's defence industry is not well understood because it is ill-defined. Without formal definition the industry's capabilities and capacities cannot be fully comprehended or appreciated. It also limits the capacity to determine and measure the impact of defence industry on decisions related to Defence capabilities.¹¹
- 2.15 Mr Chris Burns said that industry should be broadly defined:

7 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.2.

8 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.20.

9 Skills Australia was succeeded by the Australian Workforce and Productivity Agency. In July 2014, the AWPB 'transitioned' into the Department of Industry and Science. See <<http://www.industry.gov.au/skills/Publications/Pages/Former-Australian-Workforce-and-Productivity-Agency-Publications.aspx>> (viewed 16 October 2015).

10 Skills Australia, 'Building Australia's Defence Supply Capabilities: Main Report for the Defence Industry Workforce Strategy', 2012, p.9, at <http://industry.gov.au/skills/Publications/Documents/BuildingAustraliasDefenceSupplyCapabilities_260912-2012.pdf> (viewed 26 August 2015).

11 Defence Teaming Centre, Submission to 2015 Defence White Paper, p.2.

We consider that defence industry is any company that is contributing, or might contribute to, military capability, or that is impacted by Defence procurement practices and procedures.¹²

2.16 Mr Burns observed that ‘there is a vast variety of companies in the defence industry. When you consider the spectrum of it, it is quite large.’¹³

Australian defence imports and exports

2.17 Figures published by the Stockholm International Peace Research Institute (SIPRI),¹⁴ which maintains a database of the world’s ‘major weapon’ transfers, shows Australia’s position relative to other countries. According to SIPRI’s analysis, Australia is among the world’s leading importers of major weapons. SIPRI’s commentary noted that Australia was the recipient of 10 per cent of all US deliveries from 2009 to 2013.¹⁵

Table 2.2 Leading suppliers of major weapons 2009 to 2013

Volume of exports (SIPRI trend indicator values in \$million)		
<i>Rank/Country</i>	<i>2013</i>	<i>2009-2013</i>
1. United States	6,153	39,080
2. Russia	8,283	36,243
3. Germany	972	8,800
4. China	1,837	7,379
5. France	1,489	7,211
6. United Kingdom	1,394	5,515
7. Spain	605	3,986
8. Ukraine	589	3,503
9. Italy	801	3,480
10. Israel	773	3,155
...		
20. Australia	63	438

Source: SIPRI Yearbook 2014, p.258.

12 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.20.

13 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.20.

14 Prof Roos, *Submission 8*, p.4.

15 SIPRI Yearbook 2014 (Oxford University Press, Oxford, 2014), p.259; Thales, *Submission 19*, p.2.

Table 2.3 Leading recipients of major weapons 2009 to 2013

Volume of imports (SIPRI trend indicator values in \$million)		
<i>Rank/Country</i>	<i>2013</i>	<i>2009-2013</i>
1. India	5,581	18,564
2. China	1,534	6,581
3. Pakistan	1,002	6,426
4. United Arab Emirates	2,245	5,777
5. Saudi Arabia	1,486	5,231
6. United States	759	5,074
7. Australia	303	5,027
8. South Korea	188	4,758
9. Singapore	142	4,439
10. Algeria	336	4,221

Source: SIPRI Yearbook 2014, p.268.

- 2.18 Thales Australia's submission noted that Australia accounts for a small percentage of global arms sales and stated that Australian defence exports 'are mostly driven by individual company commercial strategies – sometimes unrelated to local defence requirements.'¹⁶
- 2.19 Nonetheless, the Australian Industry Group's submission noted some contemporary examples of Australian success in the global market:
- Australia's defence industry has progressively matured over the past 20 years, with an increasing focus on exports. The Team Australia initiative on the Joint Strike Fighter program has provided the template for building export performance. This is particularly so for Ai Group member companies, such as Marand Precision and Ferra. Other member companies, such as Austal, have been remarkably successful in winning valuable work offshore in the maritime domain. Aerosonde and Thomas Global, among others, have proven their ability to compete successfully in international markets.¹⁷
- 2.20 As discussed below, a sizeable proportion of overall defence industry revenue is generated by sales to the Australian Defence Force (ADF).

16 Thales Australia, *Submission 19*, p.3.

17 Australian Industry Group, *Submission 35*, p.1.

Domestic defence sales and Defence's requirements of industry

- 2.21 The ADF's expenditure on capital equipment accounts for approximately one-third of Defence's total annual budget. The Defence submission claims that the proportion of this expenditure within Australia has remained relatively steady over time at between 50 to 55 per cent, with a larger proportion of the in-country spend directed to equipment sustainment, acquisition and development.¹⁸
- 2.22 Defence and Defence Materiel Organisation (DMO)¹⁹ expenditure is sizeable. The Department of Finance's procurement statistics show that in 2013-14:
- DMO procurement expenditure is the largest among government agencies, with expenditure of \$16.72 billion (or 32.4 per cent as a proportion).
 - Defence ranked in second place, with expenditure was \$12.68 billion (or 25.9 per cent in proportion).²⁰
- 2.23 A February 2014 Department of Defence submission to a Senate inquiry on government procurement procedures included the following figures:
- Defence spends around \$10 billion annually on acquisition and sustainment, which equates to around 0.6 per cent of Australia's GDP;
 - Around 54 per cent to 60 per cent of Defence expenditure on capital equipment is spent within Australia;
 - Around 70 per cent of expenditure on sustainment is spent within Australia;
 - At a regional level, 'it is not unusual' for around 10 per cent of the workforce to be employed in jobs related to Defence;
 - More than half of this expenditure 'leaks' from the region when company profits are distributed, consumables are sourced from outside the region and workers spend their earnings on items made elsewhere.²¹
- 2.24 Defence's submission to the Senate inquiry concluded:

18 Department of Defence, *Submission 41*, p.2.

19 The Defence Materiel Organisation became the Capability, Acquisition and Sustainment Group on 1 July 2015.

20 Department of Finance, 'Statistics on Australian Government Procurement Contracts' at <<http://www.finance.gov.au/procurement/statistics-on-commonwealth-purchasing-contracts/>> (viewed 26 August 2015).

21 Department of Defence, *Submission 43*, Senate Finance and Public Administration References Committee Inquiry into Commonwealth Procurement Procedures, pp.19-20.

For this reason, the regional economic impacts of Defence expenditure are often substantially lower than initial impressions suggest. Such impacts tend to be overstated in the public arena.²²

- 2.25 However, Defence's submission to this inquiry described its economic contribution as sizeable:

Defence demand on Australian industry in relation to capital equipment programs accounts for direct employment of around 27,000 people, and substantially more than that number through economic flow-on or multiplier effects.²³

- 2.26 Defence's submission added:

These broad budgetary parameters influence the overall size of domestic defence industry given that Australia's defence industry is centred on the ADF as a customer. Defence analysis suggests that exports by Australian-based companies with strong and direct links to supporting the ADF account for only a small element of their overall output.²⁴

- 2.27 The ADF is therefore a key customer of the defence industry. The Department of Defence's submission acknowledged the significance of the defence industry:

Australia's defence industry builds and supports a myriad of capital equipment - including advanced weapons platforms and systems - on which the ADF depends. This equipment is a critical contributor to Australia's defence preparedness, and the domestic defence industry is essential to ensuring the majority of this equipment is able to be deployed.²⁵

- 2.28 Defence's submission added:

Defence requirements dominate national shipbuilding and repair activity and contribute substantially to the overall size of the Australian market for aircraft maintenance. It makes a smaller contribution to overall Australian markets for electronics, vehicles and other products.²⁶

- 2.29 Notwithstanding Defence's above acknowledgement of industry's contribution, in a submission to a 2014 Senate inquiry into government procurement, Defence stated:
-

22 Department of Defence, Submission 43, Senate Finance and Public Administration References Committee Inquiry into Commonwealth Procurement Procedures, p.20.

23 Department of Defence, *Submission 41*, p.2.

24 Department of Defence, *Submission 41*, p.2.

25 Department of Defence, *Submission 41*, p.2.

26 Department of Defence, *Submission 41*, p.2.

It is a long held and widely accepted principle that Australian industry exists to support the ADF, not the other way around. Military-strategic issues should always assume a position of primacy in the Defence procurement process, generally irrespective of the economic impacts of Defence spending. The potential economic impacts of Defence capital equipment projects do not form part of the normal process through which value for money is evaluated at a Departmental level.²⁷

2.30 The Defence Teaming Centre's submission to the 2015 White Paper process rejected this view, stating:

Defence industry's capacity to generate global credibility is also greatly reduced when the Federal Government very publically denigrates and defames its own defence industry. ... The Government's recent pronouncement that "industry exists to support defence, not defence supporting industry" suggesting a 'master-servant' or 'hand-out' relationship is equally unhelpful. Industry would prefer to partner with Government and Defence in a mature and collegiate manner rather than what is perceived as the Government's current confrontational approach.²⁸

2.31 The Northern Territory Government submitted that whilst Defence's presence is considerable:

Very few businesses rely solely on defence as a customer, with the workflow too spasmodic for reliance on defence alone as a customer.²⁹

2.32 According to analysis prepared by Graeme Dunk (Manager, Australian Business Defence Industry), published in the ASPI *Strategist*, the proportion of Defence spend within Australia is declining:

In the period from 1 July 2007 to 31 March 2015 the DMO [Defence Materiel Organisation] has placed approximately 117,000 contracts worth a little over A\$71 billion for acquisition, sustainment and sundry other items. In the financial year 2007-08 almost 80 per cent of the DMO contracting was to companies operating within Australia, but this has steadily declined since that time to the current state where less than 60 per cent are awarded locally.³⁰

27 Department of Defence, Submission 43, Senate Finance and Public Administration References Committee Inquiry into Commonwealth Procurement Procedures, p.19.

28 Defence Teaming Centre, Submission to Defence White Paper 2015, p.5.

29 Northern Territory Government, *Submission 5*, p.4.

30 Graeme Dunk 'Australian Defence Industry - Where to Next?' ASPI *Strategist*, 1 May 2015, at <<http://www.aspistrategist.org.au/australian-defence-industry-where-to-next/>>.

2.33 Mr Dunk's article added:

When ASC is taken out of the equation less than 5 per cent (by value) of all DMO acquisition and sustainment contracts are awarded directly to Australian-owned companies.³¹

2.34 The AMWU made similar observations in its submission.³²

2.35 Thales Australia submitted that Defence views local industry's role as being to support ADF acquisitions in Australia, rather than to create unique and exportable products. As a consequence:

That means that Australia does comparatively little R&D [research and development]... from which export possibilities with a unique value proposition may emerge. As weapons systems become increasingly sophisticated, the opportunities for local industry to forge a unique export value proposition from support activities is also difficult, because so much of the intellectual property, software, hardware, manufacturing processes and replacement parts are locked into, or controlled by, foreign original equipment manufacturers.³³

The economic and strategic significance of the Australian defence industry

2.36 During the inquiry, the Committee was urged to consider the strategic and economic significance of the domestic defence industry and how this relates to defence exports. More specifically, the following issues arose:

- The defence industry's contribution to the Australian economy;
- The importance of sovereignty, self-reliance and national interest; and
- The economic and knowledge 'spillover' effect created by undertaking defence projects within Australia.

2.37 The Australian Manufacturing Workers' Union submitted:

More than any other industry, countries around the world have historically and continue to identify their defence industry as a strategic capability. Practically, what this recognition means is

31 Graeme Dunk 'Australian Defence Industry - Where to Next?' *ASPI Strategist*, 1 May 2015, at <<http://www.aspistrategist.org.au/australian-defence-industry-where-to-next/>>.

32 AMWU, *Submission 24*, pp.2-3; see also NSW Business Chamber, 'Analysis Reveals Federal Government Exporting Australian Defence Industry Jobs Overseas', at <<http://www.nswbusinesschamber.com.au/News-Media/Latest-News/Media-Releases-2013/Analysis-reveals-Federal-Government-exporting-Aust>> (viewed 26 August 2015).

33 Thales Australia, *Submission 19*, p.5.

these countries have refused to allow the laws of economics to determine the fate of their domestic defence industries.³⁴

2.38 Dr Tom Skladzien (National Economic and Industry Advisor, Australian Manufacturing Workers' Union) stated:

...if any government wishes to support defence exports, they need to support defence capability. The only way that a government can do that is to use and build its defence sector.³⁵

2.39 In Mr Dunk's 2015 ASPI *Strategist* article calling for greater recognition of the defence industry's role he said:

We need to determine those parts of industry that are associated with high strategic risk and then unashamedly support and develop them. We also need to determine how the defence industry sector plays into the wider industrial and economic base, and to make a policy decision that we'll support defence industry activities that contribute to the national economic well-being. Those aren't offsets in disguise. It's not protectionism. It's Australia as a sovereign nation taking actions that are associated with our national security.³⁶

2.40 Professor Goran Roos submitted that the robustness of the defence industry directly affects Australia's sovereign capability:

The extent to which industry is critical to sovereign capability is frequently not realised in the public debate. Without local industry expertise, it is impossible to sustain operations.³⁷

2.41 Professor Roos defined sovereign capability as being:

...the ability to ensure, under full national control and without reliance on any direct foreign assistance, the execution and sustainment of national security operations. This will require:

- Sufficient numbers of highly capable and competent staff;
- Defence systems with the required capabilities and operational availability; [and]
- Domestic capabilities to support and sustain these defence systems.³⁸

34 AMWU, *Submission 24*, pp.1-2.

35 Skladzien, *Committee Hansard*, 17 October 2014, p.27.

36 Graeme Dunk 'Australian Defence Industry - Where to Next?' ASPI *Strategist*, 1 May 2015, at <<http://www.aspistrategist.org.au/australian-defence-industry-where-to-next/>> (viewed 26 August 2015).

37 Roos, *Exhibit 9*, p.21.

38 Roos, *Exhibit 9*, p.21.

2.42 The extent to which Government policy recognises sovereign interests was questioned by H I Fraser Pty Ltd:

Nations other than Australia view defence products and services as a strategic capability and they keep the work in-country. This is a sovereign issue and is often borne out of the brutal experience of civil and world wars where they have had no-one else to rely upon.³⁹

2.43 Mr Burns (CEO, Defence Teaming Centre) said:

Another significant impediment to the growth of Australia's defence exports is the lack of recognition by government of the strategic importance of an indigenous defence industry to Australia's security and economy. The cornerstone of a viable defence industry export capability is the existence of a sustainable and competitive indigenous defence industry.⁴⁰

2.44 The Returned and Services League of Australia agreed that 'the Australian defence industry is a strategic asset.'⁴¹ The RSL's submission stated:

The ability to manufacture, repair and maintain complex defence equipment is as vital a part of a credible defence posture today as it has been in the past.⁴²

2.45 The RSL noted that there may be instances in the future when foreign supply cannot be assured.⁴³ In this context, naval shipbuilding was suggested as being such an example. Austal submitted:

The strategic importance of a domestic naval shipbuilding capability seems clear to most developed countries. ... The Australian Government has not demonstrated an unambiguous desire to maintain naval shipbuilding as a strategic capability for the future.⁴⁴

2.46 Austal noted that a submarine rescue gear ship for Defence is being built at shipyards in Vietnam.⁴⁵ In Austal's view:

The economic advantages of these decisions needs to be weighed against the long term strategic implications of the loss of domestic

39 H I Fraser Pty Ltd, *Submission 2*, p.1.

40 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.13.

41 RSL, *Submission 13*, p.3.

42 RSL, *Submission 13*, p.3.

43 RSL, *Submission 13*, p.4.

44 Austal, *Submission 31*, p.9

45 Austal, *Submission 31*, p.10.

naval ship construction capability and any potential export opportunities that may flow from this capability.⁴⁶

2.47 Mr David Shiner (Vice President International Sales, Austal) said:

Austal's competitive business model has always been based on our ability to win domestic and export opportunities, which is the only sustainable model for us as an organisation and what we believe is the only sustainable model for industry as a whole. ...government support for Australian defence export with regard to shipbuilding is absolutely critical and probably should be considered as a strategic issue and of national interest.⁴⁷

Spillover and second order effects of the defence industry

2.48 Advanced manufacturing industries, such as the defence industry, have a sizeable economic footprint by virtue of the wider economic or technology benefits generated, which are respectively known as 'spillover' and 'second-order' effects.

2.49 Examples of these wider benefits may be found in some recent reports on manufacturing and naval shipbuilding:

- RAND Corporation, 'Australia's Naval Shipbuilding Enterprise: Preparing for the 21st Century' (April 2015), commissioned by the Department of Defence;
- ACIL Allen Consulting, 'Naval Shipbuilding and Through Life Support: Economic Value to Australia' (December 2013), commissioned by the Australian Industry Group; and
- Professor Goran Roos, 'Manufacturing in the Future' (January 2012), commissioned by the South Australian Government.

2.50 RAND's report considered the extent to which naval shipbuilding would generate economic spillover. RAND defined the concept of 'spillover' in terms of economic multipliers:

Suppose that the government spends \$100 buying a good or service from a shipyard. The shipyard might then be expected to spend at least a portion of that money on inputs, such as labor or materials. The original \$100 creates a cascade (i.e., multiples) of spending through the economy; that is, \$100 spent at a shipyard results in additional spending by shipyard workers at local

46 Austal, *Submission 31*, p.10.

47 Shiner, *Committee Hansard*, 13 February 2015, p.27.

restaurants, which then hire additional workers who rent additional housing, and so forth.⁴⁸

2.51 Based on case studies and a literature review, the report stated:

Most of the resulting estimates are in the range of 1.7–1.9 – that is, \$100 spent at a shipyard ultimately results in \$170–\$190 worth of additional economic activity in the shipyard’s region (inclusive of the original \$100). Economic multipliers may be lower (i.e., less than 1.0) if the increased spending displaces other economic activity.⁴⁹

2.52 In one case, RAND’s research found that development of the Gripen aircraft in Sweden had led to the creation of an ‘aerospace cluster’, which had grown from employing around 1,200 people in the 1980s to 18,000 people in 2015.⁵⁰ RAND concluded:

Unfortunately, RAND’s analysis of shipbuilding in the United States did not find favorable spillovers in the fashion of Gripen. Shipbuilding has been favorable to local economies, but it has done so in a more modest fashion, without the ecosystem of favorable spin-offs and spillovers associated with Gripen. We do not think an outcome from shipbuilding similar to that in Silicon Valley from technology is a realistic aspiration.⁵¹

2.53 Creation of jobs and workforce utilisation was cited by RAND as a favourable benefit, depending on whether ‘workers hired by the shipyard would simply be displaced from other gainful employment.’⁵² In the Australian context, RAND observed:

It is impossible, lacking greater specificity, to estimate the economic consequences of a shipbuilding project on a region of Australia or on the nation as a whole. Rather, the applicable economic multiplier is a highly contextually dependent question.⁵³

48 RAND Corporation, ‘Australia’s Naval Shipbuilding Enterprise: Preparing for the 21st Century’, April 2015, pp.133-134.

49 RAND Corporation, ‘Australia’s Naval Shipbuilding Enterprise: Preparing for the 21st Century’, April 2015, p.134.

50 RAND Corporation, ‘Australia’s Naval Shipbuilding Enterprise: Preparing for the 21st Century’, April 2015, p.136.

51 RAND Corporation, ‘Australia’s Naval Shipbuilding Enterprise: Preparing for the 21st Century’, April 2015, p.147.

52 RAND Corporation, ‘Australia’s Naval Shipbuilding Enterprise: Preparing for the 21st Century’, April 2015, p.148.

53 RAND Corporation, ‘Australia’s Naval Shipbuilding Enterprise: Preparing for the 21st Century’, April 2015, p.136.

2.54 While this may be true during times of economic growth, Australia's economic circumstances and workforce trends may change over time. Mr Christopher Jenkins (CEO, Thales Australia and New Zealand) said:

Right now, there are warning signs from the automotive sector collapsing and from other manufacturing sectors struggling, which the advanced-technology manufacturing sector is concerned about. That may have graduates and students thinking about other career directions.⁵⁴

2.55 He added:

Having a strong, globally competitive defence industry sector attracts students and graduates to go through the STEM courses – science, technology, engineering and mathematics courses – so that the strength of Australia will build in this area.⁵⁵

2.56 ACIL Allen Consulting's report considered spillover in terms of economic and technology benefits of naval shipbuilding:

In addition to these direct dollar and employment effects, the naval shipbuilding industry has a number of other significant economic benefits:

- Technology transfer (for example, the development of Bisalloy steel);
- Transfer of expertise – firms involved in the naval shipbuilding supply chain gain skills that enable them to compete successfully in other projects and sectors; [and]
- Improved practices in areas such as quality assurance, business planning, sub-contracting and dealing with Defence in other fields.⁵⁶

2.57 Professor Goran Roos similarly viewed spillover from economic and technology perspectives. He defined spillover as 'the effects of economic activity that benefit those beyond the originators', which may include technology spillover that leads to new innovation.⁵⁷ He said:

Whereas, if you include a development phase, the return on the development phase is different. ...you are solving problems not previously solved and that gives you an edge as a company once

54 Jenkins, *Committee Hansard*, 17 October 2014, p.20.

55 Jenkins, *Committee Hansard*, 17 October 2014, p.20.

56 ACIL Allen Consulting, 'Naval Shipbuilding and Through Life Support: Economic Value to Australia', December 2013, p.ii and p.20.

57 Goran Roos/South Australian Department of Premier and Cabinet, 'Manufacturing into the Future', January 2012, p.43.

you have the solution. That solution can then be spread out and implemented to drive the business thoroughly.⁵⁸

- 2.58 Prof Roos referred the Committee to economic analysis of building the future submarines in South Australia.⁵⁹ In addition to benefits to the Australian gross domestic product, he also found that 'in these types of complex projects there is normally an additional 'knowledge spillover' effect from 'the increased range of competencies... that result from domestic construction.'⁶⁰ In his research, Prof Roos has also noted the relationship between government procurement decisions and spillover effects:

Public procurement is an area of economic, political and legal significance, involving governments at various levels buying goods and services from private firms, thereby representing a significant proportion of economic activity in most jurisdictions. The public procurement process spans the whole life cycle from initial conception and definition of the needs of the public service through to the end of the useful life of an asset or the end of a contract.⁶¹

- 2.59 Procurement involves choices:

...the public service has to determine the type of products and services it wishes to buy. The choices range from simple items such as paper clips and office furniture to complex items such as telecommunications systems which have the potential to affect technical progress and also provide an opportunity for some of the technology to 'spillover' into the rest of the economy.⁶²

- 2.60 The Committee sought Defence's views on the notion of spillover benefits. Defence advised:

The industry innovation and export assistance programs currently managed by Defence are, to some extent, provided on the understanding that industry recipients will generate so-called spillovers. ... However, spillovers can be formidably difficult to quantify even after a project is complete.⁶³

58 Roos, *Committee Hansard*, 9 October 2014, p.3.

59 Roos, *Exhibit 9*, pp.14-16.

60 Economic Development Board of South Australia, 'Economic Analysis of Australia's Future Submarine Program', p.2.

61 Goran Roos/South Australian Department of Premier and Cabinet, 'Manufacturing into the Future', January 2012, p.59.

62 Goran Roos/South Australian Department of Premier and Cabinet, 'Manufacturing into the Future', January 2012, p.59.

63 Department of Defence, *Response to Questions on Notice* (Question No. 25).

2.61 Dr Robert Bourke (Director-General, Economic and Commercial Analysis, Department of Defence) said that economic impacts are not necessarily considered by Defence:

As you know economic impact, broadly defined, is not considered as part of Defence tender evaluations within the department. ... Commonwealth procurement rules, as you know, do not clearly require that the department take economic impact into account. That is true of course not just for Defence but for other government departments as well.⁶⁴

2.62 Dr Bourke added:

That situation may change, if the Department of Finance or another area of government instructs that clearly to be the case, but, as far as I know, up to this point there has not been that clear instruction from central agencies.⁶⁵

2.63 H I Fraser Pty Ltd's submission suggested that this reluctance may be attributable to influence exercised by Treasury and the Department of Finance:

Supporting a strategic industry is [a] difficult argument to make in the current cost constrained environment. ... It is clear that the Department of Finance and Deregulation [*sic*] and Department of the Treasury have the upper hand in the current decision-making process.⁶⁶

2.64 The Committee asked the Department of Finance whether anything prevents Defence from considering spillover effects as part of its analysis of value for money. Mr John Sheridan (First Assistant Secretary, Business, Procurement and Asset Management, Department of Finance) said:

The challenge in the area of spillover costs, which is the term that you used, or perhaps second order costs, is first of all about how one might ask a tenderer to represent those costs in response to a request for tender; and then how procurement officials might assess the validity of those costs in the consequences of procurements.⁶⁷

2.65 He added that less than two per cent of Commonwealth procurements involve amounts exceeding \$5 million.⁶⁸ Against this background, he said:

64 Birrer et al, *Committee Hansard*, 24 March 2015, p.7.

65 Birrer et al, *Committee Hansard*, 24 March 2015, p.7.

66 H I Fraser Pty Ltd, *Submission 2*, p.1.

67 Edge and Sheridan, *Committee Hansard*, 3 March 2015, p.3.

68 Edge and Sheridan, *Committee Hansard*, 3 March 2015, p.3.

The difficulty of getting the required economic advice on those sorts of second order effects that you discussed or that other witnesses have discussed, and how they might be applied to a particular procurement decision ... might be quite considerable ... That would tend to add both expense to a procurement and, of course, time to how long it took to conduct such a procurement.⁶⁹

- 2.66 In a written response to the Committee, the Department of Finance subsequently advised that 'consistent with long-standing practice, second round effects... are not included' in costings.⁷⁰ The Department of Finance further advised the Committee that their role in individual procurement decisions was minimal, unless it involved a new spending proposal.⁷¹ Defence also advised that decisions in cases of individual procurements are the responsibility of Defence's delegates and internal procurement specialists.⁷²

Australian defence industry policy

- 2.67 There have been three iterations of defence industry policy from 1998 to 2010.⁷³ Although a new policy statement is expected to accompany the 2015 White Paper, the most recent defence industry policy statement (DIPS), 'Building Defence Capability Report: A Policy for a Smarter and More Agile Defence Industry Base' was released in June 2010. It listed four objectives to further support the local defence industry:
- Setting clear investment priorities;
 - Establishing a stronger Defence-industry relationship;
 - Seeking opportunities for growth; and
 - Building skills, innovation and productivity.⁷⁴
- 2.68 The 2010 DIPS argued that 'industry must become more resilient and self-reliant if it is to prosper and grow'⁷⁵ and stated:

69 Edge and Sheridan, *Committee Hansard*, 3 March 2015, p.3.

70 Department of Finance, *Response to Questions on Notice*, p.1.

71 Edge and Sheridan, *Committee Hansard*, 3 March 2015, p.2.

72 Department of Defence, *Response to Questions on Notice*, (Question No. 24).

73 Preceding the 2010 policy statement were the Defence Industry and Strategic Policy Statement (June 1998) and the Defence and Industry Policy Statement (March 2007).

74 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, pp.9-11.

75 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.9.

It can no longer expect the Government to use offsets or local content quotas to help protect Australian defence industry from overseas competition.⁷⁶

2.69 Furthermore:

Protectionist measures such as offsets and local content quotas are costly and counterproductive. They have no place in the Government's defence industry policy. Defence industry policy will encourage local enterprises to identify opportunities and enhance their productivity, skilling and innovation. It is these strengths, rather than guarantees of work with little or no competition, which will assure industry's future.⁷⁷

2.70 Changes to the global strategic order and the role of Australia's defence industry were also highlighted in the 2010 DIPS:

The global defence industry has undergone significant changes over the last several decades. Globalisation and the end of the Cold War have contributed to a major consolidation within industry, which has seen the rationalisation of major defence suppliers. This has resulted in a global defence industry dominated by a few very large defence companies, mostly based in Europe and North America. ...it is also an opportunity for Australian SMEs to make profits through integrating into the global supply chains of international primes and their major subcontractors.⁷⁸

2.71 The DIPS noted the significance of priority industry capabilities (PICs), which are capabilities that 'confer an essential strategic advantage by being resident within Australia' and would 'significantly undermine defence self-reliance and ADF operational capability' if unavailable.⁷⁹ The DIPS stated:

When making procurement and sourcing decisions, the Government will always emphasise the need to obtain value for money for the Australian taxpayer through competition. ... Nevertheless, in reaching its decision based on value for money in PIC-related procurements, the Government may take into account

76 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.9.

77 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.16.

78 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.9.

79 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.40.

factors such as Australian industry impacts, the national interest, broader strategic factors, and other whole-of-government considerations.⁸⁰

- 2.72 Actions to support industry and sustain PICs included managing the timing of new projects to maintain regular work; access to export promotion; workforce skills development; longer term contracting arrangements; and targeting industry development initiatives at SMEs.⁸¹
- 2.73 Other notable elements of the 2010 DIPS, intended to support 'business opportunities within Australia and overseas' were the Australian Industry Capability (AIC) program and the Global Supply Chain (GSC) program.⁸² The AIC program essentially requires tenderers for Defence projects to consider Australian industry participation (such as by supplying componentry) and to test the Australian market.⁸³ The objective is to 'use major Defence projects to create opportunities for Australian defence industry.'⁸⁴ The Global Supply Chain (GSC) program is a similar concept, except its objective is to facilitate Australian industry involvement on an international level within the supply chains of large multinational defence companies (known as 'primes').⁸⁵
- 2.74 Defence's submission stated that its policy towards industry is based on four pillars:
- Evaluating the payment of price premiums for preferring domestic over foreign sources of capital equipment;
 - Shaping the structure of defence markets and consequently the levels of competition within them;
 - Establishing suitable contracting policies and procedures through which defence materiel should be purchased, including approaches to regulating the profits and costs of monopoly suppliers; and

80 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.43.

81 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.43.

82 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.11.

83 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', 2010, p.73; see also Birrer et al, *Committee Hansard*, 24 March 2015, p.5.

84 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', 2010, p.73.

85 Department of Defence, *Submission 41*, p.8. Primes are defined as 'prime contractors which contract directly with the DMO and employ more than 200 people working essentially full-time on Defence projects.' See also Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.14.

- Assistance to Australian-based defence manufacturers, to help these firms overcome economic distortions or imperfections in the way some defence markets function.⁸⁶

2.75 Defence's submission added:

Assistance which Defence provides to Australian industry, including assistance relating to exports, has as its clear objective the longer-term creation and maintenance of a domestic industrial base able to deliver capital equipment to the ADF on time, on schedule and to the appropriate level of quality and value-for-money.⁸⁷

2.76 More recently, the Australian Government's Industry Innovation and Competitiveness Agenda, released on 14 October 2014, has maintained that competition and competitiveness will increase productivity and open market access. The 2014 Agenda stated:

The Government will further open our economy to domestic and international competition and investment to improve access to high-quality, low-cost goods and services. This will benefit consumers and enhance the competitiveness of businesses that rely on these goods and services as inputs. Greater competition within Australia will also provide incentives for domestic producers to innovate and lift their productivity, while greater market access will enable exporters to achieve global scale.⁸⁸

2.77 Like the DIPS, the Agenda recognised globalisation, specialisation and diversity of supply chains as an emergent trend in the international economy:

Globally integrated companies source intermediate inputs from many suppliers, across industries and geographic locations, for assembly and distribution worldwide. This is enabling local producers to specialise in one element of a larger production process and network, which might otherwise not have been viable in their own country or region.⁸⁹

2.78 The Department of Industry confirmed that the Agenda applies to all Australian industries, including defence exporters.⁹⁰ Mr Peter Chesworth (Head of Sectoral Growth Policy Division) said:

86 Department of Defence, *Submission 41*, p.3.

87 Department of Defence, *Submission 41*, p.3.

88 Australian Government, 'Industry Innovation and Competitiveness Agenda: An Action Plan for a Stronger Australia', October 2014, p.xi.

89 Australian Government, 'Industry Innovation and Competitiveness Agenda: An Action Plan for a Stronger Australia', October 2014, p.4.

90 Byrne and Chesworth, *Committee Hansard*, 10 February 2015, p.1.

The agenda sets up four broad ambitions: a lower cost business-friendly environment, with less regulation; a more skilled labour force; better economic infrastructure; and an industry policy that fosters innovation and entrepreneurship. In line with these four ambitions, the department provides support to Australian industry defence exports as well as to all other exports through a range of programs that are delivered through the Entrepreneurs' Infrastructure Program and the Industry Growth Centres Initiative.⁹¹

- 2.79 Some witnesses were concerned that this approach does not adequately recognise the benefits of working in partnership with the Australian defence industry. Mr Graeme Dunk (Manager, Australian Business Defence Industry) said:

As a country with a small defence sector, the barriers and impediments to the growth of Australia's defence exports are many and, apart from the simple consideration of market size, include no strategic view to developing and supporting defence exports nor how exports may fit into the overall direction for the acquisition and sustainment of Australia's military capability; no consideration of industry as a capability and hence how exports fit within the overall capability, development and support chain; an overreliance on defence engagement through a small number of large offshore companies; a simplistic assumption that the interests of the global primes and our national interest will align; and an overall focus on the delivery of programs rather than on achieving strategically relevant outcomes.⁹²

- 2.80 Northrop Grumman submitted that industry's role should be factored into Defence's capability planning:

Defence exports should not be looked at independent of the overall national industrial policy for defence industry. Defence industry policy should be moved upward to a level of consideration integrated with development of military capability in the Defence Capability Plan and Force Structure Review. A new Industry Capability Plan should be developed to articulate the industrial capability development required by the nation in order to support its overall national defence objectives.⁹³

91 Byrne and Chesworth, *Committee Hansard*, 10 February 2015, p.2.

92 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.2.

93 Northrop Grumman, *Submission 28*, p.2.

- 2.81 Mr Peter Nicholson (Head of Government Relations, BAE Systems Australia) said:
- Defence exports should not be considered as a stand-alone element in government policy. Rather, they are part of a strategic industry policy and most of the same factors apply to the wider manufacturing sector, not just defence industry.⁹⁴
- 2.82 Dr Andrew Davies (Australian Strategic Policy Institute) said:
- One of the things I can say very clearly, having spent a lot of time last year talking to Australian defence industry, is that there is a yawning gap between what was stated in defence industry policy and what was delivered. ... They see one thing written down, and there is a glossy brochure of priority industry capabilities or strategic industry capabilities, and then DMO go and do their own thing.⁹⁵
- 2.83 Dr Davies said that the missing element of defence industry policies had been aspects related to ‘implementation rather than the statement of policy’.⁹⁶
- 2.84 The Committee subsequently sought Defence’s views on whether open competition may undermine or risk the long-term capabilities of local defence industry. Defence advised that an open-market approach is preferred:
- Market competition, from domestic and/or overseas sources, provides in many or even most cases the single most effective and efficient policy instrument for securing the best capability and value for money for capital equipment acquisition and sustainment projects.⁹⁷
- 2.85 Defence noted that in some cases, a ‘sole sourcing’ procurement method may be used ‘where this is likely to achieve the best value for money outcomes for Government.’⁹⁸ Nevertheless, competition remains Defence’s preference:
- As a general rule, Defence does not protect Australian industry from international competition except where such protection is needed to secure in-country industry capabilities of especially high military-strategic value. However, even in this case, protection is only provided when industry cannot overcome its own ‘health’
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94 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.32.

95 Davis, *Committee Hansard*, 13 February 2015, p.21.

96 Davis, *Committee Hansard*, 13 February 2015, p.23.

97 Department of Defence, *Response to Questions on Notice* (Question No. 4).

98 Department of Defence, *Response to Questions on Notice* (Question No. 4).

problems and protection constitutes the best policy option available.⁹⁹

2.86 Defence informed the Committee that sovereignty factors are given consideration:

When determining the outcome of contracts, Defence takes the issue of sovereign industry capabilities into account primarily through a combination of two programs: the Australian Industry Capability (AIC) program and the Priority Industry Capability (PIC) program.¹⁰⁰

2.87 Notwithstanding Defence's views, some submissions and witnesses were sceptical of the extent to which industry impacts, whole-of-life acquisition and sustainment costs and ongoing support for priority ADF capabilities have been given adequate recognition. In particular, these concerns related to:

- The degree of support directed to the creation of Australian intellectual property through innovation;
- How Defence's procurement and purchasing decisions can impact on industry's ability to sustain key ADF capability requirements; and
- The effectiveness of the AIC and PIC models and how Defence oversees industry capability.

2.88 These issues are discussed in the following sections of the chapter.

Intellectual property and innovation

2.89 In order to export products or services, the Australian defence industry needs to own or have permission to use the associated intellectual property (IP). Overcoming or negotiating IP was cited by a number of defence exporters as a key barrier to the ability to growing defence exports; specifically the challenges of accessing IP and the creation of IP.

2.90 Australian companies have developed different business models, depending on their area of innovative advantage and IP ownership:

- Building components to supply another company, where only the intellectual property surrounding the production method is uniquely Australian;
 - Developing technology for products or production methods with the resulting intellectual property being sold back to the customer; or
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⁹⁹ Department of Defence, *Response to Questions on Notice* (Question No. 4)

¹⁰⁰ Department of Defence, *Response to Questions on Notice*, (Question No. 6).

- Developing successful products, technology and production methods with all related intellectual property being largely Australian-owned.
- 2.91 The Committee was informed that pursuing innovation and the creation of intellectual property has allowed Australian companies to move beyond commodity production (or 'build to print') towards build to specification. There was evidence that although some Australian companies had moved beyond a build to print capacity, most companies remained in this category and only a minority were in a position to produce and export complete complex systems.
- 2.92 Sonartech Atlas submitted:
- Much of the manufacturing work being undertaken in Australia has been manufacture under licence. To export you must have control of the intellectual property, otherwise the exports are at the behest of the foreign owner.¹⁰¹
- 2.93 Mr Mark Baker (Managing Director, Sonartech Atlas Pty Ltd) said:
- If Australia is to have a viable and meaningful defence export industry then the appropriate environment has to be established – one which nurtures development in Australia, building a skill and experience base and generating IP. It must utilise Australian technology and seek to capitalise on that Australian technology overseas, both financially and diplomatically. These more intangible elements can be difficult to attribute a cost or value to. Ultimately, however, they must form part of assessing the value for the taxpayer.¹⁰²
- 2.94 Mr Baker was asked about the ability of Australian companies to generate their own intellectual property:
- CHAIR:** Would I be correct to take out of that a lot of the work that is put forward as being Australian companies successfully integrating into the global supply chain is actually using the IP that belongs to the parent company to manufacture and just deliver a good, as opposed to generating their own IP and their ability to have an exportable product outside of that one contract.
- Mr Baker:** I believe that is the case for the majority. There is one example... carbon fibre manufacturing – where they have got the process which is covered and in their IP for the actual manufacturing process. So even though they are manufacturing components to somebody else's design – and from that perspective

101 Sonartech Atlas, *Submission 26*, p.3.

102 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, p.11.

they can be replaced – they have a process that gives them an efficiency advantage and they are now going through the stages to license their process, which is good. One of the issues potentially that the Global Supply Chain program will face is that, because you do not own the IP, you are easily supplanted or replaced by somebody else.

CHAIR: I think that is Quickstep you are referring to.

Mr Baker: Quickstep, that is correct.¹⁰³

- 2.95 The Committee subsequently sought Quickstep's views on the barriers related to intellectual property. Mr Michael Schramko (Vice President – Operations, Quickstep Technologies) said:

What we are trying to sell is a process that can be used by somebody else in their technology. The resistance we find is that people do not want to embody somebody else's IP into their own, because they would see it as you being under their control for some part of what they want to sell, which is partly the resistance that we are finding on introducing the Quickstep process in the F35 [Joint Strike Fighter] program.¹⁰⁴

- 2.96 Mr Michael Halloran (Managing Director, Supacat Pty Ltd) was similarly asked whether the ability to export depends upon Australian innovation and ownership of intellectual property. Mr Halloran said:

I agree absolutely. I do not think we need to generate all of the IP. We need to be able to take IP where it exists and put that together in a lot of cases. Even as an OEM [original equipment manufacturer], we use a lot of other people's IP to generate a system or a solution for customers. Our IP management is not necessarily all about owning it, but it is certainly about being able to access it, deliver it and exploit it.¹⁰⁵

- 2.97 Mr Graeme Dunk (Manager, Australian Business Defence Industry) had a similar view:

We do not necessarily have to control the IP. We do not have to own the IP, but we need to have access to the IP.¹⁰⁶

- 2.98 He added:

We need access to the IP not only in order to maintain and not only in order to protect what we have got but also to give us the

103 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, p.12.

104 Driver and Schramko, *Committee Hansard*, 17 October 2014, pp.53-54; see also Exhibit 4.

105 Halloran, *Committee Hansard*, 31 October 2014, p.8.

106 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.8.

flexibility to upgrade systems as and when we see that we need to do it for our own sovereign reasons.¹⁰⁷

- 2.99 Other companies have developed specialisations and are filling niche markets, which has led to exports, such as EM Solutions Pty Ltd, a company that designs and manufactures broadband telecommunications systems.¹⁰⁸ Dr Rowan Gilmore (CEO, EM Solutions) said:

Our success has come by offering innovative and customised products that often cannot be obtained elsewhere. ...we have been successful at exporting small volumes of our products, particularly to blue chip defence systems integrators currently in Spain, Italy, the UK and France.¹⁰⁹

- 2.100 Dr Gilmore added that notwithstanding success overseas, EM Solutions had been 'unsuccessful at tendering satellite terminals to our very own Defence department.'¹¹⁰ He said that business development has been hindered by Government:

...there are institutional barriers, systemic barriers and a cultural cringe in government procurement that work against the success of small, innovative IP-creating companies such as ours being able to grow and to become the next generation of multinational systems integrators exporting more to the world.¹¹¹

- 2.101 Mr Aaron Thompson (Business Unit Manager – Global Supply Chain, Ferra Engineering) said:

When we started export 10 years ago we were primarily build to print, so the IP was owned by the prime contractor and we were manufacturing a product. Our strategy is similar to what I heard with EM Solutions – move up the value chain. To put it in layman's terms, rather than producing a screw or a washer and competing as a commodity, it is a matter of moving up and upskilling our people so that we can build a centre fuselage or a wing of an aircraft and have multiple Australian companies in our supply chain.¹¹²

- 2.102 CEA Technologies, an Australian defence exporter that specialises in communication systems, missile control radars and radar systems, explained that its participation in past Australian Defence projects had led

107 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.8.

108 EM Solutions, *Submission 7*, p.1.

109 Gilmore, *Committee Hansard*, 17 October 2014, p.34.

110 Gilmore, *Committee Hansard*, 17 October 2014, p.34.

111 Gilmore, *Committee Hansard*, 17 October 2014, p.35.

112 Gaka, Hill and Thompson, *Committee Hansard*, 17 October 2014, p.41.

to innovation and, eventually, to international sales. Mr Merv Davis (CEO, CEA Technologies Pty Ltd) said:

We operate within what is referred to as the high-frequency and phased array radar priority industry capability, and as such we deliver critically important capability – capability that is world leading in terms of its capability and cost. ... DMO's and Navy's strategic approach to CEA's participation in the Anzac anti-ship missile defence program underpinned the development and fielding of our phased array radars.¹¹³

2.103 As a result of CEA's product success, Mr Davis said that 'CEA radar systems provide capabilities that are in demand internationally' and the company has had 'in excess of \$100 million in export orders in the past 10 years'.¹¹⁴ Mr Davis said:

Our intellectual property, clearly, is the commercial jewel, and it also underpins the military capability that we offer. However, our customer is supportive of export. I believe Navy and the DMO understand the benefits and the risks. They understand the benefits of reduced long-term costs; of the ability for us, on the basis of export, to undertake further development and hence provide further capability improvements; and of course, the strategic benefit in contributing to our allies' needs; and of retaining real engineering and real manufacturing capability within Australia.¹¹⁵

2.104 The Committee was informed that innovation may be stifled due to risk aversion. Dr Rowan Gilmore (CEO, EM Solutions Pty Ltd) cited unwarranted risk aversion as having prevented his company from selling to Defence and to be able to capitalise on such benefits. He stated:

We have current collaborations with CSIRO, DSTO and the University of Queensland. We have a strong IP portfolio. We collaborate with several defence primes. We employ 40 people, including seven PhDs, and we are successfully satisfying some of the world's most demanding customers. Yet, we have been unsuccessful at tendering to our very own Defence department. ...it is disappointing to be eliminated on the basis of risk.¹¹⁶

2.105 He added:

113 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.1.

114 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.2.

115 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.2.

116 Gilmore, *Committee Hansard*, 17 October 2014, p.34.

I believe the real obstacle with an SME being able to supply to DMO is DMO's fear of risk. Never in my 40 year career have I heard the term 'risk' raised more frequently than in the last few years when I have been trying to supply to defence procurement. It is probably the most frequently used word in their culture.¹¹⁷

2.106 Mr Alfred Schulte (Chief Technical Officer, Sonartech Atlas Pty Ltd) highlighted the importance of supporting innovation to deliver product performance:

That needs to be managed, because it requires a plan. It requires consistency and feedback, interaction between industry and users, in order to make these incremental steps work. If you do not have a structure that supports this kind of innovation, then you will never get to the final performance of the product. That is a particular problem for SMEs because it is a longer process. It takes some time and it requires interaction and feedback from using your system. And we need to look at both things when we talk about innovation.¹¹⁸

2.107 Northrop Grumman Australia submitted:

Without ongoing innovation, Australian industry will not have the world leading capability offerings to attract export sales. Whilst it is recognised that these innovations will come from industry, the Government should be focussed on ensuring that an environment exists such that the defence industry sector is encouraged to provide world leading innovation in Australia.¹¹⁹

2.108 Mr Mark Baker (Managing Director, Sonartech Atlas Pty Ltd) outlined the UK's approach to supporting capability:

There have been some cases in the UK, where – by virtue of wanting to have the piece of equipment, even if it is built under licence in the UK – the costs have gone up threefold. There needs to be a balance but – because it forms part of an industrial strategy that the government has set, and because of the need to have certain industries available in the event that they want them – they are prepared to pay a certain premium in some cases.¹²⁰

2.109 Mr Baker added:

I would not, for one second, argue that Australia needs to go down the exact path where... we will build it in Australia and

117 Gilmore, *Committee Hansard*, 17 October 2014, p.35.

118 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, p.15.

119 Northrop Grumman Australia, *Submission 28*, p.7.

120 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, pp.16-17.

build it under licence, even if it costs us four times or three times the amount. But I think it is very important to weigh up the intangible benefits that the rest of the country can get from having that industry viable.¹²¹

- 2.110 Mr Andrew Watson (Managing Director, MBDA Australia) said that Defence's approach to procurement does not encourage the creation of Australian intellectual property:

A largely off-the-shelf procurement policy misses a vital opportunity to stimulate creation of Australian-owned IP. I believe that the Australian government has the leverage to challenge the major international defence companies to truly partner and work jointly on programs and, in particular, to exercise the high-end technical skills that Australia undoubtedly has. But this can only work if those multinationals and their respective governments are prepared to truly partner, share IP and genuinely share development work and, through that, foster Australian industry's ability to create Australian-owned IP. Without the creation of IP it is difficult to see how Australian companies can succeed in export.¹²²

- 2.111 MBDA's submission also suggested that Australia could work with international partners 'who are able to share intellectual property with local SMEs who have capabilities in specific niche areas.'¹²³ EM Solutions' submission recommended that a portion of DMO's budget should be dedicated to 'procurement from innovative Australian SMEs.'¹²⁴
- 2.112 Defence advised that intellectual property issues, among other barriers to defence exports, are being considered in the 2015 White Paper process.¹²⁵

Defence's procurement decisions

- 2.113 In the context of this inquiry, Defence's approach to procurement was criticised for privileging acquisition price over whole-of-life costs despite published policy to the contrary, and pursuing competition at the expense of Australia's strategic and economic interests. Witnesses argued that

121 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, p.17.

122 Watson, *Committee Hansard*, 13 February 2015, p.52.

123 MBDA, *Submission 16*, p.15.

124 EM Solutions Pty Ltd, *Submission 7*, p.2 and p.6.

125 Department of Defence, *Response to Questions on Notice* (Question No. 21).

these interests should include supporting the Australian defence industry. The implication of this argument was that decisions not to purchase from Australian companies where that is feasible, diminishes innovation and capacity in Australia's defence industry, impacting in the long term on its ability to sustain capabilities for the ADF. It was put to the Committee that the dominant culture within Defence prefers to deal with large prime contractors as a means of managing perceived risk, which in turn reduces the opportunity for Australian industry to generate intellectual property and limits the prospect of growing defence-related exports.

2.114 When procuring goods and services, Defence is obliged to follow the Commonwealth Procurement Rules (CPRs), which are a binding legislative instrument applicable to Commonwealth entities. The CPRs state that 'achieving value for money is the core rule',¹²⁶ although an exception can be made for decisions 'necessary for the maintenance or restoration of international peace and security' or 'the protection of essential security interests'.¹²⁷

2.115 A new addition to the 2014 version of CPRs was a section relating to whole of life costs. Along with value for money, this was an issue subject to discussion during the inquiry. In relation to elements of value for money, the CPRs state:

When conducting a procurement, an official must consider the relevant financial and non-financial costs and benefits of each submission including, but not limited to: the quality of the goods and services; fitness for purpose of the proposal; the potential supplier's relevant experience and performance history; flexibility of the proposal (including innovation and adaptability over the lifecycle of the procurement); environmental sustainability of the proposed goods and services (such as energy efficiency and environmental impact); and whole-of-life costs.¹²⁸

2.116 The CPRs define the meaning of whole-of-life costs as follows:

Whole-of-life costs could include: the initial purchase price of the goods and services; maintenance costs; transition out costs; licensing costs (when applicable); the cost of additional features procured after the initial procurement; consumable costs; and disposal costs.¹²⁹

126 'Commonwealth Procurement Rules', July 2014, p.13.

127 'Commonwealth Procurement Rules', July 2012, p.14; 'Commonwealth Procurement Rules', July 2014, p.7.

128 'Commonwealth Procurement Rules', July 2014, p.13.

129 'Commonwealth Procurement Rules', July 2014, p.14.

2.117 Changes to legislation¹³⁰ also resulted in updates to Defence internal processes and policies relating to procurement.¹³¹ In October 2014, a new version of the 'Defence Procurement Policy Manual' (DPPM) was published. The manual advises:

Value for money is not limited to a consideration of capability versus price, or 'cheapest price wins.' Value for money requires consideration of Australian Government policy, specifically values such as open competition, efficiency, ethics and accountability.¹³²

2.118 The manual also advises:

For any Defence procurement, price is seldom the only relevant cost of a purchase. A minimum consideration for all procurement is a prediction of useful life.

...

In making a value for money judgement, a comparison of the relevant benefits and costs on a whole of life basis should be undertaken. This requires that whole of life costing principles be used in the evaluation of offers.¹³³

2.119 Mrs Sue Smith (Executive Officer, Australian Industry and Defence Network Inc) said that in practice, Defence procurement decisions are focussed on 'the sticker price' and overlook 'the cost of through-life maintenance and support of major acquisitions'.¹³⁴ She said:

Australia needs to adopt more holistic whole-of-life, value-for-money criteria when assessing tenders. This myopic approach denies SMEs the opportunity to build capability that will enable them to be more productive and competitive in global markets. Currently we have a situation where often only the initial procurement costs are considered.¹³⁵

2.120 Mrs Smith also said this could lead to export growth:

130 The timing of this inquiry has coincided with changes to the Commonwealth Procurement Rules. This has occurred after submissions for this inquiry were received and at around the same time public hearings had commenced. The *Public Governance, Performance and Accountability Act 2013* (Cth) commenced on 1 July 2014, replacing both the former *Financial Management and Accountability Act 1997* (Cth) and the *Commonwealth Authorities and Companies Act 1997* (Cth). The current *Commonwealth Procurement Rules* are a legislative instrument made under the *PGPA Act 2013*. In July 2014, at the time submissions to the inquiry were due, a new version of the Commonwealth Procurement Rules (CPRs) was issued.

131 Department of Defence, 'Annual Report 2013-14', p.165.

132 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, p.5.6-4.

133 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, p.5.6-11.

134 Smith, *Committee Hansard*, 31 October 2014, p.39.

135 Smith, *Committee Hansard*, 31 October 2014, p.39.

Australia needs a long-term perspective to be taken, especially in relation to having an indigenous defence industry, and to consider the whole-of-life cost benefits to the nation. Then industry can invest in innovation and new capabilities for not only the ADF but for more competitive exporting.¹³⁶

2.121 She added:

Defence acquisition decisions should not only be based on defence requirements, but also consider the national industrial and regional requirements.¹³⁷

2.122 Mr Christopher Burns (CEO, Defence Teaming Centre) questioned the benefit to industry of the Government's approach:

Understandably, Defence is allocated a budget and its ambition is to get the maximum value from that limited resource. When it is not pressed or compelled to consider national interests of its investments, unsurprisingly it is motivated to acquire the least expensive hardware with minimal risk and without having to consider the benefits to the nation of its investments. To truly resolve this, government must be compelled to consider value for money in the context of holistic, whole-of-life cost-benefit to the nation.¹³⁸

2.123 Similarly, the Australian Manufacturing Workers' Union (AMWU) submitted that Defence and DMO have had a 'focus on contract cost minimisation'.¹³⁹ The AMWU's submission stated:

Such a focus ignores the benefits of sourcing locally by ignoring flow on tax returns and significant industry capability benefits such as improvements in skills, technological development and innovation. An equation of contract price for value for money neglects half of the determinant of true value for money, namely the economic benefits of procurement decisions.¹⁴⁰

2.124 The submission continued:

This one sided approach to general government procurement is a long standing policy error that needs to be corrected. ...it denies and neglects the strategic industry capability that should form a central concern in defence procurement decisions, and in doing so

136 Smith, *Committee Hansard*, 31 October 2014, p.39.

137 Smith, *Committee Hansard*, 31 October 2014, p.39.

138 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.13.

139 AMWU, *Submission 24*, p.2.

140 AMWU, *Submission 24*, p.4.

places Australia's long term national security interests in jeopardy.¹⁴¹

- 2.125 Dr Tom Skladzien (National Economic and Industry Advisor, Australian Manufacturing Workers' Union) stated:

We take the view that the government should value Australian jobs more than jobs elsewhere, for obvious reasons. ... it is the Australian government's role to look after the interests of Australia and Australian citizens, and, in being blind to these benefits of \$1 here versus \$1 there, we do not think that true value for money is actually being achieved.¹⁴²

- 2.126 EM Solutions Pty Ltd submitted:

In our dealings with individual Defence personnel, we have typically found strong enthusiasm and support for an innovative local manufacturer such as ourselves to succeed. However, we lament that the institutional support during the procurement process does not match this enthusiasm.¹⁴³

- 2.127 Dr Andrew Davies (ASPI) said that with 'some important caveats'¹⁴⁴ competitiveness should form the basis of Defence purchase decisions:

I tend to have views up the dry end of the economic spectrum and I have long been an advocate of acquisition processes that are as competition driven as possible. I am inclined against paying a premium for local work for its own sake.¹⁴⁵

- 2.128 The Committee sought Defence's views on value for money considerations. Defence advised that price is not the sole determinant:

Choosing the best value for money option entails balancing what is being offered against the price being asked. In some cases, better value for money can be - and is - obtained by paying more to achieve the required capability effects (including interoperability), to achieve earlier delivery or to provide assurance of long-term supportability.¹⁴⁶

- 2.129 Mr John Edge (Acting Deputy Secretary, Business Procurement and Asset Management, Department of Finance) said that he did not believe the CPRs required value for money to be interpreted narrowly:

141 AMWU, *Submission 24*, p.4.

142 Skladzien, *Committee Hansard*, 17 October 2014, p.28.

143 EM Solutions Pty Ltd, *Submission 7*, p.2.

144 Davies, *Committee Hansard*, 13 February 2015, p.19.

145 Davies, *Committee Hansard*, 13 February 2015, p.19.

146 Department of Defence, *Response to Questions on Notice* (Question No. 25).

I do not know that we would say that the value for money assessment as it is framed in the Commonwealth Procurement Rules necessarily leads an agency to a very, very narrow interpretation of value for money.¹⁴⁷

2.130 Defence's procurement procedures have been subject to a previous review by the Senate Foreign Affairs, Defence and Trade Reference Committee in 2012.¹⁴⁸ A more general review of Commonwealth procurement procedures was completed by the Senate Finance and Public Administration Committee in 2014.¹⁴⁹

2.131 The Government response to the 2012 inquiry into procedures for Defence capital projects stated:

The report suggests there is a growing disconnect between strategic guidance and capability development, confused accountabilities, poor appreciation of risk, and a need for structural reform in Defence procurement. Government supports the thrust of the report's findings and Defence is already implementing a number of initiatives which will address some of the Committee's concerns.¹⁵⁰

2.132 Defence advised the Committee that the Department's Capability Development Group (CDG) consults with industry on future projects 'up to ten years prior' to initial Government approval and this continues 'via a range of engagement mechanisms.'¹⁵¹ However, Dr Rowan Gilmore (CEO, EM Solutions Pty Ltd) said that in his experience:

We are not like a prime contractor that has a government office and government relations people based in Canberra, where they are aware of what is coming next. We are way behind in terms of understanding.¹⁵²

2.133 Subsequent to the Committee receiving advice on this issue from Defence in March 2015, the First Principles Review recommended 'disbanding the

147 Edge and Sheridan, *Committee Hansard*, 3 March 2015, p.3.

148 Senate Foreign Affairs, Defence and Trade References Committee, 'Procurement Procedures for Defence Capital Projects', August 2012, p.xxi.

149 Senate Finance and Public Administration References Committee, 'Commonwealth Procurement Procedures', July 2014.

150 Australian Government Response to Senate Foreign Affairs, Defence and Trade References Committee's Final Report: Procurement Procedures for Defence Capital Projects, October 2012, p.1.

151 Department of Defence, *Response to Questions on Notice* (Question No. 8).

152 Gilmore, *Committee Hansard*, 17 October 2014, p.36.

Capability Development Group and dispersing its functions to more appropriate areas.¹⁵³

- 2.134 The Senate Finance and Public Administration Committee's report included a recommendation that 'the Government develop a methodology to quantify the factors used to assess whole-of-life costs.'¹⁵⁴ The Government did not support this recommendation on the grounds that:

Due to the large range of goods and services procured by Commonwealth entities, a one-size fits all cost benefit analysis methodology would not be feasible to implement.¹⁵⁵

- 2.135 Defence advised the Committee that sovereign interests are given consideration by way of the Australian Industry Capability (AIC) and Priority Industry Capability programs, which are intended to encourage prime contractors to involve Australian industry in Defence projects.¹⁵⁶

The Australian Industry Capability and Priority Industry Capability programs

- 2.136 The 2010 Defence Industry Policy Statement (DIPS) contained a framework for identifying and supporting key industry capabilities, based on the strategic and operational necessity of retaining these capabilities within Australia, of which the AIC and PIC programs were key elements. Whilst greater investment in identified capabilities could follow, the DIPS cautioned that 'Government does not guarantee future work or funding for particular companies'.¹⁵⁷
- 2.137 Defence's submission stated that the AIC program aims to create a 'systematic mechanism for ensuring that Australian industry has adequate opportunity to bid for work and that suitable domestic supply options are properly considered by Defence', unless a case can be made by the Department to the contrary.

153 David Peeper, 'First Principles Review: Creating One Defence', April 2015, p.35; see also FPR recommendation 2.1.

154 Senate Finance and Public Administration References Committee, 'Commonwealth Procurement Procedures', July 2014, p.39.

155 Australian Government Response to the Senate Finance and Public Administration References Committee Report: Commonwealth Procurement Procedures, April 2015, p.6.

156 Department of Defence, *Response to Questions on Notice*, (Question No. 6).

157 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.43.

2.138 The Priority Industry Capabilities (PIC)¹⁵⁸ program is used by Defence to ensure industry capabilities of strategic value to the ADF are considered when tenders are called for capital equipment projects.¹⁵⁹ An additional range of related Strategic Industry Capabilities (SICs)¹⁶⁰ were identified in the 2010 DIPS, which are more general and intended to 'provide Australia with enhanced defence self-reliance, ADF operational capability or longer-term procurement certainty.'¹⁶¹ Defence's submission summarised the objectives of the AIC and PIC programs as follows:

The aim... is to secure, and then build, on the foundation of defence-oriented firms which the AIC program has helped to create. By identifying areas of industry where these capabilities are of highest strategic value to the ADF, the PIC program provides initial guidance on how grants-based and associated assistance measures should be targeted - keeping in mind that the Government's defence industry policy extends well beyond the PIC arena.¹⁶²

2.139 Defence explained to the Committee that where a project includes an identified PIC, 'an AIC plan needs to be prepared for that PIC capability, as an automatic requirement.'¹⁶³ In addition, Defence's submission stated that 'for export-oriented companies in Australia, the AIC program helps to ensure an adequate base workload.'¹⁶⁴ The current Defence Procurement

158 Identified PICs are as follows: Electronic warfare; high frequency and phased array radars; 'high end' system and 'system of systems' integration; through-life and real time support of mission and safety critical software; anti-tampering capabilities; signature management; in-service support of Collins combat system; acoustic technologies and systems; ship dry docking facilities and common user facilities; selected ballistic munitions and explosives; infantry weapons and remote weapons stations; and combat clothing and personal equipment. Department of Defence, 'Priority Industry Capabilities' at <<http://www.defence.gov.au/dmo/DoingBusiness/Industry/IndustryPrograms/PriorityStrategicIndustryCapability/>> (viewed 26 August 2015).

159 Department of Defence, *Response to Questions on Notice* (Question No. 6).

160 Identified SICs are as follows: Composite and exotic materials; elements of national infrastructure (these include aviation fuel, communication systems and logistical infrastructure in Darwin and Townsville); geospatial information and systems; guided weapons; naval shipbuilding; protection of networks, computers and communications; repair, maintenance and upgrade of specialist airborne early warning and control systems; armoured vehicles; and aircraft; secure test facilities and test ranges; system assurance capabilities; and system life cycle management. Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, p.3.12-5.

161 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.41.

162 Department of Defence, *Submission 41*, p.9.

163 Birrer et al, *Committee Hansard*, 24 March 2015, p.6.

164 Department of Defence, *Submission 41*, p.9.

Policy Manual contains instructions for procurement officers relating to AIC requirements, including:

The AIC program is conducted on a best value basis and Defence Procurement officers must ensure that value for money is the prime consideration when determining whether Defence capability is to be sourced from Australian or overseas suppliers.

The AIC program identifies three types of industry capability ('Industry Requirements'):

- Priority Industry Capabilities (PICs);
- Strategic Industry Capabilities (SICs); and
- Project/ Product Specific Industry Capabilities (PSICs).

Procurement officers must include applicable Industry Requirements in request documentation released to the market.

...

Procurement officers must include in request documentation a requirement for tenderers to submit an AIC Plan as part of their tender where:

- The estimated value of the procurement is \$20 million or more; or
- The procurement will impact on a PIC.¹⁶⁵

2.140 In addition:

Where a PIC exists, Procurement officers must seek a costed Australian industry option in the request documentation for the relevant procurement.¹⁶⁶

2.141 Defence advised that the precise detail of the PICs can change and 'the exact criteria used to identify PICs remains confidential to Defence.' Nevertheless, three general criteria are applied:

- The importance of an industry capability to the operational needs of the ADF;
- The ability of the ADF to access these capabilities from overseas should the need arise; and,
- The availability of the capabilities from Australian industry in the normal course of business.¹⁶⁷

2.142 Some witnesses and submissions expressed reservations regarding the effectiveness of the AIC and PIC programs. Dr Andrew Davies (ASPI) was asked whether he believed value for money could override the identified PICs and SICs. He said:

165 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, pp.3.12-1.

166 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, pp.3.12-6.

167 Department of Defence, *Response to Questions on Notice*, (Question No. 12).

Yes; best value for money in the narrow sense. That is the nub of the problem. To be fair, in many cases, you would make the same decision anyway. There are probably some instances where, if you took that longer view, you would pay a little bit more up-front for the ongoing depth of capability later on.¹⁶⁸

2.143 A submission from H I Fraser Pty Ltd stated:

Successive Australian governments have made the decision not to show any preference or offset for Australian industry. Even the AIC policy is flawed because it is not audited after the tender phase nor during the course of the project and there are no consequences to not meeting the AIC quoted during the tender phase.¹⁶⁹

2.144 Similarly, Mrs Sue Smith (Executive Officer, Australian Industry and Defence Network Inc) said that there is a 'dependence' on global primes to deliver major defence contracts. She said this has led to:

...the reluctance of DMO to enforce local production goals and Australian industry capability plans, even when these are an express condition of their contract.¹⁷⁰

2.145 The AMWU submitted that the AIC program 'should not be abolished... but should be well-resourced and expanded'.¹⁷¹ Furthermore:

While these programs fall short of requiring Australian defence industry involvement, they do represent a step in the right direction. In the AMWU's view, this program should go further by requiring project proponents to provide sub-contract work to Australian businesses if Australian businesses are shown to be capable potential suppliers to the project.¹⁷²

2.146 The Defence Procurement Policy Manual provides the following direction to procurement officers in cases of contractors flouting AIC requirements:

Defence Procurement officers are responsible for monitoring and enforcing contractor achievement of contracted AIC program requirements. Procurement officers must ensure that request documentation specifies that where contractors have underperformed against contracted AIC requirements under

168 Davis, *Committee Hansard*, 13 February 2015, p.21.

169 H I Fraser, *Submission 2*, p.2.

170 Smith, *Committee Hansard*, 31 October 2014, p.39.

171 AMWU, *Submission 24*, p.6.

172 AMWU, *Submission 24*, p.6.

previous contracts, they may be excluded from consideration in the tender evaluation process.¹⁷³

2.147 And further:

Contractors that continue to underperform against their AIC obligations will be reported to CEO DMO and the Minister for Defence Materiel. Contractors that do not seek to redress identified shortfalls in performance against their AIC obligations may be reported in the Defence Annual Report.¹⁷⁴

2.148 Other witnesses were concerned with the development and selection of the current PICs. Mr Mike Lovell (Director, Operations and Integration, Northrop Grumman Australia) said:

Some of the current PICs, quite frankly, are probably past their use-by date, but others will continue to evolve. While I say they might be past their use-by date, industry around the world has moved on in some areas and there are some things that just do not make economic sense to do in this country.¹⁷⁵

2.149 Mr Lovell also said:

...essentially what we are talking about is a cohesive defence industry policy that aligns with the DCP [Defence Capability Plan] and using that to evaluate, re-evaluate or test the PICs going forward. That will enable us in industry to focus our investment, R&D [research and development] and the development of our industrial capacity to service the local defence need and also to export.¹⁷⁶

2.150 Mr Lovell added that, in his view, there is a 'disconnect between a declared PIC and current policy and DMO decisions'.¹⁷⁷

2.151 Ferra Engineering submitted that whilst there had been 'progress' with the AIC and the related PICs and SICs, improvement is needed:

...there remain deficiencies in at least two key components; a coherent overarching performance management framework and a coordinated approach to industry effort across projects/programs.¹⁷⁸

2.152 Sonartech Atlas submitted:

173 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, p.3.12-3.

174 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, p.3.12-7.

175 Lovell, *Committee Hansard*, 13 February 2015, p.41.

176 Lovell, *Committee Hansard*, 13 February 2015, p.42.

177 Lovell, *Committee Hansard*, 13 February 2015, p.42.

178 Ferra Engineering, *Submission 15*, p.6.

...it is unlikely that Australia will ever be able to develop and produce major items of military equipment competitively and nor should we. Specific areas should be targeted. One possible basis for selection would be the PICs, then aligned with the needs of the ADF, as elucidated in the DCP [Defence Capability Plan].¹⁷⁹

2.153 Thales Australia agreed that priorities should be identified, but questioned whether the current PIC program had been effective. Mr Chris Jenkins (CEO, Thales Australia and New Zealand) said:

We need to be focusing our efforts into the priority areas for Australia. Innovating products that can be globally competitive in all areas of defence technology does not make sense. We do not have the scale of funds and the scale of expertise in resources. Prioritising that is important. We have previously had priority industry capabilities enunciated, and that has been useful except that those identified areas need to be reviewed and we need to understand whether they are really the priorities that we want or whether there are more definitive and perhaps more appropriate priorities to be set. That is not for industry to determine; that is for the Department of Defence and government to determine.¹⁸⁰

2.154 Thales Australia's submission stated that 'Australia's investment choices in defence technology and industry support continue to be tested through open market competition.'¹⁸¹ Thales observed that although Priority Industry Capabilities and Strategic Industry Capabilities have been identified, the PICs policy is 'essentially passive' and 'Defence does not commit to buy or accept anything developed in or for a PIC.'¹⁸² Thales' submission noted that:

- Although acoustic technologies are identified as a PIC, an anti-submarine towed array solution for Air Warfare Destroyers was tendered and awarded to a UK-based company.¹⁸³
- Whereas the Bushmaster Protected Mobility Vehicle is 'not associated' with any PIC, it has been successfully exported.¹⁸⁴

2.155 Thales Australia's submission stated:

179 Sonartech Atlas, *Submission 26*, p.6.

180 Jenkins, *Committee Hansard*, 17 October 2014, p.20.

181 Thales Australia, *Submission 19*, p.4.

182 Thales Australia, *Submission 19*, p.4.

183 Thales Australia, *Submission 19*, p.4.

184 Thales Australia, *Submission 19*, p.5.

In simple terms, a national defence export strategy must support the development of products and services that offer foreign customers a unique value proposition.¹⁸⁵

- 2.156 The Committee asked Defence whether a tendency to procure from overseas had led to a loss of Australian industry capability and the effective lapse of certain PICs. Dr Robert Bourke (Director-General, Economic and Commercial Analysis, Department of Defence) said:

Simply because you are a PIC does not mean that you are automatically entitled to, if you like, industry assistance or an inclusion in government programs. The idea behind the PIC program and the AIC program is to look at capabilities on a case-by-case basis, look at where those capabilities fit into projects and programs and then, on a cost-benefit basis, evaluate whether investment in a particular capability can be justified.¹⁸⁶

- 2.157 Dr Bourke was then asked whether industry capability is considered in the context of PIC-related procurements. Dr Bourke explained how PICs are applied:

PICs of course are broad ranging capabilities and when they are assessed within the department they are done not purely on a case-by-case or project-by-project basis. They are done on a capability basis. For example, electronic warfare, as you have cited, will have a number of programs and projects that cover the EW space. The PIC is assessed and measured, if you will, taking into account all that program activity and, indeed, it is considered as well outside of the program space.¹⁸⁷

- 2.158 He added:

As you are probably aware, what happens within industry and how industry is structured and evolves depends partly on what happens with Defence programs, but it is also influenced, in part, by what happens between Defence programs and in other markets.¹⁸⁸

185 Thales Australia, *Submission 19*, p.5.

186 Birrer et al, *Committee Hansard*, 24 March 2015, p.6.

187 Birrer et al, *Committee Hansard*, 24 March 2015, p.6.

188 Birrer et al, *Committee Hansard*, 24 March 2015, p.6.

Defence industry as a fundamental input to capability

2.159 Currently, Defence recognises the eight fundamental inputs to capability (FIC): personnel; organisation; collective training; major systems; supplies; facilities and training areas; support; and command and management.¹⁸⁹ Defence defines the concept of fundamental inputs to capability as follows:

A capability is provided by one or more systems, and is made up of the combined effect of multiple inputs. The inputs are known as the Fundamental Inputs to Capability (FIC)... Understanding FIC enables Defence to better understand and manage the whole-of-life workforce and funding implications of a new capability.¹⁹⁰

2.160 In August 2015, then-Defence Minister Kevin Andrews stated that the forthcoming White Paper would recognise industry as a FIC:

Through the White Paper and the accompanying Defence Industry Policy Statement, the Government will re-set the foundations for how industry engages with Defence. For the first time, the Government will recognise the vital role of Australian industry as a fundamental input to Defence capability.¹⁹¹

2.161 He continued:

This means that it will be mandatory for Defence to consider Australian industry in the formal capability development process ensuring Defence better understands and identifies its needs for industrial support, and is able to better advise industry on its future needs.¹⁹²

2.162 During the inquiry, witnesses and submissions similarly proposed that Defence should recognise industry as a FIC. In its submission, the Defence Teaming Centre argued:

Australia's defence industry be recognised by the Federal Government as the ninth FIC. This would assist in generating an

189 Department of Defence, 'Fundamental Inputs to Capability' at <<http://www.defence.gov.au/CDG/FundamentalInputs/>> (viewed 26 August 2015).

190 Department of Defence, 'Defence Capability Development Handbook', December 2012, p.2.

191 Minister for Defence Address to the American Chamber of Commerce in Australia, 27 August 2015, at <<http://www.minister.defence.gov.au/2015/08/27/minister-for-defence-address-to-the-american-chamber-of-commerce-in-australia-qt-hotel-canberra/>> (viewed 16 October 2015).

192 Minister for Defence Address to the American Chamber of Commerce in Australia, 27 August 2015, at <<http://www.minister.defence.gov.au/2015/08/27/minister-for-defence-address-to-the-american-chamber-of-commerce-in-australia-qt-hotel-canberra/>> (viewed 16 October 2015).

understanding and acceptance that defence industry is a critical partner to Defence's capacity to deliver military capability for government.¹⁹³

- 2.163 Dr Andrew Davies (ASPI) was asked whether the defence industry could be recognised as a fundamental input to capability. He said:

The short answer is yes. Defence is clearly a key stakeholder of defence industry and the services and goods it provides. ... At the moment the bulk of that work is done as part of DMO's ongoing processes. Making it a fundamental input to capability would throw the onus on to the service chiefs and the capability manager to make sure that defence industry was healthy enough to provide them with the ability to raise, train and sustain the forces that government requires.¹⁹⁴

- 2.164 Mr Graeme Dunk (Manager, Australian Business Defence Industry) said:

If industry is recognised as a fundamental input to capability, it would mean firstly that, at the time major acquisition and sustainment decisions are being made, the ability of the indigenous industry to address that acquisition and sustainment would have to be taken into account. Secondly, in any decision that is to be taken by Defence associated with acquisitions, the impact on the industry would also have to be assessed.¹⁹⁵

- 2.165 A submission from Australian Business Defence Industry to the 2015 Defence White Paper process expanded on this concept, proposing the creation of six fundamental inputs to industry capability: in country facilities; skilled and available workforce; access to intellectual property and design information; sustainable workflow; access to capital; and national infrastructure.¹⁹⁶

- 2.166 Mr Peter Nicholson (Head of Government Relations, BAE Systems) agreed that the defence industry should be a fundamental input to capability.¹⁹⁷ He added:

Defence industry is a vital part of ADF capability because of the sustainment requirements through life of type. That includes not just maintenance, repair and overhaul but also upgrade.¹⁹⁸

193 Defence Teaming Centre, *Submission 6*, p. 2.

194 Davies, *Committee Hansard*, 13 February 2015, p.20.

195 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.3.

196 ABDI Submission to 2015 Defence White Paper, p.6.

197 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.33.

198 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.33.

2.167 Some witnesses cautioned that relying entirely on the domestic defence industry for all ADF requirements would not be possible. Dr Andrew Davies (ASPI) said that increasing globalisation meant that some reliance on overseas suppliers was inevitable.¹⁹⁹ Nevertheless, he said Australia could pursue areas of advantage.²⁰⁰ He said:

It is a matter of looking at comparative advantage and identifying sectors of the Australian industry where we can really add some value. I do not think there is a blanket solution in terms of this model or that model. When it is all said and done, we are a country of 24 million people in an increasingly globalised defence industry setting.²⁰¹

2.168 In its submission, Thales Australia referred to the 1992 report commissioned by Defence entitled 'The Strategic Priorities for Australian Defence Industry'. According to Thales:

The report gave weight to the argument that Australia's geo-political circumstances did not warrant, nor could the country afford, a high level of self-reliance in defence technology and production.²⁰²

2.169 The 1992 report stated:

There is no need, in most circumstances, for full local design and production of high risk capabilities... Proven overseas designs adapted for local conditions, such as the ANZAC frigate, are the lower risk strategy that must be adapted for the austere financial circumstances of the 1990s.²⁰³

2.170 The report also stated:

It will be important, therefore, for Australian industry to be targeted on those areas where retaining a technological edge is most critical for our contingency planning.²⁰⁴

2.171 BAE Systems presented a similar view. Mr Peter Nicholson (Head of Government Relations, BAE Systems) said:

199 Davies, *Committee Hansard*, 13 February 2015, p.20.

200 Davies, *Committee Hansard*, 13 February 2015, p.22.

201 Davies, *Committee Hansard*, 13 February 2015, p.22.

202 Thales Australia, *Submission 19*, p.4.

203 Paul Dibb, 'The Strategic Priorities for Australian Defence Industry', ANU Strategic Defence Studies Centre, November 1992, p.70.

204 Paul Dibb, 'The Strategic Priorities for Australian Defence Industry', ANU Strategic Defence Studies Centre, November 1992, p.28.

In general, Australian industry does not have the capacity – that is, the resources – to design, develop and field complex weapon systems.²⁰⁵

- 2.172 Mr Nicholson noted that Australia’s capability strengths rested in the ability to make systems within complex systems, for example, ‘some types of platform, sensors, communications, software development and electronic warfare’ and the integration of these elements into the overall system.²⁰⁶ He added that there are two approaches:

The first one is to design, develop and produce and export individual systems that could not be categorised as complex. Secondly, and most likely, to produce systems for export as part of the supply chain of a complex weapons system produced by an overseas manufacturer.²⁰⁷

First Principles Review reforms to capability development

- 2.173 In August 2014, the Defence Minister commissioned a review of the Defence organisation’s ‘first principles’ to ensure defence remains ‘fit for purpose and is able to deliver against its strategy with the minimum resources necessary.’ The review was completed in April 2015, after the Committee had concluded public hearings for this inquiry.²⁰⁸ As noted by the Minister for Defence when the Review was released in April 2015, the Government has agreed (or agreed in-principle) to 75 of the First Principles Review’s 76 recommendations.²⁰⁹

- 2.174 The First Principles Review recommended reforming capability development processes to create:

An end-to-end approach for capability development with Capability Managers having clear authority and accountability as sponsors for the delivery of capability outcomes to time and budget, supported by an integrated capability delivery function and subject to stronger direction setting and contestability from the centre.²¹⁰

205 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.32.

206 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.32; see also BAE Systems, *Submission 3*, p.2.

207 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.32.

208 David Peever, ‘First Principles Review: Creating One Defence’, April 2015, p.5.

209 Minister for Defence media release, ‘First Principles Review of Defence’, 1 April 2015, at <<http://www.minister.defence.gov.au/2015/04/01/first-principles-review-of-defence/>> (viewed 26 August 2015). The sole recommendation Government did not agree to accept related to the Defence Science and Technology Organisation.

210 David Peever, ‘First Principles Review: Creating One Defence’, April 2015, p.5.

2.175 The Review found that the existing capability development process (shown in a graphical representation at Annex E of the Review) created ‘disconnect between customers and the purchaser as well as multiple and unnecessary handover points’.²¹¹ The Review also stated that Defence is ‘more focussed on process adherence than high quality capability outcomes.’²¹² To achieve an end-to-end capability development approach, the Review recommended forming a new Capability Acquisition and Sustainment Group (CASG):

The new group would manage a project from Gate Zero through to Final Operating Capability, including the integration of all Fundamental Inputs to Capability.²¹³

2.176 With the defence industry recognised as being among the fundamental inputs to capability, its ability to fulfil capability requirements would be overseen from CASG. The Review stated:

The outputs of Defence industry should be viewed as a Fundamental Input to Capability and be integrated into the acquisition life cycle. This may well mean a more imaginative use of a small number of potential contractors early in the process or the extension and use of already existing collaborative mechanisms (such as rapid prototyping, development and evaluation) at the very early stages of requirements development.²¹⁴

2.177 This means Defence may need to display a greater willingness to foster innovation by managing or accepting project risks, rather than deliberately excluding or avoiding options due to risk anxiety.

2.178 The First Principles Review acknowledged that the current approach to procurement may not be appropriate in the defence context. The Review stated:

We have had significant evidence from industry and other commentators that the current reliance on a ‘one size fits all’ competition policy and the use of complex procurement contracts does not produce the best results from domestic and international industry. It also adds significant cost and time for all participants and encourages unrealistic costing to be included in the decision-making process. The importance and relevance of competitive

211 David Peever, ‘First Principles Review: Creating One Defence’, April 2015, p.32.

212 David Peever, ‘First Principles Review: Creating One Defence’, April 2015, p.33.

213 David Peever, ‘First Principles Review: Creating One Defence’, April 2015, p.35.

214 David Peever, ‘First Principles Review: Creating One Defence’, April 2015, p.37.

tension amongst prospective bidders varies from project to project.

In some cases there may be only one realistic option.²¹⁵

2.179 The Review recommended that procurement strategies for Defence acquisition and sustainment should follow a 'smart buyer' approach, which would involve:

- An 'enhanced relationship' between CASG and industry, with industry providing 'expertise in managing projects in the acquisition and sustainment phases';
- Defence would focus on planning and governance, including reviewing plans adopted by industry; industry would then focus on meeting the outcomes required by Defence.
- Involving industry in procurement strategies;
- Recognising the outputs of the defence industry as a FIC;
- Formulating a Defence Investment Plan and making it available to industry 'to enable appropriate planning for future capital projects.'²¹⁶

2.180 Furthermore:

We recommend that Defence, in partnership with academia and industry, review its developmental research priorities, their alignment with future force requirements and capacity to leverage allied partners, in order to promote innovation and make the most valuable contribution to future Defence capability.²¹⁷

2.181 Implementing these changes necessitates managing industry's ability to deliver the capabilities Defence requires. The continuous build approach adopted for naval shipbuilding could be applied (or adapted) as a template for other segments of the defence industry.

RAND report - continuous build strategy an example of managing FIC

2.182 In September 2014, the Australian Government requested the RAND Corporation to produce a report on Australia's naval shipbuilding. The report was released in April 2015, to inform the next Defence White Paper. The scope of the RAND report was limited to naval shipbuilding, rather than defence industries generally; however, aspects of the report contained discussion relevant to themes arising during this inquiry, in particular:

- How acquisition decisions provide certainty for industry when Government planning creates ongoing production activity; and
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215 David Peever, 'First Principles Review: Creating One Defence', April 2015, p.36.

216 David Peever, 'First Principles Review: Creating One Defence', April 2015, pp.36-37 and p.41.

217 David Peever, 'First Principles Review: Creating One Defence', April 2015, p.42.

- Continuity may generate savings and mitigate sovereign risks.

2.183 A ministerial statement issued upon release of the RAND report stated:

The RAND report is a critical input into the Defence White Paper and the Naval Shipbuilding Plan. The Government will now carefully consider the report's analysis and findings in preparation for the release of these documents later this year.²¹⁸

2.184 RAND's analysis found that Defence could adjust the timing of ship construction to provide industry with an uninterrupted cycle of activity:

Australian domestic naval shipbuilders can sustain an 18- to 24-month pace of large ship construction starts if AUS DoD [the Australian Department of Defence] carefully manages Future Frigate deliveries and keeps those ships operational for 25 to 30 years.²¹⁹

2.185 The report recommended 'steady production' and a 'continuous build strategy' for naval shipbuilding:

Supporting an Australian shipbuilding industry that is cost effective will require specific steps, including lessening the gap between the end of the AWD program and the start of Future Frigate construction and adopting a continuous build strategy that starts a new surface combatant every 18 months to two years.²²⁰

2.186 RAND stated that the price premium of Australian shipbuilding 'could drop over time, however, with steady production drumbeats and mature designs.'²²¹

2.187 Subsequent to release of RAND's report, the Minister for Defence initiated preparation of a naval shipbuilding plan, which the Minister indicated was to be 'informed by the expert, independent advice from the RAND review.'²²² In August 2015, the Prime Minister and Minister for Defence jointly released the plan and endorsed the continuous build approach recommended by RAND:

The Government will implement a continuous build of surface warships in Australia. This means that Australia's shipbuilding

218 Minister for Defence, 'Release of the RAND Corporation Report', 16 April 2015, at <<http://www.minister.defence.gov.au/2015/04/16/minister-for-defence-release-of-the-rand-corporation-report/>> (viewed 26 August 2015).

219 RAND Corporation, 'Australia's Naval Shipbuilding Enterprise: Preparing for the 21st Century', April 2015, p.145.

220 RAND Corporation, 'Australia's Naval Shipbuilding Enterprise: Preparing for the 21st Century', April 2015, p.149.

221 RAND Corporation, 'Australia's Naval Shipbuilding Enterprise: Preparing for the 21st Century', April 2015, p.xxxviii.

222 'Launching a New Deal for Naval Shipbuilding', *the Australian*, 22 April 2015, p.12.

workforce will build Navy's Future Frigates and Offshore Patrol Vessels.²²³

- 2.188 The Defence Minister recently reiterated that 'the Government has committed to an unprecedented continuous build of surface warships in Australia.' The Minister also acknowledged that 'a sustainable shipbuilding industry will also generate significant benefits for the wider Australian economy, including through knowledge transfer and innovation.'²²⁴

Departmental and ministerial responsibilities for the defence industry

- 2.189 Responsibility for matters related to the defence industry is currently shared between three ministers.²²⁵ The role of Minister for Defence Materiel and Science was revived in September 2015.
- 2.190 The Australian Strategic Policy Institute recommended that the Minister Assisting the Minister for Defence should have 'particular responsibility for defence export promotion.'²²⁶ Dr Andrew Davies (ASPI) said that having a minister responsible for the defence industry, in his view, would be a 'positive step' given the size and complexity of the Department of Defence.²²⁷ Dr Davies said:

Defence is a very large and very complex beast. I think it is too big for a single minister. I think the personnel issues are sufficiently complex and sufficiently important that there be a junior minister in charge of them. Just going from my experience, when there was a defence procurement minister was when the projects of concern list really started kicking goals in terms of taking difficult projects and remediating them. That is because there was a minister who had the time to do that, to pull the industry stakeholders and Defence together and get all the important people in a room to sort

223 Prime Minister and Minister for Defence, 'The Government's Plan for a Strong and Sustainable Naval Shipbuilding Industry', 4 August 2015, at <<https://www.pm.gov.au/media/2015-08-04/governments-plan-strong-and-sustainable-naval-shipbuilding-industry>> (viewed 26 August 2015).

224 Minister for Defence, speech to Sea Power Conference, 7 October 2015, at <<http://www.minister.defence.gov.au/2015/10/07/minister-for-defence-sea-power-conference-sydney/>> (viewed 16 October 2015).

225 Department of Defence, 'Department of Defence Ministers' at <<http://www.minister.defence.gov.au/>> (viewed 26 August 2015).

226 ASPI, *Submission 20*, p.3.

227 Davies, *Committee Hansard*, 13 February 2015, pp.24-25.

out these multibillion-dollar projects that had gone off the rails. Having a dedicated minister who had the time to do all of that was very valuable.²²⁸

2.191 The portfolio of Minister for Defence Materiel has existed intermittently between 1939 and 2013. Responsibilities have included defence procurement, materiel engineering, financial management, project and sustainment management and materiel logistics.²²⁹

2.192 Austal submitted:

On numerous occasions key ministers from various portfolios visit many countries of interest to defence exporters. There is currently no way of coordinating this visit schedule to harness the potential value of this level of support. This lack of coordination is a significant impediment to publicising potential Australian exports. Industry has been left to its own devices and is often a low priority afterthought, when trying to squeeze into a Minister's busy schedule.²³⁰

2.193 In the UK, the Minister for Defence Equipment, Support and Technology is given specific responsibility for defence exports. Mr Andrew Watson (Managing Director, MBDA Australia) said that the UK Government had 'decided at the highest level the need to support defence exports.'²³¹

Forthcoming White Paper and industry policy statement

2.194 Following the release of the 2015 Defence White Paper, Defence intends to publish a 10-year Defence Capability Plan and a Defence Industry Policy Statement to provide defence industry with greater certainty about the Government's key priorities and timeframes. Additionally, the Government has indicated that the White Paper will be followed by a fully costed Force Structure Review.²³²

228 Davies, *Committee Hansard*, 13 February 2015, p.25.

229 *44th Parliament: Parliamentary Handbook of the Commonwealth of Australia 2014* (33rd ed.) (Parliamentary Library/Department of Parliamentary Services, Canberra, 2015), pp.505-593.

230 Austal, *Submission 31*, p.10.

231 Watson, *Committee Hansard*, 13 February 2015, p.54; see also <<https://www.gov.uk/government/ministers/parliamentary-under-secretary-of-state-defence-equipment-support-and-technology>> (viewed 26 August 2015).

232 Prime Minister and Minister for Defence media release, 4 April 2014, 'Delivering a World Class Defence Force', at <<http://www.pm.gov.au/media/2014-04-04/delivering-world-class-defence-force-0>> ; Minister for Defence, ASPI Future Surface Fleet Conference speech, 31 March 2015, at ><http://www.minister.defence.gov.au/2015/03/31/minister-for-defence-aspi-australias-future-surface-fleet-conference/>> (viewed 26 August 2015).

2.195 In an address to the Australian Strategic Policy Institute's Future Force Structure Options Conference on 25 June 2015, Prime Minister Abbott stated:

We need a strong defence industry to support and sustain our armed forces. The White Paper will reset this critical relationship. It is certainly not necessary or practical that all our defence equipment be made here in Australia but it is necessary that it be sustainable in Australia.²³³

2.196 The Prime Minister added:

The White Paper, a Defence Investment Plan, covering major equipment and its sustainment, the Defence Industry Policy Statement, a Naval Shipbuilding Plan and our commitment to increase funding – in combination – will provide the clarity and certainty that the defence of Australia needs.²³⁴

2.197 The Committee asked Defence for its views on the linkage between the defence industry and defence capability. Defence advised:

The Government supports local industry and recognises how valuable it is to our nation. The new Defence White Paper and the associated Defence Industry Policy Statement will articulate the critical role of industry in Defence business and provide greater clarity and certainty of Defence's requirements of industry.²³⁵

2.198 Subsequently, the Defence Minister has given an indication of the position likely to be taken in the White Paper and Industry Statement. She said:

The Government very strongly supports the principle that we should maximise the opportunities for Australian industries to participate in Defence acquisition and sustainment. We are also strongly committed to Australian industry that can deliver Defence capability that is internationally cost-competitive.²³⁶

...

The new Defence Industry Policy will offer industry greater opportunities to build its innovation, its productivity and its

233 Prime Minister of Australia, 'Address to the Australian Strategic Policy Institute Conference, Canberra', 25 June 2015, at <<http://www.pm.gov.au/media/2015-06-25/address-australian-strategic-policy-institute-conference-canberra>> (viewed 26 August 2015).

234 Prime Minister of Australia, 'Address to the Australian Strategic Policy Institute Conference, Canberra', 25 June 2015, at <<http://www.pm.gov.au/media/2015-06-25/address-australian-strategic-policy-institute-conference-canberra>> (viewed 26 August 2015).

235 Department of Defence, *Response to Questions on Notice* (Question No. 9).

236 Minister for Defence, speech to Sea Power Conference, 7 October 2015, at <<http://www.minister.defence.gov.au/2015/10/07/minister-for-defence-sea-power-conference-sydney/>> (viewed 16 October 2015).

international competitiveness – which is all in Australia’s national interests. To ensure that the Government’s significant investment in Defence is spent wisely, this will be Australia’s first fully-costed, and externally cost-assured, Defence White Paper.²³⁷

Implications for defence exports

2.199 Once it is established that there are elements of domestic defence industry that are FIC (including those that generate the competence and capacity to be a smart buyer), it is easier to make the linkage to which Defence exports should be actively supported. This creates a positive cycle with Australian investment in innovation to enhance FIC leading to new IP that can (subject to export controls) increase opportunities for export.

2.200 Mr Graeme Dunk (Manager, Australian Business Defence Industry) explained how exports are related to industry capability and government policy:

Defence export opportunities do not spring fully formed out of the ground, but need to be considered as a result of defence industry engagement and associated involvement in multiple upstream activities, including determination of military capability needs based on the consideration of the strategic outcomes desired by the government; definition and description of military capability requirements; support for innovative developments to address identified needs and requirements; support for the commercialisation of innovative concept and prototypes; and acceptance of the outcomes of innovation and commercialisation and introduction into service.²³⁸

2.201 Thales’ submission stated:

In Thales’ experience, our most successful exports have been products designed and developed in Australia and launched through large contracts to fulfil local requirements... One way to describe exports of this type is the ‘push’ model – a unique product is developed and launched through a local requirement that then has sufficient momentum to ‘push’ its way into the global market as a unique value proposition.²³⁹

237 Minister for Defence, speech to Sea Power Conference, 7 October 2015, at <<http://www.minister.defence.gov.au/2015/10/07/minister-for-defence-sea-power-conference-sydney/>> (viewed 16 October 2015).

238 Dunk and O’Callaghan, *Committee Hansard*, 13 February 2015, p.1.

239 Thales Australia, *Submission 19*, p.5.

2.202 Prof Goran Roos said:

Hence, there is a natural link between the requirements of somebody working with your local industry, the increase of the capability in that industry and the opening up of that industry for opportunities that they otherwise would not have both through capability and through linkages.²⁴⁰

Identifying FIC and alternatives to competition

2.203 The practical benefit of analysing industry to identify FIC and then using procurement to not only sustain it, but save money in the process is demonstrated by the UK's approach to complex systems procurement. This policy has significantly changed how the UK approaches naval ship (and submarine) building, elements of aviation capability and complex weapons procurement.

2.204 A submission from MBDA Australia detailed how the UK's preference to engage sole suppliers for complex weapons has retained capabilities in-country, led to savings and created opportunities for exports. MBDA submitted that an 'interdependent relationship' had been developed between Government and industry whereby:

The UK MoD [Ministry of Defence] requires current and future military capability with operational advantage, freedom and action and value for money, which is achieved by the sustainment of appropriate industrial sovereign capability; and MBDA UK requires a sustainable and profitable business through being MoD's primary partner of choice for the supply and support of world leading complex weapons which delivers shareholder value.²⁴¹

2.205 MBDA submitted that this 'collaborative approach' to procurement was delivering savings for the UK Government:

These savings are achieved through activities such as commonality and modularity of sub-systems and technologies, optimising the design to minimise through life costs, as well as enabling greater flexibility to trade requirements and cost across the portfolio.²⁴²

2.206 While the partnership between the MoD and MBDA allowed for the MoD to acquire any system it deemed necessary (including an off-the-shelf system from an offshore supplier), to date it has not chosen to exercise that option due to the increased capability and savings achieved through the

240 Roos, *Committee Hansard*, 9 October 2014, p.1.

241 MBDA Australia, *Submission 16*, p.6.

242 MBDA Australia, *Submission 16*, p.6.

partnership with MBDA. According to MBDA, UK Government support for the export of unique capabilities would lead to increased tax contributions and additional savings:

These savings may accrue as a result of an increase in the production quantity enabling a reduced unit price, reduced overheads as a result of increased business volume, and potentially the spread of non-recurring development costs if the timescales of domestic and export requirements can be aligned.²⁴³

2.207 For Australia, MBDA suggested that relations between Government and industry could be modelled on the UK approach:

Proactive and joined up relationships... could stimulate more innovative business models for the longer term preservation of a defence sector within Australia, providing skills, knowledge, capability and the generation of intellectual property which is ultimately needed for the growth of exports.²⁴⁴

2.208 MBDA concluded:

As such, if the Australian government is to seriously address support to defence industry exports, one of the first steps is to assess the options for a 'non-OTS' procurement policy in specific technologies and capabilities. These technologies and capabilities would need to be targeted at those areas where it is not only essential to maintain a level of in-country capability, but also where export market analysis demonstrates greatest opportunity for exploitation of Australian developed products.²⁴⁵

2.209 The committee notes the parallel process developed in the UK to support a long term partnering relationship in shipbuilding. The combination of new contracting models and investment in production processes and technology to assess which industry elements (down to specific trades) were sovereign shipbuilding capabilities that should be retained have transformed the UK approach to shipbuilding, delivering savings, certainty for industry and a sustainable sovereign capability.²⁴⁶

2.210 Chapter four details other aspects of UK Government support for its defence industry and defence exports.

243 MBDA Australia, *Submission 16*, p.9.

244 MBDA Australia, *Submission 16*, p.15.

245 MBDA Australia, *Submission 16*, p.16.

246 UK Ministry of Defence, 'Defence Industrial Strategy: Defence White Paper', December 2005, pp.6-11, and see Appendix E.

Committee comment

2.211 The Committee notes that despite policies which appear to support closer engagement with industry, a paradigm shift in Defence culture and practice is required if the stated outcomes are actually to be achieved. The Committee's starting point is accepting the evidence provided during this inquiry – and validated by recommendations of the First Principles Review – that elements of defence industry are essential to ADF capability. Industry elements that the Committee considers could be categorised as FIC include:

- Products;
- Services;
- Competence and capacity (for example, design, engineering and manufacturing capacity); and
- Intellectual property.

2.212 While it will be for Defence and industry to jointly establish a methodology to identify FIC and update it on a regular basis, the Committee recognises that not all industry activity should be regarded as essential. Products or services that can be readily sourced from alternative domestic or international suppliers, or in times of conflict, even be substituted with minimal cost or disruption are clearly not FIC, even if they are the result of a Defence related program such as AIC or the Global Supply Chain. The manufacturing capability to produce low technology items such as trailers or vehicle trays are two recent examples that would clearly be in this category. At the other end of the spectrum, where Australia operates a small fleet of a complex system with a unique configuration, recent experience in both the maritime and aerospace domains have proven that there are elements of engineering competence and manufacturing capacity that must be maintained in Australia.

2.213 Noting that Service Chiefs are responsible to ensure that FIC are sustained, the Committee is of the view that Defence has an interest, indeed an obligation to identify FIC elements in industry and then to use available means – including domestic procurement programs and support for exports – to enhance and sustain them.

2.214 This framework is represented schematically in Figure 1.

2.215 The Committee expects that this approach will lead to a far more strategic partnership between Defence and industry. In line with the experience of peer nations, it will most likely result in longer term, whole-of-life contracts and a commitment from Government to underwrite a given level of procurement activity in key sectors (eg: the continuous build of surface

ships). This will in turn develop more IP, capacity and sustainable skilled work in Australia's industrial base. The Committee notes, however, that the driver for this framework must be sustaining the skilled jobs that enable Defence capability, not job creation as an end in itself.

- 2.216 The comment by Dr Davies of ASPI (paragraph 2.82) captured the sentiment of many witnesses which indicates that there is a gulf between policy and practice when it comes to Defence interaction with industry. Many aspects of previous Defence Industry Policy Statements (eg: DIPS 2010) and the 2014 Defence Procurement Manual were commendable and, if consistently implemented, would have served both Defence and industry well. The Committee notes ANAO comments that past reform in Defence has resulted in much new process but seldom the intended outcomes. The First Principles Review also identifies this adherence to process rather than strong, strategic leadership, including in this field of industry engagement.
- 2.217 The step change that will underpin a change in cultural mores will be for Defence to accept that they have a strategic and operational need to be a smart buyer who manages the sustainability of industry FIC, just as they do for other fundamental inputs to Defence capabilities. This will require a new level of analysis and engagement with industry as well as change in the culture that drives current procurement practices. These changes should be implemented top down through policy and reporting frameworks as well as bottom up, through highlighting the role of industry as FIC during specialist training (eg: trades, engineering, project management) and generalist career training such as the various levels of staff training for ADF officers.
- 2.218 The Committee recognises that profit and loss are prime considerations for industry and that probity is required in the Commonwealth's dealings with all commercial entities. In comparison with peer nations however, the Committee also accepts the evidence that anxiety about probity has led to an over reliance on competition as the prime vehicle to drive value for money, as highlighted in discussion regarding DPPM guidance in paragraph 2.117. Even when Defence sought to provide evidence that they already had policy that allowed them to consider whole of life costs when evaluating value for money, the Committee noted that the reference provided – being the most recent edition of the DPPM – detailed the primacy of competition: *“Value for money is not limited to a consideration of capability versus price, or ‘cheapest price wins’. Value for money requires consideration of Australian Government policy, **specifically values such as open competition, efficiency, ethics and accountability**”*.

- 2.219 The Committee received evidence that in the longer term, many projects could deliver better value for money where a long term partnering agreement is reached. Such an agreement provides incentive for the company to invest in the quality and longevity of its people, processes and infrastructure which has the tangible benefit of increasing productivity, decreasing costs and increasing availability of the asset to the warfighter. There are some examples of this practice in Australia but they are not widespread, as is the case in nations such as the UK.
- 2.220 The UK Government's management of complex weapons procurement, which has been designed to establish ongoing relationships with suppliers, has demonstrated how partnering with industry can deliver savings to government, improved capability, innovation, unique products with export potential and maintain UK sovereign capability. The applicability of industry as a FIC has been demonstrated by the UK's Defence Industry Strategy White Paper in 2005. This has resulted in a long-term partnership between the UK Ministry of Defence and BVT Surface Fleet Ltd in 2009 (Appendices E and F contain extracts from the White Paper and the contract between the UK Secretary of State for Defence and BVT Surface Fleet Ltd).
- 2.221 The Committee also accepts that there has been a recognised aversion to risk, with decisions taken to procure offshore, even when Australian companies offer products in areas that are classified as PICs. The risk cited as reasons to go offshore range from commercial to technical or a perceived lack of interoperability with allies. The Committee accepts that in some cases these judgements may be valid but has received evidence that Australian industry has often been denied the chance to provide solutions to Defence at all, or in some cases has been told to get an overseas prime interested so that they can provide it to the ADF as part of a broader solution. While the Committee recognises the CPR requirements to consider scale and commercial longevity are valid, managing these risks – where appropriate in order to sustain and develop industry elements identified as FIC – would appear to deliver more value in the long term than simply defaulting to acquisition from an overseas prime.
- 2.222 The ability of Australian industry (sometimes supported by DSTG, CSIRO and the university sector) to innovate and develop IP has improved Australian defence capabilities and is an essential enabler to export. Evidence suggests, however, that the majority of the defence industry is building to print, rather than generating indigenous intellectual property. Where elements of industry are identified as being FIC, programs that encourage research & development that leads to IP and a path to commercialisation should be funded as a priority. The DMTC model is

one existing example that should be expanded into other technology areas to help achieve this goal.

- 2.223 A number of witnesses highlighted to the Committee that industry competence and capacity take time to develop. The competence to sustain a FIC or to be a smart buyer, requires graduates from trades or engineering courses who also have hands on experience applying their knowledge in a relevant field. This drives a requirement to undertake some acquisition programs in Australia or where this is not feasible, to form contractual arrangements that allow for Australian workers (Defence or industry) to be embedded with the overseas prime and in some cases, the relevant foreign military engineering regulatory authority. The Committee saw that the key failing in the PIC program was a mistaken assumption by Defence that short term, grant based activities could create sustainable industry competence and capacity. Likewise the AIC program has sometimes created jobs, but often not in a manner that sustainably targeted industry elements that could have been regarded as FIC.
- 2.224 When describing the PIC program, Defence indicated a reliance on individual project officers to evaluate PIC elements. This approach has led to an inconsistent application of this policy, and as highlighted by the First Principles Review, is an example of form over substance. In the Committee's view, Defence's capability managers (Service Chiefs) should be making decisions affecting FIC-related defence industry capability. This would create the opportunity to take a strategic view on a programmatic basis rather than project by project. Where a project officer may not see that the particular equipment being procured needs an industry element as FIC, a programmatic view may see the potential for that project to contribute in a cost effective manner to sustainment of a FIC that is under pressure to support other ADF weapons systems. There would need to be an agreed threshold of significance (eg: value, complexity or technology) above which this evaluation of each individual project was mandatory.
- 2.225 Lastly, recent ministerial changes have resulted in the appointment of A Minister for Defence Materiel and Science (DM&S). The Committee recognises that the Defence Minister as a member of National Security Committee of Cabinet will have the lead role in *what* capabilities are to be procured, the Minister for Defence Materiel and Science should be responsible for *how*. The Minister for DM&S should have oversight of how Defence plans for future capability (encompassing management of FIC - including industry), how capability is procured and supported throughout its service life, as well as defence exports including government-to-government sales.

- 2.226 In summary, support for defence exports – where they assist to sustain or develop industry elements that are identified as FIC – should be viewed as a core Defence responsibility in the same way as the services manage other FIC elements including training, personnel plans, facilities and doctrine development.

Recommendations

Recommendation 1

The Committee recommends that the Department of Defence incorporate into policy, doctrine, procurement instructions and all associated training the addition of defence industry as the ninth fundamental input to capability.

Recommendation 2

The Committee recommends that the Department of Defence build on previous activities in Australia and abroad to develop a system to identify those elements of industrial competence or capacity that are deemed to be fundamental inputs to ADF capability (FIC). This activity should be led by the Service Chiefs and implemented by Capability, Acquisition and Sustainment Group at a strategic level with an assessment of how each new significant project may change the assessment of FIC or indeed could contribute to the maintenance of FIC from a whole of program perspective.

Recommendation 3

The Committee recommends that when implementing the First Principles Review changes to roles and responsibilities, capability development, procurement and sustainment, Defence take into account the framework for industry engagement based around the fundamental inputs to capability illustrated in Figure 1.

Recommendation 4

The Committee recommends that in areas where an aspect of industry is identified as a fundamental input to capability, Defence's procurement and probity guidelines provide suitable pathways for long term partnerships to be the default approach to driving innovation, productivity and value for money rather than a primary focus on open competition. Defence should publicly report savings achieved by virtue of this revised approach to procurement.

Recommendation 5

The Committee recommends that where a procurement activity is linked to a fundamental input to capability, the Department of Defence develop guidelines that encourage identification and management of risk rather than avoidance of risk through defaulting to an offshore contract.

Recommendation 6

The Committee recommends that the Department of Defence significantly expand its investment in activities that generate fundamental input to capability-related innovation and intellectual property, and support commercialisation through partnership models such as the Defence Materials Technology Centre.

Recommendation 7

The Committee recommends that where an industry-related fundamental input to capability has been identified, the Department of Defence prioritise Australian based procurement contracts so that relevant industry and Defence staff can develop competence in specific tasks via hands-on experience, or where this is not possible, through making the placement of Australian staff in original equipment manufacturers or foreign military engineering bodies a condition of contract.

Recommendation 8

Subject to acceptance of Recommendations 1-7, the Committee recommends that the Department of Defence discontinue the Priority Industry Capability and Strategic Industry Capability programs, retain the Australian Industry Capability targets for procurement activity that do not involve an identified fundamental input to capability and continue to promote the Global Supply Chain scheme wherever possible.

Recommendation 9

The Committee recommends that the Department of Defence increase the level of support to defence exports where such exports will help sustain or develop a fundamental input to capability.

Recommendation 10

The Committee recommends that the Minister for Defence Materiel and Science have responsibility for how the capability development, procurement and sustainment systems work, the investment in fundamental input to capability-related innovation and export opportunities including an increased focus on Government to Government sales.

Recommendation 11

The Committee recommends that Defence develop performance measures relevant to the management of the defence industry as a fundamental input to capability and publicly report the outcomes.

Defence industry engagement and assistance

Introduction

- 3.1 Forms of Australian Government support available to the defence industry were explored during the inquiry. These programs and industry support measures are discussed in sequence through this chapter:
- Defence industry support programs, including the Global Supply Chain program. These programs are largely related to assisting industry with the research and development of products that may be suitable for export;
 - Austrade and market advice;
 - The Australian Military Sales Office (formerly the Defence Export Unit); and
 - Access to finance and the role of the Export Finance and Insurance Corporation.
- 3.2 Chapter four introduces support measures for defence industries and defence exports in other countries. Market advice, access to finance and assistance with sales were among such measures. In this regard, practices in Australia are broadly of a similar nature to comparable countries.
- 3.3 Chapter five brings together the discussion of how barriers to defence exports may be overcome. Relevant Committee views and recommendations relating to issues across these chapters are presented at the end of chapter five.

Defence industry support programs

- 3.4 Industry support programs (based on information contained in Defence's submission as at August 2014) include the following:
- 3.5 *Skilling Australia's Defence Industry* (SADI) provides grants to companies to train and improve the skills of workers. The assistance covers tuition costs to non-supervisory employees and is provided to companies with links to current or planned Defence capital equipment projects.¹ Lockheed Martin Australia's submission supported the SADI program, noting that companies involved in advanced manufacturing incur 'large investment and training costs to bring machinery and staff up to the high levels required'.²
- 3.6 The *Industry Skilling Program Enhancement* (ISPE) package. Defence's website states that it aims to 'expand the pool of skilled workers from which defence industry can recruit, enhance work and career pathways and address specific skills gaps'.³
- 3.7 *New Air Combat Capability Industry Support Program* (NACC-ISP) provides grants to industry and research organisations involved with the Joint Strike Fighter project.⁴
- 3.8 *Capability and Technology Demonstrator* (CTD) program was established to give Australian industry and research organisations the opportunity to demonstrate capability-enhancing and innovative technologies to the ADF.⁵ Although \$14.2 million has been allocated per year for the CTD program,⁶ the Defence Procurement Policy Manual states that CTD 'not a grants program; rather it is a collaborative activity'.⁷ The Columbus Group submitted that the CTD program is 'a highly competitive process with only a few winners' and that 'maybe 4 or 5' are selected from among 100 submissions.⁸ In contrast, EM Solutions submitted that the CTD

1 Department of Defence, *Submission 41*, p.10. See also <<http://www.defence.gov.au/dmo/DoingBusiness/Industry/SkillingDefenceIndustry/SkillingAustralianDefenceIndustry/>> (viewed 26 August 2015).

2 Lockheed Martin Australia, *Submission 39*, p.2.

3 Department of Defence, 'Industry Skilling Program Enhancement Package', at <<http://www.defence.gov.au/dmo/DoingBusiness/Industry/SkillingDefenceIndustry/IndustrySkillingProgramEnhancement/>> (viewed 26 August 2015).

4 Department of Defence, 'New Air Combat Capability Industry Support Program', at <<http://www.defence.gov.au/dmo/DoingBusiness/Industry/IndustryPrograms/JSF-ISP/>> (viewed 26 August 2015).

5 Department of Defence, *Submission 41*, p.10.

6 Department of Defence, *Response to Questions on Notice* (Question No. 20).

7 Department of Defence/DMO, 'Defence Procurement Policy Manual', October 2014, p.4.15-1.

8 Columbus Group, *Submission 1*, p.1.

program was commendable and had resulted in a new product line for the company and recommended 'stronger support' for the program.⁹ Northrop Grumman also supported the CTD program.¹⁰

- 3.9 The *Defence Innovation Realisation Fund* (DIRF) assists with moving ideas towards a point of maturity. The Defence Science and Technology Organisation's website states that the fund 'acts as a clearing house for various innovation programs supported by Defence'.¹¹
- 3.10 *Defence Materials Technology Centre* (DMTC) aims to link public sector researchers, industry and Defence end-users to generate materials products suitable for the ADF.¹² DMTC's website states:
- Operational funding is drawn from several sources including the Commonwealth Government, State Governments, industry and the research sector. DMTC operates as a public company, limited by guarantee.¹³
- 3.11 Defence advised that \$38 million would be provided to the DMTC from 2008-09 to 2018-19. In addition, DSTO provides personnel and equipment to assist with some of DMTC's research projects.¹⁴
- 3.12 *Defence Industry Innovation Centre* (DIIC) provides advisory services to SMEs and 'helps companies build the business fundamentals on which export success depends.'¹⁵ Lockheed Martin Australia described the DIIC as 'vital to the future success and competitiveness of the Australian defence industry.'¹⁶
- 3.13 *Rapid Prototyping Development and Evaluation* (RPDE) program was established to address Defence's complex capability questions. Defence's submission stated:
- Development of innovative ideas into leading-edge ADF capabilities can provide Australian companies with valuable export opportunities.¹⁷

9 EM Solutions, *Submission 7*, p.2 and p.6; see also AIDN, *Submission 32*, p.3.

10 Lovell, *Committee Hansard*, 13 February 2015, p.41.

11 DSTO, 'Innovation Integration', at <<http://www.dsto.defence.gov.au/partner-with-us/innovation-integration>> (viewed 26 August 2015).

12 Department of Defence, *Submission 41*, p. 10; Department of Industry, *Submission 22*, pp.6-7.

13 DTMC, 'Company Overview', at <<http://dmtc.com.au/about-us/company-overview/>> (viewed 26 August 2015).

14 Department of Defence, *Response to Questions on Notice* (Question No. 16).

15 Department of Defence, *Submission 41*, p.10.

16 Lockheed Martin Australia, *Submission 39*, p.2.

17 Department of Defence, *Submission 41*, p.11; see also Birrer et al, *Committee Hansard*, 24 March 2015, pp.12-13.

- 3.14 *Priority Industry Capability Development Fund (PICDF)* is used by Defence to assist Australian companies 'whose capabilities are critical to the operations of the ADF and would benefit from export market development.'¹⁸ Defence advised that as at March 2015, \$10 million per year had been allocated to the fund for a four year period.¹⁹
- 3.15 The *Joint Strike Fighter Industry (JSF)* program, which has similarities to the Global Supply Chain program but is focussed specifically on the JSF.²⁰
- 3.16 Budget papers indicate that funding for 'industry programmes' in 2015-16 total \$26.5 million.²¹ The Committee notes that industry support programs administered by Defence are all subject to review as part of the forthcoming 2015 Defence White Paper and Defence Industry Policy Statement.²²
- 3.17 Defence's submission explained how these programs relate to defence exports and interact together:
- The AIC program provides the opportunity for Australian-based firms to participate in a range of Defence capital equipment projects especially those for equipment acquisition, by identifying where these firms can act as competitive or preferred Defence suppliers. A series of programs for industry labour skilling (currently led by SADI), innovation (currently led by CTDs and DIRF) and export market development (currently led by GSC) then make grants or other direct forms of assistance available to eligible firms. The PICDF programs overlays these activities by focusing on more prominent or urgent PIC related-issues. However, other programs for skilling, innovation and exporting also have PIC elements.²³
- 3.18 The Department of Industry provided a summary of industry development programs, applicable to defence industry and to others that may be applied to other manufacturing areas, or linked to the defence market globally. These include:
- Research and Development (R&D) Tax Incentive;
 - Tradex;
 - Entrepreneurs' Infrastructure Program;
 - Automotive Diversification Programme;

18 Department of Defence, *Submission 41*, p.11.

19 Department of Defence, *Response to Questions on Notice*, (Question No. 12).

20 Department of Defence, *Submission 41*, p.8.

21 Defence Portfolio Budget Statements 2015-16, p.203.

22 Department of Defence, *Submission 41*, p.8.

23 Department of Defence, *Submission 41*, p.9.

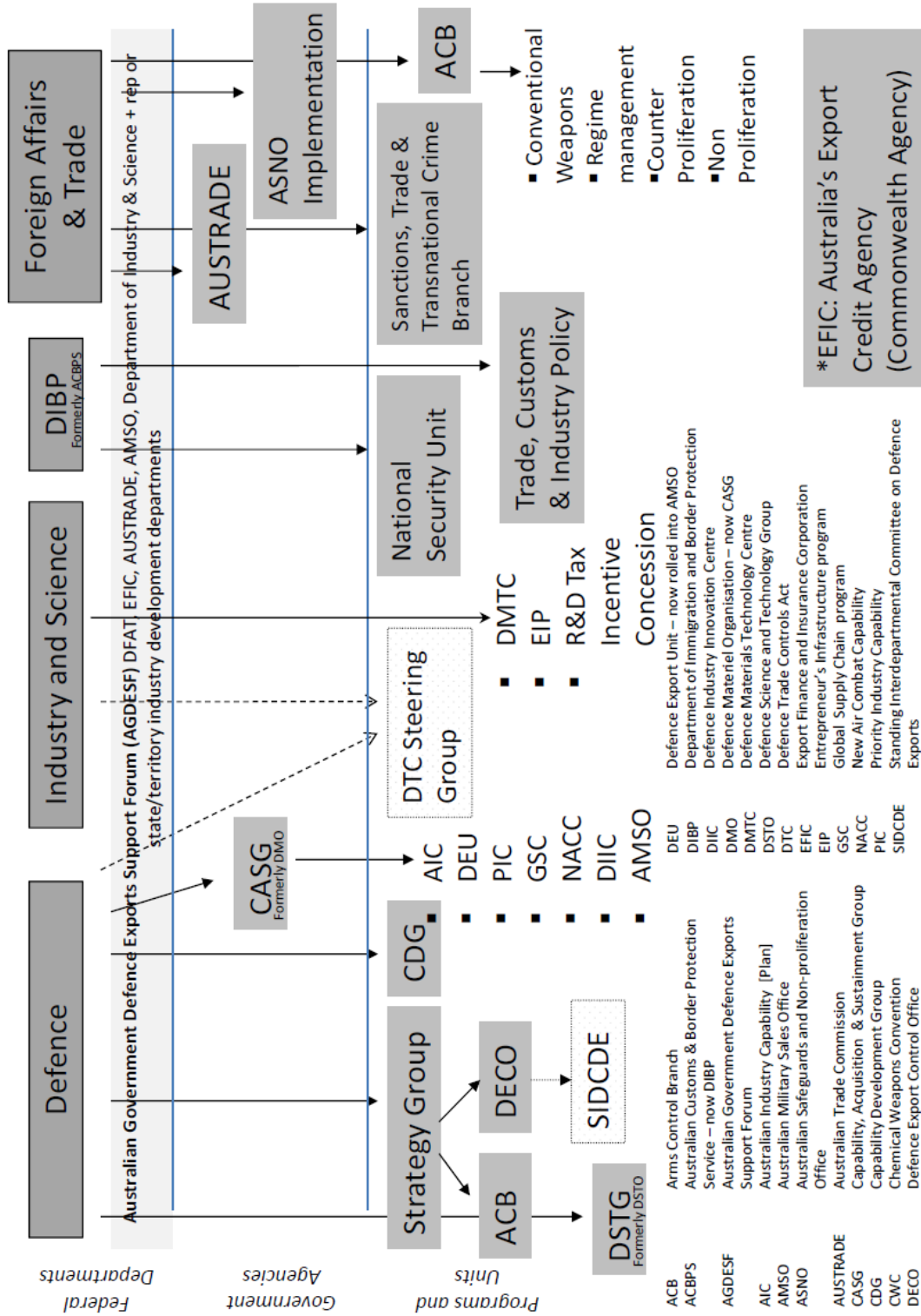
- Next Generation Manufacturing Investment Programme; and
- Manufacturing Transition Programme.²⁴

3.19 The following diagram illustrates the range of Federal Government agencies involved in the defence industry or Australian defence exports and their key relationships. The diagram should be interpreted in accordance with recent changes to administrative arrangements:

- As of 1 July 2015, the Capability, Acquisition and Sustainment Group has succeeded the former Defence Materiel Organisation.
- On 1 July 2015, the Australian Customs and Border Protection Service was merged with the Department of Immigration to become the Department of Immigration and Border Protection.
- The Defence Science and Technology Organisation has been renamed as the Defence Science and Technology Group.
- The Defence Exports Unit forms part of the Australian Military Sales Office.

24 Department of Industry, *Submission 22*, pp.4-8.

Figure 3.1 Overview of departments and agencies involved in defence industry exports



- 3.20 An additional program of particular relevance to the defence industry and defence exports is the Global Supply Chain program.

Global Supply Chain program

- 3.21 The Global Supply Chain (GSC) program is designed to establish relationships between Australian industry and large multinational defence companies (known as 'primes'). The GSC program is a way of introducing Australian companies to the global market and building connections. Defence's submission defined the purpose of the GSC program as follows:

This program provides funding to a small number of leading international defence capital equipment prime contractors with a presence in Australia, with the aim of encouraging them to explore the potential for competitive Australian firms to participate more broadly in contractor supply chains around the world.²⁵

- 3.22 In exchange, the primes may assist and advocate on behalf of smaller Australian companies. Defence's website explained:

The participating primes establish industry units within their companies and identify bid opportunities across their defence and commercial business units. These opportunities are then provided to capable Australian companies and are won on merit. More often than not, the bid opportunities are also internationally competed, requiring the Australian business to be globally competitive.

In addition to providing bid opportunities, the GSC primes advocate on behalf of Australian industry, train and mentor companies in the primes purchasing practices and methods, and provide a range of market assistance including facilitating visits and meetings with key decision makers.²⁶

- 3.23 Seven primes are listed on Defence's website as participating in the GSC program: BAE Systems, Boeing, Finmeccanica, Lockheed Martin, Northrop Grumman, Raytheon and Thales.²⁷
- 3.24 Defence's submission described participation in the GSC program as 'a means of cultivating a more diversified and technologically advanced

25 Department of Defence, *Submission 41*, p.8.

26 Department of Defence, 'Global Supply Chain program', at <<http://www.defence.gov.au/dmo/DoingBusiness/Industry/IndustryPrograms/GlobalSupplyChains/>> (viewed 26 August 2015).

27 Department of Defence, 'Global Supply Chain program', at <<http://www.defence.gov.au/dmo/DoingBusiness/Industry/IndustryPrograms/GlobalSupplyChains/>> (viewed 26 August 2015).

Australian manufacturing sector.’²⁸ The Victorian Government’s submission viewed the GSC as beneficial:

The Victorian Government recognises that effective local industry engagement into global supply chain opportunities will generate national opportunities for industry diversification, technology transfer, and competitive business practices.²⁹

3.25 The Victorian Government’s submission also stated:

The GSC program played a significant role in Marand’s successful bid for the JSF tail-fin and continues to support Victorian industry effectively.³⁰

3.26 The Australian Industry and Defence Network submission characterised the GSC as an ‘excellent initiative’ whilst having a ‘limited but valuable success’. The AIDN’S submission estimated that the value of contracts awarded to Australian businesses amounted to \$300 million,³¹ although BAE Systems cited a figure of \$600 million.³²

3.27 Mr Graeme Dunk (Manager, Australian Business Defence Industry) said:

It has had some unintended consequences. The first point is that the outcome of the global supply chain does not necessarily equate to my concept of strategic risk, so we may well be developing industry capabilities which are good themselves but do not actually contribute to the mitigation of strategic risk.³³

3.28 On a previous occasion, Mr Dunk has explained his concept of ‘strategic risk’:

A defence industry policy focused on the management and remediation of strategic risk seems to be the obvious way forward. There are two issues for consideration: (1) the risk in being able to deploy the right capability into the field and achieve those tasks set by government (mission risk), and (2) the ability to do this in a manner over which we have control (sovereign risk).³⁴

3.29 Mr Dunk continued:

28 Department of Defence, *Submission 41*, p.5.

29 Victorian Government, *Submission 36*, p 16.

30 Victorian Government, *Submission 36*, p.12.

31 Australian Industry and Defence Network Inc, *Submission 32*, p.9.

32 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.32.

33 Dunk and O’Callaghan, *Committee Hansard*, 13 February 2015, p.6.

34 Graeme Dunk, ‘Time for a Sensible Defence Industry Policy’, *ASPI Strategist*, 16 June 2014, at <<http://www.aspistrategist.org.au/time-for-a-sensible-defence-industry-policy/>> (viewed 26 August 2015).

The second point is that the global supply chain seems to have had the unintended consequence of restricting the ability of small companies to engage directly with Defence. A number of companies with quite innovative technologies have said to me that they have approached Defence directly about a number of these things they have been doing and they have basically been told to engage with one of the companies in the global supply chain and to convince them of the worth of their technology, and then Defence will have a look at it.³⁵

3.30 Mr Gilbert Watters (Senior Principal Consultant – Government, QinetiQ) commented on the benefit of the GSC program:

On aircraft there are a number of different models. We have spoken about the JSF model, which I think is a very good way of getting Australian SMEs into the supply chain of Lockheed Martin. Defence also runs a global supply chain program which has all the major US companies signed up to try to open up opportunities for Australian companies. That is a very good example.³⁶

3.31 Mr Peter Nicholson (Head of Government Relations, BAE Systems Australia) said:

It is very successful, with about \$600 million of contracts so far awarded. All of the global supply chain participants have the same objective, which is to identify opportunities for Australian suppliers in our global supply chains and to support particularly small and medium enterprises with capturing and then delivering on these opportunities.³⁷

3.32 He continued:

The strength of a global supply chain is not that a bit of an Australian system would go into a major system, but rather that it would go into all of the aircraft. We have some examples like that – the Evolved Sea Sparrow Missile is a very good example of that. There are nine partner nations, and Australia has a 15 per cent share of the workload. I am not sure of that number, but it is that kind of proportion. The work that Australia does on the Evolved Sea Sparrow Missile goes into all Sea Sparrow missiles.³⁸

35 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.6.

36 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.16.

37 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.32.

38 Nicholson and Wilson, *Committee Hansard*, 13 February 2015, p.36.

3.33 Mr Mike Lovell (Director, Operations and Integration, Northrop Grumman Australia) said:

We are really very strong advocates of the global supply chain program because we see it brings mutual benefits to us as a corporation, as a buyer of supplies, to Australian SMEs, which we work with very closely, and because it enhances the capabilities and skills of Australian industry in the broad.³⁹

3.34 He added:

To date, Northrop Grumman has sourced about \$25 million worth of products and systems out of Australia for its global supply chain – and that is not counting stuff that we do here in Australia; that is globally. In our current pipeline there is over \$200 million worth of opportunities, and we think, over the next couple of years we will convert that into about \$100 million worth of exports.⁴⁰

3.35 Lockheed Martin Australia submitted that it has awarded approximately USD \$13 million in contracts to Australian SMEs and research and development communities.⁴¹

3.36 An overview of the evidence received on these other forms of export support follows in the next sections.

Austrade and market advice

3.37 The Australian Trade Commission (Austrade) provides services to businesses seeking to export overseas. The range of Austrade's services are summarised in its annual report:

Through its network of advisers, located offshore and in Australia, Austrade helps internationally ready Australian businesses by:

- Delivering market insight and intelligence;
- Providing advice on how to do business in prospective markets;
- Providing access to networks of key decision-makers, customers and contacts in overseas markets;
- Identifying and assessing business opportunities in international markets, and helping Australian businesses capture them; [and]

39 Lovell, *Committee Hansard*, 13 February 2015, p.40.

40 Lovell, *Committee Hansard*, 13 February 2015, p.42.

41 Lockheed Martin Australia, *Submission 39*, p.1.

- Providing badge-of-government assistance to firms in-market and helping them with behind-the-border barriers to trade and investment.⁴²

3.38 Austrade's services may be utilised by defence exporters. Austrade advised:

Over the last five years Austrade has provided 853 export services to Australian Defence organisations resulting in at least 171 export outcomes (Austrade collects export outcome information from Australian companies it works with on a voluntary disclosure basis).⁴³

3.39 The Australian Government's 2014 industry agenda stated:

Specialised government agencies such as the Government's new Single Business Service and Austrade provide reliable information about markets, technology and business models to small and medium enterprises, accelerating industry growth and job creation.⁴⁴

3.40 The Committee heard evidence that defence industry has been dissatisfied with Austrade. Mr Chris Burns (CEO, Defence Teaming Centre) said:

...a number of our member companies have expressed frustration with the costs and bureaucracy associated with gaining support from Austrade to pursue export markets.⁴⁵

3.41 Mrs Sue Smith (Executive Officer, Australian Industry and Defence Network Inc) said:

Austrade regards support for defence exporting as a low priority and not their role. Austrade's approach to fee-for-service exacerbates this weakness. Their services, which SMEs find costly, often produce very little return on investment.⁴⁶

3.42 Ms Phillipa Dawson (General Manager – Trade, Austrade) said that Austrade's interest was limited to 'the civil applications for some of the defence exports' and the transferable technology relevant to other sectors, such as aerospace. She said:

Our work predominantly is around looking at access: helping Australian companies access global value chains, particularly on the aerospace side, working with some of the big global companies

42 Austrade, 'Annual Report 2013-14', p.2.

43 Austrade, *Response to Questions on Notice*, p.1.

44 Australian Government, 'Industry Innovation and Competitiveness Agenda: An Action Plan for a Stronger Australia', October 2014, pp.68-69.

45 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.14.

46 Smith, *Committee Hansard*, 31 October 2014, p.40.

like Boeing and Embraer, and looking for opportunities for Australian SMEs in that space.⁴⁷

- 3.43 Specialised assistance for defence exporters is available via the Australian Military Sales Office.

Australian Military Sales Office assistance

- 3.44 The Australian Military Sales Office (AMSO) improves the position of Australian exporters by giving its sponsorship. Some submissions made reference to the Defence Exports Unit (DEU), which is now part of AMSO.⁴⁸ Defence's submission noted that Australian defence exporters may be viewed by international customers as a risk due to small scale, long-term support and supply distances. The submission stated that AMSO was created to 'facilitate the overseas sales of Australian made capital equipment through government-to-government channels', similar to the US Foreign Military Sales program.⁴⁹ Defence submitted:

In these instances, the Australian Government is effectively putting its reputation directly behind Australian suppliers, although legal and financial risks remain with the supplier to manage.⁵⁰

- 3.45 Views of AMSO's performance were mixed. The Australian Industry Group had a positive impression:

The staff of the DEU have played a constructive facilitating role... Their extensive network of international military contacts proves highly valuable for SME managers seeking introductions overseas.⁵¹

- 3.46 Northrop Grumman described the DEU (or AMSO) as an 'asset' to local industry that 'should be further supported in the future.'⁵²
- 3.47 Thales Australia had an alternative view:

47 Dawson, *Committee Hansard*, 24 March 2015, p.1.

48 Department of Defence, *Annual Report 2012-13* (online supplement) at <http://www.defence.gov.au/annualreports/12-13/part_four/dmo_program_1_3.asp> (viewed 26 August 2015). AMSO was formed in July 2012 and comprises the former Defence Export Unit, Global Supply Chain, Defence Disposals Agency and the International Materiel Cooperation Directorates.

49 Department of Defence, *Submission 41*, p.7.

50 Department of Defence, *Submission 41*, attachment A.

51 AI Group, *Submission 35*, p.1.

52 Northrop Grumman, *Submission 28*, p.3.

AMSO needs to be a much more aggressive, commercially focussed organisation with annual sales targets and incentives.⁵³

3.48 In addition, Thales Australia's submission recommended:

To be successful, AMSO should be staffed by marketing, sales and business development professionals with a proven record of success in international sales and export deals.⁵⁴

3.49 Mr Bruce Armstrong (CEO, Aspen Medical) suggested three areas of improvement:

The first is that DEU develop and promote a program whereby senior ADF or government representatives are able to provide written references to support Australian export bids where appropriate. The second is that senior defence representatives such as the CDF [Chief of the Defence Force] – once again, where appropriate – include a trade component during their visits to other countries. The third is that DEU proactively coordinate events where Australian defence exporters can introduce their services or products to visiting foreign delegations.⁵⁵

3.50 Supacat Pty Ltd's submission suggested introducing sales targets⁵⁶ and stated:

The benefit of a government defence export agency is that it brings the credibility of the Australian government who are active users of the products and services. The strongest sales agents are military users who can recommend products and services to their counterparts in friendly forces.⁵⁷

3.51 Mr Michael Halloran (Managing Director, Supacat Pty Ltd) said that other barriers to defence exports are 'virtually irrelevant' if the ability to sell is not developed. He added: 'Selling is not a skill set or a culture that exists within Defence.'⁵⁸

53 Thales Australia, *Submission 19*, p.9.

54 Thales Australia, *Submission 19*, p.9.

55 Armstrong, *Committee Hansard*, 13 February 2015, p.47.

56 Supacat Pty Ltd, *Submission 18*, p.4.

57 Supacat Pty Ltd, *Submission 18*, p.4.

58 Halloran, *Committee Hansard*, 31 October 2014, p.8.

Access to finance

- 3.52 Defence exporters may access facilities provided by the Export Finance and Insurance Corporation (EFIC). EFIC is a statutory corporation owned by the Commonwealth.⁵⁹
- 3.53 EFIC's submission summarised its overall role as follows:
- EFIC's services are provided on a commercial basis and only when the private market is unwilling or unable to provide adequate support. Under our Act, we have three core functions:
- 1) Facilitate and encourage Australian export trade;
 - 2) Encourage banks and other financial institutions to finance exports; and
 - 3) Provide information and advice on financing and insuring Australian exports.⁶⁰
- 3.54 In terms of support for defence exporters, EFIC submitted:
- EFIC has helped a number of defence related exporters as, in our experience, they can face specific financing challenges, due to the specialised nature of the goods and services being exported, the limited number of buyers (so they are not exporting consistently), and government procurement rules.⁶¹
- 3.55 EFIC informed the Committee that it 'cannot comment on the demand for defence-related exports' as EFIC's involvement 'generally comes after the exporter has been awarded the export contract.'⁶²
- 3.56 The graphical representation below shows the movement of funds.

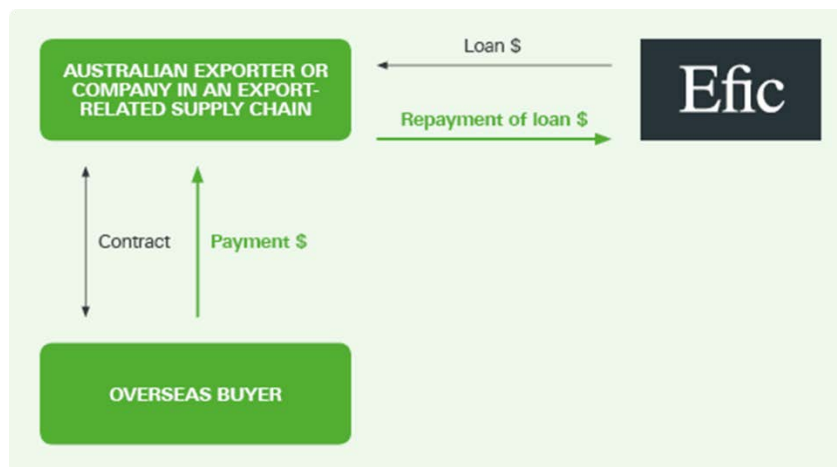
59 EFIC Annual Report 2013-14, p.27; see also the *Export Finance and Insurance Corporation Act 1991* (Cth).

60 EFIC, *Submission 48*, p.2.

61 EFIC, *Submission 48*, p.3.

62 EFIC, *Response to Questions on Notice*, p.2.

Figure 3.2 EFIC finance to exporters



Source EFIC website: <<http://www.efic.gov.au/client-solutions/sme-exporters/i-need-working-capital-to-fund-an-export-related-contract/>>

3.57 The Australian Manufacturing Workers' Union's submission described EFIC's support for defence exports as 'significant'.⁶³ Mr David Shiner (Vice President International Sales, Austal) said that having finance options is a 'major enabler' of defence exports.⁶⁴ Thales Australia submitted that EFIC 'could play a greater role in supporting defence exporters', such as by facilitating access to emerging and regional markets.⁶⁵

3.58 In 2013-14, EFIC assisted four defence-related exporters, which included a grant to Ferra Engineering Pty Ltd, an Australian company exporting aircraft parts to the United States for the Joint Strike Fighter project.⁶⁶ EFIC's website states:

While Ferra's work involved substantial costs for materials and labour, under the contract it wouldn't receive payment until the parts were shipped. This meant the company needed additional working capital to fulfil the contract.⁶⁷

3.59 Ferra Engineering's submission agreed that access to capital reduces barriers for SMEs:

Limited access to finance present key barriers and impediments for small to medium enterprises (SMEs) striving to build business and capacity as capital is needed to drive and deliver export sales.

63 AMWU, *Submission 24*, p.6.

64 Shiner, *Committee Hansard*, 13 February 2015, p.29.

65 Thales Australia, *Submission 19*, p.8.

66 EFIC, *Response to Questions on Notice*, p.3.

67 EFIC, 'Ferra Engineering', at <<http://www.efic.gov.au/news-events/case-studies/manufacturing/ferra-engineering/>> (viewed 26 August 2015).

The Australian Government has addressed domestic barriers in part by forming the Export Finance and Investment Corporation (EFIC). This has enabled SME's to seek funding for key projects by paying a margin to EFIC.⁶⁸

3.60 Nevertheless, Ferra Engineering submitted that the cost of borrowing via EFIC had been too high.⁶⁹ Mr Arthur Gaka (Financial Controller, Ferra Engineering) said that whilst EFIC had been 'fantastic', these additional costs affected competitiveness.⁷⁰ He said an Australian base rate of 2.5 per cent, a bank margin of 2.2 per cent, a 3 per cent margin to EFIC (totalling around 7 per cent) and an additional percentage to hedge against foreign currency movements had to be incorporated into prices.⁷¹

3.61 Mr Gaka stated:

If we, or the defence sector, could get that assistance whereby the government acknowledges that: 'Okay, you're selling to Lockheed Martin or you're selling to Boeing, instead of asking for three per cent, let us make it 1½ per cent.' We are not saying that we need to get a free handout but that we need to try and be on a level playing field, if we are going to grow those exports.⁷²

3.62 Austal's submission stated:

While Austal has worked closely with EFIC in the past, this support tends to be largely on commercial terms without any consideration of the strategic importance of better government-to-government relations with particular potential customers.⁷³

3.63 Mr Andrew Hudson (Director and Chair - Trade Policy Committee, Export Council of Australia) said that SMEs could be deterred from engaging with EFIC because of approval uncertainty. He said:

Perhaps the process of EFIC approvals needs to be adjusted slightly so that there is a higher level of certainty at an earlier stage. I think, if you put those things together, you are likely to get a better use of EFIC's services by SME exporters and SME defence exporters.⁷⁴

3.64 Matters arising in this section relating to EFIC have semblance with themes arising in a 2012 Productivity Commission inquiry into Australia's

68 Ferra Engineering, *Submission 15*, p.2.

69 Ferra Engineering, *Submission 15*, p.2.

70 Gaka, Hill and Thompson, *Committee Hansard*, 17 October 2014, p.42.

71 Gaka, Hill and Thompson, *Committee Hansard*, 17 October 2014, p.42.

72 Gaka, Hill and Thompson, *Committee Hansard*, 17 October 2014, p.42.

73 Austal, *Submission 31*, p.14.

74 Hudson, *Committee Hansard*, 31 October 2014, p.36.

export credit arrangements. The Productivity Commission found that EFIC facilities had been offered below commercial rates and were 'effectively being subsidised by taxpayers'. Changes to legislation were recommended to ensure EFIC's use of its commercial account would be based on 'competitive neutrality'.⁷⁵

75 Productivity Commission, 'Australia's Export Credit Arrangements', May 2012, p.35.

Export support available in other countries

Introduction

- 4.1 This chapter provides an overview of support available for defence industry exports in other countries, with a view to considering how these approaches could inform Australian policy.
- 4.2 In addition, there was notable interest in the evidence on the forms of defence industry protection available in other countries. These measures are outlined within this chapter.

Forms of industry support and protection available in other countries

- 4.3 In broad terms, forms of support for defence industries overseas are of the following types:
- Legislative and policy protections designed to minimise or restrict foreign competition with the local defence industry, including the application of offset policies;
 - Legislation and policies specifically designed to protect local defence industries; and
 - Political, administrative and diplomatic promotion of the defence industry and defence exports.
- 4.4 Mr Chris Burns (Defence Teaming Centre) said:
- Most governments around the world use policies and programs of preference and guard their indigenous defence industries. These are offered under many titles, including offsets, industrial

cooperation and industrial participation. Indeed, in some countries, they are enshrined in law.¹

- 4.5 BAE Systems submission noted the existence of ‘protectionist trade policy and/or subsidisation of defence industry by many advanced nations including the US and European countries.’² The Australian Manufacturing Workers’ Union’s submission agreed that defence industries in other countries are ‘strongly supported and protected by their national governments by strong regulatory barriers to foreign participation’.³ The AMWU added:

These barriers not only ensure that foreign defence firms have privileged and often exclusive access to domestic defence business, they also ensure that any Australian defence industry growth plan that is centred on exports as the driver of growth is unlikely to succeed, regardless of the policy mechanisms put in place domestically.⁴

- 4.6 The RSL’s submission made similar observations and suggested that Australian defence imports may be ‘underwritten by the Government of the producing country’ to achieve a low price.⁵

- 4.7 Protection and support for naval shipbuilders was noted during the inquiry as being prevalent in North America and Europe. H I Fraser Pty Ltd submitted:

Shipbuilding nations such as the USA and Spain recognise that when you design a ship you can create a ‘protected species’ of local suppliers. These protected species are then sole-sourced every time a platform is exported.⁶

- 4.8 Austal stated in its submission:

...many first world countries provide direct support to their shipbuilding industry through mandated in-country supply of assets. This support may take the form of legislation, offset requirements, foreign ownership restrictions, or simple preference in the source selection evaluation criteria.⁷

- 4.9 Austal’s submission added:

1 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.14.

2 BAE Systems Australia, *Submission 3*, p.3.

3 AMWU, *Submission 24*, p.5.

4 AMWU, *Submission 24*, p.5.

5 RSL, *Submission 13*, p.5.

6 H I Fraser Pty Ltd, *Submission 2*, p.1.

7 Austal, *Submission 31*, p. 9.

In Europe for example it is difficult to conceive that a naval combatant would be procured in the UK from a supplier other than BAE, or in the Netherlands from a supplier other than Damen or in Germany from a supplier other than TKMS or Lurssen.⁸

4.10 Mr Chris Burns (Defence Teaming Centre) said that the UK and Canada had developed 30-year navy and national shipbuilding plans. He said:

They developed these plans in the realisation that, when you take a truly long-term perspective and consider the whole-of-life cost-benefits to the nation, you appreciate the value for money and return on your investment if you partner with and commit to support the local national defence industry base.⁹

Offsets

4.11 During the inquiry, a number of witnesses and submissions noted the existence of offset policies¹⁰ in other countries. Defence's submission defined offsets as being a requirement for a percentage of the contract's value to be sub-contracted locally or for other forms of benefit to be granted.¹¹

4.12 Information from Quickstep Technologies (attached to a submission from the Australian Industry and Defence Network Inc) detailed offset policies in other countries. Although citing a published survey conducted by the Australian Department of Defence in 2010 on offsets in other countries,¹² the submission's information bore close resemblance to a US Department of Commerce report published in 2007.¹³ This information is presented in the table below.

8 Austal, *Submission 31*, p.9.

9 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.13.

10 Defence's submission defined offsets as being a requirement for a percentage of the contract's value to be sub-contracted locally or for other forms of benefit to be granted. Department of Defence, *Submission 41*, attachment A.

11 Department of Defence, *Submission 41*, attachment A.

12 AIDN, *Submission 32*, p.8 ('attachment A - Quickstep Submission'). See also <<http://www.aidn.org.au/documents/aidn%20australian%20industry%20involvement%20paper%20-%20may%202014.pdf>>.

13 US Department of Commerce Bureau of Industry and Security, 'Offsets in Defense Trade: Twelfth Study', December 2007, at <https://www.bis.doc.gov/index.php/forms-documents/doc_download/129-twelfth-report-to-congress-12-07> (viewed 26 August 2015). The Department of Commerce had based its research on communication with embassies in the United States.

Table 4.1 Offset policies in other countries

Austria	100%; though may be 'up to 200%'
Belgium	100% minimum
Brazil	100% minimum
Canada	100% 'usually'
Denmark	100% minimum
Finland	100% minimum
Germany	'Applies a policy of "industrial balances" based on 100% of the contract value.'
India	30%
Israel	35% minimum
Italy	70% minimum; 'generally' 100%
Netherlands	100% minimum
Poland	100% 'typically'
Portugal	100% minimum
South Korea	30%
Spain	100% 'typically'
Sweden	100% 'typically'
Turkey	50% minimum
United Arab Emirates	60% 'typically'

Source AIDN, Submission 32, pp.8-9 (attachment A - 'Quickstep submission')

4.13 Notwithstanding whether the information above remains current, the Committee was urged to consider offsets as an option to grow the Australian defence industry. Mrs Sue Smith (Executive Officer, Australian Industry and Defence Network Inc) said:

In relying on the poorly supported proposition that offsets do not work, the Australian government stands alone in not valuing or preserving its national defence industry capability, and undervalues its importance to Australian security. If offsets do not work, why do most other countries in the world apply them? Foreign offsets are a significant barrier to Australia industry being able to compete in the global defence industry marketplace.¹⁴

4.14 Sonartech Atlas submitted that the 'majority of our potential export customers have offset programs'.¹⁵ Quickstep Technologies gave a favourable view of offsets:

The Defence industry suppliers in many countries enjoy significant Government support which sees Australian suppliers

¹⁴ Smith, *Committee Hansard*, 31 October 2014, p.40.

¹⁵ Sonartech Atlas, *Submission 26*, p.16.

at a considerable disadvantage. Offset policies provide mandatory work and have been very effective in developing the capabilities and scale of in-country suppliers.¹⁶

- 4.15 Introducing offsets was not supported by Northrop Grumman, Lockheed Martin Australia or Defence. Mr Mike Lovell (Director, Operations and Integration, Northrop Grumman Australia) said:

In terms of offsets, our experience is that offsets are not the right way to go for Australia. We think they artificially inflate the cost and price to the Commonwealth. From our own experience we have seen some scheduled delays as local suppliers ramp up new capability, sometimes from scratch, to meet that offset. We think that every dollar we put into offsets is a dollar less that could be spent on the capabilities of the ADF.¹⁷

- 4.16 Mr Lovell said he believed that participation in the Global Supply Chain program was a better option.¹⁸ Lockheed Martin Australia submitted:

The majority of other comparable nations are still requiring offsets as a condition of a defence purchase. Offsets are inherently inefficient and expensive to taxpayers. Thus, by removing offsets and creating programs such as GSC [Global Supply Chain], the Australian government support of its industry in this way is more efficient and able to provide value for money in acquisitions, for its taxpayers.¹⁹

- 4.17 Defence's submission stated:

The establishment of Australia's involvement in the JSF [Joint Strike Fighter] procurement program was an example that of the principle of international competitiveness being applied over mandatory offsets in Australian defence procurement. Successive Governments have affirmed this move away from offsets, and this continues to be Defence's policy.²⁰

- 4.18 Notwithstanding Defence's view, projects that generate work through 'build to print' tasks are not of the same significance as projects that lead to the creation of intellectual property within Australia.

16 AIDN, *Submission 32*, p. 8 ('Attachment A - Quickstep submission')

17 Lovell, *Committee Hansard*, 13 February 2015, p.40.

18 Lovell, *Committee Hansard*, 13 February 2015, p.41.

19 Lockheed Martin, *Submission 39*, p.3.

20 Department of Defence, *Submission 41*, attachment A.

4.19 The Australian Government discontinued offsets in the early 1990s and has since introduced other measures.²¹ Defence advised:

Offsets programs were replaced for a number of reasons: uncertainty in relation to whether the programs were securing for Defence and industry the type of higher technology workload or technology transfers Australia was seeking to obtain; uncertainty in relation to whether Australia paid a price premium for the offsets work it secured; and, the programs which superseded offsets being designed around most, if not all, of the objectives offsets sought to achieve in a way which reduced the potential economic distortions involved.²²

4.20 H I Fraser Pty Ltd submitted that Australia is viewed internationally as 'rich pickings' because of the absence of offsets.²³ The Committee notes that the UK Trade and Investment (a non-ministerial UK Government department) publishes guidance for British defence exporters interested in selling to Australia. The UKTI's Defence and Security Organisation advises that whilst Australia 'has no specific offset policy', exporters should note the requirements of Australian Industry Capability and Priority Industry Capability programs:

The AIC Program requires tenderers to provide AIC Plans which demonstrate how they will maximise opportunities for Australian companies to participate in the proposed project. Bids for defence projects at or above the USD 20 million threshold value will require an AIC Plan. Also, projects that have Priority Industry Capability (PIC) implications will also require an AIC Plan as part of the bid.²⁴

4.21 In a submission to the JSCFADT's Trade Sub-Committee on Middle East trade and investment relationships, Austal viewed the AIC program as being a form of offsets. Austal submitted:

Offset programs are intended to encourage companies to invest and establish local businesses, facilitate technology transfer, provide skills and jobs, help to diversify the economy, provide

21 For example, the AIC program, PICs, GSC program and NACCISP program. Department of Defence, *Response to Questions on Notice* (Question No. 3).

22 Department of Defence, *Response to Questions on Notice* (Question No. 3).

23 H I Fraser Pty Ltd, *Submission 2*, p.2.

24 UK Trade and Investment Defence and Security Organisation, 'Defence and Export Market Briefing: Australia', 27 March 2015, at <<https://www.gov.uk/government/publications/defence-and-security-export-market-briefing-australia/defence-and-security-export-market-briefing-australia>> (viewed 26 August 2015).

self-reliance etc. The Australian Industry Capability (AIC) program, run by the Defence Material Organisation, is a form of offset program with similar objectives.²⁵

- 4.22 Austal's assessment highlights that Defence's opposition to offsets is perhaps in conflict with the intent of the AIC program.

Comparable countries

- 4.23 The inquiry terms of reference required the Committee to assess 'the export support given to Defence industry by governments of comparable nations.' Sonartech Atlas' submission noted that this could be subjective:

What would be a comparable nation? What is the best means of determining or identifying a comparable nation?²⁶

- 4.24 Sonartech suggested that factors such as gross domestic product, defence expenditure, industry size, alliances and capabilities would be relevant considerations.²⁷ Supacat Pty Ltd's submission suggested that 'each country's relationship between its defence forces and defence industry are different' and depend upon 'the different histories and cultures of those countries'.²⁸ The US position as a global superpower, for example, is an obvious point of distinction.

- 4.25 Several countries were cited during the inquiry as being suitably comparable or relevant to Australia. Some submissions provided case studies or discussed the arrangements of individual countries:

- BAE Systems (Submission 3): US, UK and South Korea;
- Ferra Engineering (Submission 15): Canada
- MBDA (Submission 16): UK
- Sonartech Atlas (Submission 26): Canada, US, UK and Turkey; and
- Department of Defence (Submission 41): UK, US, Canada, Sweden.

- 4.26 The Committee received submissions from the Governments of Sweden, Germany and Japan, which discuss certain aspects of the defence industry and export control policies.²⁹

25 Austal, *Submission 23*, p.9 (submission to JSCFADT Trade Sub-Committee inquiry into Middle East trade and investment).

26 Sonartech Atlas, *Submission 26*, p.12.

27 Sonartech Atlas, *Submission 26*, p.12.

28 Supacat, *Submission 18*, p.3.

29 See Submissions 45, 46 and 49 respectively.

- 4.27 Based on the above considerations, Canada, the UK and the US have been used as case studies for the purpose of assessing, in more depth, the export support available in comparable countries.

4.28 As shown below, there are contextual differences between Australia, Canada, the UK and the US.

Table 4.2 Australia, Canada, UK and US economic and defence industry comparison

	Gross domestic product and defence spending³⁰	Size of defence industry	Exports and imports 2009 to 2013³¹ (\$m)
AU	<i>Gross domestic product:</i> \$US1.095trillion; per capita US\$46,400 (Purchasing power parity 2014) <i>Defence spending:</i> 1.93% of GDP (2015) ³²	<i>Workforce:</i> Up to 29,000 (2010) ³³ <i>Revenue:</i> At least \$AU9.28billion (2014) ³⁴	<i>Defence exports:</i> 20th (438) <i>Defence imports:</i> 7th (5,027)
CAN	<i>Gross domestic product:</i> US\$1.592trillion; per capita US\$44,800 (PPP 2014) <i>Defence spending:</i> 1% of GDP (2013)	<i>Workforce:</i> 70,000 (2013) <i>Revenue:</i> CAN\$12.6billion (2011) ³⁵	<i>Defence exports:</i> 15th (1,199) <i>Imports:</i> 34th (1,052)
UK	<i>Gross domestic product:</i> \$US2.459trillion (2014); per capita \$39,500 (PPP 2014) <i>Defence spending:</i> 2.49% of GDP (2012)	<i>Workforce:</i> 155,000 (2012) <i>Revenue:</i> £22.1billion (2012) ³⁶	<i>Defence exports:</i> 6th (5,515) <i>Defence imports:</i> 16th (2,284)
US	<i>Gross domestic product:</i> US\$17.42trillion (2014); per capita US\$54,600 (PPP 2014) <i>Defence spending:</i> 4.35% of GDP (2012)	<i>Workforce:</i> 1.05million (2010) <i>Revenue:</i> \$US324billion (2010) ³⁷	<i>Defence exports:</i> 1st (39,080) <i>Defence imports:</i> 6th (5,074)

30 CIA World Factbook country profiles.

31 SIPRI Yearbook 2014 (Oxford University Press, Oxford, 2014), pp.258-259 and pp.268-269. SIPRI advises that the trend value indicator is not intended to be compared with gross domestic product or military expenditure to measure economic burden; see pp.271-272.

32 Australian Strategic Policy Institute, 'The Cost of Defence: ASPI Budget Brief 2015-16', p.vi.

33 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p. 28.

34 Australian Defence Magazine, Vol.23, No.1, December 2014/January 2015, p.26.

35 Tom Jenkins, 'Canada First: Leveraging Defence Procurement Through Key Industrial Capabilities' February 2013, p.xii, at <<http://www.tpsgc-pwgsc.gc.ca/app-acq/documents/eam-lmp-eng.pdf>> (viewed 26 August 2015).

36 UK Department of Business, Innovation and Skills, 'Securing Prosperity: A Strategic Vision for the UK Defence Sector', September 2013, at <<https://www.gov.uk/government/publications/securing-prosperity-a-strategic-vision-for-the-uk-defence-sector>> (viewed 26 August 2015).

37 Deloitte/Aerospace Industries Association of America, 'The Aerospace and Defense Industry in the US: A Financial and Economic Impact Study', March 2012, p.3, at <https://www.aia-aerospace.org/assets/deloitte_study_2012.pdf> (viewed 26 August 2015).

4.29 The table below considers the broad similarities and differences of defence industry policy in Australia, Canada, the UK and the US.

Table 4.3 Australia, Canada, UK and US defence industry policy comparison

	Key characteristics of defence procurement policy	Offset policy	Key measures to support and promote defence industry and defence exports	Lead promotion dept. and lead regulation dept.
AU	Competitiveness, innovation and value for money	No	Encourages primes to consider local industry Research and development Marketing assistance Export finance	Dept. of Defence (Both promotion and regulation)
CAN	Right equipment on time; domestic economic opportunity; oversight of procurement decisions	Yes – 100%	Dedicated export strategy Contractual guarantees from state-owned company Marketing assistance Export finance	<i>Export promotion:</i> Trade Commission Service & Canadian Commercial Corp. <i>Export regulation:</i> Dept. of Foreign Affairs, Trade & Development
UK	Competitiveness, qualified by support for some capabilities and retaining freedom of action	No	Ministerial advocacy Use of military personnel at trade shows and events Marketing assistance Export finance	<i>Export promotion:</i> UK Trade and Investment ³⁸ <i>Export regulation:</i> Dept. for Business, Innovation & Skills
US	Local industry protection with limited foreign competition; competitiveness and innovation within domestic industry	No	Laws restrict procurement from foreign sources Government sales program Marketing assistance Export finance	<i>Export promotion:</i> Dept. of Commerce Defense Security Cooperation Agency <i>Export regulation:</i> Dept. of State

4.30 Information in the above table has been derived from analysis of case studies of measures and policies to support defence exports in Canada, the UK and the US in the next sections of this chapter.

4.31 Briefly, some aspects of Swedish and South Korean practices were of interest to the Committee. BAE Systems submitted that the South Korean Government had successfully transformed their defence industry and has emerged as a leading global defence exporter, growing tenfold between 2007 and 2013.³⁹ Mr Peter Nicholson, (BAE Systems) said that this increase was due to increased Korean Government involvement in defence industry and changes to the tax system.⁴⁰

38 The UKTI is a non-ministerial department.

39 BAE Systems, *Submission 3*, p.6.

40 Nicholson, *Committee Hansard*, 13 February 2015, p. 35.

4.32 BAE Systems' submission stated that Korean Government involvement included incentives for industry consolidation and an offset program that allowed Korean companies to gain technology and positions with foreign entities.⁴¹ BAE Systems submitted:

The Korean government wishes to see not only improved competition in the domestic market but consolidation so that its defence exports are better placed to succeed in the global market place.⁴²

4.33 The submission added:

The South Korean government will continue to leverage its huge industrial base... to support the overall package that can be brought to bear to support defence deals.⁴³

4.34 Sweden has a designated agency known as the Defence Export Agency with primary responsibility for Swedish defence exports.⁴⁴ The Swedish Minister for Defence submitted:

The promotion includes exports from large to small and medium sized enterprises as well as export of civilian applications of military technologies. On behalf of the Armed Forces, the Defence Export Agency also performs sales of surplus stock.⁴⁵

4.35 ABDI's submission gave a favourable assessment of Sweden's defence export arrangements:

Sweden has a single agency for all export promotion and support, and has stated that export support is required for the country to preserve and develop the necessary industry skills and capabilities in the defence sector.⁴⁶

4.36 In Sweden, defence exports promotion is overseen by the Ministry for Foreign Affairs and rests outside the defence portfolio.⁴⁷

41 BAE Systems, *Submission 3*, pp.6-7.

42 BAE Systems, *Submission 3*, p.6.

43 BAE Systems, *Submission 3*, p.7.

44 Swedish Minister for Defence, *Submission 45*, p.1.

45 Swedish Minister for Defence, *Submission 45*, p.1.

46 ABDI, *Submission 9*, p.4.

47 Swedish Minister for Defence, *Submission 45*, pp.1-2.

Canada

4.37 A submission from Ferra Engineering stated that the 'Canadian approach is highly relevant to Australia'.⁴⁸ Canada's 2014 Defence Procurement Strategy has three objectives:

- Delivering the right equipment to the Canadian Armed Forces and the Canadian Coast Guard in a timely manner;
- Leveraging our purchases of defence equipment to create jobs and economic growth in Canada; and
- Streamlining defence procurement processes.⁴⁹

4.38 A submission from Australian Business Defence Industry noted that 'Canada has developed a specific Export Strategy to guide developments associated with the export of defence-related goods and services.'⁵⁰

Canada's Export Strategy for Defence Procurement has six key elements:

- Strengthening institutional collaboration at the federal level to ensure that government support meets industry expectations for international business development;
- Marshalling Canada's international diplomatic network, including defence attachés, on behalf of Canada's defence industry;
- Improving outreach strategies to small and medium-sized enterprises and leveraging existing relationships in the defence and security sectors;
- Enhancing coordinated support for Canada's presence at key international events;
- Strengthening access to and relationships in markets where Canada already has major trade interests while opening new markets for defence trade with Canada; and
- Streamlining the administration of export controls while continuing to fully respect Canada's established foreign, trade and defence policies.⁵¹

4.39 Most of Canada's defence exports are destined for the United States.⁵²

4.40 The Canadian Government has recently established independent oversight of its large defence acquisitions valued at CAN \$100 million

48 Ferra Engineering, *Submission 15*, p.5.

49 Public Works and Government Services Canada, 'Defence Procurement Strategy', February 2014, at <<http://www.tpsgc-pwgsc.gc.ca/app-acq/stamgp-lamsmp/sskt-eng.html>> (viewed 26 August 2015).

50 ABDI, *Submission 9*, p.4.

51 Foreign Affairs, Trade and Development Canada, 'Export Strategy for Defence Procurement' February 2014, at <<http://www.international.gc.ca/media/comm/news-communiqués/2014/02/pw-tp-bg.aspx?lang=eng>> (viewed 26 August 2015).

52 Sonartech Atlas, *Submission 26*, p.13; Department of Defence, *Submission 41*, attachment B.

(and other select projects). According to a news release issued by the Canadian Minister of National Defence, the Independent Panel for Defence Acquisition is intended to provide 'a third-party challenge function' by giving 'third-party advice to the Minister of National Defence'.⁵³ The Canadian Minister's announcement of the independent panel included the following statement:

Defence procurement spending has significant potential to produce substantial spin-off benefits to Canada's knowledge, innovation and export-based economy.⁵⁴

4.41 In its submission, Ferra Engineering stated:

The Government of Canada actively intervenes in the Defence programs in order to realise social and national industry outcomes including the employment of offsets to enhance the sustainability of the Canadian DIB [Defence Industrial Base] and though this comes at a cost, significant national social and industry benefits are being achieved, and the strategy is recognised as providing reasonable cost/benefit.⁵⁵

4.42 Sonartech Atlas submitted that Canada is 'actively trying to stimulate their industry' with programs such as the Industrial and Regional Benefits (IRB) policy, which 'requires the successful bidder of major defence contracts to engage Canadian industry'.⁵⁶ Ferra Engineering submitted that the IRB policy 'effectively' mandates offsets.⁵⁷ Information on the Canadian Industry Department's website confirmed this view:

The IRB [Industry and Regional Benefits] Policy requires companies to undertake business activities in Canada valued at 100 percent of the value of the defence or security contract they have been awarded by the Government of Canada. The IRB obligation is a contractual commitment and part of the overall government procurement contract.⁵⁸

53 Defence Minister of Canada, news release, 'Canada Launches Third-Party Oversight of Defence Procurement', 1 June 2015, at <<http://news.gc.ca/web/article-en.do?nid=982839>> (viewed 26 August 2015).

54 Defence Minister of Canada, news release, 'Canada Launches Third-Party Oversight of Defence Procurement', 1 June 2015, at <<http://news.gc.ca/web/article-en.do?nid=982839>> (viewed 26 August 2015).

55 Ferra Engineering, *Submission 15*, p.5.

56 Sonartech Atlas, *Submission 26*, p. 13.

57 Ferra Engineering, *Submission 15*, p.4.

58 Industry Canada, 'What is the IRB Policy?', at <https://www.ic.gc.ca/eic/site/042.nsf/eng/h_00016.html> (viewed 26 August 2015).

- 4.43 Canadian defence exporters receive marketing support from the Trade Commissioner Service.⁵⁹ Export Development Canada provides finance options for exporters.⁶⁰ The Canadian Commercial Corporation (CCC) (similar to a state-owned company in Australia) serves as a 'sales agency' and 'procurement agent' for Canadian exporters, by acting as a guarantor of contractual terms:
- CCC works with governments of other nations and Canadian suppliers to negotiate and execute defence and security contracts, supporting Canadian industry while assisting our allies in meeting their defence and security needs.⁶¹
- 4.44 The Department of Foreign Affairs, Trade and Development is responsible for Canadian export controls.⁶²

United Kingdom

- 4.45 The UK's approach to its defence industry and defence procurement is contained in a 2012 White Paper entitled 'National Security Through Technology'.⁶³ The White Paper states:
- Our default position is to seek to fulfil the UK's defence and security requirements through open competition on the domestic and global market.⁶⁴
- 4.46 MBDA's submission noted that Australian defence policy is 'closely aligned' to the UK as both include a focus on open competition.⁶⁵ However, as MBDA also noted, this position is not absolute.⁶⁶ The White Paper states:

59 Canadian Trade Commissioner Service, 'Defence and Security', at <<http://www.tradecommissioner.gc.ca/eng/sector-info.jsp?nid=510>> (viewed 26 August 2015).

60 Export Development Canada, 'Our Solutions' at <<http://www.edc.ca/EN/Our-Solutions/Pages/default.aspx>> (viewed 26 August 2015).

61 Canadian Commercial Corporation, 'Global Defence and Security' at <<http://www.ccc.ca/en/industries-and-markets/global-defence-and-security>> (viewed 26 August 2015); see also Department of Defence, *Submission 41*, attachment B.

62 See <<http://www.international.gc.ca/controls-controles/index.aspx?lang=eng>> (viewed 26 August 2015).

63 Department of Defence, *Submission 41*, attachment B; MBDA, *Submission 16*, p.5.

64 UK Ministry of Defence, 'National Security Through Technology: Technology, Support and Equipment for UK Defence and Security' (Cm8278), February 2012, p.19, at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27390/cm8278.pdf> (viewed 26 August 2015).

65 MBDA, *Submission 16*, p.15.

66 MBDA, *Submission 16*, p.15.

Our principle of Open Procurement will... be qualified by the principle of Technology Advantage: We will take action to protect our operational advantages and freedom of action, but only where this is essential for national security.⁶⁷

4.47 MBDA's submission observed:

This has been achieved in the UK, through a drive to create more innovative and effective business models, rather than UK Ministry of Defence subsidising the defence industry.⁶⁸

4.48 The White Paper does not include offsets as being among actions the UK Government could pursue to maintain advantage or grow exports. The White Paper states that 'we will be supportive, but not protectionist.' For instance, 'Ministers from across Government will do their utmost to assist UK-based suppliers in obtaining export orders.'⁶⁹

4.49 The Australian Business Defence Industry's submission noted that in the United Kingdom, 'exportability issues are considered in the early stages of the capability development process'.⁷⁰ Following the 2012 White Paper, a defence industry plan was developed with three objectives:

- Grow the UK's global market share, through increased exports;
- Foster greater collaboration and innovation across the Sector, bringing products and services to the market that meet customer needs; [and]
- Improve competitiveness through the whole value chain.⁷¹

4.50 An unclassified version of the UK's International Defence Engagement Strategy released in 2013 states that Defence Ministry resources can be used to promote British defence and security sector exports, together with

67 UK Ministry of Defence, 'National Security Through Technology: Technology, Support and Equipment for UK Defence and Security' (Cm8278), February 2012, p.14, at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27390/cm8278.pdf> (viewed 26 August 2015).

68 MBDA, *Submission 16*, p.15.

69 UK Ministry of Defence, 'National Security Through Technology: Technology, Support and Equipment for UK Defence and Security' (Cm8278), February 2012, pp.9-10, at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27390/cm8278.pdf> (viewed 26 August 2015).

70 Australian Business Defence Industry, *Submission 9*, p.4.

71 UK Department for Innovation, Business and Skills and Ministry of Defence, 'Defence Growth Partnership: Implementing the Strategic Vision for the UK Defence Sector', July 2014, p.10, at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/329781/bis-14-953-defence-growth-partnership-delivering-growth-implementing-the-strategic-vision-for-the-uk-defence-sector.pdf> (viewed 26 August 2015).

UK Trade and Investment Defence Security Organisation (UKTI DSO) and the Foreign and Commonwealth Office.⁷²

4.51 The UKTI DSO is a specialised agency offering assistance to the UK defence sector at events and exhibitions worldwide.⁷³ ABDI noted in its submission that a distinctive element of the UK's approach to defence exports is that the UK 'handles defence and security related exports through a single agency outside of the Ministry of Defence'.⁷⁴

4.52 Assistance is available for defence exporters from UKTI Export Support Teams, which comprise serving UK military officers. Sonartech Atlas submitted that this was a 'distinct difference' between the UK and Australia.⁷⁵ The UKTI's website states:

The purpose of Export Support Teams is to provide specialist military services and advice to legitimate UK defence and security companies in order to help them succeed in the export market.⁷⁶

4.53 These services are offered in exchange for payment of a fee, depending on the level of service requested at exhibitions or events. While some basic services are free, 'premium' marketing support from UKTI starts at £2,475 and use of Export Support Team personnel at the stand costs £2,426 (plus tax).⁷⁷ In contrast to the UK's fee-for-service model, there is no fee payable for promotional assistance provided by Team Defence Australia.⁷⁸

4.54 A submission from Saab Australia Pty Ltd supported adopting the UKTI model of linking industry with customers:

Saab recommends that consideration be given to forming various user groups that enable industry to engage directly with end users in order to receive feedback and suggestions on enhancements that

72 UK Ministry of Defence, 'International Defence Engagement Strategy', February 2013, at <<https://www.gov.uk/government/publications/international-defence-engagement-strategy>> (viewed 26 August 2015).

73 Department of Defence, *Submission 41*, attachment B.

74 ABDI, *Submission 9*, p.4; see also Taylor, *Committee Hansard*, 13 February 2015, p.12.

75 Sonartech Atlas, *Submission 26*, p.14; BAE Systems, *Submission 3*, p.5.

76 UK Trade and Investment Organisation, 'Defence and Security Exporting: Event and Exhibition Support', at <<https://www.gov.uk/government/publications/defence-and-security-exporting-event-and-exhibition-support/defence-and-security-exporting-event-and-exhibition-support>> (viewed 26 August 2015).

77 UK Trade and Investment Organisation, 'Defence and Security Exporting: Event and Exhibition Support', at <<https://www.gov.uk/government/publications/defence-and-security-exporting-event-and-exhibition-support/defence-and-security-exporting-event-and-exhibition-support>> (viewed 26 August 2015).

78 Department of Defence, 'Terms and Conditions for Participation in a Team Defence Australia Event', clause 1, at <http://www.defence.gov.au/teamaustralia/docs/Standard_Terms_and_Conditions.pdf> (viewed 26 August 2015).

would further improve the saleability of its products in the export market. A group similar to the Export Support Team from UKTI DSO could be used to facilitate the process and engagement between industry and users.⁷⁹

4.55 Mr David Shiner (Vice President, International Sales, Austal) also supported the UK's approach to defence sales:

...you actually have the services presenting platforms, be it maritime, land or air customers, for display, supported at very senior levels, inviting industry and export customers to visit. That has been and remains a very powerful tool. For the export and user customer, it is a great recommendation to find another service chief actually operating and using that particular product.⁸⁰

4.56 QinetiQ submitted that support for the UK defence industry includes the utilisation of defence attachés at diplomatic posts:

The UK's approach to promoting defence exports is based on clear cooperation between its defence attachés and trade-focused staff at diplomatic posts. As part of their responsibilities, UK defence attaches are directed to provide support to UK defence companies abroad. They provide background briefing on political and economic context and can facilitate introductions. This does not entail engagement in commercial activities, but it does ensure that the UK's international network of defence staff actively consider opportunities in their regions for defence exports.⁸¹

4.57 UK Export Finance provides assistance with finance, credit and insurance for 'all exporters, large and small, and all types of UK exports'.⁸²

4.58 The Export Control Organisation, located within the Department for Business, Innovation and Skills is responsible for UK export controls.⁸³

79 Saab Australia Pty Ltd, *Submission 10*, p.7.

80 Shiner, *Committee Hansard*, 13 February 2015, p.30.

81 QinetiQ, *Submission 12*, p.3; see also Taylor, *Committee Hansard*, 13 February 2015, p.12.

82 UK Export Finance, 'An Overview' at <<https://www.gov.uk/guidance/export-finance-and-insurance-an-overview>> (viewed 26 August 2015).

83 See <<https://www.gov.uk/government/organisations/export-control-organisation>> (viewed 26 August 2015).

United States

4.59 Mr Gilbert Watters (Senior Principal Consultant – Government, QinetiQ Australia) said that the size of the United States’ defence and export industry gives the US an immense commercial advantage:

If the US wants to buy an aircraft, they contract Lockheed Martin, Boeing or Raytheon to develop it; and then the US government owns the technology but the people who know about how it works reside in those companies. That puts them in a very advantageous position in terms of selling those big assets around the world.⁸⁴

4.60 The 2015 US National Security Strategy confirms the importance the US Government places upon maintaining its capability advantage:

We will protect our investment in foundational capabilities like the nuclear deterrent, and we will grow our investment in crucial capabilities like cyber; space; and intelligence, surveillance, and reconnaissance. We will safeguard our science and technology base to keep our edge in the capabilities needed to prevail against any adversary.⁸⁵

4.61 The US Government does not have an offsets policy.⁸⁶ Nonetheless, the Committee was informed that US law inhibits foreign defence imports and protects local industry. BAE Systems submitted:

Buy America legislation militates against US primes incorporating foreign systems into larger complex weapons systems unless they are:

- Demonstrably superior to anything offered by US companies;
- A broader ANZUS alliance consideration overrides the requirements of the legislation; or,
- The prerequisite to acquisition of major weapons systems such as the F-35 is acceptance of an Australian export (e.g. Norwegian purchase of F-35 and the Joint Strike Missile).⁸⁷

84 Watters, *Committee Hansard*, 13 February 2015, p.15.

85 United States National Security Strategy, February 2015, p.8, at <https://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf> (viewed 26 August 2015).

86 US Department of Commerce Bureau of Industry and Security, ‘Offsets in Defense: Nineteenth Study’, March 2015, p.2, at <https://www.bis.doc.gov/index.php/forms-documents/doc_download/1203-nineteenth-report-to-congress-3-15> (viewed 26 August 2015).

87 BAE Systems Australia, *Submission 3*, p.2.

- 4.62 A submission from Austal, an Australian shipbuilding company, described the US shipbuilding market as ‘highly protected’ by the Merchant Marine Act of 1920 (also known as the ‘Jones Act’) and the Buy American Act of 1933.
- 4.63 The Buy American Act of 1933 requires the US Government to give preference to US made products, except if supplies cannot be obtained or if it would be contrary to the public interest.⁸⁸ In defence procurement, the Defense Federal Regulation Supplement mandates that products from overseas may only be considered in limited circumstances, such as when:
- ...an article, material, or supply is not reasonably available is required when domestic offers are insufficient to meet the requirement and award is to be made on other than a qualifying country or eligible end product.⁸⁹
- 4.64 Another exemption can arise where costs are unreasonable. This is defined as being when the domestic equivalent costs 50 per cent more than the option of purchasing from a foreign supplier.⁹⁰ Subject to the necessities of national defence, the Defense Federal Regulation Supplement has granted Australia (along with numerous other countries) an exemption:
- As a result of memoranda of understanding and other international agreements, DoD has determined it inconsistent with the public interest to apply restrictions of the Buy American statute or the Balance of Payments Program to the acquisition of qualifying country end products from... qualifying countries.⁹¹
- 4.65 Professor Goran Roos said that the restrictions to accessing the US market are nevertheless numerous:
- To outline these restrictions, firstly, there are the federal acquisition regulations. There is the important Defense Federal

88 The Buy American Act of 1933 – 41 USC § 8302 states: ‘Only unmanufactured articles, materials, and supplies that have been mined or produced in the United States, and only manufactured articles, materials, and supplies that have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced, or manufactured in the United States, shall be acquired for public use unless the head of the department or independent establishment concerned determines their acquisition to be inconsistent with the public interest or their cost to be unreasonable.’

89 Defense Federal Acquisition Regulation Supplement 48 CFR § 225.103(b)(i).

90 Defense Federal Acquisition Regulation Supplement 48 CFR § 225.105.

91 Defense Federal Acquisition Regulation Supplement 48 CFR § 225.872-1(a). The DFARS further state: ‘The determination in paragraph (a) of this subsection does not limit the authority of the Secretary concerned to restrict acquisitions to domestic sources or reject an otherwise acceptable offer from a qualifying country source when considered necessary for national defense reasons.’

Acquisition Regulation Supplement, DFARS as it is called. There is the Buy American Act; the Balance of Payments Program; the Berry amendment; the special matters restriction; the no-foreign-content-restriction; the security classification of programs; the requirement to prove it is on US soil; the Small Business Act; the Data Distribution Code; ITAR; and proxy border special security arrangements they can arrange.⁹²

- 4.66 Pursuant to Chapter 15 of the US-Australia Free Trade Agreement, certain defence products were excluded, including weapons, guided missiles, aircraft, ships, naval vessels and combat vehicles.⁹³ A briefing note on the website of the Australia's US Embassy indicates that these treaty exclusions override the regulatory exemptions:

Chapter 15 of AUSFTA does not apply to a range of US procurements, including... :

[...]

- Procurements of a small number of specified goods by the Department of Defense and the General Services Administration;

[...]

In procurements such as those listed above, the exemption from *Buy American Act* requirements provided for Australian goods and services does not apply. The procuring entity must therefore consider US-origin requirements on relevant products.⁹⁴

- 4.67 Prof Roos also noted that no single entity is responsible for defence procurement and the branches of the armed forces act independently.⁹⁵ Mr William Taylor (Senior Strategy and Business Development Manager, QinetiQ Australia) commented on the challenges of the US market:

In the US, the federal acquisition regulations exceed 1,800 pages, and they are supplemented by other defence federal acquisition regulations.⁹⁶

92 Roos, *Committee Hansard*, 9 October 2014, p.6; see also AMWU, *Submission 24*, p.2.

93 Department of Foreign Affairs and Trade, 'US-Australia Free Trade Agreement: Chapter Fifteen - Government Procurement', at <<http://dfat.gov.au/about-us/publications/trade-investment/australia-united-states-free-trade-agreement/Pages/chapter-fifteen-government-procurement.aspx>> (viewed 26 August 2015).

94 'Brief Guide to US Government Procurement and the Australia United States Free Trade Agreement (including 'Buy American')' [undated], at <<http://usa.embassy.gov.au/files/whwh/USGovProcurementandAUSFTA.pdf>> (viewed 26 August 2015).

95 Roos, *Committee Hansard*, 9 October 2014, p.6.

96 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.10.

4.68 Austal's submission described how the Jones Act regulates the US shipping industry:

The law regulates maritime commerce in U.S. waters and between U.S. ports and deals with cabotage, requiring all goods transported by water between U.S. ports be carried on U.S. flag ships, constructed in the United States, owned by U.S. citizens, and crewed by U.S. citizens and U.S. permanent residents.⁹⁷

4.69 Austal concluded in its submission:

As a result of this legislation, all naval vessel construction contracts awarded by the United States Navy are awarded to US shipbuilders, resulting in the continuing success of naval shipbuilding in the US.⁹⁸

4.70 The US Government has been reforming its defence acquisition processes through a process known as 'Better Buying Power'.⁹⁹ Notwithstanding the statutory protections for US industry, which were noted during the course of this inquiry, the third and most recent iteration of Better Buying Power focuses on innovation, incentives and competition – including from foreign suppliers. An April 2015 memorandum authorised by the US Under Secretary of Defense for Acquisition, Technology and Logistics stated:

The sources of a great deal of today's technical innovation are not located in the United States. We have global allies, friends, and trading partners who share our values and can assist us in pursuing innovation and technological superiority. ... The current process through which the Department manages acquisition programs does not draw out the full potential for international solutions.¹⁰⁰

4.71 US military exports are facilitated by the Foreign Military Sales program. In its submission, Sonartech Atlas described the FMS program as 'the most prevalent means of export of US arms and probably the most well-

97 Austal, *Submission 31*, p.9; see also 46 USC Subtitle V – Merchant Marine.

98 Austal, *Submission 31*, p.9.

99 US Department of Defense, 'Better Buying Power', at <<http://bbp.dau.mil/background.html>> (viewed 26 August 2015).

100 US Under Secretary of Defense for Acquisition, Technology and Logistics, memorandum, 'Implementation Directive for Better Buying Power 3.0 – Achieving Dominant Capabilities Through Technical Excellence and Innovation', 9 April 2015, at <[http://www.acq.osd.mil/fo/docs/betterBuyingPower3.0\(9Apr15\).pdf](http://www.acq.osd.mil/fo/docs/betterBuyingPower3.0(9Apr15).pdf)> (viewed 26 August 2015).

known'.¹⁰¹ The Department of State's website summarises the purpose of the FMS program:

FMS is a government-to-government program through which the U.S. Government sells conventional military weapons, equipment, and services to allied and friendly nations to assist them in meeting their legitimate defense requirements.¹⁰²

4.72 The Defense Security and Cooperation Agency (located within the Department of Defense) is responsible for the FMS program.¹⁰³ The Department of Defence submitted that FMS program includes grants, leases and loans of equipment, training and financing.¹⁰⁴ Direct support for defence exports is primarily facilitated through the US Commercial Service.¹⁰⁵ The Department of Defence stated in its submission that available support includes:

- Business Counselling and Advocacy;
- Market Research – providing country and industry overviews, country commercial guides and trade data and analysis;
- Trade Events - supporting international trade shows, business matching, and trade missions; and
- International Partners – identifying agents, distributors, licensees or strategic overseas partners.¹⁰⁶

4.73 The US has military officers stationed in embassies to assist with government-to-government military sales.¹⁰⁷

4.74 In his 2010 State of the Union address, President Obama announced an intention to double US exports within five years and reform defence exports controls.¹⁰⁸ The subsequent National Export Initiative included measures such as increased export financing, export promotion and improved access to foreign markets.¹⁰⁹

101 Sonartech, *Submission 26*, p. 14.

102 US Department of State, 'Third Party Transfers and Foreign Military Sales Teams and Functions', at <<http://www.state.gov/t/pm/rsat/c14021.htm>> (viewed 26 August 2015).

103 See <<http://www.dsca.mil/programs>> (viewed 26 August 2015); Supacat Pty Ltd, *Submission 18*, p.2.

104 Department of Defence, *Submission 41*, attachment B.

105 Department of Defence, *Submission 41*, attachment B.

106 Department of Defence, *Submission 41*, attachment B; see also US Commercial Service, 'Services for U.S. Companies' <<http://www.trade.gov/cs/services.asp>> (viewed 26 August 2015).

107 BAE Systems, *Submission 3*, pp.5-6.

108 The White House, 'Remarks by the President in State of the Union Address', 27 January 2010, at <<https://www.whitehouse.gov/the-press-office/remarks-president-state-union-address>> (viewed 26 August 2015).

109 'National Export Initiative', Executive Order 13534 of March 11, 2010 (3 CFR, 2011 Comp., pp.198-201).

- 4.75 The Directorate of Defense Trade Controls, located within the State Department, has primary responsibility for oversight of export controls.¹¹⁰

110 See <<https://www.pmddtc.state.gov/index.html>> (viewed 26 August 2015).

Barriers and impediments to the growth of Australia's defence exports

Introduction

- 5.1 During the inquiry, a range of factors and themes were identified as barriers to Australian defence exports.
- International market competition and distortions caused by protectionist measures
 - Industry challenges
 - Sponsorship and advocacy
 - Selling to the ADF
- 5.2 Earlier in the report, the significant role of intellectual property as an enabler of defence exports was outlined (see chapter two).

International market competition

- 5.3 While success can be achieved, the international market remains a competitive space. As discussed in the previous chapter, other countries have taken measures to insulate their defence industries from open competition, creating market distortions that Australian exporters must attempt to navigate. These market effects, combined with the relative costs and complexity of doing business in Australia, create challenging conditions for prospective defence exporters.

- 5.4 The unevenness of the market was noted in the Victorian Government's submission:

Competition in international defence trade does not always occur on a level playing field. Many countries confer regulatory and taxation advantages to domestic companies to improve their cost-competitiveness... and to drive economic benefits for local industry by leveraging major military procurement programs.¹

- 5.5 Australian naval shipbuilding company Austal submitted:

Austal is an advocate of the free market and competition across the global market; however in the defence sector a free market approach is becoming less and less common.²

- 5.6 Austal's submission added:

It is now common for Austal to compete with manufacturers in Vietnam and China. This was one of the key motivations for Austal to establish a shipbuilding facility in the Philippines.³

- 5.7 Some witnesses noted the complexity of gaining access to the US market. Mr William Taylor (Senior Strategy and Business Development Manager, QinetiQ Australia) said:

The US market, for example, is subject to an array of legislation, regulations and procedures that limit access for imported products. ... Market access in the US is a complex area that in some instances requires case-by-case consideration of the US national interest by US officials. It is not often well understood by Australian companies, especially small to medium enterprises.⁴

- 5.8 He continued:

This volume of regulation and its complexity may be one reason why some Australian exporters have moved to establish manufacturing facilities in the US – that is, working from inside the system is easier than trying to export into it.⁵

- 5.9 Mr Gilbert Watters (Senior Principal Consultant – Government, QinetiQ Australia) said:

In the case of the US, there is a very commercial model. If the US wants to buy an aircraft, they contract Lockheed Martin, Boeing or Raytheon to develop it; and then the US government owns the

1 Victorian Government, *Submission 36*, p.5.

2 Austal, *Submission 31*, p.9.

3 Austal, *Submission 31*, p.8.

4 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.10.

5 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.10.

technology but the people who know about how it works reside in those companies. That puts them in a very advantageous position in terms of selling those big assets around the world.⁶

5.10 He added:

So I think you have got to look at the circumstances and the model by which Australia does business. ... You have got to work through the policies and get those policy settings in place, and I think you will then see an improved export performance.⁷

5.11 Dr Andrew Davies (ASPI) said that Australian companies sometimes face 'unreasonable' barriers when attempting to export overseas.⁸ He said:

An example is Austal's efforts to sell the littoral combat ships to the US navy. While ultimately successful, it required finding an American partner and setting up a shipyard in the United States because of local protectionist measures. Given the run that American companies get in the Australian defence market, that hardly seems fair. When our major ally and a significant trading partner presents those sorts of obstacles, it is little wonder that Australian firms feel hard done by.⁹

5.12 However, he noted:

Ultimately, we are never going to convince the US Congress that it is in their interests to take a completely free approach to Australian companies buying in to US programs.¹⁰

5.13 Defence's submission agreed that offsets and local industry protection measures in overseas markets are challenging for Australian SMEs:

Overseas trade barriers are a particular challenge for small to medium enterprises (SME) seeking to export to countries that have these policies. SMEs usually lack the resources and scale of operations to manage these requirements in the manner undertaken by large international defence prime contractors.¹¹

5.14 In addition to international competition, challenges facing the defence industry within Australia affect our ability to succeed as an exporter of defence products and services.

6 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.15.

7 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.15.

8 Davies, *Committee Hansard*, 13 February 2015, p.20.

9 Davies, *Committee Hansard*, 13 February 2015, p.20.

10 Davies, *Committee Hansard*, 13 February 2015, p.23.

11 Department of Defence, *Submission 41*, attachment A.

Defence industry challenges

- 5.15 A number of challenges pertaining to the Defence industry in Australia were noted during the inquiry. Notwithstanding these challenges, the Committee notes that there have been a number of successful Australian defence exports, such as Thales' Bushmasters (troop carriers) and CEA's radar technology.
- 5.16 Defence characterised the challenges of the Australian defence exports industry as follows:
- An enduring need to embrace new technologies to provide the ADF with a military-strategic advantage;
 - Often volatile Defence demand, as Australia purchases, upgrades and modifies most weapons systems and platforms relatively infrequently;
 - High 'fixed' costs for developing and producing improved capital equipment, which ideally need to be spread over a broad customer base;
 - A heavy reliance on specialised labour skills to develop, build, adapt and sustain equipment which is among the most technically complex of any held within Australia;
 - Unusually high levels of both seller concentration and foreign ownership; and
 - The need to function in a broader environment where substantial economic and regulatory barriers exist to a free flow of defence knowledge, expertise, goods and services across international boundaries.¹²
- 5.17 Defence's submission added:
- General impediments faced by Australian exporters include distance to overseas markets, high exchange rates, currency fluctuations and access to export finance.¹³
- 5.18 The Department of Industry identified the following growth challenges:
- Leadership, management and entrepreneurial skills; access to, and retention of, skilled labour; workplace performance; access to finance; access to market-relevant ideas and intellectual property; ability to acquire and deploy new technologies and new ways of operating; high business input costs; competitive business environment; and regulatory impediments, including certification and qualification issues.¹⁴

12 Department of Defence, *Submission 41*, p.2.

13 Department of Defence, *Submission 41*, attachment A.

14 Department of Industry, *Submission 22*, p.3.

5.19 Lockheed Martin Australia's submission also identified similar issues:

- High labour rates (especially in the services industry) which make some elements of the Australian Industry inherently expensive;
- Access to competitively priced materials, which puts Australian industry at a competitive disadvantage, as they often cannot compete on volume purchase arrangements;
- The bureaucratic and regulatory environment for defence exports is considered onerous; and
- A perceived and real distance to and from Australia creates a potential risk to product schedules.¹⁵

5.20 The submission added:

Additionally, companies new to the advanced manufacturing arena face large investment and training costs to bring machinery and staff up to the high levels required to conduct this work.¹⁶

5.21 The Committee notes the comments regarding Australian labour rates; however, in the case of submarines, available information suggests that labour costs do not present an issue. In September 2015, Chairman of German submarine builder ThyssenKrupp Marine Systems was reported as saying that building submarines in Australia is 'not less efficient' than building them in Germany and that the existing workforce would be utilised.¹⁷ Prof Goran Roos has advised the Committee that building submarines in Australia may be more cost effective:

It would cost no more to build in Australia than it would cost to build in Japan, Sweden, Germany or France given:

- That they are all high cost countries with very low differences in labour cost (the labour cost component of a submarine makes up about one third of the total build cost whilst material makes up two thirds);
- That one third of the material cost is made up of specialised input sourced from a sole supplier, or from a group of very few alternative suppliers and hence there would be no real cost difference depending on build location; [and]
- That two thirds of the material cost is made up of domestic input where there might be some benefits of scale depending on the size of the submarine project, but since most submarine projects are low volume and the Australian would be in this

15 Lockheed Martin Australia Pty Ltd, *Submission 39*, p.2.

16 Lockheed Martin Australia Pty Ltd, *Submission 39*, p.2.

17 AAP Newswire, 'Local Submarine Build as Cheap as Germany: TKMS', 9 September 2015; see also 'TKMS Says up to 50,000 Skilled Workers Will be Ready to Build Subs in Australia', at <<http://www.news.com.au/national/tkms-says-up-to-50000-skilled-workers-will-be-ready-to-build-subs-in-australia/story-fncynjr2-1227520019577>> (viewed 16 October 2015)

group a high volume this is likely to generate a lower cost in Australia.

If anything it can be seen that it might actually end up cheaper building in Australia.¹⁸

5.22 Austrade's submission referred to the challenges of meeting quality control standards:

For example, international defence primes and original equipment manufacturers (OEMs) impose strict procurement requirements on their supply chain. Qualifications and certifications such as AS 9100 rev C, NADCAP [National Aerospace and Defense Contractors Association Program] and ISO [International Standards Organisation] 9000 represent significant expense and require dedicated internal resource to fulfil and maintain.¹⁹

5.23 Austrade added that consequently, innovation programs are 'paramount' to Australian companies winning defence and aerospace contracts.²⁰

5.24 H I Fraser Pty Ltd submitted:

Essentially Australian domestic businesses are competing on the global market within Australia. To survive in the current Australian marketplace you have to behave like an exporter as there are no benefits to being Australian.²¹

5.25 The Australian Manufacturing Workers' Union (AMWU) submission noted the impact of the exchange rates:

The post float average Australian dollar/USD exchange rate sits at 76 US cents per Australian dollar. The average exchange rate over the period July 2007 to September 2012 was over 92 US cents. That represents an appreciation of over 21 per cent compared to the long run average exchange rate level, which means a hit on Australian defence industry's competitiveness of over 20 per cent.²²

5.26 The AMWU added:

However, it should be noted that the actual cost of Australian businesses has not been inflated in an absolute sense due to the strength of the dollar, only their relative cost when compared to businesses which are based overseas. It is important to note that

18 Roos, *Exhibit 9*, p.2.

19 Austrade, *Submission 30*, p.2.

20 Austrade, *Submission 30*, p.2.

21 H I Fraser Pty Ltd, *Submission 2*, p.2.

22 AMWU, *Submission 24*, p. 3. Exchange rates have changed since this information was provided. As at August 2015, the Australian dollar was trading at around 72 cents to \$US1.

the driving force behind these decisions has not been a fall in Australian industry's capacity to meet defence requirements or an absolute increase in costs. It is simply the result of decisions being made on a cost of contract basis in an environment where the Australian dollar has been at historical highs, making overseas sourcing options seem relatively cheap.²³

- 5.27 Both the Export Council of Australia and Australian Business Defence Industry observed that the relatively small size and scale of the Australian defence industry makes it difficult for local defence suppliers to achieve economies of scale.²⁴
- 5.28 QinetiQ Australia suggested that the range of challenges make Government support for defence exports more relevant:
- Given the regulatory environment, trade barriers, international taxation regimes and fierce competition in the global market we consider that the Australian Government has a critical role to play in the success of Australian defence industry exports.²⁵
- 5.29 To assist industry secure export opportunities, the Committee was informed that Government needs to be involved in the promotion and endorsement of the Australian defence industry.

Sponsorship and advocacy

- 5.30 International promotion of Australia's defence industry through sponsorship and advocacy were considered during the inquiry:
- Advocacy via defence attachés;
 - Defence presence at trade shows, fairs and similar events; and
 - Endorsements from Ministers travelling overseas.
- 5.31 The Industry Statement (accompanying the 2015 White Paper) may be a basis upon which the benefits of buying from Australia could be identified. Industry, Defence and relevant Ministers could use the Statement as a point of reference to highlight areas of industry advantage.
- 5.32 Defence's submission noted that a key form of promotion is 'facilitating Australian industry participation in international defence trade shows.'²⁶ Australian companies are supported under the Team Defence Australia

23 AMWU, *Submission 24*, p. 3.

24 Export Council of Australia, *Submission 27*, p.2; ABDI, *Submission 9*, p.2.

25 QinetiQ, *Submission 12*, p.1.

26 Department of Defence, *Submission 41*, p.7.

(TDA) banner, which Defence advised is intended to 'signify the relationship between Defence and the Australian defence industry.'²⁷

5.33 Defence also advised:

Overall, TDA-supported activities provide companies with low-cost export promotion opportunities, which would otherwise be cost prohibitive for the majority of companies if participating independently. Selection of companies for TDA events is through a competitive application and assessment process. TDA also targets known companies for participation in events based on the matching of a company's capability to known opportunities in the region.²⁸

5.34 The Department of Defence's Capability Acquisition and Sustainment Group has offices in Washington and London. The functions of these offices include industry engagement.²⁹

Defence attachés

5.35 At Australian diplomatic posts overseas, resident defence attachés may be appointed, who are used as a linkage between the Australian Government and the host country's military.³⁰ Some witnesses suggested that the role of defence attaché could be expanded to include export facilitation.

5.36 The Committee was informed that other countries provide support for the defence industry through political and diplomatic channels. For example, Austal submitted that European governments use political leaders to support the defence industry:

Many of our competitors particularly the British, French, Italian, Dutch and German organisations receive direct support and representation from all levels of government from their Royal family to Prime Ministers in support of defence sales. This level of support sends a powerful message to prospective customers regarding the level of government faith in the product and support of that product.³¹

27 Department of Defence, *Response to Questions on Notice* (Question No. 22).

28 Department of Defence, *Response to Questions on Notice* (Question No. 22).

29 Department of Defence, 'CASG International Offices' at <<http://www.defence.gov.au/dmo/DoingBusiness/Internationalengagementandexportsupport/CASGinternationaloffices/>> (viewed 26 August 2015).

30 Birrer et al, *Committee Hansard*, 24 March 2015, p.11; Department of Foreign Affairs, Defence and Trade, *Response to Questions on Notice*, p.2.

31 Austal, *Submission 31*, p.14.

5.37 Mr David Shiner (Vice President, International Sales, Austal) provided the following overall assessment of Australia's defence export promotion:

If we compare Australia with the likes of the UK and the other European countries, we would appear to be very behind in the way that the services actually support export activity.³²

5.38 The Export Council of Australia submitted that competitors 'send high-level government officials, even the President or Prime Minister' to meetings to support companies.³³

5.39 Mr Chris Burns (CEO Defence Teaming Centre) stated that while working as Australian Defence Attaché in the Philippines, his 'fellow attachés from other countries actively informed, lobbied for and supported their nation's defence industries'.³⁴ Mr Gerard Ogden (Head of Marketing and Sales, SAAB Australia Pty) stated that many other countries' defence attachés fulfil a role supporting defence industry opportunities.³⁵ The possible utilisation of Australian defence attaches is discussed separately in chapter three.

5.40 Mr Chris Burns (CEO, Defence Teaming Centre) explained:

Our defence attachés have unique insights into what might generally be available for Australian defence industry to compete for. My frustration was often exacerbated by the fact that my fellow attaches from other countries actively informed, lobbied for and supported their nation's defence industries. Our defence industry would greatly appreciate greater support from our defence diplomats on the ground in pursuing export opportunities.³⁶

5.41 Mr Robert Forbes (Commercial Director, CEA Technologies Pty Ltd) said that using attachés could be beneficial:

We find that there is a mixed interest in defence industry sales within the Defence attachés, but they are potentially a very valuable resource and on quite a few occasions have been valuable resources. They can do the things that Austrade does in the more generalist environment, except they have better contacts because they are always dealing with your potential customer.³⁷

5.42 ASPI's submission stated:

32 Shiner, *Committee Hansard*, 13 February 2015, p.30.

33 Export Council of Australia, *Submission 27*, p.3.

34 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.14.

35 Ogden, *Committee Hansard*, 10 October 2014, pp.4-5.

36 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.14.

37 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.8.

Defence attachés and other Defence officials overseas should have the requirement to support export facilitation written into the statement of work objectives.³⁸

5.43 Aspen Medical suggested that senior government and Defence officials could advocate by providing references, recommendations or referrals during visits overseas or when foreign delegations visit Australia.³⁹

5.44 Defence advised that the role of defence attachés does not currently include assisting foreign governments fulfil their capability shortfalls⁴⁰ and have a 'limited' role as lobbyists.⁴¹ Nevertheless, Mr Scott Dewar (First Assistant Secretary, International Policy Division, Department of Defence) said:

I would also say in that sense that defence attachés also, when we have delegations visiting or Team Defence Australia, obviously play a role in supporting those things – those delegations. In terms of being able to facilitate meetings and so on – definitely. Identifying capability and other opportunities is something that depends a lot on the market and the particular circumstances.⁴²

5.45 Defence advised the Committee that information provided to attachés in the past (prior to commencing their post) has included a presentation from the Australian Military Sales Office; Defence indicated that it intends to revive this practice in 2015.⁴³ Further:

In relation to Team Defence Australia activities alone, it is noted that since 2007 TDA has assisted 288 defence industry companies to secure export contracts for defence capabilities and technologies to the value of approximately \$785 million.⁴⁴

Trade shows

5.46 Witnesses said that the presence of uniformed ADF personnel alongside Australian products at exhibitions and trade fairs has been advantageous and encouraged this practice to continue in an expanded form.

5.47 Mr Dean Rosenfield (Managing Director, Saab Australia) said:

...we had the combat system operators from *HMAS Perth* sitting behind our consoles with our principal warfare officer there

38 ASPI, *Submission 20*, p.4.

39 Aspen Medical, *Submission 37*, pp.3-4.

40 Birrer et al, *Committee Hansard*, 24 March 2015, p.11.

41 Department of Defence, *Response to Questions on Notice* (Question No. 18).

42 Birrer et al, *Committee Hansard*, 24 March 2015, p.11.

43 Department of Defence, *Response to Questions on Notice* (Question No. 2).

44 Department of Defence, *Response to Questions on Notice* (Question No. 17).

talking to our potential customers. The incredible sway that that brings to industry, and Australian industry in particular, is that we now have an endorsement from the user, and the user talking to other users.⁴⁵

5.48 Mr Gerard Ogden (Head of Marketing Sales, Saab Australia) added:

We would not advocate that Navy put people on our stand against other competition, but if you are in contract and you have delivered and the government sees it then the reference ability of Australia as a customer is a great asset for us when we are marketing around the world.⁴⁶

5.49 Thales Australia submitted:

The value of users from the Australian Defence Force who can demonstrate and brief interested buyers on the range of equipment and technologies employed by our individual services can never be underestimated. ... At present there are still significant approvals and other impediments to releasing equipment and personnel to attend commercial sales activities, which could be relaxed or fast tracked if supported by government mandate.⁴⁷

5.50 Saab Australia submitted:

Saab believes the government should establish policy and a mechanism which permits Defence personnel to actively engage in support of Australian defence industry.⁴⁸

5.51 Mr Michael Halloran (Managing Director, Supacat Pty Ltd) said:

I think it should be a whole-of-government operation. We have been quite successful using Austrade. We have been quite successful just making contact with Defence attachés and picking their brains for local knowledge. That is very useful to us. But I do not think you can ask Defence as a department to take on the role of selling. I mentioned in my submission that different countries have different cultures in defence. Ours is very professional – Defence is focused on defence. That is fine. I am not making a judgement on that. But I think to ask them to then go and sell would not have a good outcome.⁴⁹

45 Giulinn, Ogden and Rosenfield, *Committee Hansard*, 10 October 2014, p.4.

46 Giulinn, Ogden and Rosenfield, *Committee Hansard*, 10 October 2014, p.8.

47 Thales Australia, *Submission 19*, pp.8-9.

48 Saab Australia, *Submission 10*, p.7.

49 Halloran, *Committee Hansard*, 31 October 2014, p.9.

5.52 Mr Rohan Stocker (CEO, Marand Precision Engineering Pty Ltd) said:

We do not expect the government to do the sales and the business development for us, but we do appreciate it when there is help and support in that area. There are opportunities and doors that can be opened by the government that we cannot necessarily open ourselves.⁵⁰

5.53 Mr Andrew Hudson (Director and Chair - Trade Policy Committee, Export Council of Australia) said:

I think one of the concerns parties have is that the engagement is inconsistent – that, when there is a trade show or similar, there is still a sense that each of the individual exporters is on their own, so to speak; and, even for those who get a level of ‘Team Australia’ support, it is not as comprehensive or as organised as it might be.⁵¹

5.54 The Defence Teaming Centre’s submission suggested appointing a ‘Defence Industry Advocate’ with industry experience and who would be ‘afforded a non-executive role in the Defence leadership group.’⁵²

Ministerial advocacy

5.55 Use of government ministers was also suggested as a way to promote Australian defence exporters. BAE Systems submitted:

Most other nations use ministers and eminent personalities to promote their Defence exports. ... Australian Government ministers are effective in promoting trade through personal involvement in free trade agreements and the like but rarely actively intervene to promote Defence exports.⁵³

5.56 Mr Merv Davis (CEO, CEA Technologies Pty Ltd) said that in his experience, when made available, ministerial and departmental support had made a valuable contribution:

CEA is very innovative and has benefited from an effective relationship with the Department of Defence now for many, many years. We operate within what is referred to as the high-frequency and phased array radar priority industry capability, and as such we deliver critically important capability – capability that is world leading in terms of its capability and cost. Notwithstanding CEA’s

50 Stocker, *Committee Hansard*, 31 October 2014, p.29.

51 Hudson, *Committee Hansard*, 31 October 2014, p.35.

52 Defence Teaming Centre, *Submission 6*, p.3.

53 BAE Systems, *Submission 3*, p.4.

significant investment, ministerial and departmental support has been critical to our development and our success.⁵⁴

5.57 Mr Davis added:

DMO and Navy support throughout that program and in subsequent activities, including ship visits to allied countries, facilitating allied naval personnel visits during capability demonstrations, providing personnel support to demonstrations in the US and elsewhere, and supporting capability in technical interchanges with allies, has enabled our capabilities to be showcased.⁵⁵

5.58 In contrast, the Export Council of Australia's submission noted the 'lack of high-level Government support' for defence exports and suggested 'a greater commitment by ministerial and diplomatic representatives'.⁵⁶

5.59 ASPI's submission stated:

This lacklustre performance starts at the political level, where ministers tend to avoid any systematic involvement in export promotion work. Why that should be the case is a puzzle, because Australia has a good story to tell about its defence industry.⁵⁷

5.60 ASPI recommended that the Minister Assisting the Minister for Defence should have 'particular responsibility for defence export promotion.'⁵⁸

5.61 During the inquiry, the Committee was advised that sponsorship and advocacy efforts are greatly enhanced when product performance can be demonstrated through past sales to the Australian Defence Force.

Importance of selling to the ADF

5.62 A number of submissions and witnesses argued that for prospective defence exporters, establishing business reputation and credibility often begins with having a successful record of interaction with the Australian Defence Force. The Committee was informed that for international customers, this factor is regarded as an assurance of product performance.

5.63 Dr Rowan Gilmore (CEO, EM Solutions Pty Ltd) stated:

54 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.1.

55 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.1.

56 Export Council of Australia, *Submission 27*, p.3.

57 ASPI, *Submission 20*, p.3.

58 ASPI, *Submission 20*, p.3.

If there is a silver bullet, it is surely that if the local Department of Defence shows enthusiasm for that product or service, demonstrably through its own procurement, then the path to exports is immeasurably simpler.⁵⁹

5.64 Mrs Sue Smith (Executive Officer, Australian Industry and Defence Network Inc) said:

Without the credibility of supplying the ADF, it is extremely difficult to convince offshore purchasers that they should be using your product, even if it is state of the art, innovative and leading edge.⁶⁰

5.65 Mr Chris Burns (CEO, Defence Teaming Centre) said:

The first question a foreign company asks an Australian defence industry company when it is considering importing their products is: does your Defence Force use your products? If the answer is no, a very, very short conversation follows. In order to be considered to export, a nation's defence industry must have global credibility. It is difficult to generate that credibility when the government does not support that industry.⁶¹

5.66 Mr David Shiner (Vice President International Sales, Austal) said:

For us one of the major benefits, or a point that is of interest to all our offshore clients, is the fact that our current domestic defence customers are using that particular product.⁶²

5.67 He said that a recommendation from an existing end-user, such as the Australian Navy, is a 'highly sought recommendation.'⁶³

5.68 Mr Mike Lovell (Director, Operations and Integration, Northrop Grumman Australia) said that the 'pre-condition to exporting something is that it has to be in service with the ADF.'⁶⁴ He said:

The ADF, while it is small, is seen as a smart buyer. It does not buy dud technology and does remarkably good things with that technology. So we think that a key thing, if you want us to be able to export, is to buy Australian defence innovations.⁶⁵

5.69 Northrop Grumman's submission stated:

59 Gilmore, *Committee Hansard*, 17 October 2014, p.35.

60 Smith, *Committee Hansard*, 31 October 2014, p.39.

61 Burns and Taylor, *Committee Hansard*, 9 October 2014, p.13.

62 Shiner, *Committee Hansard*, 13 February 2015, p.28.

63 Shiner, *Committee Hansard*, 13 February 2015, p.28.

64 Lovell, *Committee Hansard*, 13 February 2015, p.40.

65 Lovell, *Committee Hansard*, 13 February 2015, pp.41-42.

Australia is unlikely to improve its defence industry export position without the development and sustainment of a strong a growing local industrial base (both from Primes and SMEs) achieved largely through participation in domestic defence acquisition and sustainment programs.⁶⁶

- 5.70 Mr Brendhan Egan (Director General, Business Services and Reform, Department of Defence) was asked why Defence may or may not endorse an Australian product. He said:

In some cases it is because the particular application does not fit what we are looking for. There are examples I have seen where there is something that is perfectly good, but we may have a different capability need to that particular product. It does not mean that we do not think it is good.⁶⁷

- 5.71 The Committee subsequently sought Defence's views on the specific proposition that exporting is difficult unless a company has previously sold products to the ADF. Defence advised:

Anecdotal evidence from industry suggests that it can sometimes be more difficult for Australian defence manufacturers to sell into export markets without first selling to the ADF. Procurement decisions are made foremost on the basis of supporting the capability needs of Defence and delivering value for money, whilst at the same time seeking to maximise opportunities for Australian industry.⁶⁸

- 5.72 The Committee has considered a range of viewpoints of Government support for the defence industry in relation to comparable countries and numerous the barriers growing defence exports. The Committee's views and recommendations below are applicable to chapters three, four and five.

Committee comment

- 5.73 Gaining access to defence export markets is particularly challenging given levels of competition and the efforts of some foreign governments to protect and subsidise their local industries. Nonetheless, in this context, Australian Government support or endorsement could overcome the challenges of the global market and lead to successful export relationships.

66 Northrop Grumman, *Submission 28*, p.6.

67 Birrer et al, *Committee Hansard*, 24 March 2015, p.10.

68 Department of Defence, *Response to Questions on Notice* (Question No. 19).

- 5.74 Australia's policy framework for defence exports should be categorised into core and secondary areas of export focus, depending on the relationship with fundamental inputs to capability:
- Core export focus would apply to elements of industry output recognised as a fundamental input to capability, where defence exports can help sustain or spread production costs. In this case, Government should provide direct assistance. Research and development support (for instance, from models based on the Defence Material and Technology Centre and Defence Science and Technology Group) should align with this objective.
 - Secondary export focus would apply to those elements of industry output not recognised as a fundamental input to capability. Defence should assist where this is practicable, along with other agencies such as EFIC and Austrade.
- 5.75 The Committee welcomes the benefits derived from the Global Supply Chain program described in Chapter 3. Nevertheless, involvement in projects that generate work by building to print should be distinguished from projects that generate intellectual property within Australia. For reasons previously explained in this report, development of intellectual property is the foundation upon which exports may eventually follow. Support for individual exports – market advice, contractual guarantees and finance – may then be applied. The ability of SMEs to do business with Defence needs to be enhanced, particularly given the intention to recognise industry as a fundamental input to capability in the 2015 Defence White Paper.
- 5.76 Assessing the support available to defence exports in other countries revealed some points of interest and distinction, when compared with Australian practices.
- 5.77 Australia is not alone in having its industry policy based on competitiveness and innovation, although some countries appear to give greater weight to sovereign interests. The UK has recognised their defence industry as a strategic asset and its policies indicate a preparedness to retain sovereign control over key capabilities. Canada implements its policy positions through rigorous independent oversight of procurement and to a greater extent than occurs in Australia. The US has traditionally applied protectionist measures, although this position may gradually be relaxed.
- 5.78 Additionally, other countries appear to have ensured there is separation and independence between government entities responsible for defence export regulation and defence export promotion. In Australia, regulatory and promotion functions are largely carried out by the Department of

Defence. The Committee is satisfied that defence exports promotion and defence exports regulation can remain within Defence, provided the two functions remain separate.

- 5.79 The Committee was impressed with the UK and Canadian approaches and believes that Australia could emulate relevant aspects:
- Canada's Export Strategy for Defence Procurement; and
 - The UK's approach to complex weapons procurement;
 - The UK's promotion activities and their use of military personnel at trade shows and events.
- 5.80 In general, Australian Government support for defence exporters was described as having fallen behind our competitors. Witnesses and submissions viewed other countries as being more active, particularly by harnessing their government ministers, senior defence officials and defence attachés as interlocutors for exports promotion. One option to achieve these standards would be to enhance the role of the Australian Military Sales Office to include implementing a future defence exports strategy.
- 5.81 Greater support is needed for the promotion of Australian defence exports in three ways:
- The presence of suitable ADF personnel at trade shows alongside the defence industry with Australian products. These personnel should be appropriately briefed before the event and understand the relevance of their role;
 - Use of defence attachés at diplomatic posts to initiate discussions with foreign governments and, where appropriate, promote Australian products. Defence attachés' training and preparation should include mandatory familiarisation, and understanding of, the Australian defence industry; and
 - Ministerial advocacy on behalf of defence exporters and ministerial assistance with government-to-government sales agreements.
- 5.82 The Committee does not envisage having ADF personnel or defence attachés assigned to roles that are solely related sales or exports promotion. Nevertheless, Defence attachés should give advice to industry on export opportunities and initiate discussions with governments regarding potential sales from Australia. In addition, defence attachés should provide information and feedback on performance to Australian industry via the Australian Military Sales Office.
- 5.83 Lastly, the Committee agrees that the credibility and sustainability of the domestic defence industry is impaired and long-term ADF capability placed at potential risk when Defence decides not to use domestic

suppliers for FIC-related acquisition. Recognition of the defence industry as a fundamental input to capability, however, ought to place more emphasis on ensuring industry impacts are considered when Defence makes decisions on acquisition and sustainment options.

Recommendations

Recommendation 12

The Committee recommends that defence export assistance efforts be prioritised based on a distinction between areas of core and secondary export focus:

- Core export focus would apply to elements of industry output recognised as a fundamental input to capability (FIC), where defence exports can help sustain or spread production costs. This support should extend to funding for research and development that supports exports that will have an impact on the associated FIC; and
- Secondary export focus would apply to those elements of industry output not recognised as a FIC. In such cases, Defence and other related agencies should provide assistance where practicable.

Recommendation 13

The Committee recommends that the Australian Government develop a defence exports strategy and the Department of Defence expand the role of the Australian Military Sales Office to include implementing the objectives of this strategy, based upon the defence industry as a fundamental input to capability.

Recommendation 14

The Committee recommends that the Department of Defence task appropriate Australian Defence Force personnel to assist at trade shows or exhibitions, alongside defence industry participants, to inform and advise foreign customers of the Australian Defence Force's experience using the displayed products.

Recommendation 15

The Committee recommends that the Department of Defence revise the roles of defence attachés to include:

- Gathering information relevant to defence export opportunities on behalf of the Australian defence industry;
- Relaying this information to industry, along with other advice on export opportunities and constructive feedback on Australian defence industry performance, via the Australian Military Sales Office;
- Initiating discussions with foreign governments regarding potential military sales from Australia; and
- Where appropriate, the promotion of Australian products.

Further, pre-deployment training for defence attachés should include mandatory familiarisation with, and understanding of, the Australian defence industry.

Recommendation 16

The Committee recommends that relevant Government Ministers fulfil a prominent advocacy role on behalf of the Australian defence industry, in particular the Minister for Defence Materiel and Science.

Operations of the Defence Export Control Office

Introduction

- 6.1 From the perspective of the Australian defence industry, the prompt approval of export applications is essential to meet contractual obligations and to maintain business reputation among customers.
- 6.2 The Defence Export Control Office (DECO) is responsible for approving applications to export defence materiel and technology from Australia.
- 6.3 Australian laws itemise materiel and technology subject to export controls. Upon receiving an application, DECO assesses the proposed export against these laws and the Australian Government's defence export policy. These controls apply to materiel and technology with both civil and military uses and anyone seeking to export them.
- 6.4 During the inquiry, comments in submissions and at public hearings pertaining to DECO's performance were largely favourable. There were some suggested improvements, which are discussed later in this chapter; however, DECO's overall performance was praised.
- 6.5 ASC Pty Ltd submitted that DECO provides 'invaluable direct assistance to industry in matters relating to defence technologies.'¹ Boeing submitted that overall, in the year prior to July 2014, 'DECO operations have improved significantly'.² The University of Queensland's submission stated that DECO officers are 'professional and consultative' and 'all

1 ASC Pty Ltd, *Submission 11*, p.1.

2 Boeing, *Submission 23*, p.2.

University permit applications have been dealt with promptly'.³ Hawker Pacific Pty Ltd described its interactions with DECO as being 'productive and efficient'.⁴ Mr John O'Callaghan (Director, Defence and Government Relations, Australian Industry Group) said its performance had been 'outstanding'.⁵ ASPI's submission characterised their processes as 'necessary and appropriate, though refinements to processes are possible and desirable.'⁶

- 6.6 Other general observations relating to DECO were positive. Thales Australia submitted:

In Thales' experience DECO is performing well in straight forward applications to non-sensitive destinations. ... The ongoing role and continuous improvement process in DECO is recognised and welcomed.⁷

- 6.7 Mr Aaron Thompson (Business Unit Manager, Global Supply Chain, Ferra Engineering) said:

These days we have a good relationship with DECO. It is a very streamlined process. ... We can get licensing turned around within two to four weeks. So our experience with DECO is quite positive.⁸

- 6.8 Mr Michael Halloran (Managing Director, Supacat Pty Ltd) said:

We have worked with DECO to obtain licences for a number of countries in the region to go and market products, and that has been a reasonably simple and straightforward process. We had no complaints there.⁹

- 6.9 He added:

But broadly speaking, having dealt for the last 15-20 years with the American ITAR [International Traffic in Arms Regulations] system, and with the British, German and French, I find the Australian processes reasonably sensible and reasonably straightforward by comparison.¹⁰

- 6.10 Information provided by Defence shows that DECO is processing most export applications within their target time of 15 working days, which demonstrates the basis for the positive views expressed above.
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3 University of Queensland, *Submission 25*, p.1.

4 Hawker Pacific Pty Ltd, *Submission 33*, p.2.

5 Dunk and O'Callaghan, *Committee Hansard*, 13 February 2015, p.8.

6 ASPI, *Submission 20*, p.2.

7 Thales Australia, *Submission 19*, p.9.

8 Gaka, Hill and Thompson, *Committee Hansard*, 17 October 2014, p.44.

9 Halloran, *Committee Hansard*, 31 October 2014, p.13.

10 Halloran, *Committee Hansard*, 31 October 2014, p.13.

- 6.11 Unfortunately, Defence was unable to provide the Committee with DECO's budgetary and expenditure information, which would have allowed a more complete view of performance.¹¹
- 6.12 The Senate Foreign Affairs, Defence and Trade Legislation Committee has been inquiring into the *Defence Trade Controls Act 2012*. As the provisions of the Act enter into force in stages, the Senate Committee has been undertaking periodic inquiries into the implementation of the Act and has made three progress reports to date.¹² This report will not seek to duplicate the recommendations or functions of the Senate Committee.

Role and operation of the Defence Export Control Office

- 6.13 The Department of Defence's Defence Export Control Office is responsible for the processing of applications and issuance of licences, on behalf of the Defence Minister, for the export of regulated materiel and technology. In the context of this inquiry, defence exporters rely upon the timely and efficient operation of DECO to ensure statutory licencing requirements are met and that contractual obligations to customers and clients are fulfilled. According to the Department of Defence's submission, the primary role of DECO is to regulate 'the export of defence and dual-use goods as part of Australia's system of export controls.'¹³
- 6.14 Defence's submission stated:
- Recognising the time-sensitive nature of export opportunities, DECO works to assess export applications as quickly as possible, and offers 'in principle' assessments so that exporters can determine for marketing purposes whether the future export of a particular product to a particular destination would be likely to receive export approval.¹⁴
- 6.15 Australian companies seeking to export defence materiel or technology are required to lodge an application to DECO, which assesses the application in accordance with relevant legislation.
- 6.16 DECO may consult external agencies, such as DFAT, which has responsibility for managing exports subject to *ad hoc* sanctions regimes.

11 Department of Defence, *Response to Questions on Notice* (Question No. 27).

12 Senate Foreign Affairs, Defence and Trade Legislation Committee, 'Implementation of the *Defence Trade Controls Act 2012*: Progress Report No.1' (June 2013); Progress Report No.2 (May 2014); and Progress Report No.3 (May 2015).

13 Department of Defence, *Submission 41*, p.11.

14 Department of Defence, *Submission 41*, p.12.

6.17 DECO is located in the Strategic Policy Division of the Department of Defence.¹⁵ According to its website, DECO is led by an assistant secretary and its functions are divided into four areas:

■ **Risk analysis:**

If items are not controlled by the Defence and Strategic Goods List, DECO's Risk Analysis team then proceeds to assess whether they are controlled by catch-all legislation that allows the Minister to prohibit two sorts of exports:

- Items that could contribute to a weapons of mass destruction program;
- Or items that could be for a military end-use that could prejudice Australia's defence, security or international relations.

■ **DECO Operations:**

DECO Operations is responsible for assessing controlled defence and strategic goods for export. To achieve this outcome, DECO Operations administers the Standing Interdepartmental Committee for Defence Exports and works with international partners to ensure compliance with Australia's international export regime obligations.

■ **Information technology and technology assurance:**

DECO Technical Assessors are the gateway to DECO's regulation of controlled exports by providing technical advice to Defence, external government agencies and industry stakeholders on the applicability of Australian export controls to specific export transactions. The IT [information technology] team engages with various service providers to manage our online licensing system.

■ **Strategic engagement and outreach:**

Stakeholder Engagement and Outreach is available to assist exporters to understand their obligations and the export controls process by:

- Fostering dialogue and understanding about the exportability of controlled goods and technologies;
- Raise awareness about illicit methods used to obtain controlled goods; and
- Ways exporters can report suspicious incidents and approaches.¹⁶

15 Department of Defence, 'Strategy Executive', at <<http://www.defence.gov.au/SE/>> (viewed 26 August 2015).

16 DECO 'Our People', at <<http://www.defence.gov.au/DECO/People.asp>> (viewed 26 August 2015).

- 6.18 According to the 'Branch Plan 2013-2015' on its website, DECO aims to fulfil five deliverables:
- Deliver expert advice;
 - Enable responsible exports;
 - Enhance communication and collaboration;
 - Maintain a capable, agile and sustainable workforce; and
 - Improve business practices.¹⁷
- 6.19 Defence's submission described DECO's current resource levels as being 'limited'.¹⁸ The Committee sought from the Department of Defence details of DECO's budget, expenditure and the estimated cost per export application processed. Defence advised that both DECO's budget and the 'unit cost' per application processed are incalculable.¹⁹
- 6.20 From 2011 to 2015, DECO has had around 30 staff. Defence advised that as at May 2015, current staffing stands at 27.35 full-time equivalent staff.²⁰
- 6.21 DECO assesses all exports on a case-by-case basis, although assessment of export applications is based on five general criteria:
- International obligations:
 - ⇒ UN Security Council resolutions
 - ⇒ International agreements
 - Human rights:
 - ⇒ Risk of goods being used to facilitate serious human rights abuses
 - Regional security:
 - ⇒ Aggravation of a threat or situation that contributes to instability
 - ⇒ Use in internal or external conflicts
 - National security:
 - ⇒ Australian and allied interests
 - ⇒ Australian military capability being threatened by potential adversaries
 - Foreign policy
 - ⇒ WMD programs being developed by rogue states or terrorists
 - ⇒ Reactions of third countries and the impact on Australia's regional relations

17 DECO 'Defence Export Control Office Branch Plan 2013-2015', at <<http://www.defence.gov.au/DECO/Plan.asp>> (viewed 26 August 2015).

18 Department of Defence, *Submission 41*, p.13.

19 Department of Defence, *Response to Questions on Notice* (Question No. 27).

20 Department of Defence, *Response to Questions on Notice* (Question No. 27).

⇒ Diversion to mercenary, terrorist or criminal activities.²¹

6.22 Defence's submission provided an overview of DECO's assessment processes for defence exports, which is shown in the table 6.1 below.

Table 6.1 Defence Export Control Office assessment process

Phase	Assessment process	Procedural fairness measures
Application	The applicant lodges their application through the DECO portal. DECO acknowledges application and advises that target timeframes are 15 working days for standard cases, and 35 working days for complex cases.	When an application is lodged, DECO emails the client acknowledging receipt and advise indicative timeframes.
Technical Assessment	DECO's technical assessors determine whether the item is controlled by the Defence and Strategic Goods List (DSGL), or if it may be subject to the WMD Act 1995 or the military end-use (MEU) provision of the Customs Act 1901.	Technical assessors may contact the applicant for further technical details to inform their assessment.
Risk Assessment	DECO's risk assessors determine the risk of exporting the item against five export policy criteria. ²² Applications which need detailed assessment, or 'complex cases', are referred to seek input from relevant subject matter experts and policy areas.	DECO will keep applicant informed if target timeframes will not be met. DECO will notify the applicant if their case is complex. This notification will take the form of a letter that advises the applicant of non-classified aspects of the assessment. The letter will invite the applicant to provide additional information to support their case. DECO will provide the technical assessment as an attachment to the letter.
Executive Decision	The DECO team reviews all cases and provides approval for most cases. If there are concerns about an export, DECO will prepare advice for the Minister for Defence. Only the Minister for Defence can deny or prohibit an export.	Before DECO recommends to the Minister that an export should be denied or prohibited, DECO will advise the applicant and offer to discuss the case.
Finalisation	DECO will send the outcome of the decision to the applicant by email. If export approvals have conditions, applicants must comply with these and submit compliance reports as indicated.	If the Minister denies or prohibits an export, the applicant is provided with a written decision, including reasons, and advice on rights of review.

Source: Adapted from Department of Defence, *Submission 41, attachment*

6.23 The Committee sought information from the Department of Defence regarding the number of export applications received and permits issued.

6.24 Defence advised that applications are categorised according to:

- Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958*;
- The *Defence Trade Controls Act 2012*; or

21 Department of Defence, *Submission 41, attachment*

22 As noted, the five criteria are: international obligations, human rights, regional security, national security and foreign policy.

- Those subject to a general assessment relevant to the *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* and the Military End-Use provision at Section 112BA(1) of the *Customs Act 1901* (known as the MEU provision).²³

6.25 Defence advised that it could provide the Committee with figures from 29 April 2013 onwards, when DECO's online permit processing system commenced. Statistics prior to this date would have to be collated manually from paper records.²⁴

Table 6.2 Export applications related to Regulation 13E

Period	Applications received ²⁵	Permits issued ²⁶
1 July 2015 to 11 October 2015	1033	633
1 July 2014 to 30 June 2015	3864	2780
1 July 2013 to 30 June 2014	3859	2681
29 April 2013 to 30 June 2013	518	171

Source: Department of Defence Response to Questions on Notice (Question 28)

Table 6.3 Export applications related to the Defence Trade Controls Act

Period	Permits issued
1 July 2015 to 11 October 2015	55
1 July 2014 to 30 June 2015	18

Source: Department of Defence Response to Questions on Notice (Question 28)

Table 6.4 Export assessments related to WMD Act and MEU provisions

Period	Export control assessments ²⁷
1 July 2015 to 11 October 2015	146
1 July 2014 to 30 June 2015	549
1 July 2013 to 30 June 2014	511
29 April 2013 to 30 June 2013	49

Source: Department of Defence Response to Questions on Notice (Question 28)

23 Department of Defence, *Response to Questions on Notice* (Question No. 27).

24 Department of Defence, *Response to Questions on Notice* (Question No. 27).

25 Defence noted: 'The "Applications received" column are all Applications to Export Controlled Goods and Technology loaded on to the DECO system for processing, including those relating to goods not to be actually controlled for export. Dependent on the good or technology in questions, the application will be assessed under the relevant piece of legislation which DECO administers.'

26 Defence noted: 'The "Permits issued" column reflects only those permits issued under Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958*.'

27 Defence noted: 'Assessments issued to applicants on whether a particular good or technology is listed in the DSGI including 'catch-alls' under the WMD Act and MEU provision.'

6.26 According to DECO's website, the benchmark for assessing applications is as follows:

Other than in exceptional circumstances, the assessment time for routine applications is up to 15 working days (commencing from the date a complete application, with all supporting documentation, is received). For applications requiring referral to SIDCDE [Standing Interdepartmental Committee on Defence Exports], the assessment time is up to 35 working days. DECO will inform applicants of the referral.²⁸

6.27 Information provided by Defence shows that since 1 July 2014, over 90 per cent of applications are being processed within 15 working days, which represents an improvement since 2012.

Table 6.5 Percentage of export applications processed within 15 working days

Period	0-15 days	16-20	21-25	26-30	31-35	36+ days
1 July 2015 to 11 October 2015	94.28	2.47	1.78	0.79	0	0.69
1 July 2014 to 30 June 2015	92.71	3.52	0.86	0.54	0.42	1.95
1 July 2013 to 30 June 2014	81.86	8.82	3.42	1.82	0.84	3.24
29 April 2013 to 30 June 2013	68.28	17.54	10.82	3.36	0	0

Source: Department of Defence Response to Questions on Notice (Question No. 27)

6.28 Figures for the 2012 calendar year have been published separately, showing that there were 2,960 Regulation 13E export applications and 253 applications for WMD or MEU exports processed during that time. During 2012, 76 per cent of Regulations 13E applications were being completed between 15 to 20 working days and 4 per cent were longer than 35 working days. Among WMD Act and MEU applications, 86 per cent were being completed within 15 working days and 4% were taking longer than 35 working days.²⁹

6.29 The Committee was informed that since the introduction of a new online system for lodging applications, processing times had greatly improved.

6.30 Ms Susan Kerr (Export Controls Manager, ASC Pty Ltd) said that on average, in ASC's experience, standard applications would take two to

28 DECO 'Application Process', at <<http://www.defence.gov.au/deco/ApplicationProcess.asp>> (viewed 26 August 2015).

29 Government Response to the Senate Standing Committee on Foreign Affairs, Defence and Trade Legislation Committee Progress Report No. 1 into the Implementation of the Defence Trade Controls Act 2012, December 2013.

three weeks to process. In rare cases of a sensitive technology export, an application could take two months.³⁰ Notwithstanding, Ms Kerr said that the online system has expedited processing times:

Now it is an electronic submission; it happens in seconds. The time frame to approve has halved; that has been extraordinary and really welcome.³¹

- 6.31 Boeing's submission stated that since the introduction of the new system, 'licence processing times have been reduced significantly.'³² Saab Australia submitted that in general, DECO's responsiveness is commendable and the Office has displayed a 'willingness to work with Saab to facilitate assessments efficiently and effectively, and with regard to Saab's timelines.'³³ However, Saab noted that in future, performance would be dependent on DECO's available funding.³⁴
- 6.32 Sonartech Atlas submitted that the new online process has 'proven to be easy to follow and simple to complete.'³⁵ However, the submission added that the company had 'rarely' had its applications processed within benchmark timelines, which Sonartech Atlas attributed to 'almost all of our applications having to be referred to the SIDCDE.'³⁶
- 6.33 The Committee received one submission expressing concern that DECO would no longer accept applications by post nor issue forms in hard copy. The submission stated:
- DECO management has made some rather arrogant city-centric assumptions about the resources available to people needing to contact DECO.³⁷
- 6.34 However, this statement was exceptional when compared with views expressed in other submissions and at public hearings in relation to DECO's performance.
- 6.35 As the body approving defence exports, DECO's operations are affected by the export controls determined by relevant international organisations and the regulatory framework in Australia law.

30 Kerr, *Committee Hansard*, 9 October 2014, p.11.

31 Kerr, *Committee Hansard*, 9 October 2014, p.9.

32 Boeing, *Submission 23*, p.2.

33 Saab Australia Pty Ltd, *Submission 10*, pp.4-5.

34 Saab Australia Pty Ltd, *Submission 10*, p.5.

35 Sonartech Atlas, *Submission 26*, p.10.

36 Sonartech Atlas, *Submission 26*, p.11.

37 Sawday, *Submission 4*, p.4.

Regulation of defence exports

- 6.36 Australian law restricts the movement of materiel and technology that poses a risk to the proliferation of weapons of mass destruction (WMD) or conventional weapons in accordance with international export control regimes. Implementation of these controls is largely the responsibility of DECO.
- 6.37 The four key international export control regimes are the Wassenaar Arrangement (WA),³⁸ the Nuclear Suppliers Group (NSG),³⁹ the Australia Group (AG)⁴⁰ and the Missile Technology Control Regime (MTCR).⁴¹ The range of materiel and technology subject to common international controls is broad and covers the following categories and parameters:
- Systems or assemblies, facilities, equipment and components;
 - Test, inspection and production equipment;
 - Materials;
 - Software; and
 - Technology and any related technology.⁴²
- 6.38 International export control regimes are not treaties, but rather agreements formed among countries who voluntarily participate by standardising their laws and synchronising procedures for transfers of sensitive materiel and technology. The regimes are intended to prevent the horizontal proliferation of conventional weapons and WMDs, whilst allowing transfers of dual-use products in cases where the end use has a legitimate civilian or commercial purpose. Enforcement and implementation is the

38 The Wassenaar Arrangement is a non-binding international agreement that seeks to deny transfer of conventional arms and dual-use goods and technologies. See <<http://www.wassenaar.org/introduction/index.html>> (viewed 26 August 2015).

39 The NSG seeks to regulate the trade of nuclear technology that may be used to produce nuclear weapons or nuclear explosive devices, whilst permitting trade for peaceful purposes. See <<http://www.nuclearsuppliersgroup.org/en/guidelines>> (viewed 26 August 2015).

40 The AG's objective is to establish among its members 'licensing measures to ensure that exports of certain chemicals, biological agents, and dual-use chemical and biological manufacturing facilities and equipment' to prevent proliferation of chemical and biological weapons. See <<http://www.australiagroup.net/en/objectives.html>> (viewed 26 August 2015).

41 The MTCR aims to prevent the proliferation of 'missiles, complete rocket systems, unmanned air vehicles, and related technology for those systems capable of carrying a 500 kilogram payload at least 300 kilometres, as well as systems intended for the delivery of weapons of mass destruction (WMD)'. See <<http://www.mtcr.info/english/objectives.html>> (viewed 26 August 2015).

42 Refer to the MTCR 'Equipment, Software and Technology Annex'; Wassenaar Arrangement 'List of Dual-Use Goods and Technologies and Munitions List'; Nuclear Suppliers Group 'Guidelines for Nuclear Transfers'; Australia Group 'Common Control Lists'.

responsibility of individual member countries and is achieved by the enactment of national laws.

Australian export control law

6.39 In Australia, the central point of reference for regulating export of sensitive materiel and technology is the Defence and Strategic Goods List (DSGL). Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958* prohibits the export of goods within this list without a licence or written permission from the Minister for Defence.⁴³ The *Defence and Strategic Goods List* is itself a legislative instrument made under the *Customs Act 1901*. The DSGL is framed in complex technical and scientific language and is based upon the specifications and thresholds agreed by member countries of the aforementioned international export control regimes.

6.40 The Department of Foreign Affairs and Trade's (DFAT) submission stated:

The publicly available common control lists developed through the AG, as well as other regimes, provide the basis for Australia's Defence and Strategic Goods List managed by the Defence Export Control Office under the authority of the Minister for Defence.⁴⁴

6.41 Mr Christopher Birrer (Acting First Assistant Secretary, Strategic Policy Division, Department of Defence) said that Australia must 'keep in lock step with like-minded countries' on export control standards.⁴⁵ He said:

The Defence Export Control Office attends meetings of those export control regimes along with colleagues from the Department of Foreign Affairs and Trade. For those international regimes and international controls to work, whether it be the Wassenaar arrangement on military goods or the Australia Group, in terms of chemical and biological precursors, it does require countries to have a uniformed approach towards controls. That is an important part of Australia's non-proliferation agenda and efforts. In doing that, we also work with experts in the community on those particular technologies, because they do get very specific and very detailed in terms of what a controlled item is and what is not.⁴⁶

6.42 He continued:

At the end of the day, the controls are there in order to make sure that dangerous technologies do not get into the wrong hands, do

43 *Customs (Prohibited Exports) Regulations 1958* (Cth) r.13E(2).

44 DFAT, *Submission 34*, p.2.

45 Birrer and Bourke et al, *Committee Hansard*, 24 March 2015, p.8.

46 Birrer and Bourke et al, *Committee Hansard*, 24 March 2015, p.8.

not get into the hands of either states with weapons programs of concern or of terrorists and others, and so we do want people to be a lot more mindful of where their technologies might end up. When we sit down and speak to industry and academics, that point is understood. Nobody out there wants to be the source of a proliferation concern.⁴⁷

- 6.43 The *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* contains a general prohibition on the provision of goods or services that 'will or may be used in a WMD program' or 'will or may assist a WMD program'.⁴⁸ These terms are defined as:

A plan or program for the development, production, acquisition or stockpiling of nuclear, biological or chemical weapons or missiles capable of delivering such weapons.⁴⁹

- 6.44 The Act allows the responsible Minister to issue a written permit for exports, provided that:

The Minister is satisfied that the supply or export of the goods or the provision of the services in accordance with the application would not be contrary to Australia's international or treaty obligations or the national interest.⁵⁰

- 6.45 In anticipation that a person may attempt to export materiel or technology without a licence, the *Customs Act 1901* allows the Defence Minister to issue a notice against a person to prohibit them from exporting goods for uses 'that would prejudice the security, defence or international relations of Australia.'⁵¹ Enforcement and compliance at the border is the responsibility of the Australian Customs and Border Protection Service. In the event of a breach, Customs may respond through education, warnings, administrative sanctions or prosecution.⁵²

Restrictions on re-export of US technology

- 6.46 In order to gain access to US military technology, Australia has bilaterally agreed to conform to US International Traffic in Arms Regulations (ITAR).

47 Birrer and Bourke et al, *Committee Hansard*, 24 March 2015, p.9.

48 *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* (Cth) s.10 and s.11.

49 *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* (Cth) s.3.

50 *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* (Cth) s.13.

51 *Customs Act 1901* (Cth) s.112BA(1).

52 Department of Defence, *Submission 41*, p.13.

In exchange for access to US technology, Australia must not re-export US technology without approval.⁵³

- 6.47 The Australia-US Defence Cooperation Treaty, which entered into force in May 2013, allows for some defence exports to occur without requiring an export licence. Defence's website states:

The Treaty is intended to improve the efficiency of eligible two-way transfers between Australia and the US by facilitating the export of controlled goods within an Approved Community, without the need for an export licence. The implementing legislation, the *Defence Trade Controls Act 2012* (the Act), commenced on 6 June 2013.

...

The Approved Community comprises an Australian Community and a US Community. Both communities include government and non-government entities that have applied for and been approved as members of the Approved Community. Each community is managed by their respective Government.⁵⁴

- 6.48 Boeing recommended that the Australian Government consider aligning with US export control reform:

We would suggest that Government look into alignment with certain elements of the US Export Control Reform initiatives – in particular licensing exemptions... as well as for less sensitive military items recently removed from the United States Munitions List... Adaptation of a similar practice by Government for key Australian allies and strategic partners would significantly reduce administrative processing requirements in both industry and government.⁵⁵

Exports restricted due to temporary sanctions regimes

- 6.49 DFAT is responsible for administering temporary sanctions regimes, such as those agreed by resolution of the UN Security Council. These sanctions may extend beyond military exports, such as the requirement to freeze financial assets.

- 6.50 DFAT's submission outlined its role in export control:

53 DMO, 'US Technology Transfer: Presentation to Industry' [undated] at <http://www.defence.gov.au/strategy/deco/docs/ITAR_Industry.pdf> (viewed 26 August 2015).

54 Department of Defence, 'About the Treaty', at <<http://www.defence.gov.au/ustradetreaty/aboutthetreaty.asp>> (viewed 26 August 2015).

55 Boeing, *Submission 23*, p.2.

- Managing Australia's contribution to, and engagement in, the four main export control regimes;
 - Regulating sanctions compliance, both under UN Security Council resolutions and autonomous sanctions; [and]
 - Screening visa applications to assess direct or indirect links to WMD proliferation.⁵⁶
- 6.51 The UN Security Council has established numerous sanctions regimes, which include the following:
- Resolution 1540 (2004), preventing transfer of weapons of mass destruction and delivery systems to non-state actors;
 - Resolution 1718 (2006) imposed on North Korea; and
 - Resolution 1737 (2006) imposed on Iran.⁵⁷
- 6.52 Additionally, Australia has imposed autonomous sanctions against some countries, such as Russia, Syria and others listed on DFAT's website.⁵⁸ Administration of sanctions legislation and approval of exports in this context is subject to approval by the Foreign Minister or a delegate.⁵⁹
- 6.53 DFAT submitted:
- DFAT is committed to administering Australian sanctions laws diligently, but also in a way that enables trade, consistent with legislation, wherever possible. ... We aim to administer Australian sanctions laws in a way that is predictable and transparent, thereby simplifying compliance for Australian businesses, universities and individuals; and ensuring the integrity and reputation of Australian exports, including defence exports.⁶⁰
- 6.54 DFAT's submission stated that the department would 'work closely' with DECO to avoid duplication of effort where items are regulated under similar laws.⁶¹

Export pre-approval

- 6.55 Prior to signing contracts, Australian exporters can seek in-principle approval from DECO for the anticipated export, which is valid for a specified period of time. If this time expires, re-approval is then required.
-

56 DFAT, *Submission 34*, p.2.

57 UN Security Council, 'Subsidiary Organs', at <<http://www.un.org/en/sc/subsidiary/>> (viewed 26 August 2015).

58 DFAT, 'Australia and Sanctions' at <<http://dfat.gov.au/international-relations/security/sanctions/pages/about-sanctions.aspx>> (viewed 26 August 2015).

59 DFAT, 'Australia and Sanctions' at <<http://dfat.gov.au/international-relations/security/sanctions/pages/about-sanctions.aspx>> (viewed 26 August 2015).

60 DFAT, *Submission 34*, p.3.

61 DFAT, *Submission 34*, p.3.

6.56 Sonartech Atlas submitted that export permits should have a longer validity period.⁶² Mr Mark Baker (Managing Director, Sonartech Atlas) said the company has a contract to supply a submarine mission system to South Korea, which is due to be delivered beyond the 12-month period of in-principle export approval granted by DECO. He said that in the interim, 'we are working at our own risk' because the existing approval has lapsed.⁶³ He explained:

We were able to get the in-principle approval. That was okay. Then, we signed the contract and moved forward to get the actual licence or the export permit. Because it is only valid for 12 months we could not have one issued, because the first delivery of equipment, documentation or data was going to fall outside the 12 months. We are now operating in a period where we are in contract, working towards supplying a system that we do not have an export permit for.⁶⁴

6.57 Similarly, BAE Systems submitted:

The new online system appears to have improved the processing of marketing licences, however, a 12 month licence is far too short for the pursuit of defence exports. A more appropriate time period would be 36 months, with a simple "tick the box if you wish to renew" on the assumption that nothing has strategically changed.⁶⁵

6.58 Mrs Katrina Binotto (Contract Management Officer, Hawker Pacific Pty Ltd) said that on occasions, tenders and bids are made without approval and the company proceeds at its own risk.⁶⁶

6.59 Mr Michael Halloran (Managing Director, Supacat Pty Ltd) said:

I think I noticed that some of the other submissions mentioned the 12-month licence regime. Given that it is typically a 10-year process and a one-year license gets about the first three phone calls out of the way and we are back for another license, I think that is an obvious thing to fix. The licences can be withdrawn at any time in any case.⁶⁷

6.60 Austal's submission stated:

62 Sonartech Atlas, *Submission 26*, p.12.

63 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, p.16.

64 Baker, Schulte and Sedgman, *Committee Hansard*, 17 October 2014, p.16.

65 BAE Systems, *Submission 3*, p.5.

66 Binotto, *Committee Hansard*, 31 October 2014, p.23.

67 Halloran, *Committee Hansard*, 31 October 2014, p.13.

The role of DECO from an Austal perspective is to efficiently support the licensing and approval of defence exports. ... It would be useful for DECO to be able to provide better information regarding the likely timeline for approvals and the probability of a successful approval being realised. ... Australia needs to ensure that DECO remains an enabler to exports.⁶⁸

Approval of sensitive exports

- 6.61 In complex cases, DECO coordinates assessment of export applications with relevant experts from across Defence and other Government agencies. For this purpose, the Standing Interdepartmental Committee on Defence Exports (SIDCDE) has been established to review sensitive or complex cases where specialist information from global export control partners may be required.⁶⁹
- 6.62 Input to assessment may be sourced from:
- Department of Foreign Affairs and Trade;
 - Intelligence and security organisations;
 - Navy, Army and Air Force and the Capability Development Group; (following release of the First Principles Review in April 2015, the CDG's functions have been succeeded by the Capability Acquisition and Sustainment Group); and
 - Other Government departments on an as-needed basis.⁷⁰
- 6.63 As noted above, involvement of the SIDCDE may arise in complex cases. DECO's website describes its structure, role and functions as follows:
- SIDCDE's role is to advise the Defence Minister on sensitive exports;
 - When considering sensitive exports, SIDCDE takes into account the 'possible impacts on Australia's security, political, other trade interests, as well as the effects on global and regional stability as defined in Australia's Export Control Policy.'
 - SIDCDE is chaired by the Department of Defence and comprises representatives from the Department of Prime Minister and Cabinet, the Department of Foreign Affairs and Trade, Austrade, the Attorney-General's Department and the Australian Customs and Border Protection Service.⁷¹

68 Austal, *Submission 31*, p.13.

69 Department of Defence, *Submission 41*, p.12.

70 Department of Defence, *Submission 41*, pp.12-13.

71 DECO 'Standing Interdepartmental Committee on Defence Exports' at <<http://www.defence.gov.au/deco/SIDCDE.asp>> (viewed 26 August 2015).

- 6.64 The Australian Strategic Policy Institute submitted:
- While the majority of export approvals are relatively straightforward, complex cases potentially involve sensitive intelligence assessments; judgements about the legal basis of individual exports; securing inter-departmental consensus on the right approach; and strategic assessments about the impact on regional and ADF capabilities.⁷²
- 6.65 Thales Australia stated in its submission:
- Currently the consideration of sensitive applications can take up to 35 working days or longer, which may result in losing the momentum and the opportunity for export. A reduction in this waiting time would be of considerable benefit to companies developing export opportunities.⁷³
- 6.66 Saab Australia Pty Ltd submitted:
- Saab understands and accepts the need for controls over the export of certain technologies... Saab therefore accepts the need for:
- Good corporate citizens; and
 - For an effective Government/agency 'gatekeeper' in the form of DECO, to each play their part to prevent the proliferation of technologies that Saab deals with in order to protect Australia, its citizens and our way of life.⁷⁴
- 6.67 In its submission, Sonartech Atlas observed:
- This topic extends beyond the Defence Export Controls Office, because the issue of export control and more importantly the processing and assessment of applications is broader than that office.⁷⁵
- 6.68 The Australian Strategic Policy Institute submitted:
- While complex export approvals can take more time than industry likes, the implications of authorising inappropriate exports can be very serious.⁷⁶
- 6.69 Ms Susan Kerr (Export Controls Manager, ASC Pty Ltd) said that pre-approval 'can be difficult', depending on whether the technology is

72 ASPI, *Submission 20*, p.2.

73 Thales Australia, *Submission 19*, p.9.

74 Saab Australia Pty Ltd, *Submission 10*, p.1.

75 Sonartech Atlas, *Submission 26*, p.9.

76 ASPI, *Submission 20*, p.2.

sensitive.⁷⁷ She said re-application may be required for each new export of the same items, 'if it is quite sensitive technology.'⁷⁸

6.70 Mr William Taylor (Senior Strategy and Business Development Manager, QinetiQ Australia) said:

...countries that rely heavily on imported defence technology, such as Australia, are often subject to complex external regulations that can curtail export opportunities, especially where the role of domestic industry is often to add value to or provide services or componentry to complex systems manufactured or designed elsewhere. Such regulations usually proscribe destinations for controlled items and determine the security requirements for staff that can be engaged in those export programs.⁷⁹

6.71 He continued:

It is apparent that the arrangements surrounding defence exports are not like those for other goods, and we readily accept the need for additional oversight and proper consideration of the circumstances under which defence products or services are exported. But regulation, particularly surrounding intellectual property and controlled technology, can constrain access to the defence export market, and – noting the sensitivities associated with defence materiel – the global defence market is not necessarily an open market.⁸⁰

6.72 Sonartech Atlas submitted that there had been questions asked by customers regarding the classification status of information lodged via DECO's new online system. Sonartech Atlas observed that the process will need to be capable of handling and storing information at a level of classification commensurate with customer expectations.⁸¹

6.73 Obligations arising from International Trade in Arms Regulations impose additional considerations for exports involving US technology. Australia risks losing access to this technology if unauthorised exports occur and US companies have been fined for their involvement in breaches.⁸²

77 Kerr, *Committee Hansard*, 9 October 2014, p.9.

78 Kerr, *Committee Hansard*, 9 October 2014, p.10.

79 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.10.

80 Taylor and Watters, *Committee Hansard*, 13 February 2015, p.10.

81 Sonartech Atlas, *Submission 26*, p.10.

82 DMO, 'US Technology Transfer: Presentation to Industry' [undated] at <http://www.defence.gov.au/strategy/deco/docs/ITAR_Industry.pdf> (viewed 26 August 2015).

Areas of possible improvement or reform

- 6.74 During the inquiry, several issues relating to DECO's operations were brought to the Committee's attention. These related to the following themes:
- Administrative arrangements and the division of responsibilities among government agencies;
 - Communication from DECO regarding the status of export applications, timely updates on rule changes and avenues for reviewing decisions;
 - Complex regulations, in particular the challenge of understanding the requirements of the Defence and Strategic Goods List and related procedures; and
 - Changes to risk management policies, which might include reduced regulatory oversight of exports by trusted companies to low-risk destinations.

Administrative arrangements

- 6.75 Saab Australia's submission expressed concern that there are multiple government departments and agencies responsible for export control legislation.⁸³ Saab's submission stated:

Saab would prefer to see all controls over the movement of military and dual-use technologies arise under one Act (or a small set of Acts, sensibly divided in scope), with one agency/Government interface, providing a one-stop-shop and ensuring consistency and alignment regardless of the basis for controls.⁸⁴

- 6.76 Saab Australia summarised existing arrangements in its submission, as shown in the table 6.6 below.

83 Saab Australia Pty Ltd, *Submission 10*, p.2.

84 Saab Australia Pty Ltd, *Submission 10*, p.4.

Table 6.6 Overview of Australian Government export control legislative responsibilities

Department/agency	Legislation	Operation
Customs	Customs Act	Assessing, issuing and enforcing import permits
Customs	Customs Act	Enforcing export permits
Defence (DECO)	Customs Act	Assessing and issuing export permits
Defence (DECO)	Weapons of Mass Destruction (WMD) Act	Assessing and issuing export permits
Defence (DECO)	Defence Trade Controls Act	Assessing and issuing supply (intangibles) and brokering permits
DFAT	Autonomous Sanctions Act	Enforcing autonomous sanctions

Source: Saab Australia Pty Ltd, *Submission 10*, p.3

6.77 Mr Andrew Guilinn (Contracts Manager and Export Control Director, Saab Australia Pty Ltd) said:

We have the sanctions that come through DFAT. We have import controls under Customs. We have the existing Customs controls over tangible exports. We have the new intangible controls coming through the DTC Act. And we have the Weapons of Mass Destruction Act. That causes some difficulty for us... I can only imagine what that means for those who are not as involved and as understanding of all this as we are.⁸⁵

6.78 The Export Council of Australia submitted that there is 'scope to improve communication and coordination' between DECO, DFAT and Customs.⁸⁶

6.79 Austrade (a member of the Strategic Trade Controls working group) confirmed that 'DECO has developed practical mechanisms for Whole of Government framing of Australia's export controls system.'⁸⁷

Communication regarding status of applications

6.80 ASC Pty Ltd's submission stated that to determine the progress of a permit application lodged online, 'industry must contact DECO via phone or email' and wait up to two working weeks to receive a reply.⁸⁸

6.81 Saab's submission stated that a combination of an online portal and direct email contact with DECO is used to progress applications and lodge questions. According to Saab, there are 'difficulties of having to tie

85 Giulinn, Ogden and Rosenfield, *Committee Hansard*, 10 October 2014, p.2.

86 Export Council of Australia, *Submission 27*, p.3.

87 Austrade, *Submission 30*, p.2.

88 ASC Pty Ltd, *Submission 11*, p.2.

- together information and status across a number of emails... and the status of applications is not clear to Saab unless contact is made'.⁸⁹
- 6.82 Boeing submitted that DECO should introduce an 'expected response time' policy for email requests relating to the 'clarification of and/or reconsideration of license terms and conditions.'⁹⁰
- 6.83 ASPI's submission proposed that DECO establish a contact group with industry, so DECO can 'assess the performance of export control processes.' Industry, through its involvement, would benefit from 'closer engagement about DECO processes.'⁹¹
- 6.84 Mr David Shiner (Vice President, International Sales, Austal) said that receiving feedback from DECO was important, particularly regarding delays. He said:
- In the event that there are going to be delays, Austal would clearly want to understand that sooner rather than later. That is often not the case with the licence applications with DECO. More often than not, you are driven by time frames you have very little control of, so it is just a frustration. To be able to have more currency in communication around the status of applications would be beneficial.⁹²
- 6.85 ASC Pty Ltd's submitted that DECO's industry outreach, 'including export control conferences and free e-learning training modules' have been valuable.⁹³
- 6.86 Nevertheless, ASC Pty Ltd suggested there could be 'detailed online guidance on recent Australian and US export control reforms'. The submission stated:
- With few exceptions, current guidance comprises high-level summaries. ASC sees an opportunity for DECO to work closely with industry to develop detailed best practice guidelines for the implementation of Australian and US export controls regulations, thereby optimising industry compliance...⁹⁴
- 6.87 ASC proposed that DECO could introduce a subscription service to keep industry updated of procedural changes, stating that in the past, there had been a 'lack of notification' that 'resulted in goods being detained by Customs'. The submission stated:
-

89 Saab Australia Pty Ltd, *Submission 10*, p.4.

90 Boeing, *Submission 23*, p.2.

91 ASPI, *Submission 20*, p.3.

92 Shiner, *Committee Hansard*, 13 February 2015, p.31.

93 ASC Pty Ltd, *Submission 11*, p.1.

94 ASC Pty Ltd, *Submission 11*, p.2.

For example, recently the General Export Permit category was removed without notifying industry and without providing details of the change on agency websites.⁹⁵

- 6.88 Defence's submission stated that DECO conducts workshops in capital cities to educate and assist exporters. In addition, DECO had 'recently modernised its website to make it more user-friendly in response to stakeholder feedback.'⁹⁶ Defence's submission stated:

DECO is placing particular emphasis on travelling to meet with companies that are particularly affected by aspects of the export controls, to work through the specific issues relevant to their circumstances, and to see what can be done to address these issues.⁹⁷

- 6.89 Sonartech Atlas submitted that more information about the basis of DECO decisions would assist exporters, which could avoid 'wasted efforts' on applications unlikely to be successful. The submission added that explanations could be provided via classified briefings.⁹⁸

- 6.90 Sonartech Atlas submitted:

Under the current arrangements, when an export permit is denied, it is not possible to obtain advice on the actual grounds/reasons for denial. Or at least it has not been possible for us to obtain definitive advice regarding the grounds for refusal.⁹⁹

- 6.91 The submission added that there is 'no mechanism' for reviewing a decision.¹⁰⁰ The Committee sought advice from Defence on available review mechanisms when export applications are unsuccessful, which confirmed that review is possible:

DECO provides applicants with the right to review a decision and provides procedural fairness to the applicant at a number of points throughout the application process.¹⁰¹

- 6.92 In addition:

DECO will notify an applicant if an application has been denied and provide reasons for the decision and advice on their review rights. Applicants are entitled to seek review of a decision made under regulation 13E of the *Customs (Prohibited Exports) Regulations*

95 ASC Pty Ltd, *Submission 11*, p.2.

96 Department of Defence, *Submission 41*, p.14.

97 Department of Defence, *Submission 41*, p.15.

98 Sonartech Atlas, *Submission 26*, p.9.

99 Sonartech Atlas, *Submission 26*, p.11.

100 Sonartech Atlas, *Submission 26*, p.12.

101 Department of Defence, *Response to Questions on Notice* (Question No. 27).

1958 or the *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995* under the *Administrative Decisions (Judicial Review) Act 1977*; however, where a matter falls outside the scope of the ADJR Act there may grounds for an applicant to seek relief under section 39B of the *Judiciary Act 1903* (Cth).¹⁰²

6.93 In any event, only very few export applications are denied or subject to prohibition, as indicated in table 6.7 below. The usual reason for an application not to proceed is that it is withdrawn by the exporter.

Table 6.7 Number of export applications received and rejected or denied

Period	Withdrawn by exporter	Denial of an actual or 'in principle' export by the Minister for Defence	Prohibition notices (WMD Act and/or MEU provision)
1 July 2015 to 11 October 2015	57	0	0
1 July 2014 to 30 June 2015	234	3	1
1 July 2013 to 30 June 2014	166	2	3
29 April 2013 to 30 June 2013	19	0	0

Source: Department of Defence Response to Questions on Notice (Question No. 28).

Complex regulations

6.94 During the inquiry, evidence given indicated that some exporters have found contemporary export control laws to be excessively complex.

6.95 Regulation 13E of the *Customs (Prohibited Exports) Regulations 1958* prohibits the export of goods prescribed on the Defence and Strategic Goods List (DSGL) without a licence or written permission from the Minister for Defence.¹⁰³ Most export applications received by DECO are subject to Regulation 13E. The current version of the *Defence and Strategic Goods List* (as at 9 April 2015) is 431 pages in length.¹⁰⁴

6.96 The following is a sample item from among the 'dual-use' materials, chemicals, toxins and micro-organisms category of the DSGL:

1C117: Materials for the fabrication of 'missile' components as follows:

102 Department of Defence, *Response to Questions on Notice* (Question No. 27).

103 *Customs (Prohibited Exports) Regulations 1958* (Cth) r.13E.

104 *Defence and Strategic Goods List* (Compilation No.6), 9 April 2015.

- Tungsten and alloys in particulate form with a tungsten content of 97% by weight or more and a particle size of 50×10^{-6} m ($50\mu\text{m}$) or less;
- Molybdenum and alloys in particulate form with a molybdenum content of 97% by weight or more and a particle size of 50×10^{-6} m ($50\mu\text{m}$) or less;
- Tungsten materials in solid form having all of the following:
 - ⇒ Any of the following material compositions:
 - ⇒ Tungsten and alloys containing 97% by weight or more of tungsten;
 - ⇒ Copper infiltrated tungsten containing 80% by weight or more of tungsten; or
 - ⇒ Silver infiltrated tungsten containing 80% by weight or more of tungsten; and
 - ⇒ Able to be machined to any of the following products:
 - ⇒ Cylinders having a diameter of 120mm or greater and a length of 50mm or greater;
 - ⇒ Tubes having an inner diameter of 65mm or greater and a wall thickness of 25 mm or greater and a length of 50mm or greater; or
 - ⇒ Blocks having a size of 120mm by 120mm by 50mm or greater.

Technical Note:

In 1C117, 'missile' means complete rocket systems and unmanned aerial vehicle systems capable of a range exceeding 300 km.¹⁰⁵

6.97 DECO's website advises that goods, services or technology known to be controlled must be submitted for assessment prior to export. Further:

If you are unsure about the control status of your commodity you may request an assessment of your goods or services by submitting a completed Application to Export Controlled Goods and Technology form.¹⁰⁶

6.98 In addition, uncontrolled items may require an assessment to verify status:

For any exports of non-controlled goods, services or technologies, where there is a suspicion that the commodities may be used for a weapons of mass destruction (WMD) program, advice should be sought from DECO by submitting an Application to Export Controlled Goods and Technology Form. All applications for

¹⁰⁵ *Defence and Strategic Goods List (Compilation No.6)*, 9 April 2015, r.1C117.

¹⁰⁶ DECO, 'Application Process', at <http://www.defence.gov.au/DECO/ApplicationProcess.asp> (viewed 26 August 2015).

export are assessed with consideration to the DSGL, Customs Amendment (Military End-Use) Act, sanctions legislation, and the WMD Act. If your goods are not controlled you will receive a Outcome of Export Control Assessment letter to attach to your export documentation.¹⁰⁷

- 6.99 Consequently, Australian exporters are expected to be aware of the capabilities of their product, conscious of whether it could be used for a WMD program and educated about the details of highly prescriptive export control laws, such as the regulation from the *Defence and Strategic Goods List* shown above.
- 6.100 Ms Susan Kerr (Export Controls Manager, ASC Pty Ltd) noted the potential for defence exporters to interpret export control laws differently. She said:
- We have 30 or so reasonably sized defence companies in Australia and, if they are all going their own way, all interpreting the legislation their own way and implementing it in their own way, you will end up with a compliance regime that is not necessarily consistent or standardised.¹⁰⁸
- 6.101 She said the style and form of the DSGL could be improved:
- We could specifically say what parts on that list are controlled, as the ITAR now does – align ourselves with the US and EU practice. That would remove a lot of the lack of understanding of what really is controlled under the act and smooth out everybody’s processes in Customs, in DECO and across industry in general.¹⁰⁹
- 6.102 Lockheed Martin Australia’s submission stated that ‘the bureaucratic and regulatory environment for defence exports is considered onerous.’¹¹⁰
- 6.103 Similarly, the Tasmanian Government submitted that based on advice from industry, preparing documentation and answering questions ‘is considered onerous.’ Furthermore:
- Firms struggle with the wording and while intending to comply with the questions asked and being transparent, risk jeopardising a project and having products prohibited.¹¹¹
- 6.104 Hawker Pacific Pty Ltd submitted:

107 DECO, ‘Application Process’, at <http://www.defence.gov.au/DECO/ApplicationProcess.asp> (viewed 26 August 2015).

108 Kerr, *Committee Hansard*, 9 October 2014, p.10.

109 Kerr, *Committee Hansard*, 9 October 2014, p.12.

110 Lockheed Martin Australia, *Submission 39*, p.2.

111 Tasmanian Government, *Submission 29*, p.3.

A significant barrier to the growth of our Defence exports is the complexity of the legislative requirements of export controls, and the risks and penalties associated with inadvertant breaches.¹¹²

- 6.105 The Northern Territory Government's submission stated that businesses face a 'Pandora's box' to understand the requirements of export control laws, intellectual property and the International Traffic in Arms Regulations.¹¹³
- 6.106 For ease of reference, a 'DSGL Quick Reference Guide' on DECO's website describes the types of items subject to regulation in plain language. For illustrative purposes, some examples are shown below:
- Bombs, torpedoes, rockets, missiles, other explosive devices and charges, components and accessories;
 - Equipment for launching, deploying, decoying, disruption, detection and jamming;
 - Chemical or biological toxic agents, 'riot control agents', radioactive materials, related equipment, components, and materials;
 - Vessels of war, special naval equipment, accessories and components;
 - Aircraft, unmanned airborne vehicles, aero-engines and aircraft equipment, and related equipment and components;
 - Nuclear reactors, gas centrifuges, and equipment and materials especially designed for nuclear use;
 - Crucibles, valves, robots, vibration test systems, vacuum pumps, chemical processing, and handling equipment;
 - Microwave components, acoustic wave devices, high energy devices, switching devices, and detonators; and
 - Gyros, accelerometers, inertial navigation systems, and flight control systems.¹¹⁴
- 6.107 Notwithstanding this guidance, the Export Council of Australia's submission noted that 'the regulatory process can be particularly challenging to navigate' for inexperienced defence exporters.¹¹⁵
- 6.108 Hawker Pacific Pty Ltd's submission noted that advice can be required quickly. With access to self-assessment tools, this would 'allow industry

112 Hawker Pacific Pty Ltd, *Submission 33*, p.1.

113 Northern Territory Government, *Submission 5*, p.7.

114 DECO 'DSGL Quick Reference Guide' at <http://www.defence.gov.au/DECO/DSGLQRG.asp> (viewed 26 August 2015).

115 Export Council of Australia, *Submission 27*, p.3.

to access the specialised knowledge without over-burdening the DECO.’¹¹⁶ CEA Technologies made similar comments in its submission.¹¹⁷

6.109 At present, DECO’s website has a questionnaire and DSGL search function to assist exporters identify whether an export might be controlled. For example, searching for the term ‘gyro’ returns results highlighting the relevant provisions of the DSGL.¹¹⁸

6.110 Mr Christopher Birrer (Acting First Assistant Secretary, Strategic Policy Division, Department of Defence) said that a new online tool is being developed:

That would help companies to better understand how their technologies might fit in to the DSGL, and therefore be controlled; or might not, and therefore not be controlled. Just like how we have companies or researchers who are not sure whether or not their technologies are controlled, we also have instances where people believe that they might be controlled. But, once this tool comes online, it will show them that it is not. Often, people do have a false positive as well, in terms of believing that what they are working on is controlled when it is not. So it goes both ways.¹¹⁹

6.111 He added that there is ongoing dialogue with industry and academics, ‘in terms of practical advice on implementation.’¹²⁰ Defence’s submission noted that DECO works ‘closely with relevant peak bodies to expand engagement on export controls within defence and dual-use industries.’¹²¹

6.112 The Victorian Government submitted that ‘increased and targeted outreach’ by DECO would assist industries with ‘appreciation of DECO’s operational requirements.’¹²² Recent changes to the law could also be explained. The submission stated:

This is particularly relevant for dual-use technologies, where Victorian industries may be unaware of their business development activities entering the scope of the [DTC] Act. ... Increased Victorian industry awareness... will enable Victoria to identify legal and legitimate defence export opportunities that do not conflict with the terms set out in the new legislation.¹²³

116 Hawker Pacific Pty Ltd, *Submission 33*, p.1.

117 CEA Technologies, *Submission 38*, p.3.

118 See <<https://dsgl.defence.gov.au/pages/home.aspx>> (viewed 26 August 2015).

119 Birrer and Bourke et al, *Committee Hansard*, 24 March 2015, p.8.

120 Birrer and Bourke et al, *Committee Hansard*, 24 March 2015, p.8.

121 Department of Defence, *Submission 41*, p.14.

122 Victorian Government, *Submission 36*, p.14.

123 Victorian Government, *Submission 36*, pp.14-15.

- 6.113 In contrast, the NSW Government submitted that workshops facilitated by DECO have been 'especially valuable for businesses seeking to grow exports to the United States.'¹²⁴
- 6.114 CEA Technologies stated in its submission:
DECO has been effective in providing industry with forums to help industry navigate the current changes to defence export controls and defence trade cooperation with the US.¹²⁵
- 6.115 CEA Technologies added that 'face-to-face training' should remain part of DECO's interaction with industry.¹²⁶
- 6.116 Mr Robert Forbes (Commercial Director, CEA Technologies Pty Ltd) said that as the Australian industry's engineering expertise had increased, there had been a corresponding increase in complexity of technology and materiel being produced for export overseas:
Therefore, DECO has had to move itself from really just agreeing to most technologies being transferred, with their main concern being on the countries that they go to, to being actually concerned about the technologies that are exported, and the capability and the IP concerns. So it has had to expand, and is learning as it goes along.¹²⁷
- 6.117 Mr Christopher Birrer (Acting First Assistant Secretary, Strategic Policy Division, Department of Defence) said that the Strengthened Export Controls Steering Group, established in preparation of the *Defence Trade Controls Act 2012* entering into force, was comprised of specialists and has been working on 'a lot of details of implementation, with subject matter experts and with export control managers.'¹²⁸
- 6.118 An informal association of industry and government participants Export Control Forum has been formed to facilitate direct discussions on export control laws and policy, as well as making available advice and training.¹²⁹ Austrade's submission suggested this forum could serve as a point of coordination for defence exports support.¹³⁰

124 NSW Government, *Submission 42*, p.2.

125 CEA Technologies, *Submission 38*, p.3.

126 CEA Technologies, *Submission 38*, p.3.

127 Davis and Forbes, *Committee Hansard*, 28 October 2014, p.2.

128 Birrer and Bourke et al, *Committee Hansard*, 24 March 2015, p.8.

129 AI Group, 'Export Control Forum', at <<http://www.aigroup.com.au/industrysectors/defence/exportforum>> (viewed 26 August 2015).

130 Austrade, *Submission 30*, p.3.

Risk management

- 6.119 Advancements in new technology, military tactics and increased defence expenditure among Asian countries, whilst an opportunity for Australian businesses, presents a challenge for defence export regulators. Australian interests may be compromised in the event that defence materiel and technology were ever delivered into the wrong hands.
- 6.120 The Department of Foreign Affairs and Trade submitted:
- Australia maintains an excellent international reputation as a responsible arms exporter, based on our active engagement on counter-proliferation issues, strong adherence to international obligations, including UN Security Council sanctions and role in the four main export control regimes. Protecting this reputation is not only in the national interest, it opens up trade opportunities that may not otherwise be available.¹³¹
- 6.121 The Department of Defence's submission stated that Australia 'could adopt risk-based approaches... to provide a leaner and more effective export control system'.¹³²
- 6.122 In 1996, a report of Australian National Audit Office recommended that Defence, in conjunction with Customs, DFAT and the then-Department of Primary Industries and Energy, 'develop a risk management plan for managing risks associated with export controls for defence-related goods.' At the time, Defence agreed to this recommendation.¹³³
- 6.123 ANAO's report observed:
- No economically feasible export control system is likely to provide perfect assurance against any possible illegal exports of controlled items. Essentially, a cost-effective export control system manages the risks associated with unlawful exports of defence relevant goods, having regard to resource limitations. The risks should be identified, analysed, ranked and managed.¹³⁴
- 6.124 Saab Australia's submission supported the consideration of a risk-based approach as part of reforms to DECO, stating:
- DECO has been open to considering having low-risk technologies to low-risk destinations treated differently to other proposed exports, particularly where the exporter is known to DECO and

131 DFAT, *Submission 34*, p.1.

132 Department of Defence, *Submission 41*, p.13

133 Australian National Audit Office, 'Defence Export Facilitation and Controls', Audit Report No.26 of 1995-96, p.36.

134 Australian National Audit Office, 'Defence Export Facilitation and Controls', Audit Report No.26 of 1995-96, p.35.

where there is no evidence that the exporter is not able or willing to work within the export control rules.¹³⁵

- 6.125 Mr Andrew Hudson (Export Council of Australia) said that trusted exporters should have the benefit of faster export approvals. He said that Australian Trusted Trader,¹³⁶ currently under development, would provide a way to streamline export approvals:

...by virtue of being in the Trusted Trader Program, Customs' concerns about their compliance and cargo security issues are removed and therefore, even if they need to go to all these different agencies, it should be a much quicker process. Ideally at the end there should be one agency giving approvals.¹³⁷

- 6.126 Northrop Grumman stated in its submission that embracing new technologies including 'autonomous systems, unmanned vehicles stealth technologies and micro-satellites' could 'position the Australian defence industry for a greater share of defence exports.'¹³⁸ The submission noted that Asian defence spending, based on 2012 figures, exceeds the expenditure of NATO and non-NATO countries of Europe.¹³⁹ Northrop Grumman observed that whilst Australia is the world's eighth largest importer of defence systems and armaments, Australia 'remains behind on the scale of defence industry exports compared to comparable nations.'¹⁴⁰
- 6.127 Similarly, Supacat Pty Ltd's submission stated that Australia is 'underweight' in terms of defence exports and could provide services and products to ASEAN countries.¹⁴¹ Mrs Katrina Binotto (Contract Management Officer, Hawker Pacific Pty Ltd) noted in her evidence that the Asian market is expanding.¹⁴²
- 6.128 However, many countries in the Indo-Pacific region are not members of international export control regimes; specifically, the Missile Technology Control Regime, the Wassenaar Arrangement, the Australia Group or Nuclear Suppliers Group. China is a member of the NSG, though remains

135 Saab Australia Pty Ltd, *Submission 10*, p.2.

136 According to Department of Immigration and Border Protection's website, Australian Trusted Trader aims to 'streamline and facilitate trade and enhance supply chain security.' See <<https://www.border.gov.au/Busi/Trus>>.

137 Hudson, *Committee Hansard*, 31 October 2014, p.37.

138 Northrop Grumman, *Submission 28*, p.4.

139 Northrop Grumman, *Submission 28*, p.3.

140 Northrop Grumman, *Submission 28*, p.3.

141 Supacat Pty Ltd, *Submission 18*, p.3.

142 Binotto, *Committee Hansard*, 31 October 2014, p.24.

outside the other three export control regimes. South Korea and Japan are members of all four regimes.¹⁴³

6.129 Admission to these regimes is usually by consensus and may be subject to various considerations; however, membership criteria of the respective regimes require a prospective applicant to demonstrate a commitment to non-proliferation and have the ability to enforce an effective domestic export control system.¹⁴⁴

6.130 The 2013 Defence White Paper stated:

The Indo-Pacific region poses key challenges for Australia's export control efforts as it generates a large portion of dual-use goods (which have both a civil and military purpose), and contains key trade routes and transshipment hubs. Australia and regional neighbours will need to work together to implement and strengthen export control measures, uphold UN Security Council resolutions and support regional counter-proliferation efforts.¹⁴⁵

6.131 The 2010 Defence Industry Policy Statement observed:

The general effectiveness of international export control regimes and treaties in controlling the movement of controlled items has made it difficult for proliferators to acquire controlled items. Proliferators are therefore resorting to procuring non-controlled equivalents, which fall just below the technical parameters of the items listed on the DSGL, or using deceptive procurement methods.¹⁴⁶

6.132 And also noted that:

Regrettably... Australian goods and services have been exploited by proliferators for illicit purposes despite their sale having every appearance of being legitimate.¹⁴⁷

143 'MTCR Partners' at <<http://www.mtc.info/english/partners.html>>; 'Participating States' at <<http://www.wassenaar.org/participants/index.html>>; 'Participants' at <<http://www.nuclearsuppliersgroup.org/en/participants1>>; and 'Australia Group Participants' at <<http://www.australiagroup.net/en/participants.html>> (viewed 26 August 2015).

144 'MTCR Partners' at <<http://www.mtc.info/english/partners.html>>; 'How Does the Wassenaar Arrangement Work?' at <<http://www.wassenaar.org/introduction/howitworks.html>>; 'Participants' at <<http://www.nuclearsuppliersgroup.org/en/participants1>>; 'Australia Group Membership' at <<http://www.australiagroup.net/en/membership.html>> (viewed 26 August 2015).

145 Department of Defence, 'Defence White Paper 2013', May 2013, p.27.

146 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.60.

147 Department of Defence, 'Building Defence Capability: A Policy for a Smarter and More Agile Defence Industry Base', June 2010, p.60.

- 6.133 Thales Australia's submission observed that the defence export policies of certain countries can be explained by a desire to achieve self-reliance and progress technical knowledge, as part of either global aspirations or due to a direct threat to their sovereignty.¹⁴⁸ Other factors influencing policies of the largest defence export countries, according to Thales, were geo-political considerations, government policy and commercial interests.¹⁴⁹
- 6.134 Mr Andrew Giulinn (Contracts Manager and Export Control Director, Saab Australia Pty Ltd) said that NATO and EU countries have common arrangements, whereas Asia is a 'perfect example' of a region having 'their own rules.'¹⁵⁰ He said the Australian Government could:
- ...continue to try to talk to those governments about becoming part of the anti-proliferation regime, which is where a lot of the commonality comes in for the countries we deal with most in terms of our supply. ... Our region is the Asia-Pacific, so that is where the difficulties there lie.¹⁵¹
- 6.135 Mr Christopher Jenkins (CEO, Thales Australia and New Zealand) said that approving exports involves 'important strategic choices'.¹⁵² He said:
- I am not saying they [DECO] are doing a bad job. It is just that sometimes we put simple questions to them – you know, exporting Bushmasters to the Netherlands; well, why not? Exporting antisubmarine warfare sonars to Singapore; interesting question. It defines the strategic risk profile, white paper concerns – all of those things.¹⁵³
- 6.136 Mr Jenkins added:
- If Australia, DECO, were able to create a kind of a pre-planned approach to how exports could be successful in a country, or be blocked from going to that country, that would be a very helpful way of speeding that process.¹⁵⁴
- 6.137 ASPI suggested that Ministerial guidance could be provided to Defence, to minimise Ministerial referrals.¹⁵⁵ However:

148 Thales Australia, *Submission 19*, p.2.

149 Thales Australia, *Submission 19*, p.3.

150 Giulinn, Ogden and Rosenfield, *Committee Hansard*, 10 October 2014, p.2.

151 Giulinn, Ogden and Rosenfield, *Committee Hansard*, 10 October 2014, p.2.

152 Jenkins, *Committee Hansard*, 17 October 2014, p.22.

153 Jenkins, *Committee Hansard*, 17 October 2014, p.22.

154 Jenkins, *Committee Hansard*, 17 October 2014, p.22.

155 ASPI, *Submission 20*, p.2.

Ministers must be satisfied that the right delegations of authority are in place to allow speedy decision at appropriate levels in the Defence Department.¹⁵⁶

- 6.138 ASPI added that DECO could strengthen cooperation with the US, UK, Canada, New Zealand and Japan as a means of drawing upon international best practice in export control matters.¹⁵⁷
- 6.139 In addition, ASPI's submission recommended that internal Defence arrangements should ensure a separation between export control compliance and export facilitation, 'to make sure that neither legitimate objective compromises the other.'¹⁵⁸ The Swedish Government, for example, has created a separation between the roles of defence export promotion and defence export regulation.
- 6.140 A submission from the Swedish Minister for Defence explained that in Sweden, export promotion is the responsibility of the Ministry of Defence, whereas the agency responsible for the administration of export control regulations falls under the Minister for Trade's portfolio and is located within the Swedish Ministry for Foreign Affairs.¹⁵⁹
- 6.141 The Department of Defence's submission stated that risk management approaches are being considered to reduce regulatory burden. Options under consideration include:
- Streamlined, broader licences for lower-risk items going to lower-risk destinations;
 - Extending maximum licence duration from the current two years to five years, or the life of a project;
 - Enabling greater self-assessment by exporters as to the control-status of their items; and
 - Exempting Australian Government agencies, military, police, and contractors supporting Australian Government business from needing to obtain export licences.¹⁶⁰
- 6.142 Defence's submission explained its reasoning:
- The intent of these approaches is to focus DECO's limited resources on working with exporters that are exporting higher-risk items and to higher-risk destinations, to resolve their applications as quickly as possible. DECO must implement these changes in such a way that delivers genuine benefits for exporters, and continues to meet Australia's counter-proliferation obligations. To

156 ASPI, *Submission 20*, p.3.

157 ASPI, *Submission 20*, p.3.

158 ASPI, *Submission 20*, p.3.

159 Swedish Minister for Defence, *Submission 45*, pp.1-2.

160 Department of Defence, *Submission 41*, p.13.

achieve this, DECO is working with exporters from industry and academia to test these approaches, and is liaising with its counterparts in the US, UK and EU to learn from their experiences in implementing their risk-based approaches.¹⁶¹

Implementation of the *Defence Trade Controls Act 2012*

- 6.143 At the time of this inquiry, the *Defence Trade Controls Act 2012* (DTC Act 2012) is partially in force. In accordance with Section 2 of the Act, key provisions are scheduled to commence on 2 April 2016 and accordingly the scope of DECO's responsibilities would be expanded.
- 6.144 From April 2016, the Act will cover the intangible supply and publication of DSGL technology, providing visibility and control over the export of information (such as information circulated via email). The provisions will affect the defence industry and other research entities, such as universities.
- 6.145 In 2015, an amendment to the Act narrowed the scope of the publication offence to only apply to sensitive military technology, with a ministerial prohibition for publication of military or dual-use DSGL technology that would prejudice the security, defence or international relations of Australia.¹⁶² As recognised in the explanatory memorandum to the 2015 amendment, the *DTC Act 2012* created regulatory burdens on stakeholders. The amendments sought to strike a balance between Australia's 'counter-proliferation objections and the promotions and advancement of innovation and economic objectives'.¹⁶³ The *DTC Amendment Act 2015* has therefore reduced the regulatory burden to a level lower than originally proposed.¹⁶⁴
- 6.146 When remaining amendments enter into force, the *DTC Act 2012* will make it an offence for a person to supply goods or technology on the DSGL without holding a permit granted by the responsible Minister.¹⁶⁵ The Act states:

The Minister may give the person a permit for a specified supply if, having regard to the criteria prescribed by the regulations for the purposes of this subsection and to any other matters that the Minister considers appropriate, the Minister is satisfied that the

161 Department of Defence, *Submission 41*, p.13.

162 *Defence Trade Controls Amendment Act 2015* (Cth) item 32.

163 *Defence Trade Controls Amendment Bill 2015*, Explanatory Memorandum, p.12.

164 *Defence Trade Controls Amendment Bill 2015*, Explanatory Memorandum, p.24.

165 *Defence Trade Controls Act 2012* (Cth) s.10.

supply would not prejudice the security, defence or international relations of Australia.¹⁶⁶

- 6.147 The Act will also make it an offence for a person in Australia to act as a broker for the supply of goods or technology controlled by the DSGL without holding a permit for this purpose.¹⁶⁷
- 6.148 The Department of Industry submitted that DECO has had, in its view, 'a highly consultative approach with the research and industry sectors to address concerns and ensure appropriate implementation of the Act.'¹⁶⁸
- 6.149 A steering group chaired by Chief Scientist Professor Ian Chubb AC was established to advise on the Act's implementation. The steering group is subject to regular oversight by the Senate Standing Committee on Foreign Affairs, Defence and Trade.¹⁶⁹ Boeing's submission recommended establishing a permanent successor to the Group, to advise DECO and Government generally.¹⁷⁰
- 6.150 Hawker Pacific Pty Ltd expressed concern that regulatory changes in both Australia and the United States had 'resulted in significant confusion for defence industry', which had necessitated educational, operational and systems changes.¹⁷¹ Hawker Pacific Pty Ltd commented:
- In the future, it would be ideal if changes could be either 'harmonised', or even set to form some sort of alignment between the individual governmental requirements.¹⁷²
- 6.151 The University of Queensland commented in its submission that pressure on DECO's permit system will be 'increased dramatically' when provisions in the *Defence Trade Controls Act* take effect in April 2016. The system would be expanded to include permits for supply and brokering. UQ's submitted stated:
- The University requests that these factors be taken into account when deciding the level of funding to be allocated to DECO to ensure that office can meet its operational and administrative requirements.¹⁷³
- 6.152 According to Saab Australia, on occasions two export permits may be issued for the same export, if it includes both tangible (physical) and

166 *Defence Trade Controls Act 2012* (Cth) s.11.

167 *Defence Trade Controls Act 2012* (Cth) s.10, s.15 and s.16.

168 Department of Industry, *Submission 22*, p.4.

169 Department of Industry, *Submission 22*, p.4.

170 Boeing, *Submission 23*, p.1.

171 Hawker Pacific Pty Ltd, *Submission 33*, p.2.

172 Hawker Pacific Pty Ltd, *Submission 33*, p.2.

173 University of Queensland, *Submission 25*, p.1.

intangible (electronic or email) features.¹⁷⁴ Saab Australia Pty Ltd noted in its submission that 'intangible' electronic methods, such as email, may be used to transfer technology.¹⁷⁵ Saab Australia described this as an 'unnecessary overhead for both Government and industry.'¹⁷⁶

- 6.153 The Senate's Foreign Affairs, Defence and Trade Legislation Committee has been overseeing implementation of the DTC Act and its amendments.
- 6.154 Prior to the Act being passed, there were a number of concerns, especially by universities, regarding the effect of the legislation on Australia's research sectors. On 10 October 2012, the Senate Committee tabled its report on the Defence Trade Controls Bill 2011, noting that the Senate Committee fully endorsed the view that the outstanding concerns should be addressed through a transition period which assesses the impact of the legislation.¹⁷⁷ The Committee recommended that a 24-month transition period be established, and during this period, a six monthly progress report on the progress of the implementation of the DTC legislation would be presented to the Senate. The Committee further recommended that through the implementation process, Defence foster closer links with the research and university sectors and relevant departments.¹⁷⁸
- 6.155 Subsequently, three progress reports have been presented, in June 2013, May 2014 and March 2015 respectively. The most recent progress report noted that there were issues yet to be resolved, but described the progress made over the two-year monitoring period as 'very welcome.' The Senate Committee endorsed the importance of ongoing consultation between stakeholders and government during the implementation phase and supported an additional 12-month monitoring period. Additionally, the report noted the concerns about the 'consequences of accidental supply of controlled technology to a person temporarily overseas, and requests that Defence provide further information to the Committee on how it proposes to deal with this issue'.¹⁷⁹

174 Saab Australia Pty Ltd, *Submission 10*, p.2.

175 Saab Australia Pty Ltd, *Submission 10*, p.2.

176 Saab Australia Pty Ltd, *Submission 10*, p.3.

177 Senate Foreign Affairs, Defence and Trade Legislation Committee, 'Defence Trade Controls Bill 2011 [Provisions]: Final Report', October 2012, p.14.

178 Senate Foreign Affairs, Defence and Trade Legislation Committee, 'Defence Trade Controls Bill 2011 [Provisions]: Final Report', October 2012, pp.19-20.

179 Senate Foreign Affairs, Defence and Trade Legislation Committee, 'Implementation of the Defence Controls Act 2012: Progress Report No.3, October 2012, pp.16-17.

Committee comment

- 6.156 Views of the Defence Export Control Office were generally favourable, with the exception of some concerns that communication with industry could be improved, particularly in relation to implementation of the *Defence Trade Controls Act 2012*. Recent reforms appear to have improved performance and made DECO more responsive to industry. There has been extensive concern expressed by industry regarding consultation with Defence surrounding the *Defence Trade Controls Act 2012*. This report will not seek to duplicate the recommendations or functions of the Senate Committee.
- 6.157 Export control laws can be complex and understanding them would require a combination of legal and specialised technical knowledge. The laws can affect individuals and companies not directly involved with the defence industry and are relevant to a wide range of stakeholders. Information, education and training should be made available to increase industry's understanding of legal obligations.
- 6.158 There was some evidence suggesting that DECO's responsiveness to applicant requests for information could be improved. DECO should continue to engage with industry to find ways to improve standards of service.
- 6.159 For example, the standard period of export approval can be too short. Extended approval periods and easing the process for renewal could reduce unnecessary regulatory oversight, depending on the risks involved in each case. This would avoid the uncertainty created in situations where products are reaching the final stages of completion and export approval lapses.
- 6.160 Industry's desire to export into countries that do not subscribe to international export control standards may pose a risk management dilemma for the Australian Government. Depending on destination and the nature of the export, DECO may receive a greater volume of complex cases to assess. Defence's submission indicated that a risk management framework may be developed and the Committee agrees with this course.
- 6.161 Nevertheless, the Committee cautions against an inappropriate relaxation of export control standards. Proliferators may attempt to exploit reduced levels of compliance, Australia may compromise its reputation as a responsible defence exporter and foreign governments may eventually respond by reducing Australian access to sensitive defence materiel and technology. This could in turn affect Australian defence exporters who rely on foreign sources of supply to build their products.

- 6.162 Furthermore, as previously noted, the Committee is of the view that DECO should be kept functionally separate from export promotion to avoid any actual or perceived conflicts of interest arising.

Recommendations

Recommendation 17

The Committee recommends that the Department of Defence enhance the existing risk-based approach to assessing applications to export materiel and technology subject to Australian export control laws.

Recommendation 18

The Committee recommends that the Defence Export Control Office improve the defence export approval process by:

- Providing timely updates to applicants on the status of their application;
- Ensuring information regarding regulatory change is promptly communicated to relevant stakeholders;
- Allowing export licences to be valid for longer periods;
- Introducing a simplified process for renewal where approval expires; and
- Managing this process depending on the risks in each case.

Recommendation 19

The Committee recommends that the Department of Defence publicly report the Defence Export Control Office's budget, expenditure, numbers of applications processed and overall performance on an annual basis.

Senator David Fawcett
Chair
Defence Sub-Committee

25 November 2015

The Hon Teresa Gambaro MP
Chair
Joint Standing Committee on Foreign
Affairs, Defence and Trade

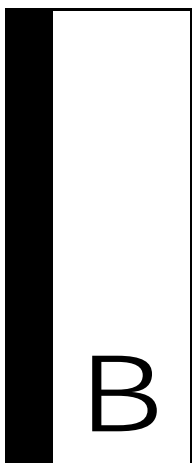
25 November 2015



Appendix A: List of Submissions

- 1 Columbus Group
- 2 H. I. Fraser
- 3 BAE Systems Australia
- 4 Mr Richard Sawday
- 5 Northern Territory Government
- 6 Defence Teaming Centre Incorporated
- 7 EM Solutions Pty Ltd
- 8 Professor Göran Roos
- 9 Australian Business Defence Industry
- 10 Saab Australia Pty Ltd
- 11 Australian Submarine Corporation Pty Ltd
- 12 QinetiQ Australia
- 13 RSL National Headquarters
- 14 Confidential submission
- 15 Ferra Engineering Pty Ltd
- 16 MBDA Australia
- 17 Mr Leigh Harkness
- 18 Supacat Pty Ltd
- 19 Thales Australia and New Zealand
- 20 Australian Strategic Policy Institute
- 21 Confidential submission
- 22 Department of Industry
- 23 Boeing Australia
- 24 Australian Manufacturing Workers' Union

- 25 University of Queensland
 - 26 Sonartech ATLAS Pty Ltd
 - 27 Export Council of Australia
 - 28 Northrop Grumman Australia
 - 29 Department of State Growth - Tasmanian Government
 - 30 Australian Trade Commission (Austrade)
 - 31 Austal Limited
 - 32 Australian Industry & Defence Network Inc
 - 33 Hawker Pacific Pty Ltd
 - 34 Department of Foreign Affairs and Trade
 - 35 Australian Industry Group Defence Council
 - 36 Victorian Government
 - 37 ASPEN Medical
 - 38 CEA Technologies Pty Ltd
 - 39 Lockheed Martin Australia
 - 40 Confidential submission
 - 41 Department of Defence
 - 42 NSW Government
 - 43 Confidential submission
 - 44 Conflict Armament Research
 - 45 Ministry of Defence Sweden
 - 46 Ministry of Defence Germany
 - 47 Management Valued Strategies Pty Ltd
 - 48 Export Finance Insurance Corporation
 - 49 Ministry of Defense Japan
- Attachment 1 Three Principles on Transfer of Defense Equipment and Technology
- Attachment 2 Three Principles on Transfer of Defense Equipment and Technology
- Attachment 3 Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology
- Attachment 4 Strategy on Defense Production and Technology Bases



Appendix B: List of Exhibits

1. Mr Richard Sawday
Printed Circuit Boards
2. Spanish Government
Brief Guide on Government to Government Agreements Regarding Military Sales
3. Spanish Government
2014 Spain Defence and Security Industry
4. Quickstep Technologies
*Auto Components Manufacturing Technology Aerospace and Defence
Manufacturing Technology 2014*
5. Australian Defence Industry Network Inc
Australian Industry Involvement 2014
6. Australian Defence Industry Network Inc
SME Participation Plan for Defence November 2013
7. Australian Defence Industry Network Inc
VDA – Land Capability Directory V1 November 2011
8. Australian Defence Industry Network Inc
VDA – Maritime Capability Directory V1 September 2013
9. Professor Goran Roos
*Supplementary submission to the Senate Economics References Committee Inquiry
into the future of Australia’s naval shipbuilding industry – future submarine
program*
10. Thales
The economics of the BUSHRANGER Project



Appendix C: Answers to questions on notice

1. ASC Pty Ltd answers to questions on notice from public hearing
9 October 2014
2. Australian Manufacturing Workers' Union answers to questions on notice
from public hearing on 17 October 2014
3. Export Finance Insurance Corporation answers to questions on notice from
public hearing on 17 October 2014
4. EM Solutions Pty Ltd answers to questions on notice from public hearing
on 17 October 2014
5. Hawker Pacific Pty Ltd answers to questions on notice from public hearing
on 31 October 2014
6. Australian Industry & Defence Network Inc from public hearing
31 October 2014
7. Department of Industry answers to questions on notice from public hearing
on 10 February 2015
8. Department of Finance answers to questions on notice from public hearing
on 3 March 2015
9. Department of Defence answers to questions on notice from public hearing
on 24 March 2015
10. Austrade answers to questions on notice from public hearing 24 March 2015
11. Department of Foreign Affairs and Trade answers to questions on notice



Appendix D: Witnesses who appeared at public hearings

Adelaide, Thursday 9 October 2014

Professor Göran Roos - Private capacity

Australian Submarine Corporation Pty Ltd

Ms Susan Kerr, Export Controls Manager

Defence Teaming Centre Inc

Mr Christopher Burns, Chief Executive Officer

Mrs Sarah Taylor, Membership and Advocacy Manager

Adelaide, Friday 10 October 2014

Saab Australia Pty Ltd

Mr Dean Rosenfield, Managing Director

Mr Andrew Giulinn, Contracts Manager and Export Control Director

Mr Gerard Ogden, Head of Marketing and Sales

Sydney, Friday 17 October 2014

Export Finance Insurance Corporation

Mr Dougal Crawford, Senior Adviser, Government and External Relations

Mr John Hopkins, General Counsel and Board Secretary

Mr John Pacey, Chief Credit Officer

Miss Sarah Smith, Officer, Government and External Relations

Sonartech ATLAS Pty Ltd

Mr Mark Baker, Managing Director

Mr Alfred Shulte, Chief Technical Officer

Mr Paul Sedgman, Business Development Manager

Thales Australia & New Zealand

Mr Christopher Jenkins, Chief Executive Officer

Australian Manufacturing Workers' Union

Dr Tom Skladzien, National Economic and Industry Adviser, Australian Manufacturing Workers Union

EM Solutions Pty Ltd

Dr Rowan Gilmore, Chief Executive Officer

Ferra Engineering Pty Ltd

Mr Arthur Gaka, Financial Controller

Mr Desmond Hill, People and Process Development Manager

Mr Aaron Thompson, Business Unit Manager, Global Supply Chain

Quickstep Technologies

Mr Michael Schramko, Vice President, Operations

Mr Jim Driver, Business Development Manager

Canberra, Tuesday 28 October 2014

CEA Technologies Pty Ltd

Mr Merv Davis, Chief Executive Officer

Mr Robert Forbes, Commercial Director

Melbourne, Friday 31 October 2014

Tasmanian Government

Mr Robert Miley, Assistant General Manager, Manufacturing and Services,
Department of State Growth

Supacat Pty Ltd

Mr Michael Halloran, Managing Director

Victorian Government

Ms Marion Van Rooden, Deputy Secretary, Trade, Manufacturing, Aviation and Employment, Department of State Development, Business and Innovation

Mr Matthew Lynch, Director, Aviation, Defence and Aerospace Branch, Department of State Development, Business and Innovation

Dr Edward Morgan, Manager, Defence Industry Unit, Aviation, Defence and Aerospace Branch, Department of State Development, Business and Innovation

Hawker Pacific Pty Ltd

Mrs Katrina Binotto, Contract Management Officer

Marand Precision Engineering Pty Ltd

Mr Rohan Stocker, Chief Executive Officer

Export Council of Australia

Mr Andrew Hudson, Director and Chair of the Trade Policy Committee

Australian Industry and Defence Network Inc

Mrs Sue Smith, Executive Officer

Canberra, Tuesday 10 February 2015**Department of Industry**

Mr Peter Chesworth, Head of Division, Sectoral Growth Policy Division

Dr Anne Byrne, General Manager, Manufacturing and Services Policy, Sectoral Growth Policy Division

Canberra, Friday 13 February 2015**Australian Business Defence Industry**

Mr Graeme Dunk, Manager

Australian Industry Group Defence Council

Mr John O'Callaghan, Director, Defence and Government Relations

QinetiQ Australia

Mr William Taylor, Senior Strategy and Business Development Manager

Mr Gilbert Watters, Senior Principal Consultant, Government

Australian Strategic Policy Institute

Dr Andrew Davies

Austal Limited

Mr David Shiner, Vice President, International Sales

BAE Systems Australia

Mrs Sharon Wilson, General Manager, Global Access Program

Mr Peter Nicholson, Head, Government Relations

Northrop Grumman Australia

Mr Mike Lovell, Director, Operations and Integration

ASPEN Medical

Mr Bruce Armstrong, Chief Executive Officer

MBDA Australia

Mr Andrew Watson, Managing Director

Canberra, Tuesday 3 March 2015

Department of Finance

Mr John Edge, Acting Deputy Secretary, Business, Procurement and Asset Management

Mr John Sheridan, First Assistant Secretary, Technology and Procurement Division, Business, Procurement and Asset Management

Canberra, Tuesday 24 March 2015

Australian Trade Commission (Austrade)

Ms Philippa Dawson, General Manager

Department of Defence

Lieutenant General John Caligari, Chief of Capability Development Group

Group Captain Debbie Richardson, Project Director, Intelligence, Surveillance and Reconnaissance, Defence Materiel Organisation

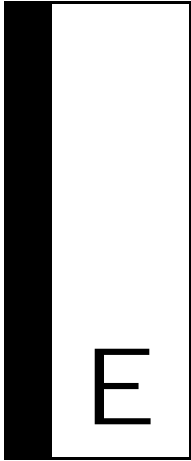
Mr Scott Dewar, First Assistant Secretary, International Policy Division

Mr Christopher Birrer, Acting First Assistant Secretary, Strategic Policy Division

Dr Robert Bourke, Director General, Economic and Commercial Analysis

Ms Traci-Ann Byrnes, Director General, Australian Military Sales Office

Mr Brendhan Egan, Director General, Business Services and Reform



Appendix E

Extracts of the United Kingdom's 'Defence Industrial Strategy: Defence White Paper' (December 2005)

This appendix supplements the Committee's comments in paragraph 2.220 in chapter two. The most relevant pages of the White Paper have been extracted:

- The White Paper's Executive Summary (pages 6 to 11), which provides an overview of the UK's approach to the defence industry established in 2005; and
- A section of the White Paper relating to the maritime sector (pages 68 to 77), which discusses measures specific to ships, submarines and related systems.



Defence Industrial Strategy

Defence White Paper

Presented to Parliament by
The Secretary of State for Defence
By Command of Her Majesty

December 2005

£18.00

Cm 6697



Strategic Overview

section

A

- Introduction
- Military Strategic Overview
- The Defence market
- The UK business environment
- Defence research technology and innovation
- Defence exports
- Choosing the right approach
- Transparency
- Wider factors

A

Strategic Overview

Review by Industrial Sector and Cross-cutting Capabilities

section

B

- Systems Engineering
- Maritime
- Armoured Fighting Vehicles
- Fixed wing including UAVs
- Helicopters
- General Munitions
- Complex Weapons
- C4ISTAR
- CBRN Force Protection
- Counter Terrorism
- Technology priorities to enable defence capability
- Test and Evaluation

B

Review by Industrial Sector
and Cross-cutting Capabilities

Implementing the Defence Industrial Strategy

section

C

- Taking forward the DIS – the challenges for change
- Getting down to work – putting the DIS into action

C

Implementing the
Defence Industrial Strategy

Executive Summary

i. The Defence Industrial Strategy (DIS) is structured in three parts: Part A, providing the strategic context; Part B, reviewing different industrial sectors and cross-cutting industrial capabilities; and Part C, outlining the implications for MOD and industry as a whole, and how the DIS will be implemented.

Part A – Strategic Overview

ii. The global security environment in which the Armed Forces operate has changed substantially over the past fifteen years. Facing new and complex challenges, the roles, size and shape of Armed Forces have also changed. In parallel, the defence industry has evolved; defence companies are now often transnational, needing to attract and retain investors in international markets – forcing increased efficiency, restructuring and rationalisation. We are now reaching a crossroads.

iii. Although we are in the middle of a substantial transformation, involving a series of major new platforms (including the future aircraft carriers, Type 45 Destroyers, new medium-weight armoured fighting vehicles, and the A400M, Typhoon and Joint Combat Aircraft), we expect these platforms to have very long service lives. This means the future business for the defence industry in many sectors will be in supporting and upgrading these platforms, rapidly inserting technology to meet emerging threats, fulfil new requirements and respond to innovative opportunities, not immediately moving to design the next generation.

iv. In parallel, industrial rationalisation continues, and sustaining competition to meet domestic requirements is increasingly difficult. In several sectors, following the entry into service of major projects, there will be substantial overcapacity in production facilities in the UK defence industry in a few years' time.

v. As we look to non-British sources of supply, whether at the prime or subsystems level, we need to continue to recognise the extent to which this may constrain the choices we can make about how we use our Armed Forces – in other words, how we maintain our sovereignty and national security.

vi. Companies now have more choice than ever before about which markets to enter, which secure the best return for shareholders, and where to base their operations. If we do not make clear which industrial capabilities we need to have onshore (and this includes those maintained by foreign-owned defence companies), industry will make independent decisions and indigenous capability which is required to maintain our national security may disappear.

vii. Equally, we do not seek to restrict the scope for international cooperation and competition where this is appropriate, and we cannot afford to maintain a complete cradle-to-grave industrial base in all areas. As industry has told us, greater clarity is therefore needed urgently on which capabilities must be retained onshore, and which by implication can be met from a wider market. The DIS does not seek to set out a preferred route to international restructuring; that is very much industry's business. But it does seek to create a clear UK context to inform these decisions.

Our aim in the DIS

viii. For these reasons, we need to consider how best the MOD should seek to engage with the industrial base in order to meet our requirements. The DIS flows from the wider Defence Industrial Policy (2002), and is driven by the need to provide the Armed Forces with the equipment which they require, on time, and at best value for money for the taxpayer. The DIS is thus one of many contributions to the wider aim of ensuring that the capability requirements of the Armed Forces can be met, now and in the future.

ix. The DIS will promote a sustainable industrial base, that retains in the UK those industrial capabilities needed to ensure national security. Our interaction with this industrial base must provide good value to the taxpayer and good returns to shareholders based on delivery of good performance, consistent with broader security and economic policy.

x. To deliver this, the DIS:

- gives a strategic view of defence capability requirements going forward (including new projects, but also the support and upgrade of equipment already in service), by sector. Part of the strategic view is specifying, in order to meet these, which industrial capabilities we would wish to see retained in the UK for Defence reasons. We aim to communicate the overall view to industry as clearly as possible, recognising that plans change as the strategic or financial environment evolves (and the DIS explains our current internal planning process, to allow industry to make informed judgements about how to interpret this information);
- gives further detail on the principles and processes that underpin procurement and industrial decisions;
- where there is a mismatch between the level of activity our own plans (and export/civil opportunities) would support and that required to sustain desired industrial capabilities onshore, investigates how we might with industry address that gap.

The evolving market and the UK business environment

xi. We recognise that in the UK we have a successful and sophisticated industrial base with a broad range of capabilities and which delivers a large proportion of our defence equipment and services. We welcome overseas investment where this creates value, employment, technology or intellectual assets in the UK.

xii. We also recognise the attractions of the US market, given its scale and high levels of investment in research and technology, and that the level of influence and attractiveness of MOD business varies by sector and by type of company. But the UK provides a unique environment for the defence industry:

- a greater proportion of our overall business is available to industry than in any other major defence nation, and growing expertise in the combination of systems engineering skills, agility and supply chain management required to deliver through-life capability management gives the UK defence industry a comparative advantage;

- we have a sophisticated demand for high-value products which have to stand up to active service, and consequently, are easier to market to export customers;
- we have an open market and diversity of suppliers which encourages innovation, new entrants and inward investment;
- and profit potential and a trading environment which is open to new procurement models, including long-term partnering arrangements, which incentivise industry to drive down costs but allow increased profits where these are earned by improved performance;
- in addition, the Government helps sustain an attractive overall business environment, including:
 - a stable macro-economic and political environment;
 - leadership in science & technology, including by targeted MOD investment;
 - low costs;
 - Strong support industries in finance, business services, design and marketing;
 - a highly skilled and flexible labour force;
 - a transparent business environment that encourages fair competition;
 - specific support to the Defence industry, including the Defence Export Services Organisation.

xiii. We also recognise that the bedrock of our procurement policy has to be long-term value for money. Competition is often a useful mechanism to establish this, but is not always appropriate, and needs to be used intelligently, alongside other models, considering the nature of the marketplace. The UK has increasing experience of new approaches which may apply in different circumstances, and by setting out how we approach different situations, and the various tools available, we hope in future to speed the decision-making process significantly, and pick the right tool from the toolbox first time. We also recognise the need to improve the earned profit margins available to industry based on good performance if we are to attract global investment capital into the UK defence industry.

xiv. The priority for the DIS is in ensuring that UK industry can meet the requirements of the Armed Forces, both now and in the future. Wider factors, as set out in Chapter A9, will continue to be considered in acquisition decisions. The key to ensuring that a chosen procurement strategy is most suited to the circumstances of a particular project is to expose the wider factors which impinge upon that project at the earliest opportunity, engaging relevant Government stakeholders from the outset in order to do so.

Identifying and sustaining Key Industrial Capabilities

xiv. Every nation ideally wants to keep under its control critical defence technologies, but no country outside the US can afford to have a full cradle to grave industry in every sector, and our Armed Forces continue to benefit from the extensive range of foreign-sourced equipment currently in service. And it is readily recognised that much of the equipment procured from UK prime contractors contains non UK sourced content. We welcome the progress made in establishing understandings on security of supply and the decision to introduce an EU Code of Conduct on Defence Procurement which aims to create an effective European Defence Equipment Market. We continue to welcome overseas products, and indeed in many significant areas rely on overseas supply, with appropriate guarantees (which may include technology access to ensure we can adapt equipment to meet national requirements over time) and/or judgement that any increased risk to maintaining our operational independence is acceptable.

xv. The UK also retains a sizeable, open and broadly-based defence industry which delivers a large proportion of MOD's needs, and we welcome overseas investment, especially from companies that create value, employment,

technology or intellectual assets in the UK and thus become part of the UK defence industry. Within this strategy, we aim to tell industry very clearly where, to maintain our national security and keep the sovereign ability to use our Armed Forces in the way we choose, we need particular industrial capabilities in the UK (which does not preclude them being owned or established by foreign-owned companies). We have therefore assessed industrial capabilities against national security priorities, broken down into:

- strategic assurance (capabilities which are to be retained onshore as they provide technologies or equipment important to safeguard the state, e.g. nuclear deterrent);
- defence capability (where we require particular assurance of continued and consistent equipment performance);
- and strategic influence (in military, diplomatic or industrial terms), as well as recognising potential technology benefits attached to these which have wider value. But as the DIS makes clear, even where we wish an industrial capability to be sustained in the UK for strategic reasons, that does not necessarily preclude global competition in that sector for some projects.

PART B – Review by Industrial Sector and Cross-cutting Capabilities

B1. System Engineering

xvi. Given that the new platforms being brought into service are likely to remain in our inventory for many years, and are increasingly complex, it is little use investing in cutting-edge science unless systems engineering capability and vital long-term knowledge is maintained. New technologies will have less benefit if the knowledge of how they might best be exploited and inserted into existing equipment has been lost. This demands a high level of systems engineering skills, at all levels of the supply chain (recognising that much of a platform's capability is delivered through its subsystems, which will often be the route to upgrading capability), sustained through the life of the equipment. The significance of this capability varies by sector, but it is generally very important for maintaining our control of how we operate our Armed Forces.

B2. Maritime

xvii. We require versatile maritime expeditionary forces, able to project power across the globe in support of British interests and delivering effect on to land at a time and place of our choosing. To sustain this capability:

- it is a high priority for the UK to retain the suite of capabilities required to design complex ships and submarines, from concept to point of build; and the complementary skills to manage the build, integration, assurance, test, acceptance, support and upgrade of maritime platforms through-life;
- For the foreseeable future the UK will retain all of those capabilities unique to submarines and their Nuclear Steam Raising Plant, to enable their design, development, build, support, operation and decommissioning. MOD and industry must demonstrate an ability to drive down and control the costs of nuclear submarine programmes;
- We also need to retain the ability to maintain and support the Navy.
- There are a number of specific key maritime system capabilities and technologies which we should retain onshore, and the ability to develop and integrate into platforms complex maritime combat systems is also a high priority.

xviii. In the past, we have specified that all warship hulls should be built onshore. However, the national security requirement surrounds the ability to upgrade rapidly, integrate highly complex and sensitive subsystems, and launch operations from the UK base. To sustain this requires a minimum ability to build as well as integrate complex ships in the UK, not least to develop the workforce, and to adjust first-of-class designs as they develop. At issue is the capacity required. The Future Aircraft Carrier, Type 45 Destroyer and Astute projects will keep the UK shipbuilding industry fully employed for some years (and it may not have the fabrication capacity to absorb the full programme at its peak), but from around 2016, the steady-state demand will be significantly lower. The business must be streamlined for greater efficiency and profitability. The clear trend is for fewer more capable platforms, able to incorporate upgrades as necessary to respond to new technologies and threats. The ability to do so will depend upon us working together with industry to address the fundamental issues of affordability and productivity. The industry, which is currently fragmented, needs to consolidate and refocus around a core workload which sustains key capabilities and represents a viable business. Provided our key capabilities are maintained, not all of them must be exercised onshore for every project, and the strategic need for onshore execution will be judged on a case by case basis.

xix. We will immediately start negotiations with the key submarine companies with the aim of achieving a programme-level partnering agreement with a single industrial entity for the full life cycle of the submarine flotilla, addressing key affordability issues. The aim is to achieve this agreement in time for award of the fourth and subsequent Astute Class submarines. For Surface Ship Design & Build, within the next six months, we aim to have reached a common understanding of the core load required to sustain the high-end design, systems engineering and combat systems integration skills that we have identified as being important. We expect industry to begin restructuring itself around the emerging analysis to improve its performance, and shall build on the momentum generated by the industrial arrangements being put together on the CVF programme to drive restructuring to meet both the CVF peak and the reduced post-CVF demand. For surface ship support, we will start immediate negotiations with the industry with the aim of exploring alternative contracting arrangements and the way ahead for the next upkeep periods, which start in the autumn of 2006. Key Maritime Equipment industrial capabilities will be supported by the production of a sustainability strategy by June 2006.

B3. Armoured Fighting Vehicles (AFVs)

xx. The AFV fleet is key to the Land Forces' military effectiveness. There are compelling advantages to retaining a UK industrial AFV capability to maintain and upgrade the capability of current and future equipment. We seek to maintain in the UK AFV Systems Engineering, Domain and Design Knowledge for through life capability management, including the ability to act as an intelligent customer for the design, development and manufacture of new AFVs and their integration into networks. We also need the intellectual ability to design, validate and interpret the results of AFV testing, though most test and evaluation facilities do not necessarily have to be on-shore. We also wish the UK defence industry to be able to design, build and integrate onto the platform AFVs' critical subsystems, including electronic architecture, sensors and integrated survivability solutions. We also need to be able to repair and overhaul AFVs onshore, and we need the industry to be able to respond quickly, including through deployed support on operations. For future projects, we need industry to deliver the complex system of systems that will make up the Future Rapid Effects System (FRES) fleet.

xxi. It is questionable whether any single company has the ability or expertise to provide all elements of the FRES capability cost-effectively. The most likely solution will be a team, led by a systems integrator with the highest levels of systems engineering, skills, resources and capabilities based in the UK, in which national and international companies cooperate to deliver the FRES platforms, including the required subsystems.

xxii. The UK AFV industry has consolidated so that BAE Systems Land Systems (LS) is the supplier of 95% of our current inventory. We need to manage this in-service fleet through life whilst still retaining access to best of market products at subsystem level. Building on discussions already set in train, we will work hard with the company to give effect to the long-term partnering arrangement required to improve the reliability, availability and effectiveness through-life of our existing AFV fleets. We intend to establish a joint team early in 2006 to establish a business transformation plan underpinned by a robust milestone and performance regime. We expect to see a significant evolution of BAE Systems Land Systems both to deliver AFV availability and upgrades through life, and to bring advanced land systems' technologies, skills and processes into the UK. If successful in their evolution, BAE Systems will be well placed for the forthcoming FRES programme.

B4. Fixed wing

xxiii. Air power continues to offer the ability to transform the battlespace, utilising its inherent attributes of reach and speed to enable strategic operational and tactical agility. We are introducing two new, highly sophisticated manned combat fast jets, Typhoon and the Joint Combat Aircraft, which are intended to last for more than 30 years. Current plans do not envisage the UK needing to design and build a future generation of manned fast jet aircraft beyond these types. However, precisely because the current fleet and the new types we are introducing are likely to have such long operational lives, we need to retain the ability to maintain and upgrade these types for a considerable period.

xxiii. The focus must shift to through-life support and upgrade and what is required to sustain this critical capability in the absence of large-scale manufacture. MOD has been working closely with BAE Systems, as the UK's only supplier of fast jets, for some time to understand these mutual challenges, which are likely to impact on the UK industrial footprint, in particular around BAE Air Systems' four main production sites. We intend to continue to work together to explore how a long term partnering arrangement for the through-life availability of a significant proportion of the fixed-wing fleet might be delivered to sustain these capabilities and deliver improved value for money. We aim on working during 2006 to develop the solution – which will be challenging given the scale of the transformation that is required – and to implement it from 2007.

xxiv. We and industry share a close alignment of interest in UAV and UCAV technology. Although at present we have no funded UCAV programme, targeted investment in UCAV technology demonstrator programmes would help sustain the very aerospace engineering and design capabilities we will need to operate and support our future aircraft fleet. Such investment would also ensure that we can make better informed decisions which will need to be taken around 2010-2015 on the future mix of manned and unmanned aircraft. Additionally, UK industry will have the opportunity to develop a competitive edge in a potentially lucrative military and civil market. We intend to move forward with a substantial joint Technology Demonstrator Programme in this area. We hope that appropriate arrangements will be in place to allow this to proceed in 2006.

xxv. Our plans to retain onshore the industrial capabilities required to ensure effective through-life support to the existing and planned fast jet fleet – and to invest in developing UCAV technology – will also provide us with the core industrial skills required to contribute to any future international manned fast jet programme, should the requirement for one emerge. This recognises both the uncertainty of our very long term requirements – with the possibility that we shall want to replace elements of the Typhoon and Joint Strike Fight fleets with manned aircraft – and that we should avoid continuing to fund industrial capabilities for which we have no identified requirement.

xxvi. Critical mission systems, including electro-optical (EO) sensors, radar, Electronic Support Measures (ESM) and Defensive Aids Systems (DAS) are also significant areas where we wish to retain onshore capability and where suppliers must be able to work with the prime contractor and be rewarded for developing new solutions.

xxvii. Our need to retain a minimum level of onshore capability does not necessarily mean that we will need to support all aspects of our aircraft in the UK. For Typhoon, we will work with our partners to create a better and more efficient business model for the aircraft's support and upgrades, ensuring that we retain onshore our ability to satisfy our sovereign requirements over its lifetime. Clearly, BAE Systems, and, for the engines and mission systems respectively, Rolls-Royce, Smiths Aerospace and Selex Sensors and Airborne Systems will have a significant role to play in this..

xxviii. For the Joint Strike Fighter, the through-life support of the UK aircraft will be provided from the Lockheed Martin Global Support System which is being established on a co-operative basis amongst the nine JSF partner nations. As part of this performance based arrangement, the UK also intends to establish sovereign support capabilities which would provide, in country facilities to maintain, repair and upgrade the UK fleet and an Integrated Pilot and Maintainer Training Centre. Our aim is that BAE Systems as a key JSF Industry partner to Lockheed Martin will provide these support services in the UK under a Team JSF badge. There is no fundamental defence requirement for a JSF Final Assembly and Check Out (FACO) facility, although an ongoing joint study between MOD, DTI and BAE Systems, due to conclude in early 2006, is seeking to assess whether a UK FACO is necessary to preserve essential engineering skills within BAE Systems and would be a cost effective and affordable solution.

xxix. There is no sovereign requirement to sustain an indigenous capability in large and training aircraft. We will continue to need, however, the systems engineering and design skills and Intellectual Property Rights for the integration of new mission systems, avionics and defensive aids into these platforms.

B5. Helicopters

xxx. Helicopters are inherently responsive, adaptable and flexible, and contribute to a variety of military tasks. They can operate in a very wide range of combat and environmental conditions, and will often be an essential part of a balanced expeditionary force.

xxxi. The helicopter sector has similar characteristics to the AFV sector – a high concentration of knowledge relating to the existing fleet, but a healthy international competitive environment. AgustaWestland's systems engineering capability needs sustainment to maintain our ability to support and upgrade the current fleet.

xxxii. Our preferred solution is to invest in the Future Lynx product, currently undergoing detailed capability and value for money assessment, to meet our Battlefield Reconnaissance and Surface Combatant Maritime Helicopter requirements and sustain the necessary Design Authority capability at the company in the short to medium-term. We intend to promote a more open, predictable but demanding partnered relationship with the company, to provide better value for money and reduce their reliance on our investment to sustain the design engineering skill-base, and accordingly intend to finalise a Strategic Partnering Agreement with AgustaWestland by Spring 2006. We will continue to look to the vibrant and competitive global marketplace to satisfy our future helicopter requirements (including for support). We also wish to keep different levels of capability onshore in rotorblades, mission systems, survivability, vibration management and electronic architecture.

B6. General munitions

xxxiii. Recent operations have clearly demonstrated that despite the increases in technology, modern warfare, particularly on the ground, requires highly trained and motivated service personnel to engage in combat at a very personal level. It is in such engagements that quality general munitions are essential to provide the volumes of fire and the 24 hour, all weather capability required to suppress, neutralise and demoralise enemy forces. It is essential that we retain onshore the Design Authority (DA) role and its underpinning capability for munitions manufactured. We also require the ability to develop munitions for specific purposes to match our doctrine, and maintain an intelligent customer capability for non-UK designed munitions. A robust through-life management capability onshore is vital. It is also essential that we retain a proof and surveillance capability onshore for UK designed munitions as well as at least a minimum munitions disposals capability. We should also retain onshore the UK's insensitive munitions and related energetic materials capability, which are world-class. But we do not consider it necessary to retain all aspects of bulk explosives manufacture in UK and would be prepared to source small arms ammunition offshore if security of supply could be guaranteed; it is presently questionable given potential undercapacity in global supply.

xxxiv. In this sector, BAE Systems has the majority of the existing business, but there remain niche capabilities abroad and elsewhere in the UK which may meet future needs. We have therefore adopted a partnership with BAE Systems and are considering ways in which we can rationalise the through-life management of munitions, without ruling out the prospect of global competition for future projects at this stage. We also have partnering agreements with other suppliers (Rheinmetall and Wallop Defence Systems) in niche areas. We will reach further conclusions on how best to sustain our required access to general munitions in summer 2006.

B7. Complex weapons

xxxv. Complex Weapons provide our Armed Forces with battle winning precision effects. The UK is making a significant investment in the upgrade and development of complex weapons, which peaks at just over £1BN next year and will reduce by some 40% over the next five years following the delivery of Storm Shadow and Brimstone. There is, apart from the Meteor programme, little significant planned design and development work beyond the next two years. This will present a substantial challenge to the industry.

xxxvi. There are some types of complex weapon that we have bought from overseas in the past, and we would be prepared to source future torpedoes from abroad provided we retain the capability to support the current inventory, write tactical software, and design and integrate homing heads. However, we would wish to maintain the ability to design, develop, assemble, support and upgrade other complex weapons, which is a complex task requiring a number of critical and sensitive underpinning capabilities. We also see the potential of Directed Energy Weapons.

xxxvii. The fragility of the wider UK industrial base is such that open international competition could put the sustainment of key industrial capabilities at risk. We intend to work with all elements of the onshore industry over the next six to twelve months to establish whether – and if so how – we can achieve a sustainable industry that meets our requirements in a value for money fashion. There is potential for industrial rationalisation and consolidation and we will need to work with other European governments to identify whether a coordinated approach to sustain a viable industrial base is possible. But this will not be to the exclusion of US-owned companies, in particular those who have established a firm foothold in the UK.

B8. Command, Control, Communication and Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance (C4ISTAR)

xxxviii. This is a very significant area where we assume sustained expenditure. It will be the C4ISTAR related capabilities that will help underpin the overarching Network Enabled Capability essential to the continued transformation of our capability, by providing the technology to deliver agile, networked and informed Armed Forces.

xxxix. Much of the innovation is driven by the civil sector and we are in general a relatively minor customer in a market where the pace of technological change creates its own set of unique pressures. To maintain national security, we need to maintain in the UK specific industrial capabilities, including:

- High grade cryptography and associated information assurance capabilities;
- A continued ability to understand, integrate, assure and modify mission critical systems.

as well as intelligent customer status and a research and development base supported by a manufacturing capability in specific areas.

xxxx. There are a number of healthy companies with the requisite skills in the UK, and given civil opportunities in this sector and a large number of planned projects, competition by project seems sustainable for the foreseeable future. However, maintaining a cryptographic capability currently requires a specific strategy to sustain an end-to-end design, development and manufacturing capability. We are working with other government departments to generate better coherence across Government, and increase industry's visibility of the total opportunities.

B9. Chemical, Biological, Radiological, and Nuclear Force Protection

xxxxi. We are committed to maintaining the UK's political and military freedom of action despite the presence, threat or use of CBRN weapons, and this is an area in which significant increases in investment are currently planned. We need the UK industrial base, which is a world leader in this field, to deliver intelligent supplier capabilities, systems engineering, specific technology research, as well as the supply of certain raw materials and the manufacture of medical countermeasures.

xxxii. CBRN protection requirements have for some time been met through a healthy competitive industrial market place. We will explore however the potential costs and benefits of partnering, however, particularly with the four main industrial players in the UK (Smiths Detection, General Dynamics UK, Serco Assurance and EDS), to see whether other acquisition models could allow us to achieve rapid and innovative acquisition and achieve better value for money.

B.10 Counter terrorism (CT)

xxxiii. Given the nature of the international terrorist threat, capabilities previously needed in specialist areas and in Northern Ireland are increasingly becoming required across the Armed Forces. This reinforces the importance of the counter-terrorism sector, and provides greater opportunities for both industry and MOD to become more cost-effective in the CT field.

xxxiv. Although there are aspects of the technology base within the development, manufacture and sustainment of a CT system that need to

be retained within UK industry, it is primarily within the areas of systems engineering (including design and development), testing and evaluation, and system packaging that the MOD needs to be able to maintain critical elements of its CT capability onshore. We believe there is no urgent remedial action required to sustain these industrial capabilities.

B.11 Technology priorities to enable defence capability

xxxv. To support the industrial capabilities identified across the sectoral analysis there are a number of areas in which the UK must sustain existing technological strengths or where we should, resources permitting, consider developing our expertise. There are other technologies showing promise across a range of defence applications that may have either a large impact on specific defence capabilities or a more widespread impact across many aspects of defence. These are provisionally identified in the DIS, but we recognise we will need further work in 2006 to inform our research and technology priorities.

B.12 Test & evaluation (T&E)

xxxvi. T&E is vital to the development, introduction into service and through-life support of the equipment used by our Armed Forces. It contributes to a variety of activities which reduce risk to our Armed Forces. We use a mixture of in-house, Government Owned Contractor Operated (GoCo) and commercial T&E facilities in the UK to support the acquisition and sustainment of military capability. The majority of MOD T&E sites operated on our behalf by QinetiQ under the Long Term Partnering Agreement (LTPA). All these capabilities are kept under constant review to ensure that they continue to meet our T&E requirements and to identify potential rationalisation or efficiency opportunities.

xxxvii. In some cases a UK based T&E capability is essential for, amongst other things, certain quality assurance, safety or operational security needs and sovereignty of access. In other cases the important element is to retain the ability to direct, understand, analyse and verify T&E results rather than actually conduct testing on-shore, subject to certain safeguards including security of supply. We will work with industry to identify where such distinctions can be safely made. Our current strategic intent in the medium term is to retain T&E capability within the UK, but to look for overseas cooperation where appropriate. Work in the European Defence Agency may lead, in due course, to a longer-term strategy to consolidate T&E capabilities across Europe.

PART C: Implementing the Defence Industrial Strategy

xxxviii. The DIS also presents real and fundamental challenges to the Ministry of Defence. The strategy will not deliver unless the whole of the defence acquisition community, including industry, are able to make the necessary shifts in behaviours, organisations and business processes.

il. The basic principles of Smart Acquisition still hold true and are a strong foundation from which to take forward the DIS. But our future approach to acquisition must be built around achieving primacy of through life considerations; coherence of defence spend across research and development, procurement and support; and successful management of acquisition at the departmental level. Our detailed implementation plan has specific initiatives to address the objectives of achieving:

- primacy of through-life considerations;
- coherence of defence spend across research, development, procurement and support;
- successful management of acquisition at the Departmental level.

i. The measures identified under these headings are necessary to improve our acquisition performance. But they may not be sufficient. We will appoint a senior official to review our current acquisition construct and recommend changes across the MOD's business with final recommendations by May 2006 for early implementation.

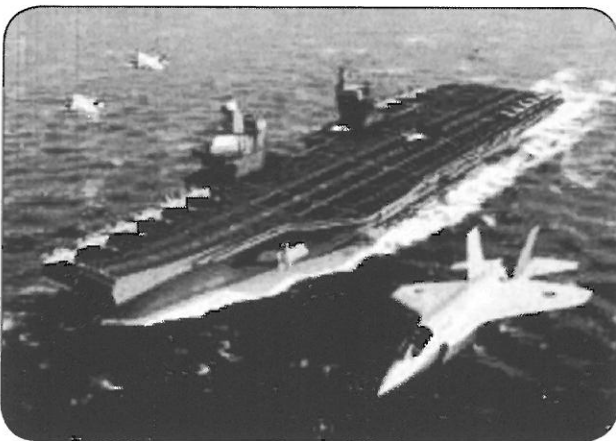
ii. We will be looking for parallel commitment from industry in the following areas:

- planning more effectively and jointly for the long term, embracing the vision of through-life capability management to meet our requirements cost-effectively;
- investing in growing and maintaining a high-quality systems engineering capability within the UK;
- promoting greater interaction and collaboration between MOD, prime contractors, SMEs and the universities to stimulate innovation in science, technology and engineering;
- encouraging trust, openness, transparency and communication with MOD at all levels;
- embracing open systems architecture principles and incremental acquisition approaches throughout the supply chain;
- working jointly to foster better understanding of each others' objectives and business processes, including a greater commitment to joint education, staff development and interchange opportunities.

iii. We will keep the progress of this work, and the extent to which real change is being demonstrated on the ground, under review within the MOD, through the Acquisition Policy Board reporting to the Minister for Defence Procurement. We will want formally to review progress with the National Defence Industries Council regularly. We will also review this Strategy as a whole once every Comprehensive Spending Review period.

Definition

B2.1 The Maritime Sector is that element of the Industrial Base which designs, builds, supports and disposes of all naval platforms and systems. It encompasses ships, submarines, and their integral systems; including propulsion, services, combat systems and combat system elements. It draws extensively on other sectors, such as Guided Weapons, Aerospace and C4ISTAR (Command, Control, Communication and Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance). Maritime capability is delivered by the effective integration of platforms and systems, and their through-life support.



Future CVF & JCA (Computer generated image).

Strategic overview

B2.2 The 2004 Defence White Paper, *'Delivering Security in a Changing World – Future Capabilities'*, emphasised the importance of versatile maritime expeditionary forces to project power across the globe in support of British interests and delivering effect on to land at a time and place of our choosing. Future maritime operations are likely to follow a similar, expeditionary pattern to those conducted recently. The sea offers an opportunity for UK Forces to operate with a degree of security and persistence, without reliance on the territory of others for basing. These factors, in particular the need for freedom to operate in an uncertain world, make the sea a very attractive location from which to project power. To take advantage of this the Royal Navy will in future need to be an agile, network enabled expeditionary force able to switch between missions and tasks and to interoperate with chosen allies. The force will have the ability to deliver and sustain a full range of missions: from small highly focussed interventions with Special Forces, to large, high intensity coalition operations, securing key influence in the process. This versatile maritime force will be capable of winning safe theatre entry for the deployment of joint forces. Through amphibious operations and a full range of medium scale offensive air effort, the versatile maritime force will deliver Maritime Strike and Littoral Manoeuvre to achieve decisive effect on the land.

Equipment Programme

B2.3 We are currently in the middle of a substantial modernisation programme that will enhance the capabilities of the RN. It has particular emphasis on fewer but more capable platforms, focusing on the capability to conduct expeditionary operations.

B2.4 The two planned **Future Carriers (CVF)** will be the biggest surface ships ever to be built in the UK - and will carry a strike package of Joint Combat Aircraft (JCA). The CVF programme is subject to an incremental approvals process: Target In-service Dates (ISD) for the two vessels will be agreed when the manufacture phase is approved. Given that both France and the UK are embarking on major, complex carrier procurement projects, we are examining areas of mutual benefit and opportunities to deliver economies. It is for industry to put forward proposals which will be judged on their merits and in light of national policies. It has been agreed with France that for co-operation to work, it must deliver cost savings and must do so without delaying UK or French programmes.

In 8 days the RN assembled off the coast of Africa a Joint Force of over 3000 RN, Royal Marines, Royal Fleet Auxiliary and RAF personnel, in support of the UN in Sierra Leone

B2.5 The **Type 45 Destroyer** will provide the RN's primary Anti Air Warfare capability for over thirty years. It is a versatile warship that will provide exceptional detection and air defence capability when the first of class, HMS DARING, enters service. This capability is centred on the Principal Anti Air Missile System (PAAMS), delivered through a collaborative consortium in EUROPAAMS; and SAMPSON, a UK Multi Function Radar under development with BAE Systems. Up to eight Type 45 Destroyers are planned to enter service in the next decade.

B2.6 A **Future Surface Combatant (FSC)** study is looking at how the capability currently provided by the Type 22 and Type 23 frigates might be met in the future. No decisions have been taken, but our current assumption for planning purposes is a two class platform solution. The **Future Mine Counter-Measures Capability** is also being examined.

B2.7 The **Astute Class** will be the most advanced and powerful attack submarines the Royal Navy has ever operated and will play a key part in our defences for decades to come. With improved communications, a greater capacity for joint operations and the ability to carry more weaponry, the Astute-class submarines will deliver a marked increase in the flexibility of our attack submarines. Three Astute Class nuclear powered submarines are on contract with BAE Systems and due in-service in 2009, 2010 and 2012, with potential for a further 5, subject to affordability.

B2.8 The future **Amphibious Capability** will be built around specialist shipping consisting of two **Landing Platform Docks (LPD)**, one **Landing Platform Helicopter (LPH)**, an Invincible Class aircraft carrier in the LPH role, and four **Landing Ship Dock(Auxiliary) (LSD(A))**. The LSD(A) class is expected to remain in-service for around 25 years. Additionally, CVF will be deployable in a secondary role as a Helicopter Carrier.



A Landing Craft, Air Cushion (LCAC) from 539 Squadron Royal Marines approaches the well dock of HMS ALBION.

B2.9 The **Military Afloat Reach and Sustainability (MARS)** programme is a significant planned investment in a new integrated approach to Afloat Support, combined with investment in life extensions for retained platforms. The MARS system-of-systems may include Fleet Tankers, Joint Sea Based Logistics and Fleet Solid Support vessels.

B2.10 **Type 23 Frigate Capability Upgrade Programme** is complementary to the FSC concept and potentially extends the life of the Type 23 Frigate. Capability upgrades are planned for the combat system, with updates to address structural strength and platform systems to follow.

B2.11 The **Trafalgar Class SSNs** (nuclear powered submarines) are nearing completion of a world-leading sonar and combat system improvement programme. This will ensure the submarines remain effective for the remaining life of the class.

B2.12 The **Vanguard Class SSBN** (nuclear powered ballistic missile submarine) main sonar inboard electronics are about to be delivered by a technically and commercially open systems solution, marking a pioneering and significant change in our approach to through-life capability sustainment.



Vanguard submarine.

B2.13 Capability investigations are underway, exploring the utility of **Minor War Vessels** for Maritime Interdiction Operations and an Anti-Fast Inshore Attack Craft capability.

B2.14 The **Offshore Patrol Vessel** replacement for the Falkland Islands Patrol role will be through a leasing arrangement with VT; its expected ISD is 2007.

B2.15 **Support** to warships, submarines and Royal Fleet Auxiliaries, including their update and upgrade, represents a significant element of a platform's whole-life cost; for example, for CVF the initial procurement will account for around one third of total through life costs. In recent years the total amount of support

work has diminished as a result of force level rationalisation, but the planned life extension of Surface Combatants moderates the reduction out to 2030. The level of future support still represents significant opportunities for UK industry.

Indicative planning assumptions

B2.16 The assumed spend profile in the maritime sector is expected to grow over the next ten years, providing a very strong programme of work for UK shipbuilding as T45, Astute, CVF and MARS work comes on line. This is followed by a longer term downturn as these major programmes come to an end. As a customer, we cannot afford and do not need to maintain the current pace of successive new platforms once the new ships are in service. This has implications for both new procurement and the volume of support business required. As the graph demonstrates, a very significant amount of resources - around half the amount the Department spends annually on the maritime sector - are consumed in supporting naval equipment.

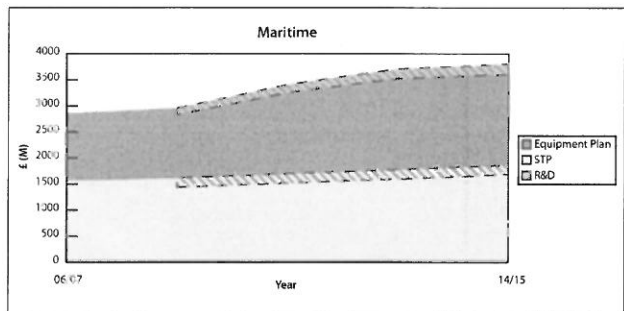


Figure B2(i) Illustrative spend profile.

The above graph shows indicative spending in this sector over the next ten years. The figures from 08/09 are illustrative and include a range in order to emphasise the potential for shifts in investment priorities after the end of the current Spending Review period. This is prudent planning which does not distort the overall illustrative picture of general trends.

What is required for retention in the UK industrial base?

B2.17 Retention of onshore capability is driven by two fundamental strategic requirements: the need to develop and support military capability throughout its life; and the ability to mount operations from the UK base. To meet these two requirements we have identified six strategic themes supported by a breakdown of specific capabilities. Where these are at a high level the maintenance of each capability is critically dependent upon retaining access to associated skills, facilities, processes and underlying technologies.

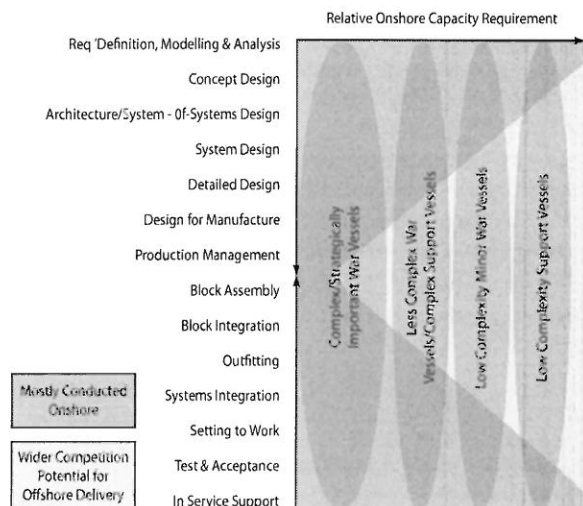


Figure B2(ii).

B2.18 Not all key capabilities must be exercised onshore for every project. The strategic need for onshore execution will be judged on a case by case basis (Figure B2(ii) illustrates this point); with the proviso that offshore delivery should not challenge the viability of key capabilities in the Maritime Sector as a whole. Using this model we can distinguish between that which must be executed onshore; and that which may be competed more widely, but might need to be executed onshore for reasons of sustainability or commercial viability.

Strategic capabilities for retention onshore:

Maritime systems engineering resource: it is a high priority for the UK to retain the suite of capabilities required to design complex ships and submarines, from concept to point of build; and the complementary skills to manage the build, integration, assurance, test, acceptance, support and upgrade of maritime platforms through life.

Shipbuilding and integration: there is no absolute requirement to build all warships and Royal Fleet Auxiliary vessels onshore, but a minimum ability to build and integrate complex ships in the UK must be retained.

Submarines: for the foreseeable future the UK will retain all of those capabilities unique to submarines and their Nuclear Steam Raising Plant (NSRP), to enable their design, development, build, support, operation and decommissioning.

Maritime Combat Systems: the ability to develop complex maritime combat systems is a high priority for the UK, and their integration into warships and submarines is an essential onshore capability.

Maritime support: the UK shall retain the ability to maintain and support the effectiveness of the Fleet, including incremental acquisition, generating force elements at readiness, and meeting urgent operational requirements.

Maritime systems and technologies: it is a high priority to retain onshore research, development and integration of specific key maritime systems and technologies.

Maritime systems engineering resource

B2.19 The systems engineering resource includes: design expertise from early concept through to design for manufacture; all elements of maritime project management and the ability to specify and manage complex warship integration, test & acceptance at the platform and system-of-systems levels. These skills are as relevant to the through-life management of military vessels as they are to the front end procurement process.

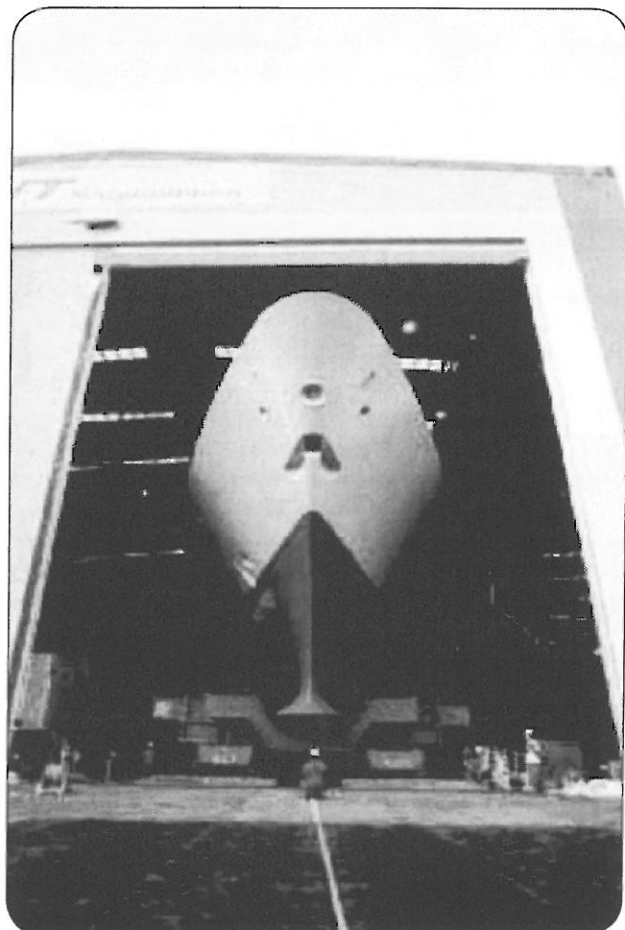
B2.20 Maintaining control of the procurement and support processes as an intelligent customer is essential, regardless of where they occur. During initial procurement and throughout service, we must be able to manage the product risk associated with complex maritime platforms, particularly for the first of a new class of vessel. We are also required to fulfil our duty as a safe and competent owner and operator of our assets; and we will regularly use industry to provide supporting advice. Therefore, retention of the Maritime Systems Engineering Resource must encompass the expertise necessary to generate and support military capability throughout the acquisition lifecycle.

Through-life capability management. A good example of this in practise is the refit of HMS ILLUSTRIOUS to prepare it for a new dedicated strike carrier role. It is also a good example of how the UK shipbuilding industry can rise to such challenges. HMS ILLUSTRIOUS was a 30 month, £120M refit, to deliver an extensive upgrade package within an ambitious timescale. It came in under budget, enabling the savings to be re-invested in additional upgrades to the ship during the refit. Central to this success was a triangular partnership between the contractors, the MOD and the ship's company. The NAO cites this as a good practice example in its recent report - Driving the Successful Delivery of Major Defence Projects.

Shipbuilding and physical integration

B2.21 In a change to the previously stated Defence Industrial Policy (DIP), there is no absolute sovereign requirement to construct all our warship hulls onshore. We have revised our approach which concentrated solely on hull construction, now to consider sovereignty of the high-value capabilities needed for our operational independence.

B2.22 We need to build onshore to the extent that it sustains the ability to design and physically integrate complex warships. Furthermore, since warships are rarely prototyped, we need to ensure that we retain the ability to learn and adjust designs whilst the first of class is being built. Steel may be cut when the design is relatively incomplete compared to other military platforms; feedback during the production process is critical to ensuring that the platform meets the requirement as intended.



Type 45 Destroyer.

B2.23 The build of warships extends beyond the simplistic view of steelwork and its assembly, incorporating an amalgamation of skills, facilities, technologies and knowledge. In particular, it is the high complexity, value added aspects of ship build and platform integration that must be maintained under UK sovereignty: this includes specialist hull construction involving signature amelioration, Nuclear Biological Chemical Damage Control requirements, and complex fabrication and assembly technologies. These capabilities can be maintained in the long term only by their continued employment in suitably representative programmes of work.

B2.24 There is no requirement for fabrication of basic structures in the UK per se; however, mounting military operations from the UK base (including the fit of specific equipment for the operation in question), requires the relevant facilities and skills to be available onshore. Additionally, it is not effective to develop from scratch the most advanced, high-value skills needed for specialist hull construction or complex assembly tasks. There must be sufficient fabrication onshore to sustain a skills development path for workers to learn their trade and progress towards the most challenging tasks.

B2.25 When determining where aspects of a programme should be executed, straightforward cost considerations cannot be taken in isolation. We must also consider the strategic requirement for an industrial programme, sufficient in volume and complexity to deliver higher-end capabilities. Programmes that will tend towards total onshore delivery are those where the complexity (typically 'packing density' or outfit to steel work ratio) is high: the management and overhead of an offshore fabrication effort becomes less attractive when the high value aspects of a programme significantly outweigh the low order fabrication costs. This is especially true when a high level of outfitting is conducted at the same time as block construction.

The ratio of Combat System to platform costs is typically 2:1 for complex vessels; for Type 45 it is in the region of 60% for the Combat System against 20% hull costs.

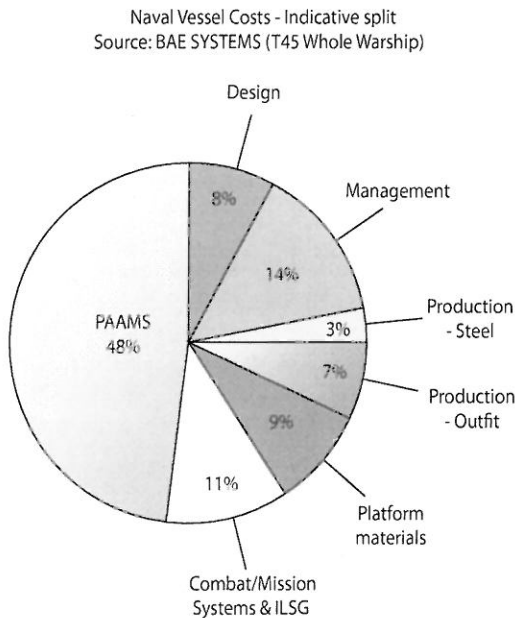


Figure B2(iii).

Submarines

B2.26 The UK's fleet of nuclear powered submarines requires a specialist subset of skills within the maritime industry. We have duties of nuclear ownership and commitments to the USA which can only be fulfilled by close control of an onshore submarine business. Therefore, it is essential that the UK retains the capability safely to deliver, operate and maintain these platforms, without significant reliance on unpredictable offshore expertise. This delivery spans from conceptual design through to disposal, and includes the management of submarine and nuclear safety; all underpinned by appropriate science and technology. Some submarine sub-system elements may be sourced from abroad, but only under appropriate arrangements that guarantee supply, or from a sufficiently broad supplier base to assure access and availability.

B2.27 Deep scientific and technical advice on hydrodynamics, manoeuvring & control, propulsor technology and atmosphere control are specific capabilities essential to submarine performance. Structural acoustic engineering design is not readily available from the broader marketplace and has to be maintained within the specialist submarine industry. Submarine hull and infrastructure design and construction require the use of specialist techniques, for example particular welding and fabrication processes. These specialist underpinning key capabilities must be sustained in the UK.

B2.28 The ability to manage Nuclear Steam Raising Plant throughout its life-cycle, including the fuel elements, is a strategic capability that must be retained onshore. This includes design and development, manufacture, test and evaluation and decommissioning. An irreducible minimum level of associated facilities, intellectual resource and supporting technologies must be provided within the UK or under arrangements that guarantee UK control and safe ownership.



Astute (Computer Generated Image).

Maritime Combat Systems

B2.29 A Combat System is a sophisticated and complex system, ongoing development is essential if interoperability and military advantage are to be maintained. Combat System engineering consists of two complementary endeavours: the logical development of sub-systems into a single Combat System; and the physical integration of the Combat System into the platform, to deliver the platform's military capability. These two aspects of Combat System engineering apply equally for both surface ships and submarines.

B2.30 Not all elements of a Combat System must be developed and provisioned onshore; but it is strategically important to be capable of developing a single integrated Combat System. Maintaining control of specification, design, integration and acceptance is fundamental to initial

procurement and through-life management of the Combat System, including spiral development and incremental acquisition. This dictates absolute involvement at the front edge of procurement and an ongoing relationship with a sovereign Combat System Design Authority.

The Type 42 Class of Destroyers has undergone a major architectural redesign and five further capability upgrades in the last 12 years.

B2.31 Physical integration of a Combat System into a maritime platform requires co-operation between the systems engineering organisation that maintains the design architecture of the platform and the Combat System design authority; given the likelihood of ongoing change through-life, this needs to be an enduring relationship. This high value-added aspect of shipbuilding must be retained within the UK maritime industrial base, if through-life development is to be pursued for complex or strategically important platforms.

Maritime support

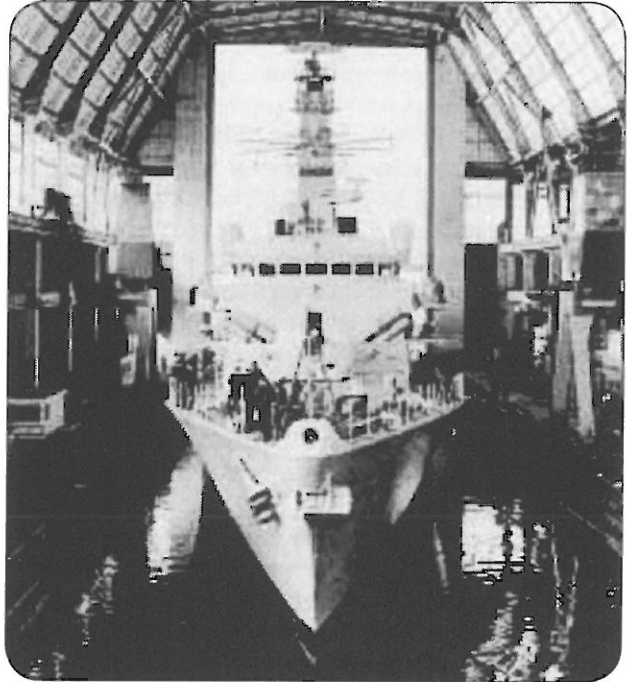
B2.32 Support of the UK Fleet has traditionally been divided between Operational Support and Refitting, each with very different requirements and characteristics. However, the division is becoming increasingly blurred by an approach to routine upgrade known as 'Fleet Time Fitting', which is undertaken during periods in harbour for vessels at higher states of readiness. Onshore ability to conduct both Operational Support and Refit is strategically essential, but largely for different reasons and at differing scales.

B2.33 The need for Operational Support is equally applicable to warships, submarines and RFAs. Implicit in Operational Support is the ability to mount operations from the UK base through rapid force generation; it involves bringing units to increased levels of readiness, including the installation of mission specific equipment, and the provision and integration of equipment to meet urgent operational requirements. These tasks frequently require a high speed cycle through the acquisition process, and involve classified military capabilities and the handling of highly sensitive material. Therefore, key discriminators for provision of Operational Support include maintenance of national security and assured access to meet operational planning assumptions. Conduct of system upgrades by 'Fleet Time Fitting' increases the overall operational availability of the Fleet, but introduces similar demands to those of rapid force generation, albeit in slightly less demanding timescales.

In preparation for Operation TELIC, more than 30 warships, submarines and RFAs were fitted with over 120 operational enhancements in less than one month.

B2.34 The infrastructure required to conduct refits is extensive and not readily regenerated once lost. A level of surface ship refit capability must be retained in the UK to ensure guaranteed access when required, including for urgent operational support. An onshore refit capability becomes essential when security needs safeguarding, force protection is

a significant issue, or control of the programme is strategically necessary. Contingent docking and recovery from operations will require a UK dockyard, especially as embarked ammunition is often involved. For the less complex platforms, refits may be conducted offshore (e.g. RFAs and some minor war vessels) once sensitive equipment has been removed or security concerns, including force protection, otherwise safeguarded. The requirement to refit the submarine flotilla onshore is absolute.



T23 Frigate.

Maritime systems and technologies

B2.35 Running through each of the strategic themes is the need to sustain sufficient research and technology investigation to develop and maintain maritime domain expertise. This supports the UK in remaining an intelligent customer, even when buying elements from offshore, and is particularly pertinent to matching capability to threat. In the past, we have held sufficient research capability in-house, but it is increasingly developed and sustained by industry.

UK Mine Countermeasures and Uninhabited Underwater Vehicles expertise enabled evaluation and adaptation of a US commercial reconnaissance vehicle, which is now in service with the RN.

B2.36 The UK has a strategic advantage in many key platform and Combat System technologies and systems. These military capabilities are often in sensitive areas and have high security classifications. For the purposes of operational and strategic security, or assured access at times of tension or conflict, onshore retention of key research and development is a high priority. Onshore expertise also enables the exploitation of wider research to deliver systems that meet UK capability requirements. Retention of these key capabilities is fundamental to maintaining the battle winning edge.

Global overview

B2.37 Worldwide **commercial** shipbuilding is mainly in Asia (Korea, Japan and China), which has around 70% of world production. With about 20% of world ship production, Europe is competitive for the more complex platforms such as passenger carriers and specialist vessels.

B2.38 Global **military** shipbuilding is dominated by the USA and Europe. In the US, ownership has consolidated into two main shipbuilding companies and two companies providing major sub-systems. Europe has twelve major military shipbuilding companies, with the bulk of these in UK, France, Germany, Spain, Italy, and the Netherlands: having consolidated from a larger industrial base further rationalisation seems likely. Similarly, there are extensive military ship repair facilities throughout Europe and within the US, many still controlled by national governments; consolidation and rationalisation is also evident in this area. To date, rationalisation has not extended across borders, although some cooperative programmes have been pursued by European governments. Retaining national military support facilities is widely seen as an essential requirement for mounting and supporting operations of a first class Navy.

The UK sector

B2.39 The contraction of the UK shipbuilding industry has been driven by fierce competition for commercial shipbuilding work, primarily from within Europe and the Far East. The UK industry is no longer sufficiently competitive to win substantial amounts of traditional merchant shipbuilding, especially where extensive conventional steelwork is involved. However, the industry remains internationally competitive on high-value conversion and refit work, and on specialist builds such as luxury yachts.

B2.40 A reduction in UK warship building has mirrored the parallel reduction in the number of platforms required by the Royal Navy. Nevertheless, the UK remains a major provider of warships, ranked in the world's top four alongside USA, Germany and France. MOD is the UK shipbuilding industry's biggest customer, and naval ships comprise around 85% of those being constructed in UK shipyards. We will spend several billion pounds in the next decade to procure new ships and submarines. The potential for exports to help sustain the UK industrial capability should not be underestimated. The RN is a valuable asset to industry in promoting export business. However, UK new builds for export are a small fraction of the domestic output, whereas European states export a significant proportion of their total build. This reflects the global demand for modestly priced frigates, rather than the high-end complexity currently represented by the majority of UK shipbuilders' portfolios.

France and Germany together have more than 60% of the military export market; Germany producing twice as much for export as for domestic use.¹

¹ 'Military and Commercial Shipbuilding' RAND (2005)

B2.41 The maritime support workload has also reduced in recent years, both as a result of force level reductions and new rationalized maintenance techniques. Whilst some increase in demand for updates and upgrades will moderate this trend, the UK exhibits over-capacity in support facilities. Existing suppliers have not been incentivised to rationalise, as keenly competitive bidding has driven down prices, limiting funds available for the short-term investment required. The repair yards have therefore experienced fluctuating work loads.

B2.42 Ownership of UK warship yards has consolidated to two main companies with the skills necessary to design, manufacture and integrate complex warships: BAE Systems (Naval Ships and Submarines) and VT Shipbuilding; with further capacity at Swan Hunter. DML and Babcock Engineering Services have design capability and fabrication skills but, together with FSL, essentially deliver surface ship and submarine support (including upkeep).

B2.43 Areas of critical expertise such as design and systems integration skills exist throughout the industrial base, not simply within the manufacturing sector. For example, BMT, QinetiQ and Three Quays have expertise in naval design and systems engineering; QinetiQ having the additional capacity to undertake research. Other large companies without shipyard infrastructure contribute significant capabilities. For example, Rolls-Royce Marine design and manufacture submarine nuclear propulsion and marine gas turbines; Thales Naval is a leading Combat System design, engineering and integration company, whilst supplying specific systems such as sonar; Ultra is proficient in underwater systems and naval Command and Control. More than half the unit cost of a naval vessel lies with firms other than the shipbuilder, and we recognise the importance of small and medium enterprises as part of this mix, whether within the supply chain of primes or those that work directly with the MOD. Many of the higher order capabilities are dependent on the specialist skills and expertise of SMEs. SMEs' ability to meet our requirements is an important consideration.

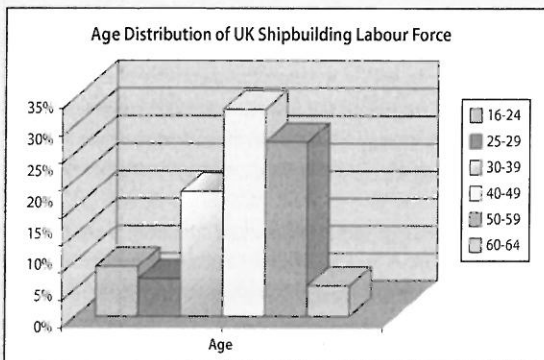
Application of commercial capacity to defence

B2.44 There are clear differences between warship and commercial shipbuilding: the cost of a warship is typically 70% systems, 30% hull construction and outfitting; by contrast, for a commercial ship the figures are typically 20% systems, 80% hull construction. The underlying skill sets and processes for warship work are not available in yards focussed on the commercial sector. In general terms, the more war-like the vessel, the more complex the ship: this does not necessarily apply to hull fabrication, but does apply to many aspects of design, outfitting, military system integration, test and commissioning. Naval shipbuilding is specialist work and demands significant assurance regimes, engineering and professional support, whose underlying skills take time to build and effort to sustain.

B2.45 The differences between military and commercial shipbuilding need not necessarily exclude commercial shipyards from military shipbuilding. Their expertise potentially is relevant to less complex auxiliary and support vessels, where commercial design and production techniques offer considerable efficiencies over warship construction practices. The wider commercial sector also offers a benchmark against which military yards can set performance improvement targets, taking into account the increased complexity of military shipbuilding. Non-warship facilities also undertake a valuable supporting role in fabrication and other work, particularly during periods of peak demand for facilities and resources. The wider industrial base has system integration experience, but this is not directly comparable to the complexity of warship integration. Nevertheless, there are some useful lessons to be learned from the Alliance/partnering approach the wider industry adopts, the potential of which will be exploited by the CVF programme.

UK Military Shipbuilding Skills Base

- UK military shipbuilding requires a highly skilled work force that can be confident in an enduring and stable career path. This is particularly true of the high value skills, knowledge and expertise demanded for the delivery of complex warships.
- The ratio of white to blue-collar workers in commercial yards is 1:6, in military yards it is about 1:1-7.
- In some areas, industry is confident of its ability to generate capability rapidly should the need arise, steelwork fabrication being a key example. However, many military standards (such as for welding and surface flatness) are higher than for commercial work.
- Research suggests that when shipyards lay-off workers, 70% of them leave the industry and are unavailable for re-hire by their former employer².
- There is a perceived skills shortage in specific capability areas. For example, industry agrees that design engineers are in short supply; and the intellectual support of underpinning science and technology is also fragile in some areas.
- Demographics are likely to feature as an increasing challenge in the sustainability of this workforce and the delivery of the Maritime Sector's key capabilities.



Source: 'Outsourcing and Outfitting Practices', RAND 2005

Sustainment strategy

To maintain the key capabilities, a vibrant onshore forward programme is required, focusing on high value activities.

B2.46 The planned maritime forward programme represents a healthy customer order book for the industry and is likely to sustain UK employment in the maritime sector well into the next decade. The UK Maritime Industrial Base currently possesses the key capabilities required to support this programme. Furthermore, the UK has the industrial capability to design, manufacture and support all UK Fleet surface ships, submarines and auxiliaries, but may not have the fabrication capacity to absorb the full programme at its peak. However, the high volume of programmed shipbuilding activity cannot be sustained indefinitely. Beyond the peak of activity for CVF the potential work available to UK industry reduces to a steadier state by around 2016. The future for UK shipbuilders lies in high value design, systems and sub-system assembly and integration; plus specialist and novel hull construction capability, particularly where there is a high outfit to steel ratio, as exhibited in complex warships.

² 'Reducing the strains in the labour force available for warship building in the UK', Furness Enterprises Ltd. July 2003.

The UK's Maritime Industrial Base must deliver improvements in its performance.

B2.47 To deliver an affordable forward programme the maritime sector faces considerable challenges, including industry's ability to control costs. The UK maritime business is characterised by high and increasing overheads, and has a skills base spread across too many entities. Procurement strategies and commercial arrangements have not adequately incentivised or enabled rationalisation and efficiency improvements. The sector has failed consistently to deliver satisfactory performance, with several high-profile maritime projects encountering delays and cost increases. The business must be streamlined for greater efficiency and profitability, whilst mirroring UK demand and maximizing the opportunity for export. The UK will need to buy warships and submarines for the foreseeable future, but the clear trend is for fewer, more capable platforms, with longer operational lives and increased opportunity for regular upgrades in response to new technologies and threats. The ability to do so will depend upon us working together with industry to address the fundamental issues of affordability and productivity.

Challenges for UK Shipbuilding

Independent study has shown:

- Major UK Defence Acquisitions are typically behind schedule.
- Commercial ships are typically produced on time.
- Ship builders employ no consistent forecasting methodology.
- We must work with industry to better manage late changes.
- Late delivery of commercial ships attracts more punitive financial penalties than for military vessels.
- The commercial and military markets differ significantly in ship size & complexity, acquisition process, design and construction, and the work force skill sets and make-up.
- Industry restructuring and changed industry/ MOD processes could benefit the UK military programme and increase export opportunities.

Source: 'Monitoring the progress of shipbuilding programmes', RAND 2005

Without improvements in performance, delivery of the forward equipment programme is threatened. Industry restructuring is a priority.

B2.48 The current situation is unsustainable and places huge pressure on the future programme. Whilst applicable to surface ships it is compounded many times over in the submarine domain, due to the high cost of entry for these specialist capabilities and the very high overheads for their continued delivery. Industry restructuring and consolidation is likely to be a key feature of any improvement programme, and fundamental to creating a viable and sustainable business to meet anticipated steady-state demand.

B2.49 In addition to horizontal consolidation the potential for integration of procurement and support delivery must be realised if efficiencies are to be generated. This offers the prospect of better management of through-life military capability, from delivery to disposal. It would also entail rationalisation of facilities and the skill base, delivering a more enduring and stable career path.

B2.50 In light of the serious financial challenges facing the industry, it is our view that consolidation should occur as a matter of urgency. This is particularly pertinent to the Submarine domain, but applies across the board.

The nature of restructuring is for industry to consider, but must be customer focused

B2.51 We will not micromanage industry's restructuring but it must be customer focused and we are likely to express preferences as different approaches emerge. We must be confident that consolidation will be beneficial to MOD and industry. We are considering potential models as they arise and these might involve some form of Government stake in how the industry develops. We also recognise that as the predominant client we are critical to improving the efficiency of the supply demand relationship.

We will pursue procurement strategies and commercial arrangements that are optimised for the sector to deliver three key objectives: a sustainable enterprise, better performance for MOD, and opportunities for attractive rates of return for industry.

B2.52 We will seek to employ more sophisticated strategies and arrangements that will be optimised for the sector. Competition will continue to be used when appropriate, especially for embedded electronics and marine equipment, but alternative approaches will be developed where they are necessary to deliver greater value for money and long term sustainability. As an example of an optimised approach the Future Carrier (CVF) project is being pursued through the CVF Alliance. This type of arrangement is well established in the oil and gas industries, but innovative for UK defence acquisition. It draws on the strengths, resources and expertise of all parties with rewards geared to the overall project outcome rather than maximising benefits to one participant.



Type 23 HMS SUTHERLAND.

There will be a minimum level of activity, or Core Work Load, necessary to sustain the key capabilities.

B2.53 We recognise that simply maintaining a minimum sovereign industrial base is not likely to be attractive to industry or to represent good value for money. To make the industry viable will require a through-life capability approach based on cost of ownership. Working with industry we will define a Core Work Load that not only would sustain the key capabilities, but also offer value for money and be commercially viable, allowing industry to scale its core capacity accordingly.

B2.54 The Core Work Load will contain all activity unique to submarines. For surface ships it is possible that only a proportion of the total programme in any given period may be required to sustain key capabilities. This core is likely to be centred on, though not necessarily restricted to, an onshore build capability for large complex warships. This activity will provide the necessary experience for the management of build, integration and testing across the wider maritime programme. The Core Work Load will include support activities required to prepare and deploy UK forces.

We will provide industry with visibility of a sustained demand to deliver this Core Work Load.

B2.55 We will seek to sustain this workload to ensure the retention of key capabilities and the viability of the business that delivers them. This will be achieved by viewing the forward programme as a set of projects that may be phased to balance required military capability, affordability and industrial sustainability. Clearly, flexibility will continue to be required as circumstances can change; but given the importance of sustaining a critical mass of onshore expertise, for both maintaining sovereignty and delivering value for money, sustainability impacts will be given serious attention when adjustments to the programme are being considered.

B2.56 The concept of project frequency, or 'drumbeat', is a response to this theme. For submarines we have endorsed, but not yet committed funding for a 24 month SSN build drumbeat. This scales the build capacity to be satisfied by the industry supply chain after the third Astute Class submarine (HMS ARTFUL); and sets the rhythm for the rest of the programme, notably support. The longer term surface ship production drumbeat is of the order of one new platform every one to two years, given anticipated force levels and platform life cycles. The concept of drumbeat is not restricted to major platform delivery, but includes discrete key capabilities, such as Combat System development.

B2.57 The Support work-rate is set by the size of the Fleet and the maintenance cycle, which is dominated by overhaul periods, and defueling for submarines. The new vessels (Astute Class, Type 45) will require less maintenance than legacy platforms. This combines with the reduced size of the Fleet to result in a lower and fluctuating maintenance demand. To counter this we are assessing alternative maintenance cycles with more frequent, less intrusive interventions, which will both smooth demand and improve readiness.

We will not pay a premium for capacity in excess of that required to deliver the Core Work Load.

B2.58 Projects within the maritime programme that exceed the Core Work Load requirement may be widely competed and potentially undertaken offshore if it does not prejudice the key capabilities. UK industry will be able to bid for this, capacity allowing. However, we will not expect industrial capacity over that required to meet the Core Work Load to have an adverse impact on the MOD's overall exposure to industry's overheads. When considering work outside the Core Work Load envelope, we will not make a simplistic distinction between entire platforms: the concept applies equally to discrete project elements.

B2.59 The CVF and Type 45 programmes represent a significant deviation from normal steady-state demand. It would be unwise to expand onshore capacity above current levels, only for it to contract rapidly after CVF delivery. Low complexity elements of CVF build are strong candidates for offshore provision, if UK steady-state capacity is exceeded and better value for money is offered elsewhere. After the Type 45 and CVF surge we will seek to ensure a managed transition to a more typical, less intensive build/integration activity. This will involve smoothing the work rate to sustain the Core Work Load.



Type 45 (Computer Generated Image).

We recognise the fragility of the design base and we will implement measures to exercise the capability when this is strategically necessary and can be shown to offer long-term value for money.

B2.60 Major design is a relatively infrequent activity naturally occurring just once per class. However, maintaining the platform design is a through-life activity, with updates and upgrades requiring significant design effort up until a platform's last refit (often with further application on disposal). By combining the new build and support design activities in a rationalised manner, a more sustainable capability is possible. This also offers the potential for whole-life cost reduction and capability enhancements, as well as long-term career paths for the associated engineers.

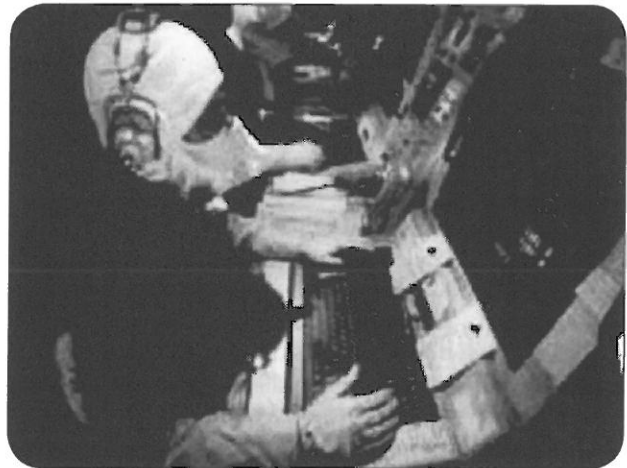
B2.61 CVF detailed design work will employ much of the nation's maritime engineering workforce to the end of the decade. However, early concept and architectural design requires a subset of this skilled workforce, which will need managed short term sustainment as their employment by CVF diminishes.

B2.62 Submarine design capability is at risk if long gaps emerge between first-of-class design efforts. The eleven year break between the design of Vanguard and Astute undoubtedly led to a loss of capability and impacted on the Astute programme. We now aspire to an eight year drumbeat to sustain the design capability through incremental improvements, both to drive down build costs and reduce subsequent support costs. In the short term key design effort will be focussed on improving these whole-life costs in the existing Astute design, particularly in areas that have direct benefit to subsequent classes.

B2.63 The submarine design programme will ensure options for a successor to the current Vanguard class deterrent are kept open in advance of eventual decisions, likely to be necessary in this Parliament. Cost-effectiveness will clearly be a key factor in any consideration of potential options, both submarine based and non-submarine based. For submarine-based options it will be very important that MOD and industry are able to demonstrate an ability to drive down and control the costs of nuclear submarine programmes. Industry will be fully engaged in ensuring that design efforts achieve the maximum impact in control of submarine build and support costs, so sustaining the potential for this significant future business and military capability.

Combat Systems sustainability and ongoing development will be promoted by the use of modern design and integration techniques, whilst facilitating integration of products from both large scale traditional suppliers and smaller enterprises.

B2.64 Combat System design and integration capabilities are a clear strategic imperative to deliver the required installed performance in maritime combatants. The adoption of planned and future upgrades will help to maintain the necessary suite of capabilities. In parallel, submarine and warship initiatives to converge towards a reduced set of core Combat System solutions will support the incremental approach. These common core Combat Systems will seek to exploit Modular Open System Architecture design philosophies, to enable continuous obsolescence management and affordable capability insertion across the Fleet.



Type 23 Frigate's Operations Room.

B2.65 The Surface Ship Combat Management System Convergence and submarine Common Core Combat System initiatives are both seeking to promote these strategies in the medium term. These initiatives have the potential to consolidate and retain the strategic capabilities necessary to form Combat System Architecture Authorities and support the specialist capabilities necessary to integrate modern high-technology sub-systems. A key objective is to exploit Open Architectures to allow SMEs, many from within UK industry and academia, to contribute niche capabilities in areas such as sensor algorithms, data fusion, security, and knowledge based systems.

B2.66 In the longer term we will investigate innovative methods of sustaining the UK's Combat System design, integration and acceptance expertise and associated facilities. We will welcome novel proposals from industry.

We will take specific measures to ensure sustainability of significant capabilities in 2nd and 3rd tier suppliers where these are at risk.

B2.67 We need further work to better understand the risks to 2nd and 3rd tier suppliers. Certain key capabilities have very limited sources of supply, which become fragile if they are not loaded or managed appropriately. Several levers exist to reduce exposure to this risk, ranging from increasing volume by amalgamating orders, to removing the critical component by redesign. We will work with primes to prevent the loss of key capabilities through failure of the supply chain. We are already moving in this direction with recent examples including procurement action to sustain the Astute Boat supply chain, and proposals to restructure aspects of the NSRP supply chain.

B2.68 Frequently a significant proportion of the escalation in project costs occurs through bought-in equipment. It is imperative for the MOD and industry 1st tier suppliers to ensure that they manage exposure to cost escalations throughout the supply chain.

We will seek to work together with industry to develop and sustain our own capabilities.

B2.69 It is essential that we sustain the qualities necessary for the MOD to fulfil its obligations as a safe and competent owner and operator of its vessels. In some specialist areas our capability is fragile. Action is now in hand to redevelop these areas and to actively career manage associated disciplines. We anticipate this will include working with industry, using secondment and joint working to develop knowledge for the benefit of both the MOD and the private sector.

B2.70 A range of measures are being applied to improve our performance and coherence. For instance, Director General (Nuclear), based in the DLO, has been appointed as the single focal point for delivery of nuclear submarine programmes across the MOD. We are committed to change that enables industry to perform effectively and address overall long-term sustainability. In particular, we are developing a stream of work known as the Maritime Industrial Strategy (MIS).

MIS will be at the heart of developing a sustainable relationship between the MOD and industry.

B2.71 We have been working with industry on the MIS for some time, looking at how we can best tackle these difficult sustainability issues. This work is concentrating on more clearly identifying the likely volume and timing of future business, and defining in greater detail how we plan to maintain the sovereign capabilities we require. This includes defining the Core Work Load in discussion with industry. In parallel, we expect industry to begin restructuring itself around the emerging Core Work Load. The success of the MIS is ultimately dependent on companies' willingness to work together and draw their own conclusions. However, we need improvements in quality and efficiency if our programme is to be affordable. The MIS needs to define the routemap to delivering this whilst sustaining our sovereign capabilities.

B2.72 MIS now embraces the Submarine Acquisition Modernisation (SAM) and Surface Ship Support (SSS) projects. These initiatives were launched to address growing concern at the performance of elements of the sector. By combining these projects, examining both procurement and long-term support improvements, we recognize that a viable and sustainable Maritime Sector is dependent on a more coherent approach across both domains.

We will move ahead quickly to begin making the most of immediate opportunities.

B2.73 Under the MIS, we will immediately start negotiations with the key companies that make up the submarine supply chain to achieve a programme level partnering agreement with a single industrial entity for the full life cycle of the submarine flotilla, while addressing key affordability issues. The objective is to achieve this agreement in time for the award of the contract for the fourth and subsequent Astute class submarines in early 2007. This will be matched by the implementation of a unified submarine programme management organisation within the MOD.

B2.74 For surface ship design and build, we aim within the next six months to arrive at a common understanding of the Core Work Load required to sustain the high-end design, systems engineering and combat systems integration skills that we have identified as being important. We expect industry to begin restructuring itself around the emerging analysis as set out above to improve its performance. We will build on the momentum generated by the

industrial arrangements being put together on the CVF programme to drive restructuring to meet both the CVF peak and the reduced post-CVF demand. For surface ship support, we will start immediate negotiations with industry with the aim of exploring alternative contracting arrangements and the way head for the next upkeep periods, which start in the autumn of 2006. Key maritime equipment industrial capabilities will be supported by the production of a sustainability strategy for these equipments by June 2006.

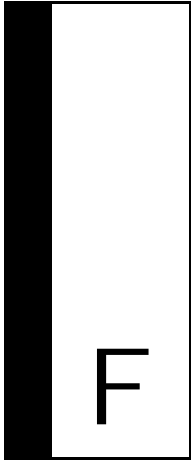
The high work load in the immediate Maritime Equipment Programme opens a window of opportunity for industry to do things differently.

B2.75 The increased demand of the next few years will diminish after the middle of the next decade. Although over-capacity offers the theoretical prospect of competition, this is unlikely to be sustainable in a shrinking market. Value for money may soon be delivered better through alternative strategies. For example, one fully loaded allocated stream of surface ship build might offer better value for money than several partially loaded streams in competition. We have been working to smooth out the long term cyclical demand for naval warships and provide a more predictable future for ourselves, and industry. But this more stable future can only be achieved if the design, manufacturing, support and integration capacity within the industry is matched to that pattern of demand. There is a clear need to streamline the businesses, making them more efficient and profitable, removing duplication and establishing clear centres of excellence, to meet our requirements and maximise the military export potential. This is good for the Royal Navy, the taxpayer and for the long term sustainability of the industry.

B2.76 Our shipbuilding industry needs to renew itself and there is a window of opportunity to do so, now. By taking this opportunity head on and tackling the challenges it presents, there can be a fundamental shift from seeking profit through volume, to profit derived from excellent delivery, long-term support, and the continual improvement of the military capability available to the front line.



HMS ARGYLL.



Appendix F

Extracts from 2009 contract between the United Kingdom Secretary of State for Defence and BVT Surface Fleet Ltd

This appendix supplements the Committee's comments in paragraph 2.220 in chapter two. This contract has resulted in a long-term shipbuilding partnership between the UK Ministry of Defence and BVT Surface Fleet Ltd (which has since been absorbed into BAE Systems). The most relevant pages with pertinent clauses of the contract have been extracted:

- 'Background' in clauses A to H explains that the aim of the contract is to fulfil the policy in the Defence Industrial Strategy White Paper and, to this end, BVT Surface Fleet Ltd (BVT) has been asked to create a surface ship business.
- The 'Commercial Purpose' of the contract in clause 7. This specifies what is to be provided, targets to be achieved, obligates the parties to maximise efficiencies, share information and confirms BVT's exclusive position.
- 'Exclusivity' provided in clause 9. By default, BVT is granted exclusive rights as lead contractor; however MoD makes no express commitment to procure from BVT. Exclusivity exists when the MoD selects BVT for certain naval procurements and obligations to work as partners then commence.
- 'Savings Targets' are described in clause 14. These clauses outline savings targets to be achieved.

- 'Key Industrial Capability' in clause 20. The contract explains that BVT undertakes to maintain key industrial capabilities. Certain conditions may trigger a payment from the UK MoD to support BVT sustain key industrial capabilities.

- 'Partnering' obligations are established in clause 29. The MoD and BVT agreed to collaborate and partner together and cooperate to demonstrate how individual contracts achieve value for money.

- 'Supply Chain Principles' in clause 30.6 describe how BVT should oversee and manage its supply chain.

[REDACTED] (CONTRACT NO: MCP/001)

Terms of Business Agreement relating to BVT Surface Fleet Limited and its business

**THE SECRETARY OF STATE FOR DEFENCE OF THE UNITED KINGDOM OF GREAT
BRITAIN AND NORTHERN IRELAND**

and

BVT SURFACE FLEET LIMITED

and

BAE SYSTEMS PLC

and

VT GROUP PLC

Dated

2009

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Terms of Business Agreement

Dated

2009

Between

- (1) **The Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland** (the MoD);
- (2) **BVT Surface Fleet Limited** (Company No. 06160534) whose registered office is at Daring Building 2-166 Postal Point 100, Portsmouth Naval Base, Portsmouth, Hampshire PO1 3NJ (**BVT**);
- (3) **BAE Systems plc** (Company No. 01470151) whose registered office is at 6 Carlton Gardens, London SW1Y 5AD (**BAES**); and
- (4) **VT Group plc** (Company No. 01915771) whose registered office is at VT House, Grange Drive, Hedge End, Southampton, Hampshire SO30 2DQ (**VTG**).

Background

- A The Defence Industrial Strategy White Paper of December 2005 sets out the Government's policy for the UK's surface ships Naval Industrial Sector (the **Sector**). It called for the transformation of the Sector, for the maintenance of Sovereign Capability and for consolidation within the Sector as a means to achieve those things.
- B BVT has been established by VTG and BAES to create a surface ship business that consistently delivers the best equipment, services and support to the Royal Navy in the most cost effective and efficient manner that mutually benefits the interests of the UK Armed Forces, and the UK tax payer.
- C The MoD, BAES and VTG recorded their intention to enter into this Contract in the Heads of Terms (as defined below). This Contract replaces and extinguishes the Head of Terms and satisfies any obligation any of the Parties may have had in relation to the Heads of Terms.
- D This Contract contains commitments on the MoD's part. These are given in exchange for BVT's obligations, in particular (1) to achieve Efficiency Savings to meet the Guaranteed Minimum Target and (2) to operate its business generally in a way which is calculated continuously to deliver savings to the MoD. These matters are recorded in the Commercial Purpose provisions which are central to this Contract.
- E BVT has been established to create a world class shipbuilding and naval support business and it is the intention of BVT to make the BVT Business achieve Upper Quartile Performance by transforming and rationalising the Transferred Business in a partnering relationship with the MoD.
- F BAES and VTG are parties to this Contract for the purposes of guaranteeing the performance of BVT's obligations under this Contract and giving certain undertakings in relation to the establishment of BVT and their ongoing conduct.
- G The MoD considers that the sustainment of Sovereign Capability through the provision and maintenance of the Key Industrial Capability and any resulting KIC Payment is a measure necessary for the protection of the essential interests of the United Kingdom's security.
- H The MoD and BVT each intend this Contract and all other arrangements which form part of the MoD's maritime change programme to be consistent with each other.

Part 3 – Purpose

7 Commercial Purpose

7.1 General

The MoD and BVT shall (and BVT shall procure that each BVT Subsidiary shall) take the steps contemplated by this Contract and such other steps within their spheres of competence as shall be reasonably necessary or expedient to secure the achievement of the Commercial Purpose.

7.2 Commercial Purpose

The Commercial Purpose is that:

- (a) this Contract is performed;
- (b) the Project Contracts are managed;
- (c) the Dockyard Contracts are managed; and
- (d) BVT and each BVT Subsidiary operates across the full extent of its dealings with the MoD,

so as to secure that:

- (i) BVT shall maintain Surface Ship Capability and Key Industrial Capability in accordance with Part 7 (*Key Industrial Capability*), and MoD discharges its commitments in respect of Key Industrial Capability in Part 7 (*Key Industrial Capability*);
- (ii) the Guaranteed Minimum Target is delivered to the MoD in accordance with Part 5 (*Integration, Transformation and Strategic Rationalisation*);
- (iii) the BVT Business is transformed to achieve Upper Quartile Performance (or such other level of performance as may be agreed between the MoD and BVT) by December 2015 (measured in accordance with Clause 19 (*Continuous Improvement, Benchmarking and Upper Quartile Performance*)), subject to, where requisite to achieve this, both the MoD and BVT implementing the recommendations (or other agreed actions) arising from the Strategic Review in 2010-11 carried out in accordance with Part 11 (*Governance, Dispute Resolution and Reporting*);
- (iv)
 - (aa) the BVT Business is operated;
 - (bb) the MoD operates;
 - (cc) BVT and the MoD operate jointly;

as efficiently and economically as is reasonably possible so as to minimise the Total Cost of Services to the MoD, recognising that transformation activities will evolve over the Contract Period;

- (v) the MoD is fully and proactively informed and advised at all times by BVT of BVT's best opinion of the measures and strategic choices the MoD might take so as to minimise the Total Cost of Services;

- (vi) the MoD is fully informed and advised of the practical and cost implications of any strategic scenarios or options which it notifies BVT that it is considering from time to time; and
- (vii) BVT is afforded the degree of exclusivity on future Work provided for in accordance with Part 4 (*Exclusivity*) and Schedule 3 (*Exclusivity*).

7.3 MoD Remedy

The Parties acknowledge that any dispute arising from this Clause 7 shall not give rise to any right to terminate this Contract under Clause 39.1.4 (*material breach*) (unless in relation to a matter which is also a BVT Default pursuant to another provision of this Contract) until any dispute resolution procedure invoked as provided for at Schedule 2 (*Dispute Resolution Procedure*) has been fully exhausted and then only in the event of breach of this Clause 7 which is a material breach of this Contract.

8 Standard of conduct

8.1 General

In carrying out its obligations under this Contract, each of BVT and the MoD shall act with due efficiency and economy and in a timely manner, including in all respects with that degree of skill, diligence, prudence and foresight which should be exercised by a skilled and experienced:

- (a) shipbuilder, defence maritime engineering contractor, systems integrator and ship support contractor having the functions which BVT has (in the case of BVT); and
- (b) defence procurement agency and national ministry of defence having the functions which the MoD has (in the case of the MoD).

8.2 Consistency of approach

In particular, in taking steps to achieve the Commercial Purpose both BVT and the MoD shall use all reasonable endeavours to ensure that: all parts of their organisations; and in the case of BVT only, the organisation of each BVT Subsidiary; and every person acting on its behalf or under its authority or control (including its sub-contractors), shall establish and maintain consistency in their assessments of and dealings with subjects for their consideration and their application of, and compliance with, all Project Contracts, Dockyard Contracts and this Contract.

Part 4 – Exclusivity

9 Exclusivity

9.1 Lead Contractor

Appointment

- 9.1.1 The MoD hereby grants to BVT the exclusive right to act as the Lead Contractor and Class Output Manager, subject to Clauses 9.1.7 (*MoD Approval Process*) and 9.1.9 (*Process following negative assessment*) and (if applicable) Clause 39.4 (*Partial Termination*), for Future Naval Programmes during the Exclusivity Period on the basis specified in Schedule 3 (*Exclusivity*).

No workload commitment

- 9.1.2 Notwithstanding the provisions of Clause 9.1.1 (*Appointment*), BVT acknowledges that the MoD is under no obligation under this Contract or otherwise at any time during the Contract Period to procure or Order any Future Naval Programme or Designated Naval Vessels or Additional Vessels and may cancel an invitation to tender issued to BVT under Clause 9.1.3 (*MoD Invitation to BVT*) at any time. However in the event that the MoD does decide to procure or Order Future Naval Programmes or Designated Naval Vessels or Additional Vessels (including where such vessels have already been subject to a cancelled procurement) the provisions of this Clause 9 and Schedule 3 (*Exclusivity*) shall apply.

MoD invitation to BVT

- 9.1.3 Where during the Exclusivity Period the MoD decides to procure one or more Designated Naval Vessels within a Future Naval Programme, it shall invite BVT in writing and only BVT to tender to provide such Designated Naval Vessels in the role of Lead Contractor and/or Class Output Manager on the basis described in Schedule 3 (*Exclusivity*), subject always to Clauses 9.1.7 (*MoD Approval Process*) and 9.1.9 (*Process following negative assessment*) below. BVT and the MoD will agree in good faith a reasonable period to develop a programme for the tender and shall identify the stages and key dates in the procurement process at which Value for Money is to be measured, including a date when it is anticipated that the final Value for Money test will be undertaken by the MoD.
- 9.1.4 BVT and the MoD shall thereafter comply in all material respects with Part 8 (*Partnering*) and in progressing the development and delivery of any new work in accordance with the MoD Approval Process.

Sharing of concerns

- 9.1.5 The MoD shall ensure that where BVT has been invited to tender without competition in relation to Future Naval Programmes or Designated Naval Vessels within a Future Naval Programme the relevant MoD project teams will share with BVT and the Steering Group any concerns identified by them that the prices and solution being developed by BVT as presented to the MoD prior to submission of the formal tender response are unlikely to represent Value for Money and shall offer reasonable assistance to BVT to enable it to address any concerns.

Submission of tender

- 9.1.6 At the dates agreed between BVT and the MoD in Clause 9.1.3 (*MoD Invitation to BVT*) BVT shall be entitled to submit its tender proposals for Designated Naval Vessel(s) which shall be sufficiently detailed so as to enable the MoD to conduct any Value for Money test.

MoD Approval Process

- 9.1.7 The award of any Order or contract for the provision of any Future Naval Programme or Designated Naval Vessels pursuant to this Part 4 shall always be subject at all times to the MoD Approval Process confirming that the tender proposal submitted by BVT for the provision of the relevant Future Naval Programme or Designated Naval Vessels (whether in relation to the role of Lead Contractor or any BVT Exclusive Stages or the role of Class Output Manager) represents Value for Money. For the avoidance of doubt this is the only ground upon which the MoD may reject a tender proposal for a Future Naval Programme or for a Designated Naval Vessel provided that the MoD reserves the right to cancel the tender process for a Designated Naval Vessel or Future Naval Programme at any time without liability to any party.

Value for money assessment

- 9.1.8 In assessing whether a proposal represents Value for Money the MoD shall:
- (a) take into consideration:
 - (i) the likely cost to the MoD of procuring the Works from a competent third party with appropriate domain experience;
 - (ii) the ability to meet the MoD's full range of capability requirements (including systems integration and support);
 - (iii) the anticipated volume of workload and any relevant restrictions or constraints that BVT has with regard to infrastructure and technology in meeting the MoD's requirements; and
 - (iv) the MoD's need to sustain Sovereign Capability;
 - (b) exclude from the assessment any element of the price for the relevant Designated Naval Vessel which has been included by BVT (with the agreement of the MoD) as being in satisfaction of a sum which is properly due and payable pursuant to this Contract (for example any Actual Strategic Rationalisation Costs which BVT and the MoD have agreed will be included in any future overhead charge).

Process following negative assessment

- 9.1.9 In the event that BVT is unable to demonstrate to the MoD's satisfaction (acting reasonably) that the tender proposal submitted by BVT for all or some of the role of Lead Contractor, any role in relation to the BVT Exclusive Stages or the role of Class Output Manager in respect of any Future Naval Programme or Designated Naval Vessels delivers a solution offering Value for Money in accordance with the MoD Approval Process, the MoD shall be entitled to request tenders from competent third parties with appropriate domain experience for the role of Lead Contractor, any role in relation to the BVT Exclusive Stages or the role of Class Output Manager (as the case may be) of such Future Naval Programme or Designated Naval Vessel and any resultant contract shall be awarded based on criteria determined by the MoD at its sole discretion provided that the tender process for such contract has been conducted by the MoD in a fair and transparent manner consistent with the good procurement practice. The MoD shall not unreasonably exclude BVT from competing in this further tender process involving third parties.

Cancellation

- 9.1.10 In the event that a tender proposal is rejected even though it represents Value for Money (for example if it is decided by the MoD that the relevant Designated Naval Vessel or Future Naval Programme is unaffordable) this shall be treated as a cancellation for the purposes of Clause 9.1.2 (*No workload commitment*) and BVT shall retain exclusivity in respect of such Future Naval Programme or Designated Naval Vessel.

Awards to third parties

- 9.1.11 In the event that any contract or Order for works and services for the Designated Naval Vessels in respect of which BVT has exclusivity rights are awarded to a third party:
- (a) BVT shall be under no obligation to provide further support to such third party in the discharge of such contract other than as agreed between BVT and the MoD or other than where already contracted for a Stage; and
 - (b) BVT shall retain its rights and remedies under this Contract and the submission of a further tender or proposal by BVT pursuant to Clause 9.1.7 (*MoD Approval Process*) shall not constitute a waiver by BVT of its rights in the event that a dispute arises or has arisen as to whether BVT's initial tender submitted pursuant to Clause 9.1.7 (*MoD Approval Process*) represents Value for Money, provided however that BVT agrees that it shall not disrupt or otherwise hinder or seek an injunction or order for specific performance to stop such further tender process being conducted by the MoD; and
 - (c) the MoD shall, where a KIC Trigger Event occurs, become liable to pay the KIC Payments to BVT in accordance with Part 7 (*Key Industrial Capability*).

9.2 Miscellaneous

- 9.2.1 Where BVT receives confirmation that its tender proposal does represent Value for Money BVT and the MoD shall within a reasonable period to be agreed carry out further works to develop appropriate terms to implement the work on the terms of the tender.
- 9.2.2 Subject to Clause 9.2.1 and the obtaining of final approvals required by the MoD and BVT and agreement being reached on the contractual terms, the MoD and BVT (or a BVT Subsidiary) shall enter into a valid and legally binding contract for the Designated Naval Vessel(s).

Contents of Relevant Contracts

- 9.2.3 It is acknowledged by BVT that a contract awarded for Work on a Designated Naval Vessel or Future Naval Programme (as the case maybe) will specify the responsibilities of BVT and in circumstances where BVT's responsibility for any Stage is at variance with Clause 9.3 and Schedule 3 (*Exclusivity*) the terms of the relevant contract shall take precedence over the provisions of Clause 9.3.

9.3 Schedule 3 (Exclusivity)

Schedule 3 (*Exclusivity*) shall apply subject always to this Clause 9 (*Exclusivity*). Both the MoD and BVT shall comply with it.

Part 6 – Savings Targets, Performance Management and Incentive Payments

14 Savings Targets

14.1 Savings Targets

Establishment of targets

- 14.1.1 Whilst there is no limit on the level of Efficiency Savings that BVT and/or the MoD and/or the JPO is entitled to propose over the Contract Period, the MoD and BVT have agreed that BVT's Guaranteed Minimum Target, Intermediate Savings Target and Stretch Savings Target for the generation of Efficiency Savings against the Baseline by the fifteenth anniversary of the date of this Contract (together the **Savings Targets**) are:

Guaranteed Minimum Target:	£350,000,000 (three hundred and fifty million pounds) (Indexed)
Intermediate Savings Target:	£650,000,000 (six hundred and fifty million pounds) (Indexed)
Stretch Savings Target:	£900,000,000 (nine hundred million pounds) (Indexed)

BVT obligations

- 14.1.2 BVT shall generate the Guaranteed Minimum Target before the end of the Initial Term. Delivered Efficiency Savings only shall count towards Savings Targets. Delivered Efficiency Savings shall be counted after deduction of Pre-April 2009 Allowable Integration Costs and Allowable Transformation Costs for the relevant Contract Year (but for the avoidance of doubt any Allowable Strategic Rationalisation Costs shall not be deducted from Delivered Efficiency Savings).
- 14.1.3 BVT shall use all reasonable endeavours to deliver to the MoD Delivered Efficiency Savings at the Intermediate Savings Target and Stretch Savings Target by the end of the Contract Period.
- 14.1.4 It is agreed that Efficiency Savings may be generated from both the BVT Cost Base and the MoD Cost Base and that, in order to achieve the Intermediate Savings Target and Stretch Savings Target, savings will need to be made through joint transformation.

BVT Overhead Baseline

- 14.1.5 The BVT Overhead Baseline (which is one of the Baselines to be utilised for the calculations in Clause 18.1 (*Savings Calculations*)) shall comply with the form containing budgeted data set out in Part 1 of Schedule 11 (*Performance Management and KPIs*). As soon as reasonably practicable after the Commencement Date, BVT and the MoD shall update this budgeted data for actual costs certified by CAAS. This updated actual costs data shall be the BVT Cost Base in relation to overheads for 2008/2009 adjusted by:
- (a) deducting any Pre-April 2009 Allowable Integration Costs which are included in the 2008/2009 costs data; and
 - (b) adding Anticipated Pre-April 2009 Integration Efficiency Savings,
- and following such adjustments this shall then constitute the **BVT Overhead Baseline**.
- 14.1.6 The BVT Overhead Baseline referred to in Clause 14.1.5 above shall be stored in the BEM. The JPO: (i) may adjust the BVT Overhead Baseline quarterly; and (ii) will adjust the BVT Overhead Baseline at the beginning of each of the Second Five Year Efficiency Savings

Period and Third Five Year Efficiency Savings Periods (in the case of (ii) only in accordance with Clause 18.6),

in each case, where the MoD and BVT (acting through the JPO) agree that the BVT Overhead Baseline may be adjusted to take into account the following factors:

- (a) Actual Workload;
- (b) changes to BVT's projected workload as set out in BVT's 10 Year Business Plan;
- (c) any final agreement between the MoD and BAES on pensions; and
- (d) other agreed adjustments (such as one-off costs) to the BVT Cost Base from time to time,

(the **Key Assumptions**).

Recommendations after review

- 14.1.7 If the JPO review finds that there have been changes in the Key Assumptions, the JPO shall recommend to the Steering Group that the BVT Overhead Baseline is adjusted in accordance with Clause 14.1.6. The BEM shall be used as a tool to inform discussions between the MoD, BVT and CAAS in relation to the adjustment of the BVT Overhead Baseline but shall not be conclusive.
- 14.1.8 If the Steering Group has endorsed an adjustment to the BVT Overhead Baseline (and if CAAS) has audited such adjustment) the BVT Overhead Baseline shall be amended accordingly (and the BEM shall be revised to reflect such adjustment) and such adjusted BVT Overhead Baseline shall become the BVT Overhead Baseline for the purposes of this Contract for the remainder of the Contract Period.

Baseline for Other Savings

- 14.1.9 The Baseline with respect to other Delivered Efficiency Savings (other than in relation to the BVT Overhead Baseline) (**Other Savings**) will be measured and agreed on a case by case basis. The principles for the methodology against which the Baseline for Other Savings will be calculated are as follows:
 - (a) auditable by CAAS;
 - (b) agreed by both the MoD and BVT;
 - (c) capable of being a fair reflection of Efficiency Savings actually made;
 - (d) trackable in accordance with Clause 16 (*Benefit Tracking and Realisation Process*);
 - (e) for direct labour, a complete direct labour baseline shall include the following elements: labour rate, productive hours and output (including a timeline) measures
 - (f) for direct materials, a complete direct materials baseline will include material costs, material volume, output and waste measures; and
 - (g) other principles to be agreed from time to time by the MoD and BVT (acting through the JPO).

Without prejudice to these principles, BVT and the MoD acknowledge that any Baseline may include defined and robust assumptions.

14.1.10 It is acknowledged by the MoD and BVT that for the purposes of calculating Delivered Efficiency Savings, where possible reference will be made to operational metrics as at 1 January 2007.

14.2 Miscellaneous

Adjustment of Trend Rates

14.2.1 Immediately a Transformation Benefit Proposal becomes an Approved Transformation Benefit Proposal, the MoD shall take into account Efficiency Savings when setting the Trend Rates.

BAES HQ charges

14.2.2 BVT and the MoD acknowledge that the actual HQ charge for BVT (the HQ Charge) shall continue to be agreed annually between the appropriate MoD authority and BAES head office.

14.2.3 The MoD and BVT agree that, if the HQ Charge increases above the amount allocated to it within the BVT Overhead Baseline for 2008/2009, the BVT Overhead Baseline for 2008/2009 shall not be amended to reflect such increase.

14.2.4 Notwithstanding this Clause 14.2, BVT's obligation to achieve the Guaranteed Minimum Target shall remain. However, BVT and the MoD shall agree appropriate adjustment to the relevant Cumulative Guaranteed Minimum Savings Yearly Targets to take into account any increase in the HQ charge to the extent that it varies above the amount contained within the BVT Overhead Baseline for 2008/2009.

14.2.5 Following the sale by VTG of its shareholding in BVT pursuant to Clause 48 (*VTG Exit*), BAES shall use its reasonable endeavours to ensure that the HQ Charge paid to it by BVT are set at an appropriate level to reflect the volume of work going through the business, subject always to any relevant indexation.

14.3 Cumulative Guaranteed Minimum Savings Yearly Targets and Termination

14.3.1 Until such time as BVT has delivered £350 million (three hundred and fifty million pounds) (Indexed) in aggregate of Delivered Efficiency Savings, the failure by BVT to achieve during any period of 2 consecutive years the Cumulative Guaranteed Minimum Savings Yearly Target as set out in Part 3 of Schedule 5 (*Integration, Transformation and Strategic Rationalisation*) shall be a BVT Default which shall entitle MoD to terminate this Contract. The MoD acknowledges that the Banked Efficiency Savings shall count towards the achievement of the first Cumulative Guaranteed Minimum Savings Yearly Target.

14.3.2 Without prejudice to Clause 18.4 the recurring benefit of Delivered Efficiency Savings, shall be counted for the entirety of the Initial Term (rather than for a maximum of five years) when assessing whether the Cumulative Guaranteed Minimum Savings Yearly Targets have been met by BVT.

15 Performance Review

15.1 General

The performance of BVT under this Contract will be monitored by the JPO. The JPO will provide reports to the Steering Group on a quarterly and annual basis as described below in Clause 15.3 (*JPO Reporting Obligations*).

Part 7 – Key Industrial Capability

20 Key Industrial Capability

20.1 Underlying obligation

20.1.1 Subject to the MoD complying with its material obligations under this Part 7 (*Key Industrial Capability*), BVT undertakes from the date of this Contract to contribute to the sustainment of Sovereign Capability and to satisfy the Surface Ship Capability through the provision and maintenance of the Key Industrial Capability.

Surface Ship Capability

20.1.2 The Surface Ship Capability is the ability for BVT to:

- (a) design, build and integrate (including complex systems integration) a complex warship of up to 5,000 tonnes deep displacement at an interval of 1 shipbuild every 12 months and a design interval of every 6 years; and
- (b) support the MoD naval vessels to meet operational requirements and in this regard BVT must be capable of:
 - (i) class output management and related technical services;
 - (ii) performing defect repair and maintenance tasks;
 - (iii) fitting urgent operational requirement (**UOR**) capability enhancements;
 - (iv) survey and deep maintenance tasks;
 - (v) providing maritime system defects diagnosis;
 - (vi) commissioning and testing;
 - (vii) meeting surge demands;
 - (viii) fleet-time and upkeep engineering;
 - (ix) maintenance of naval and dockyard facilities.

Acknowledgement regarding Key Posts

20.1.3 It is acknowledged by the MoD and BVT that Assumed Man-hours Capability for each Key Post set out in Part 1 and Part 2 of Schedule 4 (*Key Industrial Capabilities*) have been jointly formulated, and these numbers are an estimate of the minimum core personnel and skilled labour but do not reflect the actual size of the workforce which may, as envisaged at the date of this Contract, be needed to meet the Surface Ship Capability. In addition the Assumed Man-hours Capability is not linked to or based on any particular Assumed Workload for BVT for either shipbuild or support during the Contract Period.

Key Worker location and employment

20.1.4 All Key Post Workers must be:

- (a) located in the United Kingdom; and
- (b) employed by BVT or a BVT Subsidiary or by an Approved Sub-Contractor.

20.2 The Shipbuilding KIC

Shipbuilding - Key Posts

BVT will be deemed to satisfy the Surface Ship Capability in relation to the Shipbuilding KIC by maintaining the Assumed Man-hours Capability for each Key Post in the following sectors for shipbuilding (the **Shipbuilding Sector**):

- (a) production;
- (b) direct support staff; and
- (c) design/engineering.

21 The Support KIC

General

- 21.1 The MoD and BVT agree and acknowledge that the sustainment and need to satisfy the Surface Ship Capability and Sovereign Capability extend to the provision of Maintenance.

Support - Key Posts

- 21.2 BVT will be deemed to satisfy the Surface Ship Capability in relation to the Support KIC by maintaining the Assumed Man-hours Capability for each Key Post in the following sectors for support (the **Support Sector**):

- (a) initial support;
- (b) blue collar engineering;
- (c) white collar engineering;
- (d) supply chain and warehousing; and
- (e) facilities and warehousing.

Acknowledgement

- 21.3 It is acknowledged that the Support KIC will be subject to further in-depth review at the Strategic Review in 2011 which may result in a KIC Adjustment in relation to the Support Sector provided that the Support KIC Cap and Support KIC shall not be varied unless both BVT and the MoD agree otherwise pursuant to a Change in accordance with Clause 51 (*Change Procedure*).

22 Facilities

BVT obligation

- 22.1 BVT shall maintain its own Facility, or have unfettered access to a Facility owned and operated by an Approved Sub-Contractor, in both cases within the United Kingdom which are maintained sufficiently to enable it to satisfy the Surface Ship Capability and which comply with Legislation.

Acknowledgement regarding overheads for shipbuilding

- 22.2 The Shipbuilding Overhead KIC Cap has been agreed between BVT and the MoD on the basis that, in order to satisfy the Surface Ship Capability, in relation to shipbuilding BVT is

required to maintain a single Shipbuilding Facility (or equivalent) in the United Kingdom. In the event that BVT continues to operate or have access to more than one Shipbuilding Facility (or equivalent) in the United Kingdom, and a KIC Overhead Trigger Event has occurred, then any additional overhead charges in excess of the Shipbuilding Overhead KIC Cap shall solely be for the account of BVT.

Facilities

- 22.3 BVT shall not surrender and BVT shall procure that no BVT Subsidiary shall surrender the lease to any Facility which is from time to time necessary for it to discharge its obligation in Clause 22.1 without the prior written approval of the MoD (in the MoD's absolute discretion), unless and to the extent that such transaction is in favour of an Approved Sub-Contractor.

23 KIC Trigger Events and KIC Payments

KIC Notice

- 23.1 BVT shall notify the MoD in writing (a **KIC Notice**) as soon as reasonably practicable where a Monthly Sales and Operational Plan Review identifies that there is a prospective Workload Shortfall in the following 3 Months and the occurrence of a KIC Trigger Event is likely. BVT shall submit copies of the relevant Monthly Sales and Operational Plan Review to the MoD, provided, however, that BVT may satisfy its obligation to submit copies of such reports by doing so through the JPO.

Mitigation of MoD's liability before notice

- 23.2 BVT shall at all times prior to serving a KIC Notice proactively take all reasonable steps to minimise, mitigate and/or reduce the MoD's liability to make KIC Payments.

Mitigation after receipt of KIC notice

- 23.3 Following receipt of the KIC Notice, BVT and the MoD shall consult as soon as reasonably practicable in accordance with Clause 29 (*Partnering*) and the Partnering Principles to identify mitigation measures against the occurrence of the Workload Shortfall. BVT shall proactively take all reasonable steps to minimise, mitigate and/or reduce the MoD's liability to make KIC Payments by pursuing the following options:
- 23.3.1 BVT pursuing export opportunities or any other related opportunities to utilise Key Post Workers provided that any contracts with third parties are competed and won on an arm's-length and "full-cost" basis (with no cross subsidy from the MoD) and, where any BVT Group Company is awarded any export or related shipbuilding contracts and there is a Workload Shortfall at such time, BVT shall use all reasonable endeavours, subject to any local sourcing restrictions, to utilise any Available Key Workers to work on such contracts to the extent that there is a requirement for the Relevant Trade;
 - 23.3.2 without prejudice to Clause 9 (*Exclusivity*), the possibility of the MoD bringing forward contracts for construction of Naval Vessels and/or Work provided it is acknowledged that the MoD is not required under this Contract at any time to procure or order any Naval Vessels or Work from BVT;
 - 23.3.3 following the Strategic Review in 2011, if agreed (and provided it does not conflict with any existing contractual arrangements) between BVT and the MoD, a Through Life Capability Management option for Naval Vessels;
 - 23.3.4 BVT and the MoD liaising with members of SSSA or any other relevant entity to second employees (on terms to be agreed) to a relevant entity to assist with MoD-related or other contracts provided that, where a Key Post Worker is utilised by a third party, BVT shall be entitled to retain any profit element agreed with such third party associated with the use of such a Key Post Worker;

Part 8 – Partnering

29 Partnering

Partnering obligation

29.1 In seeking to achieve the Commercial Purpose in accordance with Clause 7 (*Commercial Purpose*) (without limitation), the MoD and BVT shall each:

- (a) comply with Clause 29.2; and
- (b) seek to act at all times in accordance with the Partnering Principles.

Specific partnering obligations

29.2 The MoD and BVT shall each additionally:

- (a) collaborate with the other to the maximum extent possible;
- (b) establish within its organisation internal arrangements, including as to the deployment, leadership, training and development of personnel, sufficient at all times to ensure that:
 - (i) the relationship contemplated by this Contract functions fully and efficiently in the manner best calculated to achieve the Commercial Purpose; and
 - (ii) all its personnel engaged in relation to the management of the relationship between the MoD and BVT understand and act in accordance with this Contract, in particular the requirements of this Clause 29 (*Partnering*);
- (c) establish within 3 months of the Commencement Date a Relationship Management Plan and thereafter implement, continuously monitor and improve over time the effectiveness of the Relationship Management Plan;
- (d) continuously seek to improve the efficiency of the relationship between them, which shall be measured using an appropriate relationship management tool to be agreed and adopted by the JPO; and
- (e) in particular, cooperate to demonstrate how, and the extent to which, each and all aspects of the relationship between the MoD and BVT, and each Project Contract between them, delivers value for money to the MoD.

Strategic Partnering Accord

29.3 Schedule 7 (*Partnering*) sets out the Strategic Partnering Accord between the MoD and BVT.

29.4 The Strategic Partnering Accord:

- (a) contains at section 5 (*the Partnering Principles*) in relation to which Clause 29.1(b) of this Contract applies;
- (b) is intended to be a working level summary of some of the rights and obligations in this Contract, produced for the purpose of informing the personnel of the MoD and BVT about how this Contract obliges the MoD and BVT to work together to deliver the Commercial Purpose;
- (c) as such, is not itself legally binding (though Clause 29.1(b) of this Contract is), does not amend, limit or override this Contract and shall at all times be read and construed

as subject to this Contract, and in the case of any inconsistency, shall be amended to be consistent with this Contract;

- (d) shall not be admissible as evidence of the intentions of the MoD and BVT when entering into this Contract;
- (e) may not be amended unless to the extent that:
 - (i) it remains consistent in its entirety with this Contract; and
 - (ii) all amendments are approved by the JPO; and
- (f) shall not be capable of being produced as evidence that the MoD or BVT has waived or accepted performance which is inconsistent with this Contract.

29.5 Neither the MoD nor BVT may rely on the terms of the Strategic Partnering Accord to excuse non-compliance with this Contract and compliance with the Strategic Partnering Accord shall not reduce or limit any obligation of the MoD or BVT under this Contract nor permit altered or reduced performance or non-performance thereof.

30.6 The Supply Chain Principles

BVT shall use all reasonable endeavours to comply with the following principles when implementing the Overarching Supply Chain Strategy, the Project Supply Chain Strategies and the Category Supply Chain Strategies and managing its supply chain:

- (a) to strive for the highest professional standards in the award of contracts, usually by means of competition, so as to maximise efficiency;
- (b) to make available sufficient time and information for suppliers to respond to the bidding process appropriate for the work, and to define and publicise amongst the supplier community contact points for the handling of enquiries and complaints;
- (c) to preserve genuine competition and avoid discrimination;
- (d) to provide opportunities on an even-handed basis for suppliers (whether BVT itself, BVT Subsidiaries or external suppliers) to participate in competitions, but, in the interests of both customer and suppliers, limiting numbers to ensure optimum economy, whilst honouring (and testing, where appropriate) preferred supplier status and strategic alliances;
- (e) to make available to the MoD the criteria for the evaluation of bids, to evaluate bids objectively and to notify the outcome promptly to competing suppliers and to avoid improper business practices;
- (f) to use sensible risk-sharing arrangements whilst using incentivisation techniques to encourage innovation and improve performance;
- (g) to consult with the MoD and, where applicable, use the Government Profit Formula and any applicable costing and pricing conventions when agreeing prices for non-competitive sub-contracts;
- (h) to strive for the highest professional standards in the management of contracts;
- (i) to pay promptly for work done in accordance with the relevant contractual terms;
- (j) to assess supplier performance in an objective and open manner and apply those assessments coherently in the process of supplier selection and tender evaluation; and
- (k) to comply with relevant good procurement process.

30.7 Competitive Procurement

30.7.1 It is acknowledged by BVT that the MoD favours competition as the preferred means of supplier selection for its defence requirements and it wishes to see the greatest application of competition by BVT for supply chain activities. Accordingly BVT shall use all reasonable endeavours to carry out and be responsible for the placing of Sub-Contracts on a competitive basis with such contracts awarded to tenderers who comply with the tender requirements except where otherwise identified in Clause 30.8 (*Sole Source or BVT Supply*). It is acknowledged, however, by the MoD that BVT may also secure demonstrable value for money for both MoD and BVT from the supply chain by establishing longer-term strategic relationships with suppliers.

30.7.2 BVT shall ensure that prior to the award of any Sub-Contract for a Works Item to be procured on a competitive basis in excess of the Threshold Level it shall:

- (a) invite the MoD to comment on, and provide input for, proposed tender requirements, selection criteria and tender evaluation requirements;